

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) <i>(individual or company full name)</i>	Mackay Resort Developments Pty Ltd
Contact name <i>(only applicable for companies)</i>	C/- Elizabeth Taylor – Town Planner
Postal address <i>(P.O. Box or street address)</i>	23 Vallely Street
Suburb	Freshwater
State	QLD
Postcode	4870
Country	Australia
Contact number	Liz - 40552548
Email address <i>(non-mandatory)</i>	liz@elizabethtaylor.net.au
Mobile number <i>(non-mandatory)</i>	Liz - 0407584966
Fax number <i>(non-mandatory)</i>	N/A
Applicant's reference number(s) <i>(if applicable)</i>	ET18-005

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
		6	Wharf Street	Port Douglas
	Postcode	Lot No.	Plan Type and Number (e.g. RP, SP)	Local Government Area(s)
	4877	21	PTD20925	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)
		☐ WGS84 ☐ GDA94 ☐ Other:	

☐ Coordinates of premises by easting and northing

Easting(s)	Northing(s)	Zone Ref.	Datum	Local Government Area(s) (if applicable)
		☐ 54 ☐ 55 ☐ 56	☐ WGS84 ☐ GDA94 ☐ 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):*

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)*

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)
Dwelling house	Dwelling house	1	525m ²

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?

- | | | |
|--|-------------------------------------|--|
| ☐ Road work | ☐ Stormwater | ☐ Water infrastructure |
| ☐ Drainage work | ☐ Earthworks | ☐ Sewage infrastructure |
| ☐ Landscaping | ☐ Signage | ☐ Clearing vegetation |
| ☐ Other – please specify: <table border="1" style="display: inline-table; width: 300px; height: 20px;"></table> | | |

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?**

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) <i>(only if the ERA have not been devolved to a local government)</i> ☐ Fisheries – aquaculture ☐ Fisheries – declared fish habitat area ☐ Fisheries – marine plants ☐ Fisheries – waterway barrier works ☐ Hazardous chemical facilities ☐ Queensland heritage place <i>(on or near a Queensland heritage place)</i> ☐ 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 <i>(from a watercourse or lake)</i> ☐ Water-related development – referable dams ☐ Water-related development – construction of new levees or modification of existing levees <i>(category 2 or 3 levees only)</i> ☐ Wetland protection area
Matters requiring referral to the local government : ☐ Airport land ☐ Environmentally relevant activities (ERA) <i>(only if the ERA have been devolved to local government)</i> ☐ 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 <u>DA Forms Guide</u> .

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
☐ Approval ☐ Development application			
☐ Approval ☐ 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 activities

23.1) 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.dilqp.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:	
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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	
QLeave 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.

Individual owner's consent for making a development application under the *Planning Act 2016*

I, Andrew Mackay, Director of Mackay Resort Developments Pty Ltd

as owner of the premises identified as follows:

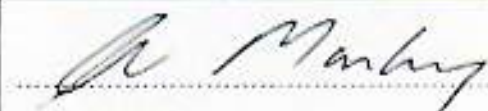
6 Wharf Street, Port Douglas
Lot 21 PTD20925

consent to the making of a development application under the *Planning Act 2016* by:

Elizabeth Taylor – Town Planner

on the premises described above for:

Material Change of Use – Dwelling House



Andrew Mackay

12.2.2018

Date

TOWN PLANNING REPORT

APPLICATION FOR MATERIAL CHANGE OF USE- DWELLING HOUSE ON LAND AT 6 WHARF STREET, PORT DOUGLAS

**PREPARED FOR
A & J MACKAY**

**PREPARED BY
ELIZABETH TAYLOR
TOWN PLANNER**

FEBRUARY, 2018

TOWN PLANNING REPORT

1.0 INTRODUCTION

This Application for Material Change of Use (MCU) relates to a site located at 6 Wharf Street, Port Douglas. The Application seeks to erect a Dwelling house on a vacant residential site located in Sub-Precinct 1F – Flagstaff Hill and on that basis is code assessable development.

This report addresses the relevant sections of Douglas Shire Council Planning Scheme 2018, FNQ Regional Plan 2010 – 2031, Planning Act 2016 and Planning Regulation 2017.

The development of the site does not triggers referral to the State through the State Assessment Referral Agency (SARA).

2.0 THE SITE AND LOCALITY

2.1 The Site

The site is vacant and is described as Lot 21 PTD20925 and is nearly square in shape and has an area of 655m² and frontages of approximately 23 metres to Wharf Street with a truncated corner. The site slopes from the rear to the street frontage with a fall of approximately 4 metres over a distance of 23 metres and a cross fall to the south west. The site is zoned Environmental Management under the current Planning Scheme.

The site is serviced with reticulated electricity and telecommunications, water and sewer and all other urban services.

2.2 The Locality

The site is located on Flagstaff Hill at Port Douglas, which is developed for high quality housing and apartments for both permanent residents and tourists. Many of the large homes on Flagstaff Hill are rented out as exclusive holiday homes.

Flagstaff Hill is in close proximity to Macrossan Street and the tourist centre of Port Douglas.

3.0 PROPOSED DEVELOPMENT

It is proposed to build a Dwelling house on the site that has been architecturally designed to take account of the sloping topography of the site and the sea views. A copy of an Aerial Site Plan and Concept Plans for the new Dwelling house is attached to this report at [Appendix 1](#).

The Dwelling house is two (2) storeys and comprised of:

Lower Level

TOWN PLANNING REPORT

- Entertainment area, opening onto a terrace and swimming pool built nearly to the site frontage and retained by a 3 metre high retaining wall;
- Garage for 2 cars with the driveway located approximately 5 metres from the corner truncation of the site;
- 4 bedrooms;
- 3 bathrooms; and
- laundry with adjacent outdoor drying and utility area.

Upper Level

- Open plan kitchen, living and dining area, opening on to a large balcony;
- Master bedroom, bathroom and study.

Externally the Dwelling has a skillion roof, large overhangs, large expanses of glass and timber screens, rendered blockwork and stone cladding, which reduces the bulk of the building at this corner location.

In relation to building height, the Elevation Plans reveal that the bulk of the Dwelling house is below the 8.5 metre building line, except for the top section of the skillion roof that extends into the 8.5 metre building line due to the sloping topography/stepping down of the site. However, the building is within the 8.5 metre building line when viewed from the rear boundary but intrudes along the front elevation due to the stepping down of the site. This minor intrusion is considered acceptable due to the skillion roof profile, which reduces the bulk of the built form of the Dwelling house.

The Dwelling house is setback from the site boundaries, as follows:

- 7.071 metres from the front boundary. However, the swimming pool structure is built 0.971 metres from the site frontage and includes a 3 metre high retaining wall, at its highest, along the length of the site frontage;
- 2.078 metres to the south western side boundary;
- 3.00 metres to the north eastern side boundary with a planter box reducing this setback to 2.00 metres towards the site frontage; and
- 1.00 metre from the rear boundary.

The proposed Dwelling has a site cover of 47%.

The immediate, surrounding area is characterized by very large affluent Dwellings, refer attached Aerial plan at [Appendix 1](#) and the proposed Dwelling house is entirely in scale and character with surrounding housing in the local area.

The design of the proposed Dwelling house is, in some ways, similar to the dwelling shown in photographs below, which also includes a skillion roof, large

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overhangs, large expanses of glass and timber screens, rendered blockwork and stone cladding.



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4.0 STATUTORY PLANNING ASSESSMENT

The Douglas Shire Council Planning Scheme 2018 was prepared under the Sustainable Planning Act 2009 (SPA) and State Planning Policy April 2016 (SPP) has been integrated into the Planning Scheme, in particular and of relevance to this Application – SPP: Liveable communities and housing – Liveable communities and Housing supply and diversity.

The site is included in the Urban Footprint designation of the FNQ2009-2031 Regional Plan, where a Dwelling house is considered to be an entirely appropriate form of development.

The State mapping of the site identifies that the Application does not trigger referral to the State.

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5.0 PLANNING SCHEME –ASSESSMENT

The proposed use is defined as a Dwelling house under the planning scheme. A Dwelling house is code assessable development in the Environmental Management zone and Flagstaff Hill Precinct 1F under the Port Douglas/Craigie Local Plan and on that basis the proposed development requires assessment against the following codes.

- Environmental Management Zone Code;
- Port Douglas/Craigie Local Plan Code;
- Acid Sulfate Soils Code;
- Bushfire Hazard Overlay Code;
- Potential Landslide Hazard Overlay Code;
- Dwelling House Code;
- Access, Parking and Services Code;
- Filling and Excavation Code; and
- Landscaping Code.

However, given the type of development proposed and the location of the site, surrounded by urban developed and given the existing urban services available to the site, it is proposed to only consider any specific and relevant provisions of the applicable codes.

5.1 Environmental Management Zone Code

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:

(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.

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;

(d) Visual impacts are minimised through the location and design of

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development;

(e) Development does not adversely affect water quality;

(f) Development responds to land constraints, including but not limited to topography, vegetation, bushfire, land slide and flooding.

The proposal to develop a Dwelling house on the site is compliant with the Purpose statement and Overall Outcomes for the zone code.

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	COMMENT
PO1 <i>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.</i>	AO1.1 <i>Buildings and structures are not more than 8.5 metres and two storeys in height.</i> <i>Note – Height is inclusive of the roof height.</i> AO1.2 <i>Buildings have a roof height not less than 2 metres.</i>	The majority of the Dwelling complies with the 8.5 metre height requirement and where there are areas of non-compliance, due to the topography of the site, the use of a skillion roof reduces the bulk of the building so that the Performance Outcome is achieved.
PO2 <i>Buildings and structures are set back to:</i> <i>(a) maintain the natural character of the area;</i> <i>(b) achieve separation from neighbouring buildings and from road frontages.</i>	AO2 <i>Buildings and structures are set back not less than:</i> <i>(a) 40 metres from the frontage of a state controlled road;</i> <i>(b) 25 metres from the frontage to Cape Tribulation Road;</i> <i>(c) 6 metres from any other road;</i> <i>(d) 6 metres from the side and rear boundaries of the site.</i>	(a)Not applicable; (b)Not applicable; (c)Dwelling non-compliant with setback to one road frontage; and swimming pool structure intrudes into other road frontage; (d)Dwelling non-compliant with side and rear boundary setbacks. However the site is a corner site that is constrained by slope and cross-slope topography and the fact that the site is nearly square in shape results in a lack of utility for the conventional layout of a Dwelling on the

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		site. <u>Road Frontage Setbacks</u> The proposed Dwelling has a setback of over 7 metres from the front boundary and primary road frontage but only a 3 metre and 2 metre setback from the side boundary and road frontage. However, the reduced side boundary/road setback is considered acceptable as it is the shortest length of building intrusion at 14 metres or less than 60% of the entire length of the side/road boundary and coupled with the 7 metre setback from the primary road frontage achieves good separation from the road and is not out of character with other large Dwellings nearby that dictate the character of the area. The swimming pool structure encroaches into the 6 metre setback but is visually unobtrusive, except for the retaining wall located nearly 1 metre from the front boundary and having a maximum height of 3 metres. While solid boundary fences are commonplace in the area, the use of landscaping/filtered screen planting within the 1 (nearly) metre
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		setback would assist in reducing the impact of this boundary/retaining wall. The rear boundary setback and the other side boundary setback are also non-compliant but due to the sloping topography of the and the orientation of the adjoining house and the architectural screening included on the proposed house it is considered that the reduced side/rear boundary setbacks will not compromise the amenity or character of the locality and compliance can be achieved in relation to all non-compliant setbacks with the Performance outcomes - to maintain the natural character of the area and achieve separation from neighbouring buildings and from road frontages.
PO3 <i>Development is consistent with the purpose of the Environmental management zone and protects the zone from the intrusion of inconsistent uses.</i>	A03 <i>Inconsistent uses as identified in Table 6.2.4.3.b are not established in the Environmental management zone.</i>	Complies – a Dwelling is considered to be an acceptable land use.
PO4 <i>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.</i>	A04 <i>No acceptable outcomes are prescribed.</i>	Complies – the site cover is 47% and is compatible, and in some instances less than, the site cover of nearby residential development.
PO5 <i>Development is located,</i>	A05.1 <i>Buildings, structures and</i>	

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<i>designed, operated and managed to respond to the characteristics, features and constraints of the site and its surrounds.</i> <i>Note - Planning scheme policy – Site assessments provides guidance on identifying the characteristics, features and constraints of a site and its surrounds.</i>	<i>associated access, infrastructure and private open space are sited:</i> <i>(a) within areas of the site which are already cleared; or</i> <i>(b) within areas of the site which are environmentally degraded;</i> <i>(c) to minimise additional vegetation clearing.</i> AO5.2 <i>Buildings and structures and associated infrastructure are not located on slopes greater than 1 in 6 (16.6%) or on a ridgeline.</i>	(a) Complies; (b) Complies; (c) Complies. Complies
PO6 <i>Buildings and structures are responsive to steep slope through innovative construction techniques so as to:</i> <i>(a) maintain the geotechnical stability of slopes;</i> <i>(b) minimise cut and/or fill;</i> <i>(c) minimise the overall height of development.</i>	AO6.1 <i>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.</i> AO6.2 <i>Access and vehicle manoeuvring and parking areas are constructed and maintained to:</i> <i>(a) minimise erosion;</i> <i>(b) minimise cut and fill;</i> <i>(c) follow the natural contours of the site.</i>	N/A Complies
PO7 <i>The exterior finishes of buildings and structures are consistent with the surrounding natural</i>	AO7 <i>The exterior finishes and colours of buildings and structures are non-reflective and are</i>	The site is not a typical Environmental Management zoned site as it is located in a

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<i>environment.</i>	<i>moderately dark to darker shades of grey, green, blue and brown or the development is not visible external to the site.</i>	nearly fully developed urban area. It is considered that compliance is achieved with the Performance outcome.
PO8 <i>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.</i>	AO8 <i>No acceptable outcomes are prescribed.</i>	The development of the site for a Dwelling house is the preferred form of development and given the size and slope of the site a Dwelling house is really the only form of development suitable for the site. The site and the surrounding area is residential in character and amenity and adding another Dwelling house is entirely appropriate and will not adversely affect the amenity.
PO9 <i>The density of development ensures that the environmental and scenic amenity values of the site and surrounding area are not adversely affected.</i>	AO9 <i>The maximum residential density is one dwelling house per lot.</i>	Complies
PO10 <i>Lot reconfiguration results in no additional lots.</i> <i>Note- Boundary realignments to resolve encroachments and lot amalgamation are considered appropriate.</i>	AO10 <i>No acceptable outcomes are prescribed.</i>	Not applicable

The proposed development of the site for a Dwelling house generally complies with the relevant provisions of the zone code and where non-compliant it is considered that compliance is achieved with the Performance outcomes.

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5.2 Port Douglas/Craigie Local Plan Code

Purpose

The purpose of the Port Douglas/Craigie local plan code is to facilitate development outcomes consistent with community values, the local tropical built-form and protection of the natural environment within the Port Douglas/Craigie local plan area, while providing a platform for investment and prosperity.

In addition, the purpose of the code is supported by the Port Douglas Waterfront Master Plan which provides a clear strategic direction for the incremental transformation of the Port Douglas Waterfront, including the following objectives:

- (a) To set out a vision for revitalisation of the waterfront;*
- (b) To protect and enhance the environmental attributes; and*
- (c) To provide a flexible framework, expressed through several key strategies that will assist the Council and community in managing change.*

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

- (a) Port Douglas will continue to develop as the premium destination for international and domestic tourists in the Far North Queensland Region, while also acting for permanent residents attracted to the associated lifestyle.*
- (b) Major tourist, retail, dining and entertainment facilities will consolidate in the Town Centre and the Waterfront North sub-precincts, with improved pedestrian connections between the town centre and the waterfront.*
- (c) Craigie will develop as an integrated residential community with some low scale tourism development opportunities in appropriate locations. Craigie will also function as small scale commercial and light industry node, providing employment opportunities for the Shire's permanent resident population.*
- (d) All forms of development will complement the tropical image of the town through distinctive tropical vernacular, urban design and landscaping.*
- (e) Character will be enhanced through the identification of gateway sites, landmarks, main approach routes and pedestrian thoroughfares and view corridors;*
- (f) The Flagstaff Hill, Dickson Inlet, Four Mile Beach and other areas of scenic and environmental significance will be protected from development. Vegetation cover will dominate over built form.*
- (g) Vegetation, iconic to the character of Port Douglas, including the avenues of Oil Palms, is retained and where appropriate supplemented.*
- (h) Development will be indistinguishable from view from Four Mile Beach. In addition, any development on Flagstaff Hill will be indistinguishable when viewed from vantage points in Port Douglas.*
- (i) Residential areas are designed as pleasant, functional and distinctive, in visually well-defined areas.*

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

- (a) Precinct 1 – Port Douglas precinct*

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*Sub-precinct 1a –Town Centre sub-precinct
Sub-precinct 1b –Waterfront North sub-precinct
Sub-precinct 1c –Waterfront South sub-precinct
Sub-precinct 1d –Limited Development sub-precinct
Sub-precinct 1e –Community and recreation sub-precinct
Sub-precinct 1f –Flagstaff Hill sub-precinct*

- (b) Precinct 2 –Integrated Resort precinct
(c) Precinct 3 –Craigie Commercial and Light Industry precinct
(d) Precinct 4 –Old Port Road / Mitre Street precinct
(e) Precinct 5 –Very Low Density Residential/ Low Scale Recreation/Low Scale Educational/Low Scale Entertainment Uses precinct*

*Precinct 1 –
Port Douglas precinct*

In addition to the overall outcomes, the outcomes sought for the precinct are to ensure that:

(a) development will contribute to the incremental transformation of the township, preserving and enhancing maritime activities and environmental areas, delivering tropical open spaces and a high quality public realm, and allowing for tourism opportunities and investment.

(b) development contributes to the enhancement of the Port Douglas precinct through the following development outcomes:

(i) access and connectivity throughout the township is enhanced through a series of improvements to circulation and mobility, including:

(A) access to, and connectivity along, the waterfront and foreshore areas is maintained and, where appropriate, enhanced;

(B) reducing reliance on the waterfront as a car parking resource.

(ii) the use of land in the Port Douglas precinct improves the cohesive layout of the township through:

(A) the establishment of distinct sub-precincts that reinforce the character and built form of the Port Douglas local plan area including:

Port Douglas centre sub-precinct 1a –Town Centre sub-precinct;

Port Douglas centre sub-precinct 1b –Waterfront North sub-precinct;

Port Douglas centre sub-precinct 1c –Waterfront South sub-precinct;

Port Douglas centre sub-precinct 1d - Limited development sub-precinct;

Port Douglas centre sub-precinct 1e –Community and recreation precinct;

Port Douglas centre sub-precinct 1f –Flagstaff Hill sub-precinct;

(B) facilitating marina facilities and supporting marine industry uses as a key part of the local economy;

(C) reducing conflict between industry, community and commercial activities in the waterfront, without diminishing the marine industry capacity in the Port Douglas precinct;

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(iii) environment and sustainability is integrated into the township through:

(A) preservation and enhancement of the qualities and characteristics of environmental areas of the township;

(B) water sensitive urban design is considered as a means of water quality improvement and management of overland flow to ensure hard infrastructure solutions in Warner Street can be mitigated;

(C) design of buildings and access way improvements prioritises walking and cycling modes of transport.

(iv) the tropical character of the Port Douglas precinct is enhanced by ensuring development:

(A) maintains and enhances the built form, local character, streetscapes and natural elements of the township;

(B) is compatible with the desired character and amenity of local places and neighbourhoods;

(C) does not exceed the height of buildings designations which contribute to the desired form of the township which contains three storey development heights in sub-precinct 1a –Town Centre sub-precinct and part of sub-precinct 1b –Waterfront North sub-precinct;

(D) implements high quality landscaped environments around buildings and on streets;

(E) protects the recognisable character and locally significance sites throughout the precinct.

(v) public spaces and the streetscape are enhanced through:

(A) an increase in the quantity and quality of public land and places throughout the precinct;

(B) consolidating community recreation and sporting uses to create a precinct of community focussed activity between Mudlo Street and Wharf Street;

(C) improved connections between the town centre and the waterfront marina, including an investigation of a plaza on the waterfront;

(D) improved streetscapes with high quality landscaping, surface treatments and shaded pedestrian environments;

(E) the creation of a sense of place through aesthetic streetscapes and built-form character;

(F) managing vegetation to ensure succession of planting and the ongoing presence of significant trees.

(vi) advertising signage is small scale, low-key and complements the tropical character of the town.

Sub-precinct 1a –Town Centre.....

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Sub-precinct 1f –Flagstaff Hill sub-precinct

In addition to all other overall development outcomes, development in the Flagstaff Hill sub-precinct facilitates the following development outcomes:

(a) development is not established where it results in detriment to the

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vegetated and scenic qualities of Flagstaff Hill;
(b) development minimises excavation and filling;
(c) buildings and other works are unobtrusive when viewed from vantage points in Port Douglas and are designed and constructed of colours and materials which complement the hill's vegetated state
(d) views from public viewing points within the precinct are protected.

Development on Flagstaff Hill is typically characterized by high-end development and the proposed Dwelling house is no exception. In order to achieve the outcomes sought for Sub-precinct 1f the Dwelling house has been architecturally designed to complement surrounding housing and a Landscape Plan has been prepared to ensure compliance with the other objectives for development on Flagstaff Hill. Compliance with the Purpose statement and Overall outcomes for the Local Plan – sub precinct 1f area have been satisfied and are addressed in more detail below.

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	COMMENT
<i>Development in the Port Douglas/Craigie local plan area generally</i>		
<i>PO1</i> <i>Pedestrians, cyclists, motorists and public transport users can easily move into and through the precinct along planned connectivity routes, identified on the Port Douglas / Craigie local plan maps contained in Schedule 2.</i>	<i>AO1</i> <i>A pedestrian and cycle movement network is integrated and delivered through development.</i>	Wharf Street is identified as a main road providing access to the Four Mile Beach lookout. The site has two frontages to Wharf Street and the car access point is considered to be sited in the best location for safety and general local and tourist vehicle circulation in the immediate area.
<i>PO2</i> <i>Development retains and enhances key landscape elements including character trees and areas of significant vegetation contributing to the character and quality of the local plan area and significant views and</i>	<i>AO2.1</i> <i>Development provides for the retention and enhancement of existing mature trees and character vegetation that contribute to the lush tropical character of the town, including:</i> <i>(a) the tree covered</i>	The site is nearly devoid of vegetation except for two Poinciana trees which are proposed to be removed from the site to make way for the Dwelling house. Another

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<i>vistas and other landmarks important to the context of Port Douglas / Craiglie (as identified on the Port Douglas/ Craiglie Townscape Plan map contained in Schedule 2).</i>	<i>backdrop of Flagstaff Hill; (b) natural vegetation along watercourses, in particular the Mowbray River, Beor Creek and Dickson Inlet; (c) the tidal vegetation along the foreshore; (d) beachfront vegetation along Four Mile Beach, including the fringe of Coconut Palms; (e) the oil palm avenues along the major roads; (f) the lush landscaping within major roundabouts at key nodes; (g) Macrossan Street and Warner Street; (h) Port Douglas waterfront.</i> AO2.2 <i>Development protects and does not intrude into important views and vistas as identified on the Port Douglas Townscape Plan map contained in Schedule 2, in particular: (a) Flagstaff Hill; (b) Four Mile Beach; (c) Across to the ranges over Dickson Inlet; (d) Mowbray Valley.</i> AO2.3 <i>Important landmarks, memorials and monuments are retained.</i>	Poinciana on the road reserve/verge area is proposed to be retained. The site is not located so that development on the site will intrude into important views and vistas. Rather, the development of this vacant site for a Dwelling house will improve what is an unsightly corner on Wharf Street on the way up to the Four Mile Beach lookout.
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		Not applicable
PO3 <i>Development contributes to the protection, reinforcement and where necessary enhancement of gateways and key intersections identified on the Port Douglas / Craiglie local plan maps contained in Schedule 2.</i>	AO3 <i>Development adjacent to the gateways and nodes as identified on the Port Douglas/Craiglie local plan maps contained in Schedule 2 incorporates architectural features and landscaping treatments and design elements that enhance the sense of arrival and way finding within the town.</i>	Not applicable
PO4 <i>Landscaping of development sites complements the existing tropical character of Port Douglas and Craiglie.</i>	AO4 <i>Landscaping incorporates the requirements of Planning scheme policy SC6.7 – Landscaping, in particular landscaping should be capable of achieving a 60% screening of development within 5 years and predominantly consists of endemic vegetation.</i>	A Landscape Plan has been submitted with this Application. The Plan incorporates palms, shrubs, gingers and Heliconia, ornamental grass and tropical climbers which complement the tropical character of Port Douglas and the local area, in particular. The 15 Lipstick palms to be planted along the site frontage adjacent to the retaining wall and corner truncation will be planted from 100L containers to provide good height immediately .

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		The 3 fan palms to be planted adjacent to the western side boundary and the nearest neighbour will be planted in a cluster from 45L containers to provide good, immediate screening. The 12 raphis palms, to be planted adjacent to the western side boundary and the nearest neighbour will be planted in a cluster from 33mm contain in several years. Compliance is achieved.
PO5 <i>Development does not compromise the safety and efficiency of the State-controlled road network.</i>	AO5 <i>Direct access is not provided to a State-controlled road where legal and practical access from another road is available. For assessable development Additional requirements in Precinct 1 –Port Douglas precinct.</i>	Not applicable
<i>Additional requirements for Sub-precinct 1f –Flagstaff Hill sub-precinct</i>		
PO63 <i>Flagstaff Hill is protected from inappropriate development to protect the hill as an important natural landmark feature of Port Douglas and as a vegetated backdrop to the Town centre.</i>	AO63 <i>No acceptable outcomes are prescribed.</i>	A Dwelling house is the most appropriate form of development for the site and the proposed Dwelling house is in character with existing high- end Dwellings in the

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		immediate and local area.
PO64 <i>All development on Flagstaff Hill is designed to minimise the visibility of the development and to ensure development is subservient to the natural landscape and topography of the site, including through:</i> <i>(a) building design which minimises excavation and filling;</i> <i>(b) buildings being designed to step down the site and incorporate foundations and footings on piers or poles;</i> <i>(c) buildings being visually unobtrusive and incorporating exterior finishes and muted colours which are non-reflective and complement the colours of the surrounding vegetation and view-shed;</i> <i>(d) protection of the views from public viewing points in the Port Douglas precinct.</i>	AO64 <i>No acceptable outcomes are prescribed.</i>	The design of the Dwelling house provides for a light-frame skillion roof, large overhangs, expanses of glass and timber screens and stone cladding. The Landscape Plan will ensure the built form sits well within established landscaped grounds.

It is considered that the proposed Dwelling house is generally compliant with the relevant provisions of the Port Douglas/Craigie Local Plan Code

5.3 Acid Sulfate Soils Overlay Code

Purpose

(1) The purpose of the acid sulfate soils overlay code is to:

(a) implement the policy direction in the Strategic Framework, in particular:

(i) Theme 2: Environment and landscape values, Element 3.5.4 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 Acid sulfate soils overlay sub-categories.

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

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outcomes:

(a) Development ensures that the release of any acid and associated metal contaminant is avoided by not disturbing acid sulfate soils when excavating, removing soil or extracting ground water or filling land;

(b) Development ensures that disturbed acid sulfate soils, or drainage waters, are treated and, if required, on-going management practices are adopted that minimise the potential for environmental harm from acid sulfate soil and protect corrodible assets from acid sulfate soil.

It is considered that the site is unlikely to contain acid sulfate soils and no further consideration of the code is proposed.

5.4 Bushfire Overlay Code

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;

(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.

The site is located in an urban area and is designated Potential Impact Buffer, presumably due to the area above the site on Flagstaff Hill that is vegetated and remains in a natural state. However, the site and immediately surrounding area is virtually fully cleared of native vegetation and the site has a formed bitumen road on two boundaries; the provisions of the code are not relevant to the site and it is not proposed to address this code.

5.5 Potential Landslide Hazard Overlay Code

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.

A Geotechnical Report has been prepared for the site and is attached at **Appendix 2**. The site is impacted by the code and the development is assessed against the code provisions below.

PERFORMANCE OUTCOME	ACCEPTABLE OUTCOME	COMMENT
PO1 <i>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</i>	AO1.1 <i>Development is located on that part of the site not affected by the Potential landslide hazard overlay.</i> <i>or through:</i> <i>(a) building design;</i> <i>(b) increased slope;</i> <i>(c) removal of vegetation;</i> <i>(d) stability of soil;</i> <i>(e) earthworks;</i> <i>(f) alteration of existing ground water or surface water paths;</i> <i>(g) waste disposal areas.</i> AO1.2 <i>Development is on an existing stable, benched site and requires no further earthworks or</i> AO1.3	The building has been designed to step down the site and will be structural certified in accordance with the requirements of the Engineering Soil Report, which requires Class P footings, designed in accordance with AS2870 – Residential Slabs and Footings – Construction. Refer to Appendix 2.

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	<i>A competent person certifies that:</i> <i>(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;</i> <i>(b) development of the site will not increase the risk of landslide hazard activity on other land, including land above the site;</i> <i>(c) the site is not subject to the risk of landslide activity on other land;</i> <i>(d) any measures identified in a site-specific geotechnical report for stabilising the site or development have been fully implemented;</i> <i>(e) development does not concentrate existing ground water and surface water paths;</i> <i>(f) development does not incorporate on-site waste water disposal.</i> <i>Note – Planning scheme policy SC6.9 – Natural hazards provides guidance on preparing a site specific geo-technical assessment.</i> <i>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.</i>	Refer Appendix 2.
PO2 <i>The siting and design of</i>	A02 <i>Excavation or fill:</i>	Does not comply with

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necessary retaining structures does not cause an adverse visual impact on landscape character or scenic amenity quality of the area.	(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.	AO2 – however, the Landscape Plan at Appendix 3 shows that the structure will not cause adverse impacts on landscape character or scenic amenity quality of the area – compliance is achieved with the Performance outcome.
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The Geotechnical Soil Report is attached at Appendix 2.

5.6 Dwelling House Code

<i>Purpose</i> <i>(1) The purpose of the Dwelling house code is to assess the suitability of development to which this code applies.</i> <i>(2) The purpose of the code will be achieved through the following overall outcomes:</i> <i>(a) The dwelling house, including all habitable buildings on site, is occupied by a single household;</i> <i>(b) A dwelling house, including a secondary dwelling or domestic out-buildings; ensures that the secondary dwelling is sub-ordinate to the primary dwelling house;</i> <i>(c) Development of a dwelling house provides sufficient and safe vehicle access and parking for residents;</i> <i>(d) The built form, siting, design and use of each dwelling is consistent with the desired neighbourhood character and streetscape elements of the area.</i>
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It is considered that the proposed Dwelling house is compliant with the relevant Purpose statement and Overall outcomes of the code.

PERFORMANCE OUTCOME	ACCEPTABLE OUTCOME	COMMENT
PO1 Secondary dwellings:	AO1 The secondary dwelling:	Not applicable

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(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	(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.	
PO2 <i>Resident's vehicles are accommodated on-site.</i>	AO2 <i>Development provides a minimum number of on-site car parking spaces comprising:</i> (a) 2 car parking spaces which may be tandem for the dwelling house; (b) 1 car parking space for any secondary dwelling on the same site.	Complies – double garage provided
PO3 <i>Development is of a bulk and scale that:</i> (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.	AO3 <i>Development meets the acceptable outcome for building height in the applicable Zone code associated with the site.</i>	The proposed Dwelling house can satisfy the Performance outcome:- (a) the built form and front boundary setbacks in Wharf Street and in the local area are characterised by large high-end residences with high quality landscaping, the proposed Dwelling house is in character; (b) the proposed Dwelling house will not be imposing or overbearing and is orientated to the sea views it will not overlook adjoining

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		Dwelling houses; (c) – the proposed Dwelling house will not impact on privacy and amenity of residents in adjoin houses due to the use of timber privacy screens, large overhangs and large indoor/outdoor recreation areas; (d) the garage is on the same alignment as the house and is sited on what is considered to be the secondary road frontage, so it does not dominate the streetscape.
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The proposed Dwelling house is compliant with the code.

5.7 Access, Parking and Services Code

Purpose

(1)The purpose of the Access, parking and servicing code is to assess the suitability of access, parking and associated servicing aspects of a development.

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

(a)sufficient vehicle parking is provided on-site to cater for all types of vehicular traffic accessing and parking on-site, including staff, guests, patrons, residents and short term delivery vehicles;

(b)sufficient bicycle parking and end of trip facilities are provided on-site to cater for customer and service staff;

(c) on-site parking is provided so as to be accessible and convenient, particularly for any short term uses;

(d)development provides walking and cycle routes through the site which link the development to the external walking and cycling network;

(e)the provision of on-site parking, loading /unloading facilities and the provision

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of access to the site do not impact on the efficient function of street network or on the area in which the development is located;
(f) new vehicular access points are safely located and are not in conflict with the preferred ultimate streetscape character and local character and do not unduly disrupt any current or future on-street parking arrangements.

The proposal to develop a Dwelling house on the site is compliant with the relevant Purpose statement and Overall Outcomes for the code. Outlined below is an assessment against the relevant provisions of the code.

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	COMMENT
PO1 <i>Sufficient on-site car parking is provided to cater for the amount and type of vehicle traffic expected to be generated by the use or uses of the site, having particular regard to:</i> <i>(a) the desired character of the area;</i> <i>(b) the nature of the particular use and its specific characteristics and scale;</i> <i>(c) the number of employees and the likely number of visitors to the site;</i> <i>(d) the level of local accessibility;</i> <i>(e) the nature and frequency of any public transport serving the area;</i> <i>(f) whether or not the use involves the retention of an existing building and the previous requirements for car parking for the building</i> <i>(g) whether or not the use involves a heritage building or place of local significance;</i> <i>(h) whether or not the proposed use involves the</i>	AO1.1 <i>The minimum number of on-site vehicle parking spaces is not less than the number prescribed in Table 9.4.1.3.b for that particular use or uses.</i> <i>Note</i> <i>- Where the number of spaces calculated from the table is not a whole number, the number of spaces provided is the next highest whole number.</i>	Complies
	AO1.2 <i>Car parking spaces are freely available for the parking of vehicles at all times and are not used for external storage purposes, the display of products or rented/sub-leased.</i>	Can be conditioned to comply, if considered necessary.
	AO1.3 <i>Parking for motorcycles is</i>	Not applicable
	AO1.4 <i>For parking areas exceeding 50 spaces.....</i>	Not applicable

<i>retention of significant vegetation.</i>		
PO2 <i>Vehicle parking areas are designed and constructed in accordance with relevant standards.</i>	AO2 <i>Vehicle parking areas are designed and constructed in accordance with Australian Standard: (a)AS2890.1; (b)AS2890.3; (c)AS2890.6.</i>	Complies
PO3 <i>Access points are designed and constructed:</i> <i>(a) to operate safely and efficiently;</i> <i>(b) to accommodate the anticipated type and volume of vehicles;</i> <i>(c) to provide for shared vehicle (including cyclists) and pedestrian use, where appropriate;</i> <i>(d)so that they do not impede traffic or pedestrian movement on the adjacent road area;</i> <i>(e) so that they do not adversely impact upon existing intersections or future road or intersection improvements;</i> <i>(f) so that they do not adversely impact current and future on-street parking arrangements;</i> <i>(g) so that they do not adversely impact on existing services within the road reserve adjacent to the site;</i> <i>(h)so that they do not involve ramping, cutting of the adjoining road reserve or any built structures (other than</i>	AO3.1 <i>Access is limited to one access cross over per site and is an access point located, designed and constructed in accordance with:</i> <i>(a) Australian Standard AS2890.1;</i> <i>(b) Planning scheme policy SC6.5 FNQROC Regional Development Manual - access crossovers.</i> AO3.2 <i>Access, including driveways or access crossovers:</i> <i>(a)are not placed over an existing:</i> <i>(i) telecommunications pit;</i> <i>(ii) stormwater kerb inlet;</i> <i>(iii)sewer utility hole;</i> <i>(iv)water valve or hydrant.</i> <i>(b)are designed to accommodate any adjacent footpath;</i> <i>(c) adhere to minimum sight distance requirements in accordance with AS2980.1.</i> AO3.3 <i>Driveways are:</i> <i>(a) designed to follow as closely as possible to the existing contours, but are</i>	Complies Complies Complies

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<i>what may be necessary to cross over a stormwater channel).</i>	<i>no steeper than the gradients outlined in Planning scheme policy SC6.5 FNQROC Regional Development Manual;</i> <i>(b) constructed such that where there is a grade shift to 1 in 4 (25%), there is an area with a grade of no more than 1 in 6 (16.6%) prior to this area, for a distance of at least 5 metres;</i> <i>(c) on gradients greater than 1 in 6 (16.6%) driveways are constructed to ensure the cross-fall of the driveway is one way and directed into the hill, for vehicle safety and drainage purposes.</i> <i>(d) constructed such that the transitional change in grade from the road to the lot is fully contained within the lot and not within the road reserve;</i> <i>(e) designed to include all necessary associated drainage that intercepts and directs storm water runoff to the storm water drainage system.</i> AO3.4 <i>Surface construction materials are consistent with the current or intended future streetscape or character of the area and contrast with the surface construction materials of any adjacent footpath.</i>	Complies
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The proposed development complies with the relevant provisions of the code.

5.8 Filling and Excavation Code

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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;

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

Filling and excavation required to facilitate development of a Dwelling house on the site consists of:

- a cut to the rear boundary to lower the dwelling house to a ground level of 19.8 metres; and
- fill to the central area to raise the level to 19.8 metres; and
- some cut and some fill to lower level (due to the cross fall over the site) to achieve a level height of approximately 17 metres.

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	COMMENTS
<i>Filling and excavation -General</i>		
<i>PO1</i> <i>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.</i>	<i>AO1.1</i> <i>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.</i>	Complies – maximum cut 1.6 metres and maximum fill of 1.8 metres.
	<i>AO1.2</i> <i>Cuts are supported by batters, retaining or rock walls and associated benches/terraces are capable of supporting mature vegetation.</i>	Complies
	<i>AO1.3</i>	

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	<i>Cuts are screened from view by the siting of the building/structure, wherever possible.</i> AO1.4 <i>Topsoil from the site is retained from reused on benches/terraces.</i> AO1.5 <i>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.</i> AO1.6 <i>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.</i>	Complies Can comply Complies Complies
Visual Impact and Site Stability		
PO2 <i>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.</i>	AO2.1 <i>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.</i> AO2.2 <i>Filling and excavation does not occur within 2 metres of the site</i>	Complies with the Performance outcome

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	boundary.	
Flooding and drainage		
PO3 <i>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.</i>	AO3.1 <i>Filling and excavation does not result in the ponding of water on a site or adjacent land or road reserves.</i> AO3.2 <i>Filling and excavation does not result in an increase in the flow of water across a site or any other land or road reserves.</i> AO3.3 <i>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.</i> AO3.4 <i>Filling and excavation complies with the specifications set out in Planning Scheme Policy No SC5 – FNQROC Development Manual.</i>	The site has two street frontages – lawful points of discharge, all on site storm water can be managed efficiently. Compliance can be achieved or conditioned to comply with AO3.1, AO3.2, AO3.3 and AO3.4
Water quality		
PO4 <i>Filling and excavation does not result in a reduction of the water quality of receiving waters.</i>	AO4 <i>Water quality is maintained to comply with the specifications set out in Planning Scheme Policy No SC5 – FNQROC Development Manual.</i>	Can be conditioned to comply
Infrastructure		
PO5 <i>Excavation and filling does not impact on Public Utilities.</i>	AO5 <i>Excavation and filling is clear of the zone of influence of public utilities</i>	Can be conditioned to comply

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The proposed development generally complies with the relevant provisions of the code.

5.9 Infrastructure Works Code

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;

(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.

The proposed development is located in a well- established urban area and the site is zoned for the intended use. All reticulated services, roads, garbage collection are available to the site. The site has two street frontages and so has two lawful points of discharge for stormwater.

It is not proposed to assess the developing against the code as many of the requirements are not relevant to a Dwelling house development in an established urban area.

5.10 Landscaping Code

Purpose

(1)The purpose of the Landscaping code is to assess the landscaping aspects of a development.

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

(a)The tropical, lush landscape character of the region is retained, promoted and enhanced through high quality landscape works;

(b)The natural environment of the region is enhanced;

(c) The visual quality, amenity and identity of the region is enhanced;

(d)Attractive streetscapes and public places are created through landscape design;

(e)As far as practical, existing vegetation on site is retained, and protected during works and integrated with the built environment;

(f) Landscaping is provided to enhance the tropical landscape character of development and the region;

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(g) Landscaping is functional, durable, contributes to passive energy conservation and provides for the efficient use of water and ease of ongoing maintenance;
 (h) Landscaping takes into account utility service protection;
 (i) Weed species and invasive species are eliminated from development sites;
 (j) Landscape design enhances personal safety and incorporates CPTED principles.

A Landscape Plan has been prepared for the site and is attached at **Appendix 3**. An assessment of the proposed development and the supporting Landscape Plan against the relevant provisions of the code is outlined below.

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	COMMENTS
Landscape design		
PO1 <i>Development provides landscaping that contributes to and creates a high quality landscape character for the site, street and local areas of the Shire by:</i> <i>(a) promoting the Shire's character as a tropical environment;</i> <i>(b) softening the built form of development;</i> <i>(c) enhancing the appearance of the development from within and outside the development and makes a positive contribution to the streetscape;</i> <i>(d) screening the view of buildings, structures, open storage areas, service equipment, machinery plant and the like from public places, residences and other sensitive development;</i> <i>(e) where necessary, ensuring the privacy of habitable rooms and private outdoor recreation areas;</i>	AO1 <i>Development provides landscaping:</i> <i>(a) in accordance with the minimum area, dimensions and other requirements of applicable development codes;</i> <i>(b) that is designed and planned in a way that meets the guidelines for landscaping outlined in Planning Scheme Policy SC6.7 – Landscaping;</i> <i>(c) that is carried out and maintained in accordance with a landscaping plan that meets the guidelines for landscaping outlined in Planning Scheme Policy SC6.7–Landscaping.</i> <i>Note - Planning scheme policy SC6.7 – Landscaping provides guidance on meeting the outcomes of this code. A landscape plan submitted for approval in accordance with the Planning policy is one way to achieve this outcome.</i>	Refer Appendix 3 – Landscape Plan

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(f) contributing to a comfortable living environment and improved energy efficiency, by providing shade to reduce glare and heat absorption and re-radiation from buildings, parking areas and other hard surfaces; (g) ensuring private outdoor recreation space is useable; (h) providing long term soil erosion protection; (i) providing a safe environment; (j) integrating existing vegetation and other natural features of the premises into the development; (k) not adversely affecting vehicular and pedestrian sightlines and road safety.		
PO2 Landscaping contributes to a sense of place, is functional to the surroundings and enhances the streetscape and visual appearance of the development.	AO2.1 No acceptable outcomes are specified. <i>Note - Landscaping is in accordance with the requirements specified in Planning scheme policy SC6.7 – Landscaping.</i> AO2.2 Tropical urbanism is incorporated into building design. <i>Note – ‘Tropical urbanism’ includes many things such as green walls, green roofs, podium planting and vegetation incorporated into the design of a building.</i>	Refer Appendix 3 – Landscape Plan
PO3 Development provides	AO3.1 Existing vegetation on site	Refer Appendix 3 –

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<i>landscaping that is, as far as practical, consistent with the existing desirable landscape character of the area and protects trees, vegetation and other features of ecological, recreational, aesthetic and cultural value.</i>	<i>is retained and incorporated into the site design, wherever possible, utilising the methodologies and principles outline in AS4970-2009 Protection of Trees on Development Sites.</i> A03.2 <i>Mature vegetation on the site that is removed or damaged during development is replaced with advanced species.</i> A03.3 <i>Where there is an existing landscape character in a street or locality which results from existing vegetation, similar species are incorporated into new development.</i> A03.4 <i>Street trees are species which enhance the landscape character of the streetscape, with species chosen from the Planning scheme policy SC6.7 –Landscaping.</i>	Landscape Plan
PO4 <i>Plant species are selected with consideration to the scale and form of development, screening, buffering, streetscape, shading and the locality of the area.</i>	A04 <i>Species are selected in accordance with Planning scheme policy SC6.7 – Landscaping.</i>	Refer Appendix 3 – Landscape Plan
PO5 <i>Shade planting is provided in car parking areas where uncovered or open, and adjacent to driveways and internal roadways.</i>	A05 <i>Species are selected in accordance with Planning scheme policy SC6.7 – Landscaping.</i>	N/A
PO6	A06.1	

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<i>Landscaped areas are designed in order to allow for efficient maintenance.</i>	<i>A maintenance program is undertaken in accordance with Planning scheme policy SC6.7 – Landscaping</i> A06.2 <i>Tree maintenance is to have regard to the Safe Useful Life Expectancy of Trees (SULE).</i> <i>Note</i> <i>– It may be more appropriate to replace trees with a SULE of less than 20 years (as an example), and replant with younger healthy species.</i>	Refer Appendix 3 – Landscape Plan
PO7 <i>Podium planting is provided with appropriate species for long term survival and ease of maintenance, with beds capable of proper drainage.</i>	A07.1 <i>Podium planting beds are provided with irrigation and are connected to stormwater infrastructure to permit flush out.</i> A07.2 <i>Species of plants are selected for long term performance designed to suit the degree of access to podiums and roof tops for maintenance.</i>	N/A
PO8 <i>Development provides for the removal of all weed and invasive species and implement on-going measures to ensure that weeds and invasive species do not reinfest the site and nearby premises.</i>	A08 <i>Weed and invasive species detected on a development site are removed in accordance with a management plan prepared by an appropriately qualified person.</i>	Refer Appendix 3 – Landscape Plan
PO9 <i>The landscape design enhances personal safety and reduces the potential for crime and vandalism.</i>	A09 <i>No acceptable outcomes are specified.</i> <i>Note - Planning scheme policy SC6.3 – Crime prevention through</i>	Refer Appendix 3 – Landscape Plan

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	<i>environmental design (CPTED) provides guidance on meeting this outcome.</i>	
PO10 <i>The location and type of plant species does not adversely affect the function and accessibility of services and facilities and service areas.</i>	AO10 <i>Species are selected in accordance with Planning scheme policy SC6.7 – Landscaping.</i>	Refer Appendix 3 – Landscape Plan

Compliance is achieved with the Landscaping code.

6.0 CONCLUSION

The proposed development of a Dwelling house on the site is the highest and best use of the land and is the expected type of development under the planning scheme.

The proposed development will be complementary to surrounding high-end housing in the local area and contribute to the residential amenity of the area.

The Application is recommended to Council for approval.

E A TAYLOR
FEBRUARY, 2018

APPENDIX: 1

DESIGN LOADS

1. THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE FOLLOWING LOADING CONDITIONS:

AS 1170.1 - DEAD & LIVE LOADS & LOAD COMBINATIONS.
LIVE LOAD - UNITS - GENERAL - 1.5kPa
LIVE LOAD - STAIRS, BALCONIES & CORRIDORS - 3.0kPa

CONCRETE

1. ALL CONCRETE					
ELEMENT	CONC. GRADE	SUMP AGG.	MAX. SIZE	C/MENT	ADMIXTURE
GROUND LEVEL FOUNDATION	N25	80	20	GP	-
SLABS					
SUSPENDED	INTERNAL N32 EXTERNAL N40	80	20	GP	-
CORE FILL	S20	250	10	GP	-

WORK SHALL BE IN ACCORDANCE WITH THE CURRENT EDITIONS OF AS 3600 AND AS 1379, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.

2. CONCRETE QUALITY: CONCRETE GRADE TO BE CONCRETE CHARACTERISTIC STRENGTH (f_c) AT 28 DAYS. METHOD OF PLACEMENT - RAISED TYPE OF ASSESSMENT - PROJECT.

3. ALL CONCRETE TO BE ADEQUATELY VIBRATED.

4. NO HOLES OR CHASES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE MEMBERS WITHOUT THE PRIOR APPROVAL OF THE ENGINEER. PIPES OR ELECTRICAL CONDUITS SHALL NOT BE PLACED WITHIN THE CONCRETE COVER TO REINFORCEMENT WITHOUT THE APPROVAL OF THE ENGINEER. THE CONCRETE COVER TO EMBEDDED PIPES OR CONDUITS SHALL BE A MIN OF 20mm.

5. CONSTRUCTION JOINTS SHALL BE MADE ONLY WHERE SHOWN ON THE DRAWINGS OR WHERE APPROVED BY THE ENGINEER.

6. BEAM DEPTHS ARE DESIGNATED FIRST AND INCLUDE SLAB THICKNESS, IF ANY.

7. UNDERPINNING WHERE NOT SHOWN ON DRAWINGS MUST BE APPROVED BY THE ENGINEER. FOR UNDERPINNING ONLY 1:4 = 1:4:1.

8. ALL CONCRETE SURFACES SHALL BE CURED BY AN APPROVED METHOD FOR SEVEN DAYS IMMEDIATELY AFTER THE CONCRETE IS SET.

9. ALL FORMWORK AND PROPPIING TO SUSPENDED SLABS AND BEAMS SHALL REMAIN IN POSITION FOR 14 DAYS AFTER PLACING CONCRETE UNLESS SPECIFIED OTHERWISE. SUCH FLOOR SHALL REMAIN UNLOADED FOR 28 DAYS.

10. FLOOR SLABS ON GROUND, ALL TOP SOIL AND UPPER STRATA CONTAINING ORGANIC MATTER IS TO BE REMOVED AND REPLACED BY AN APPROVED FILLING MATERIAL COMPACTED AS FOLLOWS: COHESIONLESS SOLIDS: MINIMUM DENSITY INDEX + 85% COHESIVE SOILS: (MAX P.I. + 15%) + 95% STANDARD COMPACTION.

11. BUILDER TO PROVIDE MORTAR UNDER STEEL COLUMNS, BASE PLATES AS SPECIFIED.

12. ALL REINFORCEMENT TO COMPLY WITH THE CURRENT EDITIONS OF AS 1302, AS 1303, AS 1304 AND SHALL BE DESIGNATED THUS: REINFORCED BARS GRADE 500 PLUS 1 HOT ROLLED DEFORMED BARS GRADE 400/ R.

PLAIN ROUND BARS GRADE 200/ F WELDED WIRE FABRIC GRADE 450/ F STEEL WIRE, PLAIN AND DEFORMED GRADE 450W ALL FABRIC SHALL BE SUPPLIED IN FLAT SHEETS.

13. WELDING OF THE REINFORCEMENT IS NOT PERMITTED UNLESS SHOWN.

SITE PREPERATION

1. SITE PREPARATION SHALL GENERALLY CONSIST OF CLEARANCE OF VEGETATION FOLLOWING BY EXCAVATION OF TOPSOIL AND MATERIAL TO SUIT FINAL DESIGN LEVELS.

2. PROVISION SHALL BE MADE FOR THE DEMOLITION OF ANY EXISTING BUILDINGS INCLUDING BREAKING UP AND REMOVAL OF ANY OLD FOOTINGS, SERVICE PIPES, SEPTIC TANKS ETC WHICH MAY INTERFERE WITH THE NEW CONSTRUCTION. ANY SOIL DISTURBED BY DEMOLITION SHALL BE RE-COMPACTED.

3. IN THE PROPOSED ON GROUND FLOOR SLAB SUPPORT AND PAVEMENT AREAS, THE EXPOSED SUBGRADE SHALL BE UNIFORMLY COMPACTED TO ACHIEVE DRY DENSITY RATIO OF NOT LESS THAN 95% OF THE MAXIMUM SATURATED VIBRATED DENSITY (AS 1299 TESTS 5.3.1 & 5.3.1). SUBGRADE COMPACTION SHALL BE ACCOMPANIED BY GENERAL INSPECTION TO ALLOW DETECTION AND RECTIFICATION OF ANY LOCALISED COMPRESSIBLE ZONES WHICH MAY EXIST.

4. ANY FILLING PLACED IN THE BUILDING AND PAVEMENT AREAS SHALL BE UNIFORMLY COMPACTED IN LAYERS OF NOT MORE THAN 200mm FINAL THICKNESS. UNDER LEVEL 3 SUPERVISION (AS 3788-1990 GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS) TO THE MAX OR DRY DENSITY RATIO OF 98% SRD (EXPRESSED AS A % OF THE MAXIMUM VIBRATED DENSITY ESTABLISHED BY TEST METHODS AS 1299 5.3.1, 5.4.1 AND 5.3.1 FOR COHESIONLESS (SAND) MATERIALS OR ALTERNATIVELY, STANDARD COMPACTION IF APPROPRIATE).

5. ANY IMPORTED FILL SHALL COMPRISE OF LOW PLASTICITY GRANULAR MATERIAL WITH A PLASTICITY INDEX NOT MORE THAN 15%. SAND OUT FROM BASEMENT AREA SHOULD BE SUITABLE FOR REUSE AS FILLING.

6. FILLING SHOULD BE RETAINED OR BATTERED TO A SLOPE OF NO STEEPER THAN 1:1.1. ALL EXPOSED FILLING SHALL BE PROTECTED FROM EROSION. EARTH BATTERS TO BE WHOLLY CONTAINED WITHIN SITE BOUNDARIES & SURFACE DRAINS TO BE INSTALLED TO HIGH STABLE EARTH BATTERS.

7. CARE SHALL BE TAKEN TO ENSURE THAT ANY VIBRATORY ROLLING OR CONSTRUCTION ACTIVITIES DO NOT CAUSE DISTRESS (BY WAY OF INDUCED SETTLEMENT) TO ANY ADJACENT MOVEMENT SENSITIVE FEATURES ETC.

8. ALL EXCAVATION TESTING SHALL BE CARRIED OUT IN ACCORDANCE WITH AUSTRALIAN STANDARDS. RELEVANT CODES OF PRACTICE TO PROVIDE AN ENGINEERED (CONTROLLED) FILLED PLATFORM.

9. STAY BUILDING PLATFORM TO EXTEND 1500mm OUTSIDE BUILDING STRUCTURE FOOTPRINT OF TOPSOIL. DELETERIOUS ORGANCE AND UNCONTROLLED FILL. THE BUILDING PLATFORM SHALL BE RAISED TO DESIGNATED LEVEL ABOVE THE NOMINATED D100 FLOOD LEVEL WITH ENGINEERED FILL & IN ACCORDANCE WITH LOCAL AUTHORITY REQUIREMENTS.

10. BUILDING PLATFORM SHALL BE CARRIED OUT IN ACCORDANCE WITH AS 3788 - GUIDELINES ON EARTHWORKS FOR COMMERCIAL & RESIDENTIAL DEVELOPMENT. PLATFORM IMMEDIATELY SURROUNDING THE RESIDENCE TO FALL AWAY FROM THE RESIDENCE AT A SLOPE OF 1 : 200 MINIMUM TO AN EARTH DRAIN. THE SURFACE DRAINAGE IS TO DISCHARGE EVENLY WITHIN THE SITE & WITHOUT NUISANCE TO ADJOINING PROPERTIES.

11. FOUNDATION MAINTENANCE SHALL BE IN ACCORDANCE WITH THE CSIRO BROCHURE - GUIDE TO HOME OWNERS ON FOUNDATION MAINTENANCE & FOOTING PERFORMANCE.

12. VERIFY ALL BEARING AND DIMENSIONS ON SITE PRIOR TO ANY CONSTRUCTION. ALL MISSING PEGS TO BE REINTEGRATED PRIOR TO ANY CONSTRUCTION. ALL BUILDERS WORK TO BE CARRIED OUT WITHIN SITE BOUNDARIES. THIS NOTE IS TO TAKE PRECEDENCE OVER ANY DOCUMENTATION PROVIDED IN THIS SET OF PLANS. NOTIFY THIS OFFICE IMMEDIATELY OF ANY DISCREPANCIES IN SETOUT DIMENSIONS.

13. APPROXIMATE POSITION OF SEWER JUMP UP. VERIFY POSITION ON SITE PRIOR TO CONSTRUCTION. CONNECT 1000A LINE TO COUNCIL REQUIREMENTS.

14. THE FILL USED ON THIS SITE WILL HAVE CONTROLLED PLACEMENT. REFER TO SITE PREPARATION NOTES.

15. ALL FENCE LINES, RETAINING WALLS, PATHWAYS, HOT WATER SYSTEM, LETTER BOX, CLOTHESLINE, WATER TANK & DOWNPIPE LOCATIONS TO BE SET OUT BY BUILDER ON SITE & CONFIRMED BY CLIENT. CLIENT TO PROVIDE NOTICE OF ANY FUTURE SITE WORKS TO PLUMBER TO ENSURE SEWER & STORMWATER CAN BE ALIGNED TO ACCOMMODATE REQUIREMENTS.

16. NEW CONCRETE BOUNDARY CROSS OVER AND COUNCIL INVERT TO LOCAL AUTHORITY SPECIFICATIONS.

17. ANY SITE LEVELS PROVIDED ON THIS PLAN HAVE BEEN SUPPLIED TO EXTERNAL CONSULTANTS & TRANSMITTED ONTO THIS SET OF DRAWINGS. THESE LEVELS ARE TO BE TREATED BY THE BUILDER AS APPROXIMATE ONLY & MUST BE VERIFIED ON SITE PRIOR TO COMMENCING CONSTRUCTION. ANY LEVEL DISCREPANCIES ARE TO BE REPORTED TO THIS OFFICE FOR AUTHORITY BEFORE COMMENCING CONSTRUCTION. BUILDER TO ARRANGE CONTOUR SURVEY IF REDUCED LEVELS ARE REQUIRED ON THIS PLAN.

18. DRIVEWAY SLOPE NOT TO EXCEED 1 VERT TO 1.5 HOR. FOR DRIVEWAY SLOPE REFER TO PART 6 OF THE QDC TO ENSURE GRADEABLE & VEHICULAR ACCESS COMPLY WITH STANDARD COUNCIL REGULATION.

19. SEDIMENT CONTROL MEASURES FOR SOIL & WATER MANAGEMENT MUST BE INSTALLED OR IMPLEMENTED PRIOR TO DISCHARGE OF WATER FROM THE SITE, SUCH THAT NO EXTERNAL STORMWATER FLOW FROM THE SITE ADVERSELY AFFECTS SURROUNDING OR DOWNSTREAM PROPERTIES IN ACCORDANCE WITH THE REQUIREMENTS OF THE ENVIRONMENTAL PROTECTION ACT 1994 & THE FNO RCD DEVELOPMENT MANUAL.

20. ALL WATER TO BE DRAINED AWAY FROM BUILDING DURING & AFTER CONSTRUCTION TO COMPLY WITH AS 2870.

RETAINING STRUCTURES

1. DO NOT BACKFILL RETAINING WALL UNTIL 14 DAYS AFTER CONCRETE HAS BEEN PLACED IN THE WALLS OF THE RETAINING STRUCTURES UNLESS NOTED OTHERWISE.

2. THE BACKFILL MATERIAL BEHIND THE FULL LENGTH OF THE EARTH RETAINING WALLS SHALL CONSIST OF A COARSE GRAINED SOIL OF HIGH PERMEABILITY (A CLEAN COURSE SAND OR GRAVEL) TO A MAX WIDTH OF 300mm FOR THE FULL RETAINING HEIGHT.

ENERGY EFFICIENCY

1. REFER TO ENERGY EFFICIENCY RATING REPORT FOR EXTENT OF INSULATION, CEILING FANS, DRAUGHT SEALS, GLAZING TYPE, WALLS & ROOF COLOUR, ETC. REPORT TO TAKE PRECEDENCE OVER ALL DOCUMENTATION PROVIDED IN THIS SET OF WORKING DRAWINGS.

2. COMPLY WITH THE CURRENT MANDATORY SUSTAINABLE HOUSING MEASURES UNDER THE QUEENSLAND DEVELOPMENT CODE MP-1, INCLUDING:

* 1 STAR RATED SHOWER ROSES AND THERMATE TO KITCHEN SINKS, BATHROOM BASINS AND LAUNDRY TUBS.

* 4 STAR RATED DUAL FLUSH TOILETS & SHOWER ROSE.

* ANY HEATING SYSTEM MUST BE WATER EFFICIENT IN RELATION TO THE CODE.

* ENERGY EFFICIENT LIGHTING TO BE UTILISED FOR 80% OF ALL LIGHT FITTINGS TO ILLUMINATE THE INTERNAL FLOOR SPACE.

* INSTALLATION OF MIN. EER 2.9 FOR HARD WIRED AIR-CONDITIONERS.

TIMBER

1. ALL TIMBER SHALL COMPLY WITH THE RELEVANT BUILDING AND ALL CODES REFERRED TO THEREIN.

2. ALL STRUCTURAL TIMBER SHALL BE GRADE F14 UNKANSOED UNLESS NOTED OTHERWISE.

3. THE DESIGN, ERECTION AND BRACING OF PREFABRICATED ROOF TRUSSES SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS REQUIREMENTS, UNLESS NOTED OTHERWISE.

4. ALL FRAMING AND CONNECTION DETAILS SHALL BE IN ACCORDANCE WITH - AS1684.3 RESIDENTIAL TIMBERS - FRAMED CONSTRUCTION - CYCLONIC.

GENERAL SAFETY NOTES - WPHS

1. FALLS, SLIPS, TRIPS

a) WORKING AT HEIGHTS DURING CONSTRUCTION

Wherever possible, components for this building should be prefabricated off site or on level ground to minimise the risk of workers falling more than two metres. However, construction of this building will require persons to be working at heights where a fall in excess of two metres is possible and injury is likely to result from such a fall. The builder should provide a suitable barrier whenever a person is required to work in a situation where falling more than two metres is a possibility.

DURING OPERATION OR MAINTENANCE

Cleaning and maintenance of windows, walls, roof or other components of this building will require persons to be situated where a fall from a height in excess of two metres is possible. Where this type of activity is required, scaffolding, ladders or structures should be used in accordance with relevant codes of practice, regulations or legislation.

Cleaning and maintenance of windows, walls, roof or other components of this building will require persons to be situated where a fall from a height in excess of two metres is possible. Where this type of activity is required, scaffolding, fall barriers or Personal Protective Equipment should be used in accordance with relevant codes of practice, regulations or legislation.

Anchorage points for portable scaffold or fall arrest devices have been included in the design for use by maintenance workers. Any persons engaged to work on the building after completion of construction work should be informed about the anchorage points.

b) SLIPPERY OR UNEVEN SURFACES

FLOOR FINISHES

Specified finishes have been selected to minimise the risk of floors and paved areas becoming slippery when wet or when walked on with wet shoes/feet. Any changes to the specified finish should be made in consultation with the designer or, if this is not practical, surfaces with equivalent or better slip resistance should be chosen.

The owner is responsible for the selection of surface finishes in the pedestrian trafficable areas of this building. Surfaces should be selected in accordance with AS1518:1979 and ASNZ 4589:2004.

c) TRIPS, LOOSE OBJECTS AND UNEVEN SURFACES

Due to design restrictions for this building, steps and/or ramps are included in the building which may be a hazard to workers carrying objects or otherwise occupied. Steps should be clearly marked with both visual and tactile warning during construction, maintenance, demolition and at all times when the building operates as a workplace.

Building owners and occupiers should monitor the pedestrian access ways and in particular access to areas where maintenance is routinely carried out to ensure that surfaces do not become uneven and present a trip or hazard.

Spills, loose material, stray objects or any other matter that may cause a slip or trip hazard should be cleaned or removed from access ways.

Access ways should be required to maintain a tidy work site during construction, maintenance or demolition to reduce the risk of trips and falls in the workplace. Materials for construction or maintenance should be stored in designated areas away from access ways and work areas.

2. FALLING OBJECTS/LOOSE MATERIALS OR SMALL OBJECTS

Construction, maintenance or demolition work on or around this building is likely to involve persons working above ground level or above floor levels. Where this occurs one or more of the following measures should be taken to avoid objects falling from the area where the work is being carried out onto persons below.

1. Prevent or restrict access to areas below where the work is being carried out.

2. Provide toeboards to scaffolding or work platforms.

3. Provide protective structure below the work area.

4. Ensure that all persons below the work area have Personal Protective Equipment.

BUILDING COMPONENTS

During construction, removal or demolition of this building, parts of the structure including fabricated steelwork, heavy panels and many other components will remain standing prior to or after supporting parts are in place. Contractors should ensure that temporary bracing or other required support is in place at all times when collapse which may injure persons in the area is a possibility.

Mechanical lifting of materials and components during construction, maintenance or demolition presents a risk of falling objects. Contractors should ensure that appropriate lifting devices are used, that loads are properly secured and that access to areas below the load is prevented or restricted.

TRAFFIC MANAGEMENT

Parking of vehicles or loading/unloading of vehicles on the roadway may cause a traffic hazard. During construction, maintenance or demolition of this building designated parking for workers and loading areas should be provided. Trained traffic management personnel should be responsible for the supervision of these areas.

Construction of this building may require loading and unloading of materials on the roadway. Deliveries should be well planned to avoid congestion of loading areas and trained traffic management personnel should be used to supervise loading/unloading areas.

Busy construction and demolition sites present a risk of collision where deliveries and other traffic are moving within the site. A traffic management plan presented by trained traffic management personnel should be adopted for the work site.

LOAD BEARING MASONRY

1. ALL LOAD BEARING MASONRY WORK SHALL BE EXECUTED IN ACCORDANCE WITH THE CURRENT EDITION OF AS 3703, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.

2. BUILDER TO ALLOW CLEAN OUT OPENINGS AT THE BASE COURSE OF ALL REINFORCED CONCRETE MASONRY WALLS OR AS INDICATED AND ALL CORES TO BE RAKED CLEAN BEFORE FILLING WITH GROUT.

3. GROUT MIX TO FILL CAVITY OR REINFORCED CONCRETE MASONRY WALLS TO HAVE A MINIMUM CHARACTERISTIC COMPRESSION STRENGTH OF 20 MPa (f_c). MAXIMUM SLUMP 250mm AND MAXIMUM AGGREGATE SIZE 10mm.

4. UNREINFORCED CONCRETE MASONRY AND BROWKWORK SUPPORTING SLABS AND BEAMS SHALL HAVE A LAYER OF MORTAR PLACED ON TOP AND TROWELLED SMOOTH WITH TWO LAYERS OF BITUMINOUS FELT BETWEEN THIS SURFACE AND THE CONCRETE.

5. MORTAR CLASSIFICATION: M4.

6. MINIMUM CHARACTERISTIC UNCONFINED COMPRESSION STRENGTH OF MASONRY UNITS SHALL BE 15MPa.

FOUNDATIONS

1. EXCAVATION FOR ALL FOOTINGS SHALL BE TAKEN TO THE DEPTHS SHOWN, OR TO A FOUNDATION STRATA CAPABLE OF SAFELY SUSTAINING A BEARING PRESSURE OF 100 kPa WHICHEVER IS THE DEEPER. ALL EXCAVATIONS SHALL BE FREE FROM LOOSE MATERIAL, MUD AND WATER. UNDERSIDE OF ALL FOOTINGS SHALL BE A MIN OF 400mm BELOW NATURAL GROUND LEVEL, UNLESS SHOWN OTHERWISE.

2. EXCAVATIONS FOR ROBEI PRES SHALL BE DONE BY MECHANICAL AUGER OR OTHER APPROVED MEANS. SIDES OF HOLES SHALL BE VERTICAL AND SIDES AND BOTTOM SHALL BE FREE FROM LOOSE MATERIAL. CONCRETE SHALL BE PLACED IN EACH HOLE WITHIN 12 HOURS.

3. FINISHED SLAB LEVEL TO BE MINIMUM 25mm ABOVE FINISHED GROUND LEVEL. THIS NOTE IS TO TAKE PRECEDENCE OVER ANY DOCUMENTATION PROVIDED IN THIS SET OF PLANS.

STRUCTURAL STEEL

1. ALL WORKMANSHIP AND MATERIAL SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF AS 4100 AND AS 1554 EXCEPT WHERE VARIED BY THE CURRENT DOCUMENTS.

2. UNLESS NOTED OTHERWISE ALL STEEL SHALL BE IN ACCORDANCE WITH:

AS 1564 GRADE 250 FOR ROLLED SECTIONS. AS 1163 GRADE 350 FOR R.H.S. SECTIONS

AS 1163 GRADE 200 FOR C.H.S. SECTIONS. AS 1163 GRADE 350 FOR C.H.S. SECTIONS

AS 1564 GRADE 350 FOR ALL HIGH STRENGTH STEEL.

3. UNLESS NOTED OTHERWISE ALL WELDS SHALL BE CATEGORY SP IN ACCORDANCE WITH CLAUSE 13.2 AS 1554-PART 1.

4. UNLESS NOTED OTHERWISE ALL WELDS SHALL BE 6mm CONTINUOUS FILLET WELDS.

5. HIGH STRENGTH FRICTION GRIP BOLTS, NUTS AND WASHERS (8.8/T) SHALL COMPLY WITH THE RELEVANT REQUIREMENTS OF AS 1522 AND SHALL BE TIGHTENED TO THE CORRECT TENSION USING APPROVED LOAD INDICATING WASHERS. CONTACT SURFACES OF ALL HIGH STRENGTH FRICTION GRIP BOLTED CONNECTIONS SHALL BE LEFT UNPAINTED OR AS SPECIFIED.

6. UNLESS NOTED OTHERWISE ALL BOLTS SHALL BE OF GRADE 4.6/5.

7. ALL DIMENSIONS SHALL BE CHECKED BY THE CONTRACTOR ON SITE PRIOR TO FABRICATION.

8. UNLESS NOTED OTHERWISE ON PLANS, WHERE STEEL SIZES PERMIT, ALL STEEL WORK IS TO BE SUPERGRAL OR EQUIVALENT. IN ALL OTHER CASES STEEL WORK IS TO BE SAND BLASTED (2.5) AND COATED WITH ZINC SILICATE STEEL PRIMER (OR AS SPECIFIED) BEFORE ERECTION.

REINSTATE COATING OF ALL WELDS BY BUFFING SURFACE WITH WIRE BRUSH AND APPLY 2 BRUSH COATS OF ZINC RICH COATING. PAINT FINISH IN ACCORDANCE WITH MANUFACTURERS SPECIFICATION.

STEEL WORK ENCASED IN CONCRETE IS NOT TO BE PAINTED.

9. THE STEEL FABRICATOR SHALL PROVIDE ALL BOLTS NECESSARY FOR THE ERECTION OF THE STEELWORK AND

10. HOLES AND CLEATS NECESSARY FOR THE ERECTION OF TIMBER WORK WHETHER OR NOT DETAILED IN THE DRAWINGS.

11. ALL LAPS, FIXINGS AND ACCESSORIES TO PURLINS AND GIRTS TO BE STRICTLY IN ACCORDANCE WITH THE MANUFACTURERS REQUIREMENTS.

WATERPROOFING

1. ANY EXPOSED STRUCTURAL TIMBER WHICH HAS ANY AREA IN CONTACT WITH ANOTHER MATERIAL AND WHICH WILL BE INACCESSIBLE AFTER FINISH IS TO BE GIVEN A COAT OF PRIMER BEFORE FINISH.

2. PROVIDE APPROVED WATERPROOFING MEMBRANE TO ALL WET AREA FLOORS & TILED WALLS & TOP OF ALL EXTERNAL SUSPENDED SLAB FLOORS IN ACCORDANCE WITH BUILDING CODE OF AUSTRALIA & A.S. 3740.

3. PROVIDE APPROVED WATERPROOFING MEMBRANE TO ALL FLOOR SLABS & FOUNDATION RETAINING WALLS IN CONTACT WITH GROUND & APPLY STRICTLY IN ACCORDANCE WITH BUILDING CODES SPECIFICATIONS.

4. THE PROVISION FOR "AC" LOCATIONS ARE OPTIONAL ONLY AND MUST BE CONFIRMED ON SITE BEFORE CONSTRUCTION OF BLOCKWORK.

5. LOCATION OF ALL "SP" LOCATIONS AS SHOWN TO BE VERIFIED BY BUILDING OWNER, SUPPLY AND INSTALL "SPLIT AC" BY OTHERS UNLESS NOTED OTHERWISE IN THE BUILDING SPECIFICATION.

6. ALL AC CONDENSATION WASTES TO BE INSTALLED IN WALLS WHERE POSSIBLE, OTHERWISE RUN IN SLAB SELF CONTAINED SMOKE ALARMS MUST BE SUPPLIED, INSTALLED AND MAINTAINED AND SHALL COMPLY WITH A.S. 3786 AND MUST BE CONNECTED TO THE CONSUMERS MAIN POWER. SMOKE DETECTORS SHOWN ON THIS PLAN SPECIFIES THE MINIMUM STANDARDS ONLY. AND WE REFER YOU TO THE PUBLICATION "SMOKE ALARMS SAVES LIVES 1997" FOR RECOMMENDED PROCEDURES AND SPECIFICATIONS.

TERMITE CONTROL

IN ACCORDANCE WITH AS 3601.

THIS STRUCTURE IS TO BE PROTECTED AGAINST TERMITES BY HAVING THE PRIMARY BUILDING ELEMENTS & ANY TIMBER SKIRTINGS, ARCHITRAVES, WINDOW REVEALS & DOOR JAMBS BUILT OF MATERIALS CONSIDERED NOT TO BE SUSCEPTIBLE TO TERMITE ATTACK.

ALL ROOF TIMBERS ARE TO BE PRESERVATIVE TREATED IN ACCORDANCE WITH APPENDIX B OF AS 3601.

2. DURABILITY NOTICES INDICATING THE METHOD OF PROTECTION, THE DATE THE METHOD PROTECTION WAS INSTALLED AND THE SCOPE AND FREQUENCY OF FUTURE INSPECTIONS FOR TERMITE ACTIVITY IS TO BE INSTALLED IN THE METERTOX & PANTRY.

THE RECOMMENDED FREQUENCY OF FUTURE INSPECTIONS TO BE SPECIFIED ON THE NOTICE IS: EVERY 6 MONTHS MINIMUM & THE RECOMMENDED SCOPE IS: INSPECTIONS OF THE PERIMETER OF THE BUILDING AT GROUND LEVEL.

INSPECTIONS OF ALL AREAS OF THE BUILDING AND IMMEDIATE AREA OF THE BUILDING WHICH CAN BE ACCESSED INCLUDING THE ROOF SPACE.

CONCRETE SLAB TO HAVE TERMITE RESISTANT MATERIALS USED TO ALL SLAB PENETRATIONS OR ALL STRUCTURAL TIMBER & TRUSSES TO BE TERMITE RESISTANT GRADE OR BE TREATED FOR TERMITE RESISTANCE (42 INTERNAL, 43 EXTERNAL, 44 HAZARDOUS LEVEL) OR CHEMICAL BARRIER ON OTHERS. NOTE: LIFE EXPECTANCY KEEP GARDEN BEDS MINIMUM OF 1 METRE AWAY FROM ALL EXTERNAL WALLS. ALL PRIMARY BUILDING ELEMENTS (SKIRTING, ARCHITRAVES, JAMBS, ETC) ARE TO BE PROTECTED AGAINST TERMITE INFESTATION IN ACCORDANCE WITH AS 3601.1. OWNER IS TO VISUALLY INSPECT AROUND HOUSE FOR TERMITE ACTIVITY EVERY 12 MONTHS MINIMUM & TAKE PRECAUTIONS IF REQUIRED.

SITE DRAINAGE

GRADE FINISHED GROUND LEVEL TO ENSURE WATER IS DIVERTED AWAY FROM NEIGHBOURING PROPERTIES & TO KERB & CHANNEL OR STORMWATER EASEMENT. IF AVAILABLE, PLATFORM IMMEDIATELY SURROUNDING THE RESIDENCE TO FALL AWAY FROM THE RESIDENCE AT A SLOPE OF 1 : 200. SURFACE DRAINAGE IS TO DISCHARGE EVENLY WITHIN THE SITE & WITHOUT NUISANCE TO ADJOINING PROPERTIES. REFER TO SITE PREPARATION NOTES & COMPLY WITH AS 3788 - GUIDELINES ON EARTHWORKS FOR COMMERCIAL & RESIDENTIAL DEVELOPMENT.

RAINWATER DRAINAGE

RAINFALL INTENSITY OF 282mm/hy - CAIRNS

IN ACCORDANCE WITH PART 3.5.2 OF THE BCA, THE ROOF AREA PER DOWNPIPE IS CALCULATED USING <http://www.roof-gutter-design.com.au/> IN ACCORDANCE WITH AS 2175 & AS 3500.3.

1. SIZE OF UPVC STORMWATER PRELINES TO SUIT DOWNPIPE & HAVING A SMOOTH (NON-PROFILED) INTERNAL BORE WITH A FALL OF 1:100 MM AS PER PART 3.1.2 OF THE BCA & IN ACCORDANCE WITH AS 3600.3.

2. EXTEND STORMWATER LINES TO STORMWATER EASEMENT, KERB & CHANNEL OR STORMWATER PITS & DISPOSE OF AT LEGAL POINT OF DISCHARGE COMPLYING WITH LOCAL AUTHORITY & INSPECTOR STANDARDS.

3. SIZE & LOCATION OF STORMWATER PITS WITH REMOVABLE GRATED LID VERIFIED BY BUILDER & CONTRACTOR ON SITE.

PROVISIONS FOR OVERFLOWS MUST BE MADE FOR DOWNPIPES FURTHER THAN 1200mm FROM VALLEY

PLUMBING NOTES

A. PLUMBER AND DRAINER INSTALLATION TO COMPLY WITH THE PLUMBING AND DRAINAGE ACT 2002 (PDA) AND THE STANDARD PLUMBING AND DRAINAGE REGULATION 2003 (SPDR).

B. INSPECTED PLUMBER TO INSPECT SITE PRIOR TO QUOTATION & CONFIRM ALL EXISTING PLUMBING WITH COUNCIL INSPECTOR. ANY DISCREPANCIES MUST BE REFERRED TO THIS OFFICE FOR AUTHORIZATION PRIOR TO COMMENCING CONSTRUCTION OTHERWISE NO RESPONSIBILITY WILL BE TAKEN BY BALAY.

C. DRAINAGE SHALL BE 100MM DIA UPVC RUN AT MINIMUM GRADE OF 1:80, (1:100) IN U.O.

D. ALL VENT PIPES LOCATIONS TO BE DETERMINED ON SITE BY CONTRACTOR & TERMINATE IN ACCORD WITH AS 3600.2 SECTION 6.4.

E. ALL IN-DOOR CONCRETE TO BE TAKEN TO SURFACE LEVEL AND FITTED WITH APPROVED SCREW CAP.

F. WHERE PVC PIPES PENETRATE OR ARE BUILT INTO WALLS OR SLABS, THE PIPES SHALL BE LAGGED WITH APPROVED MATERIAL IN ACCORDANCE WITH AUSTRALIAN STANDARDS.

G. MAXIMUM DISTANCE OF UNVENTED BRANCH DRAIN IS 10 METRES TO FIXTURES, DRG'S OR DG'S.

H. MATERIALS, DRAINAGE, SOIL, WASTE AND VENT PIPES AND FITTINGS IN PVC CLASS DWG TO AS 1260.

I. ALL WETS TO BE SCREW FITTED TO FLOOR WITH NON-TOXIC AND NON-CORROSIVE METAL SCREWS.

J. ALL DISCHARGE PIPES RECEIVING CONDENSATE WASTE INCLUDING TRAPS SHALL BE INSULATED.

K. ALL PIPES LAID UNDER SLABS TO BE MINIMUM DEPTH OF 400mm TO INVERT LEVEL AND SHALL BE INSULATED.

L. PROVIDE FLOOR WASTES TO ALL WET AREAS.

M. PLUMBING AND DRAINAGE INSTALLATION TO COMPLY WITH THE PLUMBING AND DRAINAGE ACT 2002 (PDA) AND THE STANDARD PLUMBING AND DRAINAGE REGULATION 2003 (SPDR).

N. ALL FLOOR WASTES TO HAVE 100mm DIA RISERS AND REMOVABLE SCREW GRATES.

O. MAX 500Pa WATER PRESSURE. IF GREATER, INSTALL PRESSURE LIMITING DEVICE IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.

4. MANUAL TASKS

Components within this design with a mass in excess of 25kg should be lifted by two or more workers or by mechanical lifting devices. Where this is not practical, supplier or fabricator should be required to limit the component mass. All material packaging, building and maintenance components should clearly show the total mass of packages and where practical all items should be stored on site in a way which minimises bending before lifting. Advice should be provided on safe lifting methods in all areas where heavy work may occur. Contractors, maintenance and demolition of this building will require the use of portable tools and equipment. These should be fully maintained in accordance with manufacturer's specifications and not used where faulty or in (the case of electrical equipment) unless they carry a current electrical safety tag. All safety guards or devices should be regularly checked and Personal Protective Equipment should be used in accordance with manufacturer's specification.

5. HAZARDOUS SUBSTANCES & POWDERED MATERIALS

Many materials used in the construction of this building can cause harm if inhaled in powdered form. Persons working on or in the building during construction, operational maintenance or demolition should ensure good ventilation and wear Personal Protective Equipment including protection against inhalation while using powdered material or when sanding, drilling, cutting or otherwise disturbing or creating powdered material.

TREATED TIMBER

The design of the building includes provision for the inclusion of treated timber within the structure. Dust or fumes from this material can be harmful. Persons working on or in the building during construction, operational maintenance or demolition should ensure good ventilation and wear Personal Protective Equipment including protection against inhalation of harmful material when sanding, drilling, cutting or using treated timber in any way that may cause harmful material to be released. Do not burn treated timber.



FLOOR AREAS	
LOWER:	
INTERNAL	188.11m ²
EXTERNAL UNDERCOVER	50.12m ²
UPPER:	
INTERNAL	242.91m ²
EXTERNAL UNDERCOVER	44.32m ²
GFA TOTAL	525.46m²

Designed by		matt piromalli	02
Issue...	I	Job #... 171749	

APPENDIX: 2



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SITE CLASSIFICATION REPORT GT17-433-001R REV 1 6 WHARF STREET, PORT DOUGLAS QLD 4877

CUSTOMER:	Mackay Resort Developments Pty Ltd	REPORT:	GT17-433-001R Rev.1
POSTAL ADDRESS:	9 Frazer Street Daylesford VIC 3460	DATE:	5 December 2017
INSPECTION DATE:	29 th November 2017	ORDER No:	*
		RPEQ NO:	4449

1. Authorisation and Scope

A site investigation was carried out at 6 Wharf Street, Port Douglas to determine the foundation conditions and classify the site for a proposed residence.

The investigation was requested and authorised by the customer.

The scope of the investigation allowed for augered boreholes to inspect the subsoil profile, with logging of soil types and evaluation of the subsoil density conditions. Allowable bearing values were determined by dynamic cone penetrometer testing to a depth of 1.5m or refusal.

The results of the field tests were to be evaluated, the site classification determined for the foundation, and a report provided to the customer.

2. Site Description

- a. **Vegetation:** The proposed development site was covered by short thick grass, sparse large trees and medium sized scrubs on the southwestern boundary.
- b. **Slope:** The proposed development area is described as sloping 15 to 18 degrees to the northwest.
- c. **Water Table:** At the time of the investigation, groundwater was not encountered in the excavated boreholes. However, it should be noted, that groundwater levels are affected by climatic conditions, tidal fluctuations and by soil permeability, therefore groundwater levels may vary with time.
- d. **Other Significant Features:** open stormwater drain along the eastern boundary.
- e. **Drainage:** The site was assessed as containing good drainage.



SITE CLASSIFICATION REPORT GT17-433-001R REV 1 6 WHARF STREET, PORT DOUGLAS QLD 4877

3. Site Investigation/Testing

Insitu testing was carried out by Dynamic Cone Penetrometer tests at locations P1 to P4 (see site plan and Dynamic Cone Penetrometer Report enclosed) to evaluate the foundation density conditions.

Two (2) boreholes were excavated using a truck mounted drill rig to determine the soil profile and recover disturbed samples for laboratory testing (Marked BH1 and BH2 on the Site Plan).

4. Laboratory Testing

Disturbed material samples were recovered from the boreholes at the allotment and Atterberg Limits testing was performed on a selected sample.

The Atterberg Limits tests indicate the subsoil is slightly reactive to changes in moisture content with an estimated predicted ground surface movement (ys) within Class S category (0mm – 20mm).

5. Bearing Capacity

An allowable bearing capacity of 100kPa was **not achieved** at the site. The assessment of bearing capacity is based on an assumed depth to width ratio equal to at least 1.

It is recommended that inspections be undertaken by a qualified geotechnical engineer to confirm adequate founding material prior to steel placement and concrete pouring.

**SITE CLASSIFICATION REPORT GT17-433-001R REV 1
6 WHARF STREET, PORT DOUGLAS QLD 4877**



Photo of the allotment.



SITE CLASSIFICATION REPORT GT17-433-001R REV 1 6 WHARF STREET, PORT DOUGLAS QLD 4877

Site Classification

Due to the presence of soft soils and the potential for slope instability (landslips) the Site may be classified **CLASS – P** for footings designed in accordance with Australian Standard 2870 “Residential Slabs and Footings – Construction” and advice should be sought from a Qualified Engineer (a professional engineer with academic qualifications in geotechnical or structural engineering who also has extensive experience in the design of footing systems for houses or similar structures).

Note: This classification does not take into consideration the influence of trees (existing and / or future).

Note: This classification is subject to review should any cut earthworks in excess of 0.4m or any filling be carried out.

Note: The Structural Engineer should adhere to the requirements of AS 2870 “Residential Slabs & Footings – Construction” in relation to the founding of footings below the line of influence of an existing feature/excavation (e.g. retaining walls, underground services, effluent pits, unsupported batters, creeks, etc).

Note: RESPONSIBILITIES. (A.S.2870 Supp 1). Footing design and construction involves a number of steps; site classification, selection of the footing system, structural design, construction in accordance with the required design details and construction methods, and proper maintenance. In addition to the builder, this process may involve an engineer, the Building Authority, the owner, and all parties who share responsibility for any failure. In particular, the owner has a responsibility to ensure the site is properly maintained.

NOTE: 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, a Building Services Authority Registered Site Classifier or a Registered Practising Engineer must be notified immediately so that reappraisal of the classification can be made. Attention is drawn to the present or any future owners of their responsibilities for foundation maintenance as detailed in A.S. 2870 (Appendix A) and CSIRO Brochure “Foundation Maintenance and Footing Performance: A Homeowner’s Guide.”

SITE CLASSIFICATION REPORT GT17-433-001R REV 1 6 WHARF STREET, PORT DOUGLAS QLD 4877

A handwritten signature in black ink, appearing to read 'M. Ganza'.

SIGNED: _____
Michael Ganza (RPEQ 4449)
MANAGING DIRECTOR

References:

1. A.S.1726 – Geotechnical Site Investigations
2. A.S. 2870 - 2011 Residential Slabs and Footings - Construction.
3. A.S. 3798 - Guidelines on Earthworks for Commercial and Residential Developments.

Attached:

1. Site Plan
2. Dynamic Cone Penetrometer Results
3. Borehole Log
4. Understanding the Limitations of your Geotechnical Report
5. CSIRO Brochure " Foundation Maintenance and Footing Performance: A Homeowner's Guide".



Legend

 Borehole and DCP Locations



PO Box 587
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TITLE:
SITE CLASSIFICATION
6 WHARF STREET
PORT DOUGLAS

PROJECT NO.:
GT17-433

SCALE:
NTS

DRAWN BY:
CDB

DATE:
5/12/17

OFFICE:
CNS

APPROVED BY:
LJ

CLIENT: MACKAY RESORT DEVELOPMENTS PTY LTD

DRAWING NO.: GT17-433-001 DRW



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DYNAMIC CONE PENETROMETER TEST -- REPORT

A.S. 1289 6.3.2

CUSTOMER	Mackay Resort Developments Pty Ltd 9 Frazer Street Daylesford VIC 3460	REPORT NUMBER	GT17-433-001 DCP
JOB NO	GT17-433	REPORT DATE	05-Dec-17
PROJECT	Site Classification 6 Wharf Street Port Douglas QLD 4877	TEST DATE	29-Nov-17
SAMPLE LOCATION (Refer to Site Plan)		TECHNICIAN	DK
SAMPLE DESCRIPTION (Refer to Borehole Logs)		CUSTOMER ORDER No.	*
		CUSTOMER JOB No.	*

DEPTH (Metres)	*TEST COMMENCED AT 0.0 m BELOW SURFACE LEVEL									
	SITE: P1		SITE: P2		SITE: P3		SITE: P4		SITE:	
	No. Blows	Np	No. Blows	Np	No. Blows	Np	No. Blows	Np	No. Blows	Np
0.0 -- 0.1	2		2		2		3			
0.1 -- 0.2	3		2		2		2			
0.2 -- 0.3	2	7	1	5	1	5	1	6		
0.3 -- 0.4	1		1		1		1			
0.4 -- 0.5	0		1		1		1			
0.5 -- 0.6	1	2	1	3	0	2	1	3		
0.6 -- 0.7	1		0		1		0			
0.7 -- 0.8	0		1		0		1			
0.8 -- 0.9	1	2	0	1	1	2	1	2		
0.9 -- 1.0	1		1		0		1			
1.0 -- 1.1	1		1		0		1			
1.1 -- 1.2	1	3	1	3	0		1	3		
1.2 -- 1.3	2		1		1		1			
1.3 -- 1.4	2		2		1		1			
1.4 -- 1.5	4	8	2	5	1	3	1	3		
1.5 -- 1.6	5		3		1		0			
1.6 -- 1.7	7		3		2		0			
1.7 -- 1.8		12		6		3	1	1		
1.8 -- 1.9										
1.9 -- 2.0										
2.0 -- 2.1										
2.1 -- 2.2										
2.2 -- 2.3										
2.3 -- 2.4										
2.4 -- 2.5										
2.5 -- 2.6										
2.6 -- 2.7										
2.7 -- 2.8										
2.8 -- 2.9										
2.9 -- 3.0										

WATER TABLE: 'Not encountered'

MOISTURE CONDITION:

Moist

(Np) : Penetration Resistance
= blows per 300 mm

Page 1 of 1

SIGNATURE:

SIGNED BY: Leigh Jones
POSITION: Geotechnical Associate
Date: 05-Dec-17

ETS Regional Laboratory: Cairns

Site Investigation Report

Customer: Mackay Resort Developments Pty Ltd
Job Number: GT17-433
Project: Site Classification
Location: 6 Wharf Street, Port Douglas

Report Number: GT17-433-001 LOG
Report Date: 05-Dec-17
Order Number: *

Page 1 of 1

BOREHOLE NO: 1		Consistency	Moisture Condition	Ground Water Level (m)	Sample Type & Depth (m)
Depth (m)	Description of Subsoil				
0.0 - 0.1	TOPSOIL: Sandy SILT (ML): low plasticity, dark brown, fine to coarse grained sand, trace of fine grained gravel, trace of fine roots.	Firm	Moist	Ground Water Not Encountered	
0.1 - 0.6	Clayey SILT (ML): low plasticity, dark brown, trace of fine grained sand.	Very Soft to Soft	Moist		
0.6 - 1.4	Silty CLAY (CL): low plasticity, pale orange-brown, trace of fine to coarse grained angular gravel.	Very Soft to Soft	Moist		Disturbed Material Sample @ 0.6m-0.8m
1.4 - 1.7	Silty CLAY (CL): low plasticity, pale orange-brown, trace of fine to coarse grained angular gravel.	Stiff	Moist		Disturbed Material Sample @ 1.5m-1.7m
BOREHOLE NO: 2		Consistency	Moisture Condition	Ground Water Level (m)	Sample Type & Depth (m)
Depth (m)	Description of Subsoil				
0 - 0.1	TOPSOIL: Sandy SILT (ML): low plasticity, dark brown, fine to coarse grained sand, trace of fine grained gravel, trace of fine roots.	Firm	Moist	Ground Water Not Encountered	
0.1 - 1.4	Clayey SILT (ML): low plasticity, dark brown, trace of fine grained sand, trace of fine grained gravel.	Very Soft to Soft	Moist		Disturbed Material Sample @ 0.6m-0.8m
1.4 - 1.7	Silty CLAY (CL): low plasticity, pale orange-brown, trace of fine to coarse grained angular gravel.	Soft	Moist		Disturbed Material Sample @ 1.5m-1.7m



GEOTECHNICAL & MATERIALS TESTING

UNDERSTAND THE LIMITATIONS OF YOUR GEOTECHNICAL REPORT

This report has been based on project details as provided to us at the time of the commission. It therefore applies only to the site investigated and to a specific set of project requirements as understood by Engineering Testing Services.

If there are changes to the project, you need to advise us in order that the effect of the changes on the report recommendations can be adequately assessed. Engineering Testing Services cannot take responsibility for problems that may occur due to project changes if they are not consulted.

It is important to remember that the subsurface conditions described in the report represent the state of the site at the time of investigation. Natural processes and the activities of man can result in changes to site conditions. For example, ground water levels can change or fill can be placed on a site after the investigation is completed. If there is a possibility that conditions may have changed with time, Engineering Testing Services should be consulted to assess the impact on the recommendations of the report.

The site investigation only identifies the actual subsurface conditions at the location and time when the samples were taken. Geologists and engineers then extrapolate between the investigation points to provide an assumed three-dimensional picture of the site conditions. The report is based on the assumption that the site conditions as identified at the investigation locations are representative of the actual conditions throughout an area. This may not be the case and actual conditions may differ from those inferred to exist. This will not be known until

construction has commenced. Your geotechnical report and the recommendations contained within it can therefore only be regarded as preliminary.

In the event that conditions encountered during construction are different to those described in the report, Engineering Testing Services should be consulted immediately. Nothing can be done to change the actual site conditions which exist but steps can be taken to reduce the impact of unexpected conditions. For this reason, the services of Engineering Testing Services should be retained through the development stage of a project.

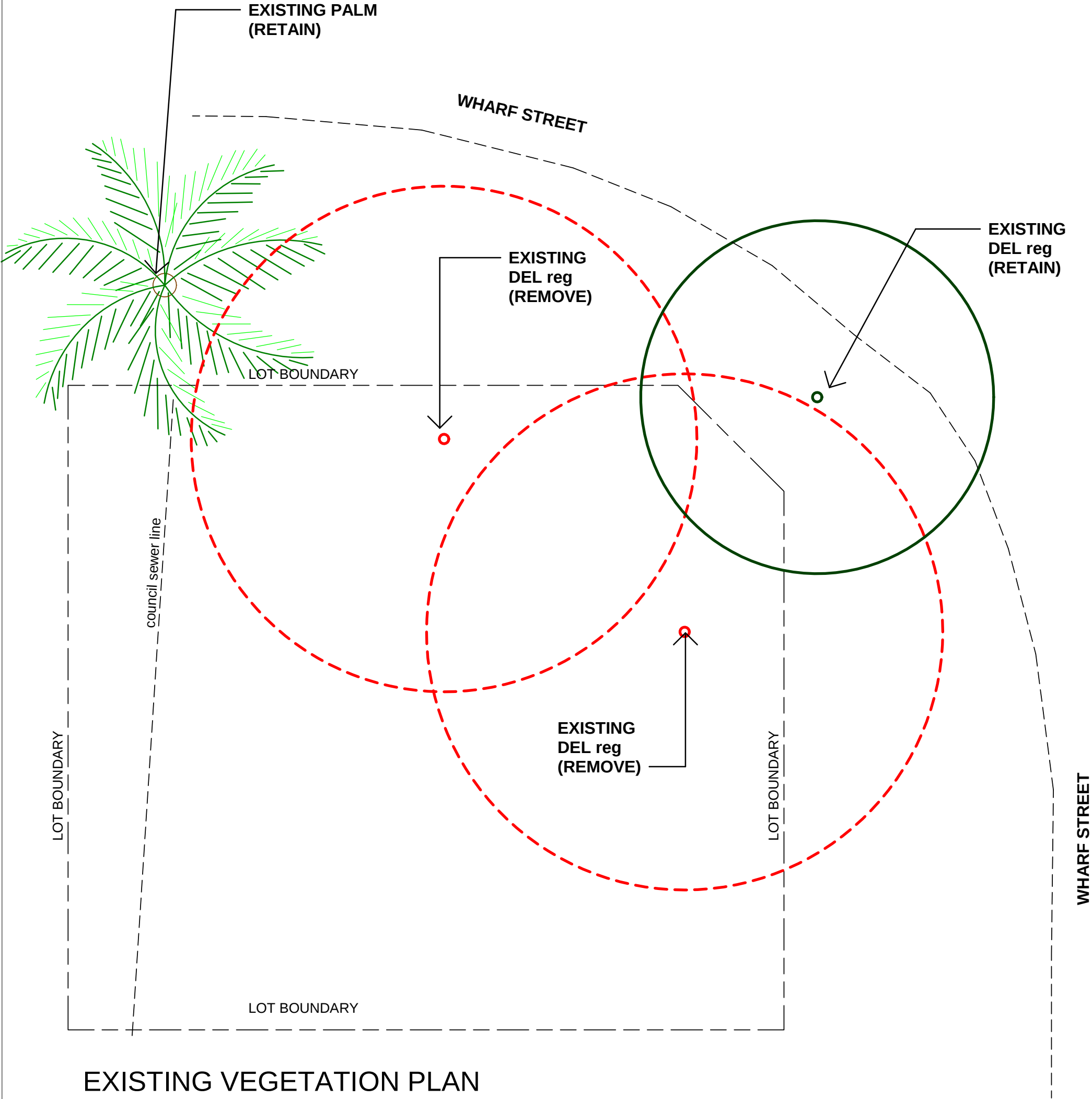
Problems can occur when other design professionals misinterpret a report. To help avoid this, Engineering Testing Services should be retained for work with other design professionals to explain the implications of the report.

This report should be retained as a complete document and should not be copied in part, divided or altered in any way.

It is recommended that Engineering Testing Services is retained during the construction phase to confirm that conditions encountered are consistent with design assumptions. For example, this may involve assessment of bearing capacity for footings, stability of natural slopes or excavations or advice on temporary construction conditions.

This document has been produced to help all parties involve recognise their individual responsibilities.

APPENDIX: 3



EXISTING VEGETATION PLAN

1:150@A3 0 1 2 3 5M

EXISTING VEGETATION – TO BE REMOVED

Code	Botanical Name	Common Name	Nos.	Action
DEL reg	Delonix regia	Poinciana	2	Remove

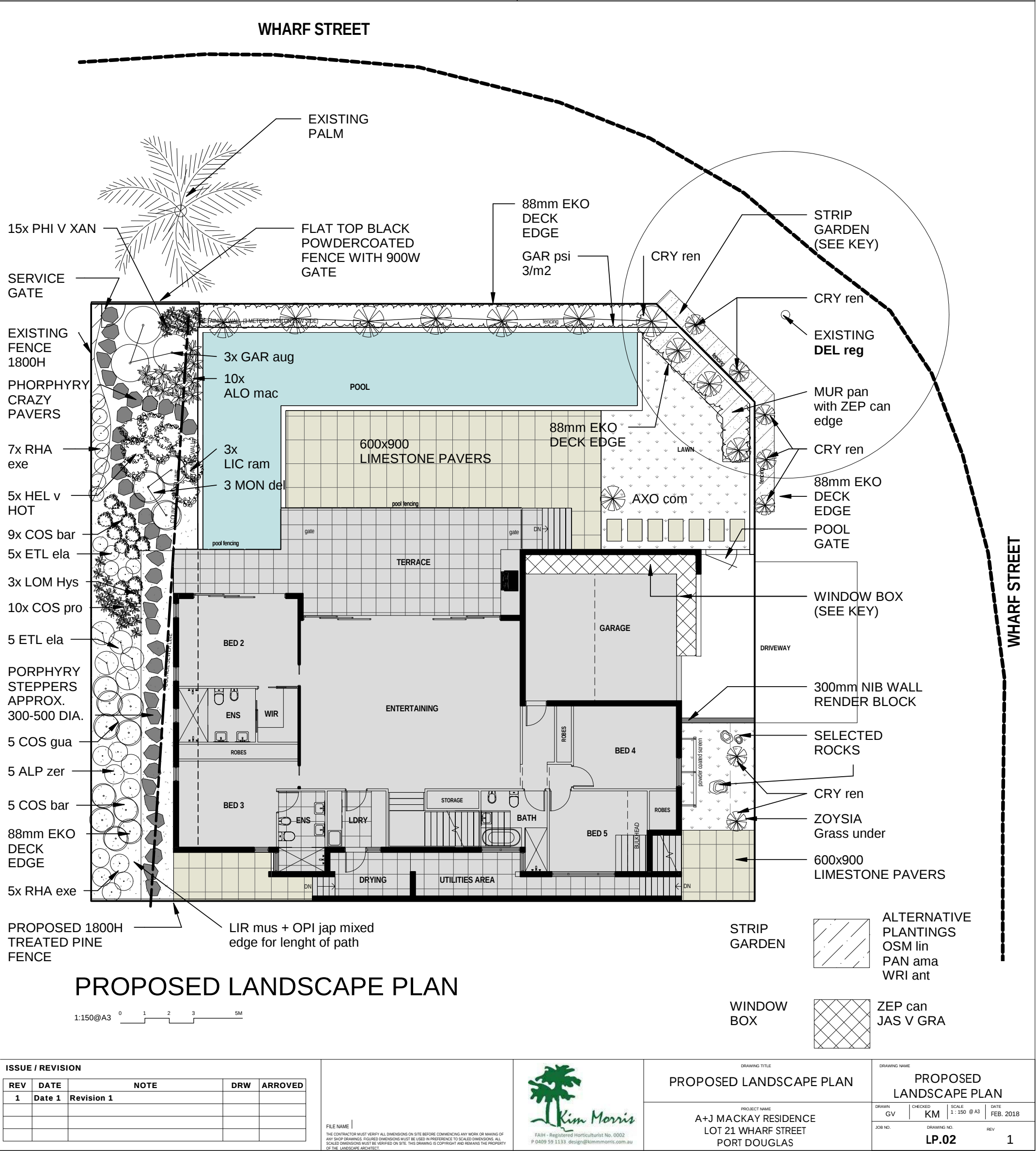
ISSUE / REVISION					DRAWING TITLE		DRAWING NAME			
REV	DATE	NOTE	DRW	APPROVED	EXISTING VEGETATION PLAN		EXISTING VEGETATION PLAN			
					PROJECT NAME		DRAWN	CHECKED	SCALE	DATE
					A+J MACKAY RESIDENCE		GV	KM	1:150 @ A3	FEB. 2018
					LOT 21 WHARF STREET		JOB NO.		DRAWING NO.	REV
					PORT DOUGLAS				LP.01	

FILE NAME |

THE CONTRACTOR MUST VERIFY ALL DIMENSIONS ON SITE BEFORE COMMENCING ANY WORK OR MAKING OF ANY SHOP DRAWINGS. FIGURED DIMENSIONS MUST BE USED IN PREFERENCE TO SCALED DIMENSIONS. ALL SCALED DIMENSIONS MUST BE VERIFIED ON SITE. THIS DRAWING IS COPYRIGHT AND REMAINS THE PROPERTY OF THE LANDSCAPE ARCHITECT.

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Plant Schedule						Plant Schedule					
Code	Botanical Name	Common Name	Cont	Nos	per m2	Code	Botanical Name	Common Name	Cont	Nos	per m2
PALMS						PALMS					
CRY ren	Cryptostachys renda	Lipstick Palm	45-100L	16		PAN ama	Pandanus amaraefolius	Edibe Dwarf Pandanus	140mm	10	
LIC ram	Licuala ramsayi	Cairns Fan Palm	45L	3		PHI V XAN	Philodendron spp 'Xanadu'	Philodendron 'Xanadu' Dwarf	140mm	15	
RHA exc	Raphis excelsus	Raphis Palm	300mm	12		WRI ant	Wrightia antidysenterica '	Wrightia 'Arctic Snow'	200mm	10	
SHRUBS/GINGERS/HELICONIA						ZEP can	Zephyranthes candida	White storm Lily	140mm	200	10/m2
ALO mac	Alocasia machrohiza	Elephant Ears	200mm	10		CLIMBERS/RAMBLERS					
ALP zer	Alpinia zerumbet	White ginger	200mm	5		JAS V GRA	Jasminum spp	Jasmine 'Grand Duke of Tuscany'	140mm	10	
COS bar	Costus barbadus	Spiral Costus	140mm	9		TURF					
COS pro	Costus productus	Red Dwarf Costus	140mm	10		AXO com	Axonopus compressus	Broad Leaf Grass	Strips	45m2	
COS gua	Costus guanaensis	Buddah Costus	140mm	5		ZOY mat	Zoysia matrella	Zoysia Grass	Strips	20m2	
ETL ela	Etlingera elatior cv 'White Torch'	Torch Ginger White	200mm	10		ORNAMENTAL GRASSES					
GAR aug	Gardenia augusta 'Ocean Pearl'	Gardenia 'Ocean Pearl'	200mm	3		LIR mus	Liriope muscari	Lily Turf	140mm	100	
GAR psi	Gardenia psidioides	Gardenia 'Glennie River'	140mm	50	3/m2	LOM hys	Lomandra hystrix	Matt River Grass	140mm	3	
HEL v HOT	Heliconia spp	Heliconia 'Hot Rio Nights'	200mm	5		OPI jap	Ophiopogon japonicus	Mondo grass	140mm	60	
MUR pan	Murraya paniculata dwf	Murraya 'Min-a-Min'	140mm	8							
OSM lin	Osmoxolyon linare	Thai Dancer	140mm	15							



EXCAVATION - All building rubble and other unsuitable material including weeds to be removed from areas to be turfed, paved, new garden and other landscape areas.

PORPHYRY STEPPERS Crazy slabs set as single steppers within a garden edge of Ekodecking and infilled with 20mm river stone no higher than the finished level of the porphyry slab and in an excavation no deeper than the slab.
Odd shaped steppers should be placed according to the average adult walking pace.
Each slab should be level and set in place with brickies loam

POOL PAVING SURROUNDS AND DRIVEWAY– These are 600 x 900 x 40mm Limestone pavers.
Require a prepared level surface that has been levelled and compacted,
A concrete slab is recommended as an underlay for stability.
Pavers are abutted and fixed to the slab.
Rounded or bull nosed edges at pool may be required as coping.
Pavers should be sealed with a patent sealer recommended for this product by the supplier.

GARDEN EDGING – Garden edging is Ekodeck recycled timber/plastic strips 88mm wide x 23mm x 5.4m long .Colour is charcoal.
Decking edges are to be straight.
Any joins should be square
The line of the strip decking should be level where possible.
The decking should be fixed with 30cm hardwood timber pegs on the garden side of the strip and fixed with galvanised screws.

GARDEN BED PREPARATION –. Cultivate all planting areas to a depth of 200mm after excavation and later, add 100mm garden mix.

PLANTER BOX - The upper level planter to have drainage arrangement inspected.
Application of a waterproof membrane (x three applications between coats).
Install Elmich 30mm drainage deck to the base and sides of the planter.
Cover with 50% woven shade cloth (do not use geotextile).
Apply 200mm thick layer washed 10/20mm Quinkan scoria.
Cover with 50%woven shade cloth.
Fill with potting mix (do not use garden mix).
Apply, adjust or install irrigation as required.
Install plants as per plan.

GARDEN MIX - Garden mix shall be spread to a minimum of 200mm to all shrub beds. Garden mix shall consist of an industry standard mix that incorporates sand, local mill mud or loam, crushed peanut shell or pine bark fines. It must be free of weed seeds and, nut grass.

The garden and top soils will have a median pH of approximately 5.0-7.0

All imported topsoil shall be free from materials toxic to plant growth, noxious weeds, stones, roots and other extraneous material. All soil deliveries should be inspected before dumping on site.

TURF -. Install Zoysia matrella to the upper front site (left of garage entry) as noted on plan.

Ground should be flat with a layer of 10-15mm crusher dust for levelling prior to laying. Rolling is not essential in this garden. Water this lawn for 15 minutes each day for two weeks

Axonopus compressus (Broadleaf grass) is noted for the area adjacent to the pool and pool fences.

Ground should be level. Apply 10-15mm crusher dust and level prior to planting.
Lay ready rolled turf.

Roll with a water roller after without creating compaction.
Water the lawn twice per day for 15minutes, for two weeks

STONE – Where noted stone mulches as ground or garden covers are 10-20mm Riverstone to be applied at 75mm.

ROCKS where specified will vary in size depending on portability. Ideally rock size from approximately 500mm to 1 metre or more depending on manoeuvrability.

PLANT SUPPLY – All plants to be supplied to be the species and container sizes specified unless otherwise approved.
They are to be well formed, hardened off nursery stock. They are to be container grown in potting mixture with a healthy root system, fully established but not pot bound. All pots to be supplied free of weeds and pests. Ex ground palms to have a minimum root ball in relation to their height. Check with Project Manager beforehand.
Installation with the use of fabric slings and well prepare planting holes that are wet soil.

PLANTING – Excavate a hole for each plant twice the diameter of root ball and minimum 100mm deeper than root ball. Sides and bottom of hole to be broken up with Gypsum added at a rate of 300gms per m2 prior to backfilling with garden mix. Placement of plants to be centre of hole and plumb with root ball level with finished surface of soil or garden bed. Lightly tamp and water thoroughly to eliminate air pockets. Ensure that topsoil is placed over top of root ball.

FERTILISER / SOIL CONDITIONING – For turf: 'Terra Cotten' soil conditioner or approved equivalent - Application rate: 200g/m2 to depth of 200mm. For planting: 'Agiform' fertiliser tablets or approved equivalent - Application rate: 1 per 140mm pot / 2 per 200mmm pot / 8 per 45lt bag / 12 per 200lt bag / 25 per ex ground palm. Avoid any fertilisers on transplanted ex ground stock.

TRANSPLANTING – Use liberal applications of Seasol Seaweed conditioner when replanting ex ground stock. Initial applications and at 10-day intervals for three weeks to assist in minimising transplant shock and reestablishment of feeder roots.

MULCH - Teatree mulch or equivalent shall be spread to a minimum depth of 100mm over all garden beds.

IRRIGATION - The irrigation system will be capable of watering all the new landscape areas a shown on the Landscape drawings. Care is to be taken to avoid any overspray onto paving. No low-density pipe is to be used up stream of the solenoid valves. 12mm dripper lines to be installed downstream of the solenoid valve and where noted on the irrigation plan. The irrigation system will conform to all relevant local authority regulations including the provision of the necessary backflow prevention devices. The irrigation system will include a filter guaranteed by the manufacturer to function effectively within these site conditions. The contractor will liaise with the designer and supplier to establish an as built irrigation drawing showing the location of all the valves, sprinklers, controllers and associated equipment.

Irrigation of turf will be required daily at least once morning and evening at a length of approximately 15 Minutes

ISSUE / REVISION		 FAIH - Registered Horticulturist No. 0002 P 0409 59 1133 design@kimmmorris.com.au	DRAWING TITLE	DRAWING NAME LANDSCAPE SPECIFICATION			
			PROJECT NAME A+J MACKAY RESIDENCE LOT 21 WHARF STREET	DRAWN	CHECKED KM	SCALE @ A3	DATE Designer
				JOB NO.		DRAWING NO. LP.03	REV