

27.10.2020

Our Ref: 34807-002-01 Your Ref: MCUC 2020/3524/1

The Chief Executive Officer Douglas Shire Council PO Box 723 MOSSMAN QLD 4873

Attn: Planning Approvals Team – D. Lamond

Dear Daniel,

Information Request Response Development Application for Material Change of Use – Retirement Village 111-119 Port Douglas Road, Port Douglas – Lot 3 on RP729991

We act on behalf of the applicant, Port Pacific Developments in relation to the abovementioned Development Application which is currently before Douglas Shire Council for assessment.

Reference is made to the Information Request issued by Council, dated 24 April 2020 and received by email on the same day.

In accordance with section 13 of the *Development Assessment Rules*, we provide this written response to Council's Information Request. This correspondence constitutes a complete response to Council's Information Request.

With respect to the matters raised in the Information Request, we advise as follows:

Drainage Study of Site

- 1. Undertake a local drainage study of the site to determine the drainage impacts on upstream and downstream properties and the mitigation measures required to minimise such impacts. In particular, the study must address the following:
 - a. The contributing catchment boundaries;

b. The extent of the 1% AEP (100 year ARI) flood event in relation to the site both pre- and post-development. Note: the operation of the adjacent open drains needs to be considered in addressing this point;

c. Primary and secondary flow paths for the 5, 10 and 100 year ARI flood events. Note: advice on the flows discharging from the adjoining site to the south via its internal road system and the open drain along the common boundary must be considered in providing a response to this item. Cross sections showing the pre and post development drain profile must be included; *d.* Identify any requirement for drainage easements through the site or adjoining land to discharge runoff to a lawful point of discharge;

e. Confirm any current discharge agreement with the downstream land owner(s) if no current easements exist at the proposed stormwater outlet point(s);

f. Identify the need and tenure for flood detention areas to ensure a noworsening impact on downstream properties for the entire development;

g. Information on the proposed works and any impacts proposed at the drainage outlet from the proposed development. Capacity of receiving drainage paths must be considered in addressing this point and additional survey or suitable level data must be provided;

h. Provision of existing and proposed level information and plans that demonstrate that the earthworks and filling proposed will not create ponding nuisances and/or a concentration of stormwater flows to adjoining properties;

i. Confirm the location of the stormwater quality improvement device(s) prior to discharge of site runoff;

h. Lawful point of discharge.

The drainage study is to be certified by an appropriately qualified and experienced engineer (RPEO certified) and must comply, in all regards, with the requirements of the Oueensland Urban Drainage Manual (OUDM) and Council's development manual (FNOROC).

Response

Refer to Engineering response within *Attachment A*, prepared by Civil Walker Consulting Engineers.

Sewerage

2. An internal gravity system to a private pump station is not opposed. The connection point into Council's system will need further discussion and agreement with Council. The 300mm diameter main on the opposite side of Port Douglas Road is understood to be a pressure main and Council would not propose connection into this main. Council seeks to minimise the complexity of pumping scenarios and would be looking for an alternative point of connection.

Provide an alternative connection to Councils reticulated sewerage network. As part of your design process, please contact Council's Water and Waste Department to work through options.

Response

Refer to Engineering response within *Attachment A*, prepared by Civil Walker Consulting Engineers.

Earthworks

3. Provide further detail on the proposed filling at the western edge of the allotment. In particular; batter profiles, fill heights and interface with existing ground and allotment profiles. Batter profiles must give consideration to long term stability with geotechnical advice to accompany the detail.

Response

Refer to Engineering response within *Attachment A*, prepared by Civil Walker Consulting Engineers.

4. Clarify how the filling of Lot 11 will be undertaken noting the survey identifies a headwall on the northern boundary at the approximate halfway point. The drain outlet levels indicate that greater than 1.5m level difference will result between the drain invert and the nominated development fill levels at this point.

Response

The area of Site 11 is now utilised as a detention basin. Refer to Engineering response within *Attachment A*, prepared by Civil Walker Consulting Engineers.

5. Provide information on the existing and proposed levels along the western boundary (extending a minimum of 20m into the adjoining site) to demonstrate that the earthworks and filling proposed will not create ponding nuisances and/or a concentration of stormwater flows to adjoining properties;

Response

Refer to Engineering response within *Attachment A*, prepared by Civil Walker Consulting Engineers.

Local Planning Instrument Codes

6. Address the relevant codes from the 2018 Douglas Shire Planning Scheme and provide a response to the benchmarks as listed.

Response

Code responses are included within Attachment B.

SDAP Code

7. Address State Code 1: Development in a state-controlled road environment of the State Development Assessment Provisions (SDAP) and provide a response to the benchmarks as listed.

Response

Response to SDAP - State Code 1 is included within Attachment C.

Site Plan

- 8. Provide further information with amendments to the site plan detailing:
 - a. The location of the driveway for the first two houses at the frontage of the site.



b. The orientation and/ or configuration of the second house does not appear to include a garage with practical vehicle access. Detail a practical solution.

c. For practical servicing, the central facilities building is likely to need car parking spaces adjacent to it and in close proximity to it. Provide detail of practical car parking spaces that could support this.

d. Car parking spaces 10, 11, 12 and 13 do not appear to be able to have a vehicle practically access them. Provide amendments to accommodate this.

Response

The revised site has is included with *Attachment D*. The amendments to the site plan include:

- House sites 39 & 40 now depict vehicle accesses;
- An additional four (4) parking spaces have been provided within proximity of the central facilities building;
- Parallel parking spaces 10-13 are accessible and will be designed and constructed in accordance with AS2890.
- House site 11 has been removed to accommodate the detention basin.

On-Street Works

9. Confirm via a detailed plan drawn to an appropriate scale that the on-street works, including the access driveway and a two (2) metre wide footpath can be accommodated while retaining the tram station in its current location.

Response

Refer to Engineering response within *Attachment A*, prepared by Civil Walker Consulting Engineers.

Refuse Servicing

10. Demonstrate how the development will be serviced for rubbish collection. Give details of central bin storage areas if proposed and provide swept path diagrams for rubbish truck entry and egress from the site.

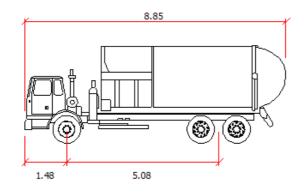
Response

The applicant proposes to enter a commercial agreement with Council to allow kerbside collection within the development. The internal driveway has designed to accommodate circulation by Council waste collection vehicles as depicted in Figure 1 below.

The operator of the facility will provide Council a letter of indemnity for refuse collection within private property.







Vegetation Covenant

11. Detail the intention of the vegetation covenant on the site plan. The covenant appears to be over the existing vegetation and mound adjoining the Reef Resort. Detail who the intended regulatory authority will be to enforce the covenant. Provide details of the proposed covenant documentation. Note that every second allotment on the southern side boundary has the covenant within their title, update the site plan to include allotments on this boundary if that is the intention.

Response

The intention of covenant is to retain vegetation of the southern boundary of the site within house sites 16-25 to ensure amenity and privacy is retained to the subject dwellings. The covenants will be a private agreement between the holders of the house sites and the operator of the facility.

Supporting Documents

Please see enclosed the following attachments to assist with Council's assessment of the application:

Attachment A:	Engineering Response – Civil Walker
Attachment B:	Code Response to 2018 Douglas Shire Planning Scheme
Attachment C:	Code Response – SDAP Code 1: Development in a state-controlled
	road environment
Attachment D:	Design Plan – 8 Pencils

We trust the enclosed information provided is to your satisfaction and look forward to your continued attention to this matter. In the meantime, should you have any further queries in relation to the information response please do not hesitate to contact the undersigned.

Yours Sincerely,

MICHAEL TESSARO Senior Planner Brazier Motti Pty Ltd

Attachment A



Ref: 188-002-002L

23 October 2020

Development Assessment Douglas Shire Council 64 – 66 Front Street Mossman Qld 4879

Attention: Daniel Lamond

Port Pacific Developments 111 - 119 Port Douglas Road, Port Douglas MCU 2020 3524/1

We refer to Council's information request for the abovementioned development dated 24 April 2020 and respond to Items 1, 2 and 3 as detailed below.

Item 1 - Drainage Study of Site

The below commentary relates to results of a drainage study undertaken for the site. The sub-sections with "Item 1" directly respond to each of the items identified (1a through 1h) within Council's information request.

Contributing Catchment Boundaries

Reference is made to drawing 188-002-SK10 which identifies the adopted existing contributing catchment characteristics from the exiting site in the pre-development scenario. We have conservatively allowed for the entire site area to contribute to the proposed outlet location. It is noted that a portion of the site on the northern boundary falls northward to The Oaks resort car park and a portion of the site on the southern boundary falls southward into the adjacent properties open drainage channel.

Drawing 188-002-SK11 identifies the site catchment changes due to the development, also identifying the additional section of road that will drain to the site.

100 Year ARI Event

The pre-development 100-year flood event was calculated adopting the rational method in accordance with the procedures nominated within Section 4 of the 4th Edition of QUDM (Queensland Urban Drainage Manual). Referencing drawing 188-002-SK10, the catchment contributing to the proposed outlet is 17,449m². Calculation of Q100 flow from the catchment is as follows:

- fraction impervious adopted at 0.18 (refer drawing 188-002-SK10 for details)
- I hour 10-year intensity for Port Douglas = 81.16mm/hr (refer FNQROC IFD Chart 18)
- C₁₀ co-efficient of runoff = 0.74 (refer QUDM Table 4.5.3)
- Frequency factor = 1.20 (refer QUDM Table 4.5.2)
- Therefore, $C_{100} = 1.20 \times 0.74 = 0.89$
- Time of Concentration = 26 minutes (based on overland flow at 3.6m fall over 235m; average grassed – Figure 2.4 QUDM), adopt 25 minutes.
- 25-minute 100-year intensity = 176.15mm/hr (refer FNQROC IFD Chart 18)
- Adopting the rational method in accordance with Section 4.3 of QUDM,

Q = 0.89 x 176.15 x 1.7449 / 360 = 0.760m³/s



The post-development 100-year flood event was also calculated adopting the rational method in accordance with the procedures nominated within Section 4 of QUDM. Referencing drawing 188-002-SK11, the catchment contributing to the proposed outlet is 17,555m². Calculation of Q100 flow from the catchment is as follows:

- fraction impervious adopted at 0.67 (refer drawing 188-002-SK10 for details)
- 1 hour 10-year intensity for Port Douglas = 81.16mm/hr (refer FNQROC IFD Chart 18)
- C₁₀ co-efficient of runoff = 0.84 (refer QUDM Table 4.5.3)
- Frequency factor = 1.20 (refer QUDM Table 4.5.2)
- Therefore, C₁₀₀ = 1.20 x 0.84 = 1.00 (= 1.01, but cannot have more than 100% runoff)
- Time of Concentration = 15 minutes (adopting QUDM recommended standard inlet time for urban residential areas where average slope of catchment is up to 3%)
- 15-minute 100-year intensity = 220.51mm/hr (refer FNQROC IFD Chart 18)
- Adopting the rational method in accordance with Section 4.3 of QUDM,

Q = 1.00 x 220.51 x 1.7555 / 360 = 1.075m³/s

Based on the above calculations, there is a 0.315m³/s increase in run-off from the site as a result of the development.

The information request required that operation of the adjacent open drains needs to be considered in this point:

- There is an existing open drainage channel within the adjacent site to the south. The development will not impact on this drain. Existing site levels within the proposed covenant will remain as per existing with the balance of the allotments (Lots 16 to 25) grading to the proposed new road. This is discussed in more detail further in this commentary.
- There is an existing drainage line on the northern boundary (The Oaks) that outlets to the west. The allotments adjacent to this boundary (Lots 1 to 10) will fall toward the proposed new road. This will reduce flows within the neighbouring drainage line because the proposal will result in the existing portion of the site that currently drains toward The Oaks being diverted back into the site. This is discussed in more detail further in this commentary.
- There is an existing drainage channel located on the western boundary (existing Mirage Country Club). This drain currently receives the overland flow from the existing site. This arrangement will be maintained however, a detention device will be provided to reduce post-development flows to pre-development flows such that there is no actionable nuisance on the adjacent property. This is discussed in more detail further in this commentary.

Primary and Secondary Flow Paths

Primary and secondary flow paths for the 5, 10 and 100-year ARI events are all identical and are identified on drawing 188-002-SK11.

As requested by the information request, calculations for each of the 5, 10 and 100-year flood events are provided below. It is noted that the fraction impervious factor, C_{10} co-efficient of run-off and time of concentration remain unchanged from the calculations provided above and therefore the repeated documentation of these items has been excluded.

5-year ARI Event

- Frequency factor = 0.95 (refer QUDM Table 4.5.2)
- Therefore, $C_5 = 0.95 \times 0.85 = 0.81$



- 15-minute 5-year intensity = 138.92mm/hr (refer FNQROC IFD Chart 18)
- Adopting the rational method in accordance with Section 4.3 of QUDM,

Q = 0.81 x 138.92 x 1.7555 / 360 = 0.549m³/s

10-year ARI Event

- Frequency factor = 1.00 (refer QUDM Table 4.5.2)
- Therefore, C₅ = 1.00 x 0.85 = 0.85
- 15-minute 10-year intensity = 153.34mm/hr (refer FNQROC IFD Chart 18)
- Adopting the rational method in accordance with Section 4.3 of QUDM,

Q = 0.85 x 153.34 x 1.7555 / 360 = 0.636m³/s

100-year ARI Event

 $Q = 1.075 m^3/s$ as per previous calculations

The information request requires that advice on flows discharging from the adjoining site (to the south) via its internal road system and open drain along the common boundary must be considered in providing a response to this item. As noted in the subsection above, the proposed development will not impact on this drain. Existing site levels within the proposed covenant will remain as per existing with the balance of the allotments (Lots 16 to 25) grading to the proposed new road. The proposed development will not result in any additional catchment being directed to the drain.

Drainage Easements

Drainage easements within the proposed development are not required. All proposed drainage flow paths, detention and water quality devices are located within common property areas. Drainage easements in adjoining properties are also not required because discharge is directed to a lawful point of discharge (refer later sub-section in this commentary).

Current Discharge Agreement

The information request requires confirmation of any existing discharge agreement with the downstream landowner(s) if no current easements exist at the proposed stormwater outlet point. The proposed stormwater outlet point is not subject to a landowner agreement or an easement, however this is not relevant because the outlet represents a lawful point of discharge (refer later section in this commentary).

Stormwater Detention

Consideration of post- and pre-development flows has been undertaken to assess requirements so that there is no increase in stormwater run-off from the site due to the proposed development. Reduction of post-development flows is proposed to be undertaken by introducing a detention basin within the development in the north-western corner.

Preliminary sizing of the volume required to limit peak discharge from the development to predevelopment levels has been undertaken in accordance with QUDM by calculating the effective reduction in the site's "initial loss" capabilities. The initial sizing method has been adopted and is based on the assumption that the detention basin's storage volume effectively compensates for the decrease in initial loss component, while the basin's low-flow discharge system compensates for the decrease in the "continuing loss rate". QUDM considers that such an assumption is considered appropriate for the initial sizing of detention basins.

QUDM also notes that in the absence of a local government policy, it is recommended that the "predevelopment condition" is taken as the site condition that existed 15 years prior to the proposed development. The reason for this is that if the land has existed in a specific condition for at least 15



years, then downstream lands and waterways have probably adjusted their function and use to the catchment condition. It is understood that the existing infrastructure on the site was present prior to 2005, with the building structure, pool, tennis court and pathways all present at that time. Reference is made to the **Figure 1** below which identifies these items within an aerial image downloaded from Queensland Globe dated 2004.

It is therefore considered reasonable to adopt the existing pre-development catchment condition as the pre-development condition for the purpose of detention calculations.



Figure 1 – Qld Globe Image from 2004

QUDM provides recommendations for values of initial loss to be used in the preliminary sizing of detention basins. Pre- and post-development initial loss potentials were determined from assessment of Table 5.6.1 of QUDM. The pool, tennis court and building structure were considered to be "impervious surfaces" and the remainder of the site to be "short grass". Therefore, an initial loss potential for the pre-development condition has been adopted by adopting appropriate values within Table 5.6.1 of QUDM as detailed below for a clay type soil:

Initial Loss (Pre) = $\left[\frac{(1,945m^2 + 1,022m^2) \times 2mm}{17,449m^2} + \frac{(14,482m^2 \times 20mm)}{17,449m^2} = 16.9mm\right]$

The developed site will be of residential type land use which will be characterised by dwelling roofs, paved roads, footpaths, driveways and landscaped / lawn areas. A fraction impervious value of 0.75 has been selected from QUDM Table 4.5.1, which is typical for this type of development. There will also be a portion of additional catchment represented by the new entrance road external to the site (106m²) and the portion of existing open space, building and pool that will remain. These areas have been allocated fraction impervious values as identified on drawing 188-002-SK11 in accordance with QUDM. The initial loss has therefore been calculated as follows, adopting the same assumed soil type for the balance of area not considered "impervious" as for the pre-development scenario for consistency:

Initial Loss (Post) = $[(1,022m^2 + 272m^2 + (14,016m^2 \times 0.75)] \times 2mm) + [(14,016m^2 \times 0.25) + 2,245m^2] \times 20mm)$ 17,555m²

= 7.9mm



The preliminary calculated detention storage volume for the development is therefore 158m³. With a 300mm freeboard applied to this storage volume, the detention basin volume would be represented by a depth of 953mm over the proposed detention basin area of 242m².

As is typical for this type of development, detailed design of the detention basin using an appropriate run-off routing model will be undertaken during the operational works phase.

Proposed Works and Impacts at Drainage Outlet

Works proposed at the drainage outlet are restricted to work within the subject site. There are no proposed works within adjacent properties.

Level Information

Reference is made to drawing 188-002-SK04, which provides preliminary design levels for the development. A preliminary road grading has also been prepared which is shown on drawings 188-002-SK07 and SK08.

On the southern boundary, levels will be maintained as existing including for the width of the proposed covenant area. The preliminary road grading has been designed such that a minimum of 0.5% fall from the covenant boundary to the road is achieved for each of the lots (Lots 16 to 25).

On the northern boundary, levels will be maintained as existing. As for the southern boundary, the preliminary road grading has been designed such that a minimum of 0.5% fall from across Lots 1 to 10 is achieved.

On the western boundary, levels will be maintained as existing. The covenant area and preliminary road grading have been designed such that a minimum of 0.5% fall is achieved across Lots 12 to 15 toward the road from the covenant boundary. The covenant area along the western boundary will be represented by a batter that varies in slope from 1 in 4.5 to 1 in 3.5.

The above has been designed whilst maintaining appropriate crossfall over the proposed road verge / pavement and a minimum road longitudinal grade of 0.5%.

Confirm Location of Stormwater Quality Improvement Device

Water quality interception devices are required to achieve removal of the following contaminants:

- 90% Gross Pollutants;
- 80% Total Suspended Solids;
- 60% Phosphorus; and
- 40% Nitrogen (value of Nitrogen reduction to be confirmed with Council during detailed design typically 40% is difficult to achieve).

Devices to achieve removal of contaminants for the proposed development will include combination of a gross pollutant trap and a bio-retention basin (ie bio-retention elements added to the proposed detention basin). The gross pollutant trap will be a proprietary product that will remove the gross pollutant and suspended solids component of contaminants. The bio-retention component of the basin will remove the phosphorous and nitrogen contaminants. The bio-retention component typically involves specification of appropriate sands and plant species. A typical bio-retention basin is shown in **Figures 2 and 3**. Note that the cross-sectional detail shows an incorporated retaining wall. Detailed design will determine if a wall is necessary, however it is not expected to be required.

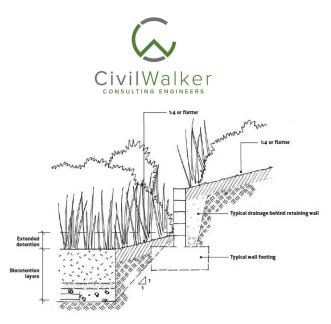


Figure 2 – Typical Bio-Retention Basin Detail incorporating a Retaining Wall

Figure 3 – Typical Bio-Retention Basin (note this example is considerably larger than will be required for the subject development)

The gross pollutant trap will be installed in the north western corner of the site on the proposed driveway adjacent to the proposed detention basin. The driveway will facilitate access for maintenance of both devices.

Lawful Point of Discharge

Changes to stormwater overland flows that can give rise to issues with a "lawful point of discharge" can be characterised by diversion of stormwater, concentration of stormwater flows or changes in other flow characteristics. QUDM notes that a project involving stormwater drainage is likely to give rise to a number of these issues. QUDM notes:

- in some instances, it may be considered necessary to divert stormwater run-off from a given sub-catchment to a different point of discharge from which it would naturally flow. It further notes that in such instances, the outlet structure is likely to play an important role in dissipating energy, preventing scour, limiting sedimentation and controlling water quality.
- where surface flow is diverted or collected by drainage works and results in an increase in the flow at a particular point, the flow may be said to be concentrated at that location.
- Adverse impacts on other properties may also result from changes in peak discharge and/or frequency, duration, velocity, volume or quality of regular flows.



Section 3.9.1 of QUDM provides the criteria for determining if a lawful point if discharge exists. The first point in the test is as follows:

Will the proposed development alter the site's stormwater discharge characteristics in a manner that may substantially damage a third-party property?

QUDM notes that if the above is achieved, then a lawful point of discharge is achieved.

It is noted within the Common Law principles identified in QUDM that a downstream owner is responsible for receiving overland stormwater drainage flows from an upstream property. Because the upstream property owner chooses to undertake development on its land, this does not absolve the downstream property owner's responsibility to receive stormwater. However, the upstream property owner is responsible for not discharging stormwater onto the downstream property owner's property after development such that it causes an actionable nuisance.

The following is noted regarding stormwater discharge from the proposed development:

- The proposed outlet of stormwater will be across the western property boundary where it will continue into the existing drain located adjacent to that boundary
- The proposed outlet of stormwater from the developed site will be such that the peak discharge and velocity is no greater at the outlet point than what currently exists at that point from the pre-developed site condition (detention basin will achieves this)
- The proposed outlet of stormwater from the developed site will meet statutory requirements with regard to water quality (bio-retention component of the detention basin and gross pollutant trap will achieve this)

In considering the first point test for a lawful point of discharge (noted above in italics), the proposed development will not alter the stormwater discharge characteristics in a manner that may substantially damage a third party property and therefore, it is considered that the outlet represents a lawful point of discharge.

Item 2 - Sewerage

The RFI notes the proposed connection into Council's system will need further discussion and agreement with Council. It further notes that the 300mm diameter main is understood to be a pressure main and Council would not propose connection into this main.

We confirm that the existing 300mm diameter sewer main is a pressure main.

We contacted Council on 30 September 2020 to discuss the proposed sewer connection point and received a return phone call from Mr Jason Wilke. Mr Wilke confirmed that the only Council sewer main in the vicinity of the development is the 300mm diameter sewer pressure main located on the eastern side of Port Douglas Road (the main that connection is proposed into). Mr Wilke also confirmed that he considered the proposed connection into the main would be acceptable because there was no other reasonable connection point to Council's existing system and that it was similar in nature to the existing connection from the adjacent Oaks resort site.

The proposed connection arrangement was discussed with Mr Wilke and it was agreed that this would be undertaken using a standard pressure main connection arrangement of a direct tee-connection with an isolation valve installed on the new incoming pressure main.



Item 3- Earthworks

Further Detail on Proposed Filling

Further detail has been provided on the filling at the western edge of the allotment (ie western boundary) as required by the information request. Reference is made to drawing 188-002-SK04 and the "Level Information" section above, which provide the required detail regarding batter profiles, cut / fill heights, interface with existing ground and allotment profiles.

The information request specifically requests that long term stability is considered for the batter profiles and that geotechnical advice should accompany the response. It is noted that the batter profiles range from 1 in 3.5 to 1 in 4.5 along the western boundary. FNQROC (Section D2.11 Part 8) requires that, on private land, batters should preferably be no steeper than 1 in 2 on allotments where those batters do not front a road (1 in 4 where batters do front a road). The 1 in 3.5 and 1 in 4.5 profiles meet this FNQROC requirement and therefore long-term stability is considered to have been appropriately considered. It is noted that FNQROC only requires geotechnical certification of batters that are steeper than 1 in 2 or higher than 1.5m (refer Section D2.11 Part 9). Therefore, specific geotechnical advice is this instance is not deemed warranted.

It is noted that all earthwork will be undertaken in accordance with FNQROC specifications and the requirements of AS3798 "Guidelines on Earthworks for Commercial and Residential Developments".

Filling of Lot 11

Lot 11 is no longer proposed to be delivered. It will be contributed to common property to accommodate the proposed detention basin.

Information on Existing and Proposed Levels Western Boundary

Provision of existing level information for 20m into the adjacent property on the western boundary to demonstrate filling will not create ponding nuisances and/or concentration of stormwater flows has been requested by Council. Figure 4 shows an image with LIDAR contours that have been downloaded from the ANZLIC Committee on Surveying and Mapping website (<u>https://elevation.fsdf.org.au/</u>). The contours demonstrate that the existing surface continues to fall away from the western site boundary. It is therefore considered the works will not cause ponding nuisances or concentration of stormwater flows.



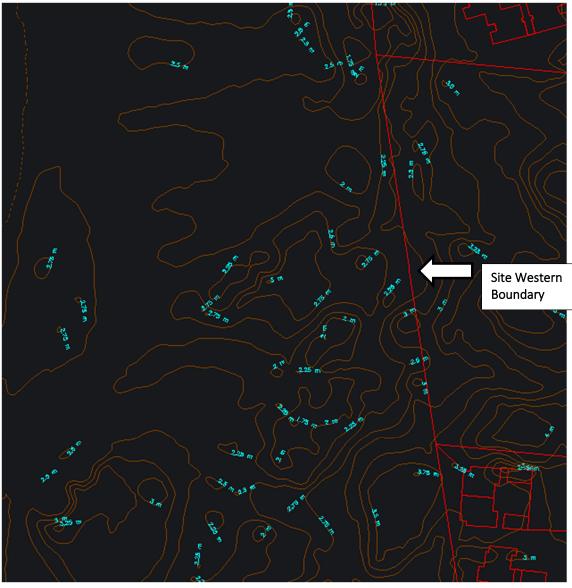


Figure 4 – LIDAR Contours Beyond Western Site Boundary

Yours faithfully CivilWalker Consulting Engineers

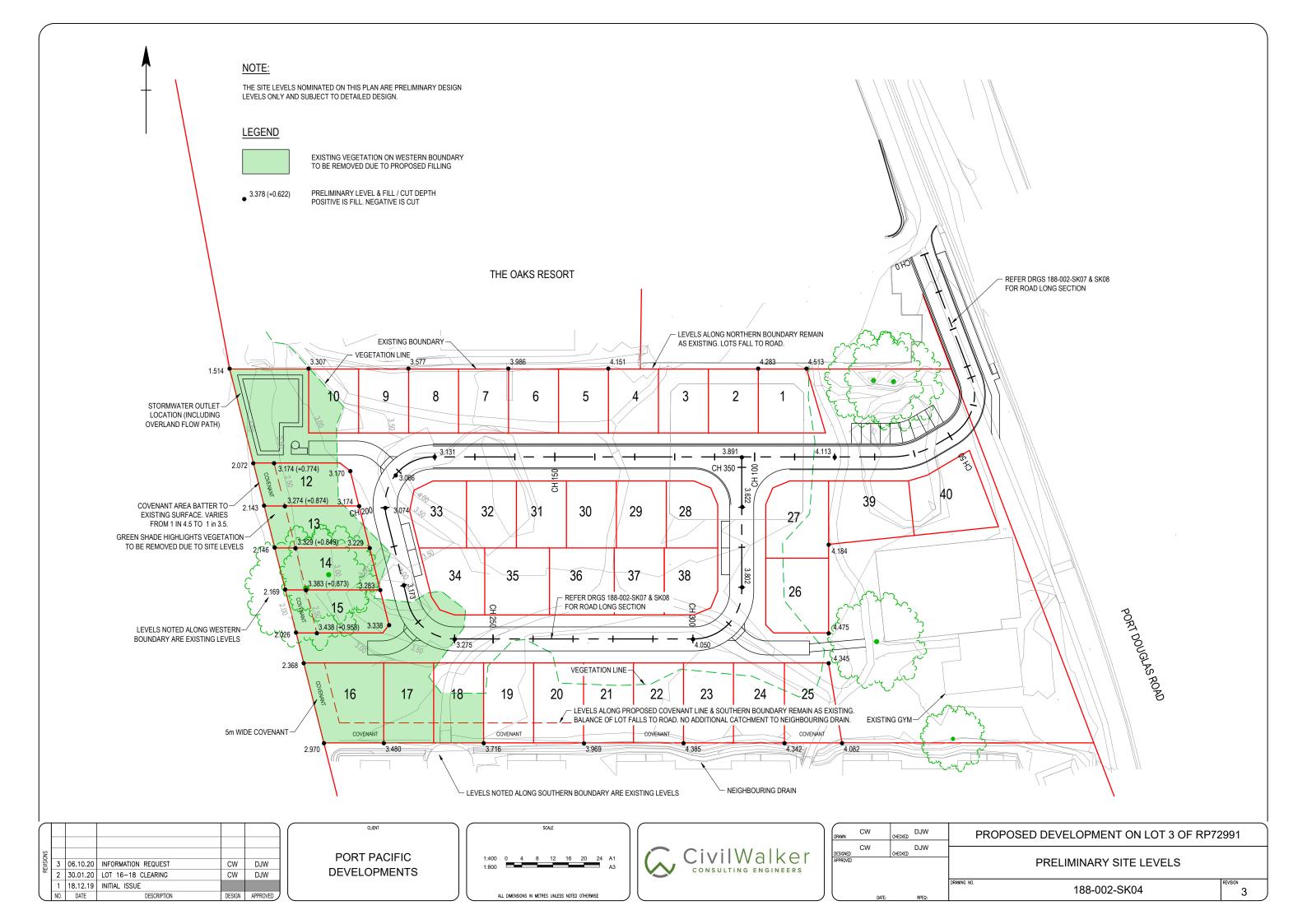
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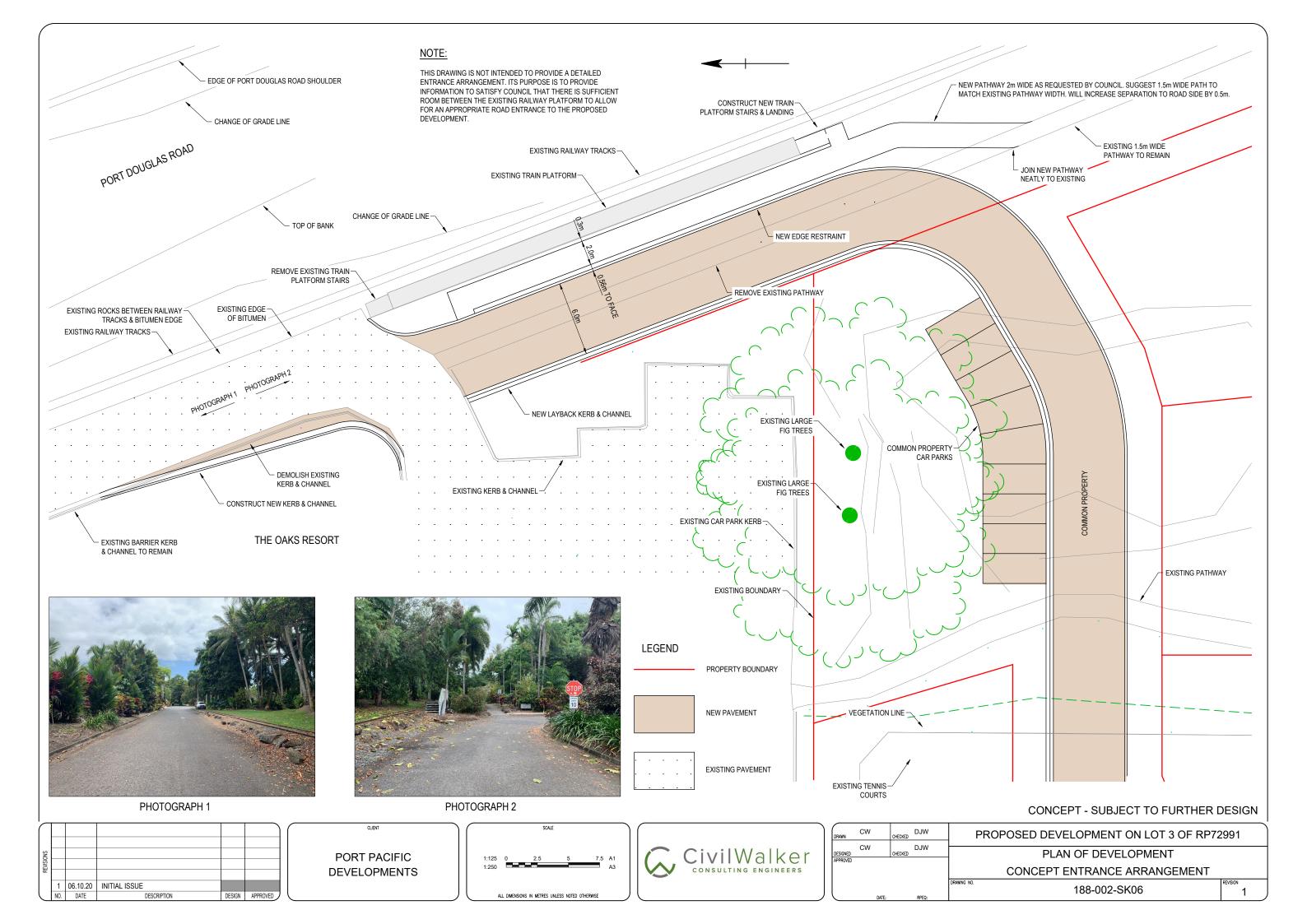
Daryl Walker BE(Hons) ME DipPM MIEAust RPEQ 19806 RPEng 1259 Director / Principal Engineer

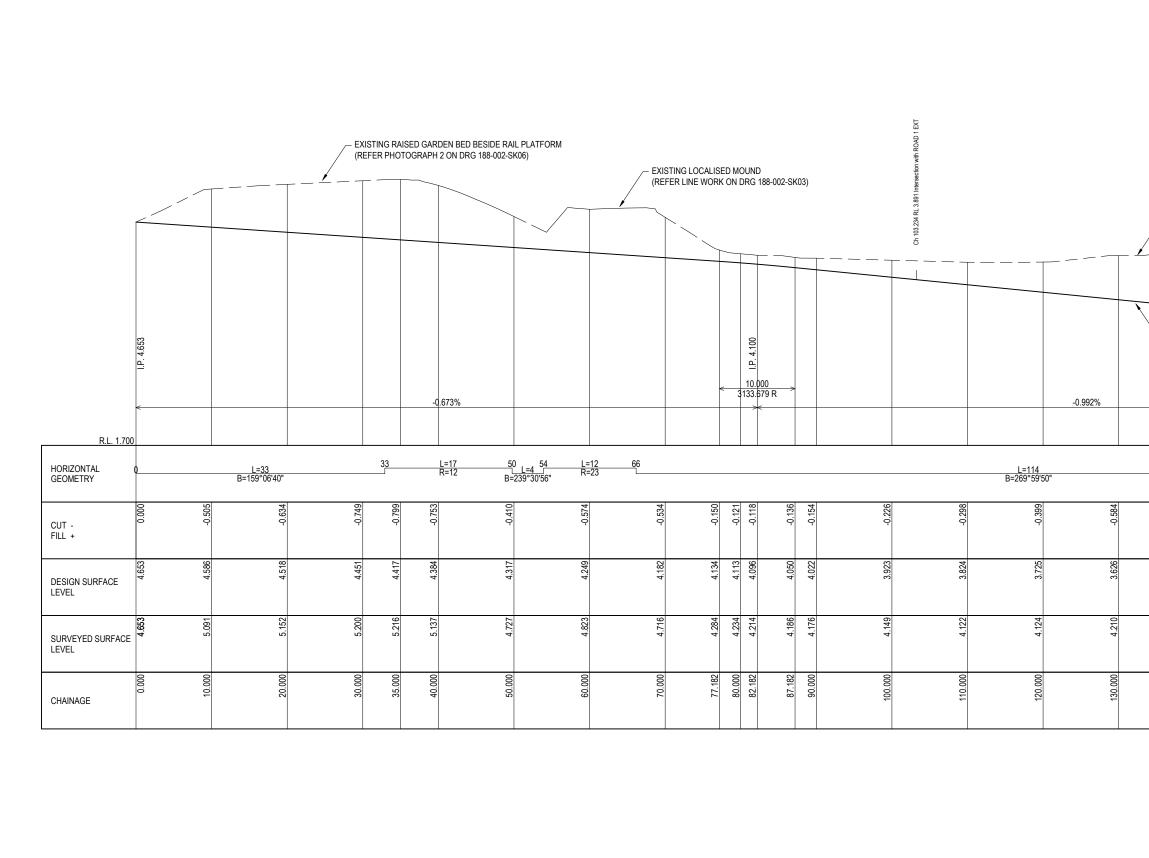
Enc. Drawings 188-002-SK03, SK04, SK06 – SK08, SK10 and SK11

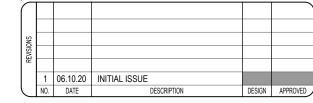


ATFORM	
RAILWAY	
ATHWAY TO NG	
NG Å	
EXISTING RAILWAY	
EXISTING POOL	
ROPOSED DEVELOPMENT ON LOT 3 OF RP72	2991
PLAN OF DEVELOPMENT LOTS 1-38 & COMMON PROPERTY	
188-002-SK03	REVISION 8



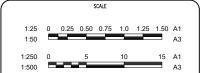






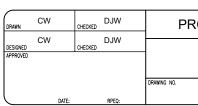


CLIENT



ALL DIMENSIONS IN METRES UNLESS NOTED OTHERWISE





ROPOSED DEVELOPMENT ON LOT 3 OF RP72991				
CONCEPT ROAD LONGITUDINAL SECTION				
SHEET 1 OF 2				
188-002-SK07	REVISION 1			

(RE	EXISTING L FER LINE WORK ON	OCALISED MOUND - DRG 188-002-SK03)	$\overline{)}$
- SURVE	YED SURFACE		
	—	/	
	IINARY DESIGN SUR	FACE	
-0.702	-0.847	-1.045	-1.211
3.526	3.427	3.328	3.229
4.228	4.274	4.373	4.440
140.000	150.000	160.000	170.000

	<	25,000 1664,543 R			0.510%		<	20.000 1406.231 F	2	1.931%	<	800 F d 10.000 294.065 R	<u>}</u>
R.L. 1.500 HORIZONTAL GEOMETRY	L=114 B=269°59'50" 1&0	L=22 R=12	<u>2</u> 02	L=22 B=165°52'10"	224 L=16 R=12	L=10 240 B=90°00'00"			L= B=90°	50		<u> </u>	
CUT - FILL +	-1.211 -0.937 -0.877	-0.851 -0.766 -0.285	-0.022 -0.058	-0.158 -0.850	-0.736	-0.295	-0.133	-0.710 -0.670	-0.595	-0.504	-0.409	-0.378 -0.381 -0.390	-0.244
DESIGN SURFACE LEVEL	3.229 3.148 3.131	3.073 3.071 3.066	3.074	3.122	3.224	3.275	3.479 3.348	3.389 3.434	3.516 3.592	3.703	3.996	4.050 4.050 4.051	4.019
SURVEYED SURFACE LEVEL	4.440 4.085 4.008	3.924 3.837 3.351	3.096 3.146	3.280	3.960	3.570	3.479 3.709	4.099	4.111	4.207	4.405	4.428 4.431 4.441	4.263
CHAINAGE	170.000 178.164 180.000	190.000 190.664 194.676	200.000 203.164	210.000 220.000	230.000	240.000	254.241	260.000 264.241	270.000 274.241	280.000	295.186	300.000 300.186 300.366	305.186

- EXISTING LOCALISED MOUND (REFER LINE WORK ON DRG 188-002-SK03)

194.676 RL

Sag Ch

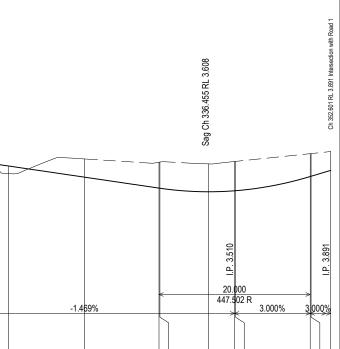
EXISTING LOCALISED MOUND ~ (REFER LINE WORK ON DRG 188-002-SK03)

- SURVEYED SURFACE

PRELIMINARY DESIGN SURFACE

PROPOSED DEVELOPMENT ON LOT 3 OF RP72	2991
CONCEPT ROAD LONGITUDINAL SECTION	
SHEET 2 OF 2	
188-002-SK08	REVISION 1

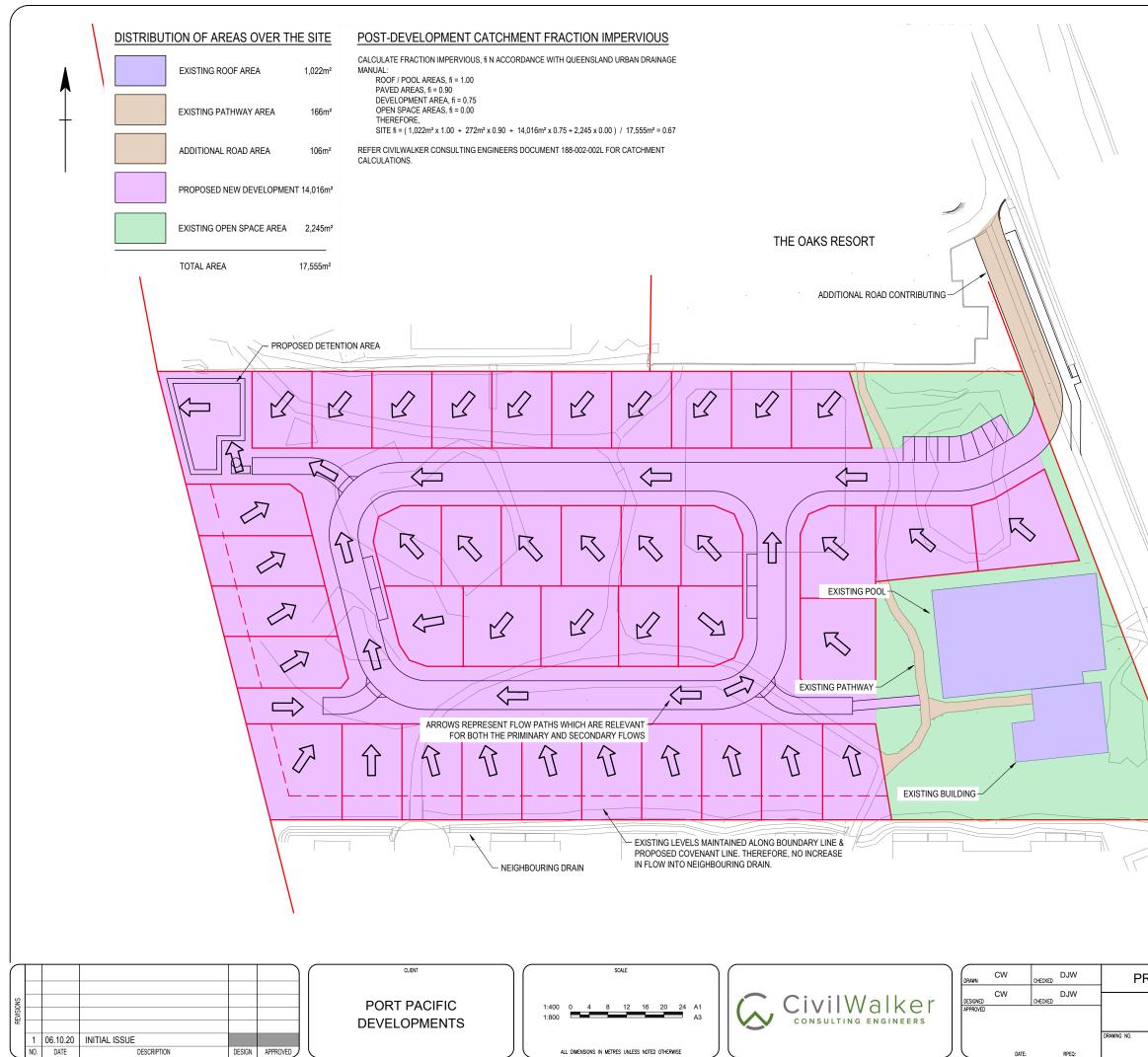
				20,000			I.P. 3.
	-1.4	69%	<u></u>	20.000 447.502 F	^ع 3.000% ع	000	2%
<u>L=1</u> R=1	1 <u>9 31</u> 9 12		L=34 B=359°5	4 9'50"			<u>3</u> 53
0.100	-0.241	-0.345 -0.346	-0.369	-0.387 -0.388	-0.302	-0.300	-0.249
3.949	3.802	3.656 3.656	3.608	3.621 3.622	3.810	3.813	3.891
3.849	4.043	3.999 4.001	3.977	4.008 4.010	4.112		4.140
310.000	320.000	329.880 329.880	336.455	339.880 340.000	349.880	350.000	352.601





ROPOSED DEVELOPMENT ON LOT 3 OF RP72	2991
STORMWATER DRAINAGE CATCHMENT	
PRE-DEVELOPMENT SCENARIO	
188-002-SK10	REVISION 1

PORT DOUGLAS ROAD



FORTDOUGLASROAD	
ROPOSED DEVELOPMENT ON LOT 3 OF RP72	2991
STORMWATER DRAINAGE CATCHMENT	
POST-DEVELOPMENT SCENARIO 188-002-SK11	REVISION 1

Attachment B

Medium density residential zone code

Performance outcomes	Acceptable outcomes	Applicant response
For self-assessable and asses	sable development	
PO1 The height of all buildings and structures must be in keeping with the residential character of the area.	AO1 Buildings and structures are not more than 13.5 metres and 3 storeys in height. Note – Height is inclusive of roof height.	A01 – Complies. Buildings do not exceed a height or 3 storeys.
Setbacks (other than for a dwe	-	
PO2 Buildings are setback to: (a) maintain the character of residential neighbourhoods; achieve separation from neighbouring buildings and from road frontages; maintain a cohesive streetscape; provide daylight access, privacy and appropriate landscaping.	 AO2 Buildings are setback: (b) a minimum of 6 metres from the main street frontage; a minimum of 4 metres from any secondary street frontage; 4.5 metres from a rear boundary; 2 metres from a side or an average of half of the height of the building at the side setback, whichever is the greater. 	AO2 – Complies, buildings are setback in accordance with the AO.
Site coverage		
PO3 The site coverage of all buildings does not result in a built form that is bulky or visually obtrusive.	AO3 The site coverage of any building is limited to 50%	AO3 – Complies. Site coverage of dwellings and central facilities does not exceed 35%.
Building proportions and scale house)	e (other than for a dwelling	
PO4 The proportions and scale of any development are in character with the area and local streetscape.	AO4.1 The overall length of a building does not exceed 30 metres and the overall length of any continuous wall does not exceed 15 metres. AO4.2 Balconies, patios and similar spaces are not enclosed or capable of being enclosed and used as a habitable room.	PO4 – Complies. The proportion and scale of the central facility is in character with the locality.
	AO4.3 Balconies, patios and similar spaces are designed to be open and light weight in appearance with a maximum of 20% of the façade being fully enclosed.	

Performance outcomes	Acceptable outcomes	Applicant response
	AO4.4 Roof forms, materials and colours of buildings enhance the amenity of the street and locality, including: (a) the roof of buildings are light coloured and non- reflecting; (b) white and shining metallic finishes are avoided on external surfaces in prominent view. Note – The building incorporates building design features and architectural elements detailed in Planning scheme policy SC6.2 – Building design and architectural elements.	
Landscaping (other than for a	dwelling house)	
P05 Landscape planting is provided for the recreational amenity of residents/guests and incorporates dominant tropical vegetation which enhances the streetscape and the amenity of the area.	 AO5.1 A minimum of 35% of the site is provided as open space and recreation area with a minimum of 30% of this total area provided for landscape planting. AO5.2 Within the frontage setback area, a minimum width of 2 metres of landscape area includes a minimum 75% dense planting. AO5.3 Within the side and rear setback areas, a minimum 75% dense planting. 	PO5 – Complies. Landscaping within the central facility and common areas will provide green relief and enhances the streetscape and amenity of the area.
For assessable development		
PO6 The establishment of uses is consistent with the outcomes sought for the Medium density residential zone and protects the zone from the intrusion of inconsistent uses.	AO6 Uses identified in Error! Reference source not found. are not established in the Medium density residential zone.	AO6 – Complies. The establishment of a retirement facility is consistent with the purpose of the zone.
P07 Development is located, designed, operated and managed to respond to the natural characteristics, features and constraints of the site and surrounds.	A07 No acceptable outcomes are prescribed.	PO7 Complies. The development takes into consideration the constraints on the site being access and drainage.

Performance outcomes	Acceptable outcomes	Applicant response
Note – Planning scheme policy – Site assessments provides guidance on identifying the characteristics and features and constraints of a site and its surrounds.		
PO8 Development does not adversely affect the residential character and amenity of the area in terms of traffic, noise, dust, odour, lighting or other physical or environmental impacts.	AO8 No acceptable outcomes are prescribed.	PO8 - The establishment of a retirement facility is consistent with the purpose of the zone. The scale of the facility does not impact on the residential character of the locality.
PO9 New lots contain a minimum area of 1000m ² .	AO9 No acceptable outcomes are prescribed.	PO9-PO11 – Complies. No new lots are created.
PO10 New lots have a minimum road frontage of 20 metres.	AO10 No acceptable outcomes are prescribed.	
PO11 New lots contain a 20 metre x 25 metre rectangle.	AO11 No acceptable outcomes are prescribed.	

Port Douglas/Craiglie local plan code

Performance outcomes	Acceptable outcomes	Applicant response
For self assessable and asses	sable development	
Development in the Port Doug generally	las / Craiglie local plan area	
PO1 Pedestrians, cyclists, motorists and public transport users can easily move into and through the precinct along planned connectivity routes, identified on the Port Douglas / Craiglie local plan maps contained in Schedule 2.	AO1 A pedestrian and cycle movement network is integrated and delivered through development.	AO1 – Complies. Existing pedestrian and cycle network will be retained with the Port Douglas Road frontage.
PO2 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 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).	 AO2.1 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: (c) the tree covered backdrop of Flagstaff Hill; natural vegetation along watercourses, in particular the Mowbray River, Beor Creek and Dickson Inlet; the tidal vegetation along the foreshore; beachfront vegetation along Four Mile Beach, including the fringe of Coconut Palms; the oil palm avenues along the major roads; the lush landscaping within major roundabouts at key nodes; Macrossan Street and Warner Street; Port Douglas waterfront. AO2.2 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: (d) Flagstaff Hill; Four Mile Beach; Across to the ranges over Dickson Inlet; Mowbray Valley. 	PO2 – Complies. Vegetation will be retained within the frontage of the site. Landscaping within the road reserve will not be impacted as a result of the proposal.

Performance outcomes	Acceptable outcomes	Applicant response
	AO2.3 Important landmarks, memorials and monuments are retained.	
PO3 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.	AO3 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.	Not applicable
PO4 Landscaping of development sites complements the existing tropical character of Port Douglas and Craiglie.	AO4 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.	PO4 – Complies. Landscaping within the central facility and common areas provides green relief and enhances the streetscape and amenity of the area.
PO5 Development does not compromise the safety and efficiency of the State- controlled road network.	AO5 Direct access is not provided to a State-controlled road where legal and practical access from another road is available.	AO5 – Complies. The site will continue to utilise the existing service road off the State-controlled road.

Acid sulphate soils overlay code

Performance outcomes	Acceptable outcomes	Applicant response
For assessable development		
PO1 The extent and location of potential or actual acid sulfate soils is accurately identified.	 AO1.1 No excavation or filling occurs on the site. or AO1.2 An acid sulfate soils investigation is undertaken. Note - Planning scheme policy SC 6.12–Potential and actual acid sulfate soils provides guidance on preparing an acid sulfate soils investigation. 	PO1 – Complies. The proposed development will require filling of the site to achieve flood immunity. Disturbance of potential acid sulphate soils will be addressed in the subsequent application for Operational Works. The proposed development can be conditioned appropriately to achieve compliance with the Acid Sulphate Soils Overlay Code.
PO2 Development avoids disturbing potential acid sulfate soils or actual acid sulfate soils, or is managed to avoid or minimise the release of acid and metal contaminants.	 AO2.1 The disturbance of potential acid sulfate soils or actual acid sulfate soils is avoided by: (a) not excavating, or otherwise removing, soil or sediment identified as containing potential or actual acid sulfate soils; (b) not permanently or temporarily extracting groundwater that results in the aeration of previously saturated acid sulfate soils; (c) not undertaking filling that results in: (i) actual acid sulfate soils (ii) previously saturated acid sulfate soils being moved below the water table; (ii) previously saturated. Or 	Refer to comment above
	The disturbance of potential acid sulfate soils or actual acid sulfate soils is undertaken in accordance with an acid sulfate soils management plan and avoids the release of metal contaminants by:	

Performance outcomes	Acceptable outcomes	Applicant response
	 (a) neutralising existing acidity and preventing the generation of acid and metal contaminants; (b) preventing the release of surface or groundwater flows containing acid and metal contaminants into the environment; (c) preventing the in situ oxidisation of potential acid sulfate soils and actual acid sulfate soils through ground water level management; (d) appropriately treating acid sulfate soils before disposal occurs on or off site; (e) documenting strategies and reporting requirements in an acid sulfate soils environmental management plan. 	
PO3 No environmental harm is caused as a result of exposure to potential acid sulfate soils or actual acid sulfate soils.	AO3 No acceptable outcomes are prescribed.	Refer to comment above

Flood and storm tide hazard overlay code

Performance outcomes	Acceptable outcomes	Applicant response
For assessable and self asses		
PO1 Development is located and designed to: ensure the safety of all persons; minimise damage to the development and contents of buildings; provide suitable amenity; minimise disruption to residents, recovery time, and rebuilding or restoration costs after inundation events. Note – For assessable development within the flood plain assessment sub- category, a flood study by a suitably qualified professional is required to identify compliance with the intent of the acceptable outcome.	 AO1.1 Development is sited on parts of the land that is not within the Flood and Storm tide hazards overlay maps contained in Schedule 2; or For dwelling houses, AO1.2 Development within the Flood and Storm Tide hazards overlay maps (excluding the Flood plain assessment sub- category) is designed to provide immunity to the Defined Inundation Event as outlined within Error! Reference source not found. plus a freeboard of 300mm. AO1.3 New buildings are: (e) not located within the overlay area; located on the highest part of the site to minimise entrance of flood waters; provided with clear and direct pedestrian and vehicle evacuation routes off the site. AO1.4 In non urban areas, buildings and infrastructure are set back 50 metres from natural riparian corridors to maintain their natural function of reducing velocity of floodwaters. 	AO1.2- Complies. Future structures will be designed to achieve the required immunity to the defined inundation event. Refer to engineering reports prepared by Civil Walker Consulting Engineers for further detail.
For assessable development		
PO2 The development is compatible with the level of risk associated with the natural hazard.	AO2 The following uses are not located in land inundated by the Defined Flood Event (DFE) / Storm tide: (f) Retirement facility; Community care facility; Child care centre.	PO2 – Complies. Only the western portion of the site is identified on Council's overlay mapping. Future structures will be designed to achieve the required immunity to the defined inundation event.

Performance outcomes	Acceptable outcomes	Applicant response
PO3 Development siting and layout responds to flooding potential and maintains personal safety	For Material change of use AO3.1 New buildings are: (g) not located within the overlay area; located on the highest part of the site to minimise entrance of flood waters; provided with clear and direct pedestrian and vehicle evacuation routes off the site.	AO3.2 – Complies. Future structures will be designed to achieve the required immunity to the defined inundation event.
	or	
	AO3.2 The development incorporates an area on site that is at least 300mm above the highest known flood inundation level with sufficient space to accommodate the likely population of the development safely for a relatively short time until flash flooding subsides or people can be evacuated.	
	or	
	AO3.3 Where involving an extension to an existing dwelling house that is situated below DFE /Storm tide, the maximum size of the extension does not exceed 70m ² gross floor area.	
	Note – If part of the site is outside the Hazard Overlay area, this is the preferred location of all buildings.	
	For Reconfiguring a lot AO3.4 Additional lots: (h) are not located in the hazard overlay area; or	
	are demonstrated to be above the flood level identified for the site.	
	Note - If part of the site is outside the Hazard Overlay area, this is the preferred location for all lots (excluding park or other open space and recreation lots).	
	Note – Buildings subsequently developed on the lots will need to	

Performance outcomes	Acceptable outcomes	Applicant response
	comply with the relevant building assessment provisions under the <i>Building Act 1975</i> .	
	 AO3.5 Road and/or pathway layout ensures residents are not physically isolated from adjacent flood free urban areas and provides a safe and clear evacuation route path: (i) by locating entry points into the reconfiguration above the flood level and avoiding culs-de-sac or other non-permeable layouts; and by direct and simple routes to main carriageways. 	
	AO3.6 Signage is provided on site (regardless of whether the land is in public or private ownership) indicating the position and path of all safe evacuation routes off the site and if the site contains, or is within 100m of a floodable waterway, hazard warning signage and depth indicators are also provided at key hazard points, such as at floodway crossings or entrances to low-lying reserves.	
	or	
	AO3.7 There is no intensification of residential uses within the flood affected areas on land situated below the DFE/Storm tide.	
	For Material change of use (Residential uses) A03.1 The design and layout of buildings used for residential purposes minimise risk from flooding by providing: (j) parking and other low intensive, non-habitable uses at ground level;	PO3 – Complies. Future structures will be designed to achieve the required immunity to the defined inundation event.
	Note - The high-set 'Queenslander' style house is a resilient low-density housing solution in floodplain areas.	

Performance outcomes	Acceptable outcomes	Applicant response
	Higher density residential development should ensure only non-habitable rooms (e.g. garages, laundries) are located on the ground floor.	
PO4 Development is resilient to flood events by ensuring design and built form account for the potential risks of flooding.	For Material change of use (Non-residential uses) AO4.2 Non residential buildings and structures allow for the flow through of flood waters on the ground floor. Note - Businesses should ensure that they have the necessary contingency plans in place to account for the potential need to relocate property prior to a flood event (e.g. allow enough time to transfer stock to the upstairs level of a building or off site). Note - The relevant building assessment provisions under the <i>Building Act 1975</i> apply to all building work within the Hazard Area and need to take into account the flood potential within the area. AO4.3 Materials are stored on-site: (k) are those that are readily able to be moved in a flood event; where capable of creating a safety hazard by being shifted by flood waters, are contained in order to minimise movement in times of flood.	Not applicable
	 Notes - (a) Businesses should ensure that they have the necessary contingency plans in place to account for the potential need to relocate property prior to a flood event (e.g. allow enough time to transfer stock to the upstairs level of a building or off site). (b) Queensland Government Fact Sheet 'Repairing your House after a Flood' provides information about water resilient products and building techniques. 	
P05 Development directly, indirectly and cumulatively avoids any increase in water flow velocity or flood level and does not increase the potential flood damage either on site or on other properties.	For Operational works A05.1 Works in urban areas associated with the proposed development do not involve: (I) any physical alteration to a watercourse or floodway including vegetation clearing; or	AO5.1 & AO5.3 – Complies. Refer to engineering reports/response prepared by Civil Walker Consulting Engineers.

Performance outcomes	Acceptable outcomes	Applicant response
Note – Berms and mounds are considered to be an undesirable built form outcome and are not supported.	a net increase in filling (including berms and mounds).	
	 AO5.2 Works (including buildings and earthworks) in non urban areas either: (m) do not involve a net increase in filling greater than 50m³; or do not result in any reductions of on-site flood storage capacity and contain within the subject site any changes to depth/duration/velocity of flood waters; 	
	or	
	do not change flood characteristics outside the subject site in ways that result in: (i) loss of flood storage; loss of/changes to flow paths; acceleration or retardation of flows or any reduction in flood warning times elsewhere on the flood plain. For Material change of use	
	AO5.3 Where development is located in an area affected by DFE/Storm tide, a hydraulic and hydrology report, prepared by a suitably qualified professional, demonstrates that the development maintains the flood storage capacity on the subject site; and (n) does not increase the volume, velocity, concentration of flow path alignment of stormwater flow across sites upstream, downstream or in the general vicinity of the subject site; and does not increase ponding on sites upstream, downstream or in the	

Performance outcomes	Acceptable outcomes	Applicant response
	general vicinity of the subject site.	
	For Material change of use and Reconfiguring a lot	
	AO5.4 In non urban areas, buildings and infrastructure are set back 50 metres from natural riparian corridors to maintain their natural function of reducing velocity of floodwaters.	
	infrastructure (e.g. irrigation tape) in rural areas should be managed to minimise adverse the impacts that they may have on downstream properties in the event of a flood.	
PO6 Development avoids the release of hazardous materials into floodwaters.	For Material change of use AO6.1 Materials manufactured or stored on site are not hazardous or noxious, or comprise materials that may cause a detrimental effect on the environment if discharged in a flood event;	PO6 – Complies. The proposed development is for residential purposes. No release of hazardous materials will occur.
	or AO6.2 If a DFE level is adopted, structures used for the manufacture or storage of hazardous materials are: (o) located above the DFE level;	
	or designed to prevent the intrusion of floodwaters.	
	AO6.3 Infrastructure is designed and constructed to resist hydrostatic and hydrodynamic forces as a result of inundation by the DFE.	
	AO6.4 If a flood level is not adopted, hazardous materials and their manufacturing equipment are located on the highest part of	

Performance outcomes	Acceptable outcomes	Applicant response
	the site to enhance flood immunity and designed to prevent the intrusion of floodwaters.	
	Note – Refer to <i>Work Health and</i> <i>Safety Act 2011</i> and associated Regulation and Guidelines, the <i>Environmental Protection Act 1994</i> and the relevant building assessment provisions under the <i>Building Act 1975</i> for requirements related to the manufacture and storage of hazardous materials.	
P07 The development supports, and does not unduly burden, disaster management response or recovery capacity and capabilities.	A07 Development does not: (p) increase the number of people calculated to be at risk of flooding; increase the number of people likely to need evacuation; shorten flood warning times; and impact on the ability of traffic to use evacuation routes, or unreasonably increase traffic volumes on evacuation routes.	PO7 – Complies. Future structures will be designed to achieve the required immunity to the defined inundation event. Refer to engineering reports/response prepared by Civil Walker Consulting Engineers.
PO8 Development involving community infrastructure: (q) remains functional to serve community need during and immediately after a flood event; is designed, sited and operated to avoid adverse impacts on the community or environment due to impacts of flooding on infrastructure, facilities or access and egress routes; retains essential site access during a flood event; is able to remain functional even when other infrastructure or services may be compromised in a flood event.	 AO8.1 The following uses are not located on land inundated during a DFE/Storm tide: (r) community residence; and emergency services; and residential care facility; and utility installations involving water and sewerage treatment plants; and storage of valuable records or items of historic or cultural significance (e.g. archives, museums, galleries, libraries). Or AO8.2 The following uses are not located on land inundated during a 1% AEP flood event: (s) community and cultural facilities, including facilities where an education and care service under the Education and care service under the Education and care service under 	Not applicable

Performance outcomes	Acceptable outcomes	Applicant response
	the <i>Child Care Act 2002</i> is conducted, community centres; meeting halls; galleries; libraries.	
	The following uses are not located on land inundated during a 0.5% AEP flood event. (t) emergency shelters; police facilities; sub stations; water treatment plant The following uses are not located on land inundated during a 0.2% AEP flood event: (u) correctional facilities; emergency services; power stations; major switch yards.	
	and/or AO8.3	
	AO8.3 The following uses have direct access to low hazard evacuation routes as defined in Error! Reference source not found.: (v) community residence; and emergency services; and hospitals; and residential care facility; and sub stations; and utility installations involving water and sewerage treatment plants.	
	AO8.4 Any components of infrastructure that are likely to fail to function or may result in contamination when inundated by flood, such as electrical switch gear and motors, telecommunications connections, or water supply pipeline air valves are: (w) located above DFE/Storm tide or the highest known flood level for the site; designed and constructed to exclude floodwater	
	intrusion / infiltration. AO8.5	

Performance outcomes	Acceptable outcomes	Applicant response
	Infrastructure is designed and constructed to resist hydrostatic and hydrodynamic forces as a result of inundation by a flood.	

Landscape values overlay code

Performance outcomes	Acceptable outcomes	Applicant response
For assessable development		
Development in a High landsc	ape value area	
For assessable development Development in a High landsca PO1 Development within High landscape value areas identified on the Landscape values overlay maps contained in Schedule 2: (x) avoids detrimental impacts on the landscape values of forested skylines, visible hillslopes, ridgelines, the coastal foreshore or the shoreline of other water bodies through the loss of vegetation; is effectively screened from view from a road, lookout or other public place by an existing natural landform or native vegetation, or will be effectively screened by native vegetation within 3 years of construction; retains existing vegetation and incorporates new landscaping to enhance existing vegetation and visually soften built form elements; incorporates development of a scale, design, height, position on site, construction materials and external finishes that are compatible with the landscape values of the locality; avoids detrimental impacts on landscape values and excessive changes to the natural landform as a		Applicant response Not applicable
result of the location, position on site, scale, design, extent and alignment of earthworks, roads, driveways, retaining walls and other on-ground	AO1.5 The external features, walls and roofs of buildings and structures have a subdued and non-reflective palette.	
or in-ground infrastructure; avoids detrimental impacts on landscape values and views as a result of the location, position on site,	Note - Examples of suitable colours include shades of green, olive green, blue green, grey green, green blue, indigo, brown, blue grey, and green yellow.	
scale, design and alignment of	AO1.6	

Performance outcomes	Acceptable outcomes	Applicant response
telecommunications facilities, electricity towers, poles and lines and other tall infrastructure; extractive industry operations are avoided. Note - A visual impact assessment is undertaken in accordance with Planning scheme policy SC6.6 – Landscape values in order to satisfy performance outcomes.	No clearing of native vegetation occurs on land with a slope greater than 1 in 6 (16.5%). AO1.7 Where for accommodation activities or reconfiguration of a lot in a High landscape value area, development demonstrates that the height, design, scale, positioning on- site, proposed construction	
	materials and external finishes are compatible with the landscape values.	
	Note - A visual impact assessment undertaken in accordance with Planning scheme policy SC6.6 – Landscape values may be required.	
	AO1.8 Advertising devices do not occur.	
Development within the Mediu	m landscape value area	
 PO2 Development within Medium landscape value areas identified on the Landscape values overlay maps contained in Schedule 2: (z) avoids detrimental impacts on the landscape values of forested skylines, visible hillslopes, ridgelines, the coastal foreshore or the analysis of the section. 	 AO2.1 Buildings and structures are not more than 8.5 metres and two storeys in height. Note - Height is inclusive of the roof height. AO2.2 Development is screened from view from roads or other public places by an existing natural 	Not applicable
shoreline of other water bodies through the loss of vegetation; is effectively screened from view from a road, lookout or other public place by an	landform or an existing native vegetation buffer. AO2.3 Where development on land steeper than 1 in 6 (16.6%)	
existing natural landform or native vegetation, or will be effectively screened by native vegetation within 5 years of construction;	cannot be avoided: (aa)development follows the natural; contours of the site; buildings are split level or	
retains existing vegetation and incorporates new landscaping to enhance existing vegetation and visually soften built form elements;	suspended floor construction, or a combination of the two; lightweight materials are used to areas with suspended floors.	
incorporates development of a scale, design, height, position on site, construction materials and	Note - Examples of suitable lightweight materials include timber or fibre cement boards or sheeting for walls	

Performance outcomes	Acceptable outcomes	Applicant response
external finishes that are compatible with the landscape values of the locality; avoids detrimental impacts on landscape values and excessive changes to the natural landform as a result of the location, position on site, scale, design and alignment of earthworks, roads, driveways, retaining walls and other on-ground or in- ground infrastructure; avoids detrimental impacts on landscape values and views as a result of the location, position on site, scale, design and alignment of telecommunications facilities, electricity towers, poles and lines and other tall infrastructure; extractive industry operations are avoided, or where they cannot be avoided, are screened from view. Note - A visual impact assessment is undertaken in accordance with Planning scheme policy SC6.6 – Landscape values in order to satisfy performance outcomes.	and factory treated metal sheeting for walls and roofs. AO2.4 The external features, walls and roofs of buildings and structures have a subdued and non-reflective palette. Note - Examples of suitable colours include shades of green, olive green, blue green, grey green, green blue, indigo, brown, blue grey, and green yellow. AO2.5 No clearing of native vegetation occurs on land with a slope greater than 1 in 6 (16.6%). AO2.6 Advertising devices do not occur.	
Development within a Scenic r area	oute buffer / view corridor	
PO3 Development within a Scenic route buffer / view corridor area as identified on the Landscape values overlay maps contained in Schedule 2: (bb)retains visual access to views of the surrounding landscape, the sea and other water bodies; retains existing vegetation and incorporates landscaping to visually screen and soften built form elements whilst not impeding distant views or view corridors; incorporates building materials and external finishes that are compatible with the visual amenity and the landscape character;	 AO3.1 Where within a Scenic route buffer / view corridor area, the height of buildings and structures is not more than identified within the acceptable outcomes of the applicable zone code. AO3.2 No clearing of native vegetation is undertaken within a Scenic route buffer area. AO3.3 Where within a Scenic route buffer / view corridor area development is set back and screened from view from a scenic route by existing native vegetation with a width of at least 10 metres and 	AO3.1 – Complies. Buildings onsite will not exceed three (3) storeys in height. AO3.2 & 3.3– Complies. The site does not contain native vegetation. Existing vegetation will be retained where possible and incorporated within the development.

Performance outcomes	Acceptable outcomes	Applicant response
 minimises visual impacts on the setting and views in terms of: (ii) the scale, height and setback of buildings; the extent of earthworks and impacts on the landform including the location and configuration of access roads and driveways; the scale, extent and visual prominence of advertising devices. Note - A visual impact assessment is undertaken in accordance with Planning scheme policy SC6.6 – Landscape values in order to satisfy performance outcomes. 	landscaped in accordance with the requirements of the landscaping code. AO3.4 Development does not result in the replacement of, or creation of new, additional, or enlarged advertising devices.	AO3.4 – Not applicable. The proposal does not result in additional or enlarged advertising devices.
Development within the Coast	al scenery area	
PO4 The landscape values of the Coastal scenery zone as identified on the Landscape values overlay maps contained in Schedule 2 are managed to integrated and limit the visual impact of development. Note - A visual impact assessment is undertaken in accordance with Planning scheme policy SC6.6 – Landscape values in order to satisfy performance outcomes.	 AO4.1 The dominance of the natural character of the coast is maintained or enhanced when viewed from the foreshore. AO4.2 Where located adjacent to the foreshore buildings and structures are setback: (cc) Where no adjoining development, a minimum of 50 metres from the coastal high water mark and the setback area is landscaped with a native vegetation buffer that has a minimum width of 25 metres; or Where there is adjoining development, setbacks will be consistent with that of adjoining buildings and structures, but not less than 10 metres from the coastal high water mark. The setback area is landscaped in accordance with the requirements of the Landscaping code. AO4.3 Where separated from the foreshore by land contained within public ownership (e.g. unallocated State land, esplanade or other public open	Not applicable

Performance outcomes	Acceptable outcomes	Applicant response
	space), buildings and structures area setback: (dd)where no adjoining development, a minimum of 6 metres from the coastward property boundary. The setback area is landscaped in accordance with the requirements of the Landscaping code; or where there is adjoining development, setbacks will be consistent with that of adjoining buildings and structures. The setback area is landscaped in accordance with the requirements of the Landscaping code.	
P05 Development is to maximise opportunities to maintain and/or enhance natural landscape values through the maintenance and restoration of vegetated buffers between development and coastal waters, where practical. Note – A visual impact assessment is undertaken in accordance with Planning scheme policy SC6.6 – Landscape values in satisfaction of a performance outcome.	A05 No clearing of native vegetation is undertaken within a Coastal scenery area zone, except for exempt vegetation damage undertaken in accordance with the Vegetation management code	Note applicable. The site is not within the Coastal scenery area zone.

Transport network overlay code

Performance outcomes	Acceptable outcomes	Applicant response
For assessable development		
P01 Development supports the road hierarchy for the region. Note -A Traffic impact assessment report prepared in accordance with Planning scheme policy SC6.10 - Parking and access is one way to demonstrate achievement of the Performance Outcomes.	 AO1.1 Development is compatible with the intended role and function of the transport network as identified on the Transport network overlay maps contained in Schedule 2. AO1.2 Development does not compromise the safety and efficiency of the transport network. AO1.3 Development is designed to provide access via the lowest order road, where legal and practicable access can be provided to that road.	 PO1 – Complies. The development will continue the existing access. Existing vehicular access from the site is via the service road off Port Douglas Road. The engineering investigations undertaken by Civil Walker Consulting Engineers, details that the development will continue to utilise the existing access with minor works associated with the extension and widening of the service road carriageway. It is considered that the access point onto Port Douglas Road will operate safely and efficiently and will appropriately accommodate the anticipated type and volume of vehicles accessing the site.
PO2 Transport infrastructure is provided in an integrated and timely manner. Note - A Traffic impact assessment report prepared in accordance with Planning scheme policy SC6.10 - Parking and access is one way to demonstrate achievement of the Performance Outcomes.	AO2 Development provides infrastructure (including improvements to existing infrastructure) in accordance with: the Transport network overlay maps contained in Schedule 2; (ee)any relevant Local Plan. Note – The Translink Public Transport Infrastructure Manual provides guidance on the design of public transport facilities.	AO2 - Complies. Access will be provided as detailed in the engineering investigation undertaken by Civil Walker Consulting Engineers.
PO3 Development involving sensitive land uses within a major transport corridor buffer area is located, designed and maintained to avoid or mitigate adverse impacts on amenity for the sensitive land use.	AO3 No acceptable outcomes are prescribed. Note – Part 4.4 of the Queensland Development Code provides requirements for residential building design in a designated transport noise corridor.	PO3 – Complies. The proposed development is screened from the Port Douglas Road. The amenity to the proposed development will not be diminished.
PO4 Development does not compromise the intended role and function or safety and efficiency of major transport corridors.	AO4.1 Development is compatible with the role and function (including the future role and function) of major transport corridors.	AO4.1 – Complies. The development is compatible with the role and function of Port Douglas Road.

Performance outcomes	Acceptable outcomes	Applicant response
Note - A Traffic impact assessment report prepared in accordance with Planning scheme policy SC6.10 - Parking and access is one way to demonstrate achievement of the Performance Outcomes.	AO4.2 Direct access is not provided to a major transport corridor where legal and practical access from another road is available.	AO4.2 – Complies. The does not have direct access to Port Douglas Road.
	AO4.3 Intersection and access points associated with major transport corridors are located in accordance with: (ff) the Transport network overlay maps contained in Schedule 2; and any relevant Local Plan.	AO4.3 – Complies. The existing service road off Port Douglas Road will continue to be utilised.
	AO4.4 The layout of development and the design of the associated access is compatible with existing and future boundaries of the major transport corridor or major transport facility.	AO4.4 – Complies. The existing from Port Douglas Road will continue to be utilised.
PO5 Development retains and enhances existing vegetation between a development and a major transport corridor, so as to provide screening to potential noise, dust, odour and visual impacts emanating from the corridor.	AO5 No acceptable outcomes are prescribed.	PO5 - Complies. Existing vegetation will be retained where possible and incorporated within the landscaping of the proposed development.
Pedestrian and cycle network		
PO6 Lot reconfiguration assists in the implementation of the pedestrian and cycle movement network to achieve safe, attractive and efficient pedestrian and cycle networks.	AO6.1 Where a lot is subject to, or adjacent to an element of the pedestrian and cycle Movement network (identified on the Transport network overlay maps contained in Schedule 2) the specific location of this element of the pedestrian and cycle network is incorporated in the design of the lot layout.	PO6 – Complies. The existing network within the Port Douglas Road reserve will be retained as part of the development.
	AO6.2 The element of the pedestrian and cycle network is constructed in accordance with the Design Guidelines set out in Sections D4 and D5 of the Planning scheme policy SC6.5	

Performance outcomes	Acceptable outcomes	Applicant response
	 – FNQROC Regional Development Manual. 	

Performance outcomes	Acceptable outcomes	Applicant response
For assessable development		
 PO1 The site has sufficient area and frontage to: (gg)accommodate the scale and form of buildings considering site features; achieve communal open space areas and private outdoor spaces; deliver viable areas of deep planting and landscaping to retain vegetation and protect or establish tropical planting; achieve safe and convenient vehicle and pedestrian access; accommodate on-site car parking and manoeuvring for residents, visitors and service providers. 	AO1.1 The site has a minimum area of 1000m ² . AO1.2 The site has a minimum frontage of 25 metres.	AO1.1 – Complies. The site has an area of 1.745ha. AO1.2 – Complies. The site has a frontage greater than 25m.
 PO2 Development for large-scale multiple dwellings, short term accommodation and retirement villages contributes to the neighbourhood structure and integrates with the existing neighbourhood through: (hh)the establishment and extension of public streets and pathways; the provision of parks and other public spaces as appropriate to the scale of the development; inclusion of a mix of dwelling types and tenures and forms; buildings that address the street; building height and setback transitions to adjoining development of a lower density or scale. 	AO2 Development on a site 5,000m ² or greater is in accordance with a structure plan. Note – Guidance on preparing a structure plan is provided within Planning scheme policy SC6.14 – Structure planning.	AO2.1 – Complies. The proposal is for development of the entire site. The house sites range in area of 200m2 to 350m2. Architectural house designs are nominated for each house site ensuring that there is a mix of one (1) and two (2) bedroom dwellings that also provide a variety of off-street parking options and private open space. Additionally, the nomination of house designs ensures that built form of the development is consistent throughout the development.

Multiple dwelling, short term accommodation and retirement facility code

Performance outcomes	Acceptable outcomes	Applicant response
PO3 Development ensures that the proportion of buildings to open space is: (ii) in keeping with the intended form and character of the local area and immediate streetscape; contributes to the modulation of built form; supports residential amenity including access to breezes, natural light and sunlight; supports outdoor tropical living; provides areas for deep tropical planting and / or for the retention of mature vegetation.	AO3.1 The site cover is not more t 40%. AO3.2 The development has a grofloor area of not more than: Zone Maximu GFA Low-medium 0.8 x site area density residential Medium density 1.2 x site area Tourist 1.2 x site accommodation area All other zones No specifie Specifie	have a site cover of approximately 35% ss AO3.2 – Complies. GFA does not exceed 1.2 times the site area. m e e ble ad
PO4 Development is sited so that the setback from boundaries: (jj) provides for natural light, sunlight and breezes; minimises the impact of the development on the amenity and privacy of neighbouring residents; provides for adequate landscaping.	 AO4.1 Buildings and structures are back not less than 6 metres from a road frontage. AO4.2 Buildings and structures are setback not less than 4 met to the rear boundary. AO4.3 The side boundary setback buildings and structures is: (kk) for buildings up to 2 ston not less than 2.5 metres the entire building; for buildings up to 3 storeys less than 3.5 metres for entire building. 	3.0m from the road frontage. The area around the central facility building will be appropriately landscaped and screened from road frontage. Dwellings are setback in accordance with side and rear setback requirements.
 PO5 Building depth and form must be articulated to (II) ensure that the bulk of the development is in keeping with the form and character intent of the area; provide adequate amenity for residents in terms of natural light and ventilation. Note – Planning scheme policy SC6.1 – Building design and architectural elements provides guidance on reducing building bulk.	 AO5.1 (mm) The maximum leng a wall in any direction is metres with substantial articulation provided ev 15 metres. The minimum distance between buildings on a is not less than 6 metres AO5.2 The length of any continuou eave line does not exceed for metres. 	s 30 30m. ery site s; AO5.2 – Complies. The length of any continuous eave line

Performance outcomes	Acceptable outcomes	Applicant response
PO6 Development reduces the appearance of building bulk, ensures a human-scale, demonstrates variations in horizontal and vertical profile and supports streetscape character.	 AO6.1 Development incorporates a number of the following design elements: (nn)balconies; verandahs; terraces; recesses. AO6.2 Development reduces building bulk by: (oo)variation in building colours, materials and textures; the use of curves, recesses, projections or variations in plan and elevation; recession and projection of rooflines and the inclusion of interesting roof forms, such as cascading roof levels, gables, skillions or variations in pitch; use of sun-shading devices and other façade features; use of elements at a finer scale than the main structural framing of the building. 	AO6.1 & 6.2 – Complies. The house sites range in area of 200m2 to 350m2. Architectural house designs are nominated for each house site ensuring that there is a mix of one (1) and two (2) bedroom dwellings that also provide a variety of off-street parking options and private open space. Additionally, the nomination of house designs ensures that built form of the development is consistent throughout the development.
PO7 Development provides a building that must define the street to facilitate casual surveillance and enhance the amenity of the street through: (pp)orientation to the street; front boundary setback; balconies and windows to provide overlooking and casual surveillance; building entrances.	A07.1 Development provides a building that is not set back further than 2m beyond the minimum required street front setback. A07.2 Development provides balconies and windows from the primary living area that face and overlook the street or public space.	PO7 - The design of the development allows for casual surveillance to be undertaken over the common areas.
PO8 Buildings exhibit tropical design elements to support Douglas Shire's tropical climate, character and lifestyle.	AO8.1 Development has floor to ceiling heights of 2.7 metres; AO8.2 Buildings include weather protection and sun shading to all windows to all external doors and windows of habitable rooms. AO8.3 Development incorporates deep recesses, eaves and sun- shading devices	PO8 - Architectural house designs are nominated for each house site ensuring that there is a mix of one (1) and two (2) bedroom dwellings that also provide a variety of off- street parking options and private open space. Additionally, the nomination of house designs ensures that built form of the development is consistent throughout the development.

Performance outcomes	Acceptable outcomes	Applicant response
	AO8.4 Western orientated facades are shaded using building and landscape elements, such as adjustable screens, awnings or pergolas or dense tropical planting.	
	AO8.5 Individual dwelling units are not located on both sides of an enclosed central corridor (i.e. not double banked).	
PO9 Development minimises direct overlooking between buildings through appropriate building layout, location and the design of windows and balconies or screening devices. Note—Siting and building separation is used to minimise privacy screening requirements.	 AO9.1 Development where the dwelling is located within 2 metres at ground level or 9 metres above ground level of a habitable room window or private open space of an existing dwelling house, ensures habitable rooms and any private outdoor spaces have: (qq)an offset from the habitable room or private open space of the existing dwelling to limit direct outlook; or sill heights a minimum of 1.5m above floor level; or fixed obscure glazing in any part of the window below 1.5m above floor level; or fixed external screens; or in the case of screening for a ground floor level unit, fencing to a minimum 1.8m above the ground storey floor level. AO9.2 Development where a direct view is available from balconies, terraces, decks or roof decks into windows of habitable rooms, balconies, terraces or deck in an adjacent existing dwelling house, is screened from floor level to a height above 1.5m above floor level. AO9.3 Development provides screening devices that are solid translucent screens, perforated or slatted panels or fixed	PO9 – Complies. Habitable windows of the proposed dwellings are not located within 2m of habitable openings of existing dwellings.

	louvres that have a maximum of 25% openings, with a maximum opening dimension of 50mm, and that are permanent and durable.	
	Note—The screening device is offset a minimum of 0.3m from the wall around any window.	
	Note—Screening devices are hinged or otherwise attached to facilitate emergency egress	
P010 Development provides accessible and functional landscaping and recreation area for the benefit of residents/guests.	AO10 A minimum of 35% of the site is allocated as landscaping and recreation area.	PO10 – Complies. The proposed development has the provision of sufficient private open space to each dwelling. Landscaped and communal recreation areas are provided for the benefit of the guests and their visitors.
PO11 Landscaping must contribute positively to the amenity of the area, streetscape and public spaces.	AO11 Development provides landscaping as follows: (a) A dense landscape planting strip of at least 2 metres width suitable for deep planting is provided and maintained along all street frontages; (b) A dense landscape planting strip of at least 1.5 metres width suitable for deep planting is provided along all side and rear boundaries.	PO11 – Complies. Existing vegetation will be retained where possible and incorporated within the landscaping of the proposed development. The proposed landscaping contributes to the tropical living of the site.
PO12 The landscaping and recreation area provides for functional communal open space for all developments exceeding five dwellings on one site.	 AO12.1 Communal open space is provided at: (rr) a minimum of 5% of site area of 50m² whichever is the greater; and a minimum dimension of 5 metres. AO12.2 Development provides communal open space that: (ss) is consolidated into one useable space; where communal open space exceeds 100m², the communal open space may be split into two, and so forth incrementally. AO12.3 Communal open space: 	 PO12 – Complies. The central facilities provides residents the following recreation and communal open space as detailed below: The village provides for a mix of outdoor and indoor communal features and facilities as outlined below: Clubhouse with kitchen/bar area; 25m lap and leisure pools; Lawn Bowls Green Spa; Billards Room; Cinema; Fully landscaped parks and gardens; Gymnasium;

Performance outcomes	Acceptable outcomes	Applicant response
	 (tt) is a minimum of 50% open to the sky; achieves 25% shading by trees in 5 years; does not include vehicle driveways and manoeuvring; does not contain surface structures such as rainwater tanks, fire hydrants, transformers or water boosters. 	 Arts and crafts room; Workshop; and Dedicated visitor parking
	AO12.4 Communal open space is designed to provide for a range of facilities, typically including some, or all, of the following elements: (uu)seating; barbecue; play equipment; swimming pool; communal clothes drying; vegetable garden.	
	AO12.5 Development involving 5 or fewer dwellings on one lot can allocate additional private open space to a ground storey dwelling instead of providing communal open space.	
PO13 Development must provide attractive and functional private open space for residents and guests.	AO13.1 Development provides private open space which: (vv) for ground storey dwellings, comprises of a minimum area of 35m ² with a minimum dimension of 3 metres; for dwellings above ground storey, comprises of a balcony with minimum area of 12m ² and a minimum dimension of 3 metres.	AO13.1 – Complies. Each proposed dwelling has the provision of private open space greater than 35m ² .
	AO13.2 Development provides private open space areas that are: (ww) directly accessible from internal primary living area of the dwelling (not bedrooms); provided with a screened area of 2m ² minimum dimension capable of screening air	AO13.2 – Complies. Private open space is accessed directly from a living area.

Performance outcomes	Acceptable outcomes	Applicant response
	conditioning plant, private clothes drying etc provided with adjustable, moveable or operable privacy screening where appropriate.	
	AO13.3 Development provides balconies that are located to the front or rear of the building except where adequate building separation can be achieved to maintain privacy.	AO13.3 – No balconies are proposed (single storey dwellings)
	AO13.4 Where secondary balconies are provided to a side of a building for additional amenity or services, such as clothes drying or to articulate facades, the setback may be reduced to the minimum setback, but these areas are not included in the calculation of private open space requirements.	AO13.4 – No balconies are proposed (single storey dwellings)
	AO13.5 Private open space: (xx) does not include vehicle driveways and manoeuvring; does not contain surface structures such as rainwater tanks, fire hydrants, transformers or water boosters.	AO13.5 – Complies. Private open space does not include vehicle driveways, manoeuvring areas, rainwater tanks, fire hydrants, transformers or water boosters.
PO14 Development provides front fencing and retaining walls that must: (yy) facilitate casual surveillance of the street and public space; enable use of private open space; assist in highlighting entrances to the property; provide a positive interface to the streetscape.	 AO14.1 Development ensures that, where fencing is provided, the height of any new fence located on any common boundary to a street or public space is a maximum of: (zz) 1.2m, where fence construction is solid or less than 50% transparent; 1.5m, where fence construction is at least 50% transparent; 1.8m and solid only where the site is on an arterial road or higher order road. 	PO14 – Can be conditioned to comply
	AO14.2 Development incorporating solid front fences or walls that front the street or other public spaces and are longer than	

Performance outcomes	Acceptable outcomes	Applicant response
	 10m, indentations, material variation or landscaping is provided to add visual interest and soften the visual impact AO14.3 Development for a retaining wall is: (aaa) stepped to minimise impact on the streetscape and pedestrian environment; a maximum of 0.6m in height if directly abutting the edge of 	
	the adjoining road reserve verge	
PO15 Development minimises light nuisances.	AO15 Outdoor lighting is in accordance with AS 4282-1997 Control of the obtrusive effects of outdoor lighting.	AO15.1 – Can be conditioned to comply
PO16 Waste and recyclable material storage areas are: (bbb) convenient and accessible to residents and waste and recyclable material collection services; located and designed to mitigate adverse impacts: (iii) within the site; on adjoining properties; to the street.	 AO16 Waste and recyclable material storage areas: (ccc) are located on site; are sited and designed to be unobtrusive and screened from view from the street frontage; are imperviously sealed roofed and bunded, and contain a hose down area draining to Council's sewer network; are of a sufficient size to accommodate bulk (skip) bins; have appropriate access and sufficient on site manoeuvrability area for waste and recyclable material collection services. Note - The Environmental performance code contains requirements for waste and recyclable material storage. 	PO16 – The applicant proposes a commercial agreement with Council to allow Council refuse collection to occur within the site. The internal road has been designed provide sufficient manoeuvring area for refuse vehicles onsite. Additionally the site will have the appropriate level of Public Indemnity Insurance in place.
PO17 Development provides a secure storage area for each dwelling.	 AO17 A secure storage area for each dwelling: (ddd) is located to enable access by a motor vehicle or be near to vehicle parking; has a minimum space of 3.5m² per dwelling; has a minimum height of 2 metres; is weather proof; 	PO17 – Complies. Each dwelling has sufficient area to contain secure storage.

is lockable; has immunity to the 1% AEP	
inundation event.	
Note – A cupboard within a unit will not satisfy this requirement.	
Retirement facility	
AO18 Retirement facilities are conveniently located in established areas close to public transport, shopping facilities and health care services.	AO18 – Complies. The development is located within close proximity public of transport and shopping facilities.
A019.1 The Retirement facility incorporates covered walkways wide enough to accommodate wheel chairs and ramps, and where necessary, provide on- site weather protection between all parts of the complex.	PO19 – The development has been designed provide sufficient accessibility access. The development can be appropriately conditioned to comply with AO19.2 – AO19.3.
AO19.2 Internal pathways have firm, well drained and non-slip surfaces.	
AO19.2 Security screens are provided to all dwelling units or residential rooms to ensure the safety and security of residents.	
AO19.3 An illuminated sign and site map of the layout of the development is located near the main entrance to the facility.	
AO20.1 The design of the Retirement facility ensures that external circulation and access and egress points on the site facilitate the evacuation of the site in an efficient manner. AO20.2 The site of a Retirement facility is not prone to inundation.	AO20.1 – Complies. The site has been designed to allow circulation and access. AO20.2 – Complies. Filling of the site ensures that the development will not be subject to inundation.
	satisfy this requirement. Retirement facility AO18 Retirement facilities are conveniently located in established areas close to public transport, shopping facilities and health care services. AO19.1 The Retirement facility incorporates covered walkways wide enough to accommodate wheel chairs and ramps, and where necessary, provide on- site weather protection between all parts of the complex. AO19.2 Internal pathways have firm, well drained and non-slip surfaces. AO19.2 Security screens are provided to all dwelling units or residential rooms to ensure the safety and security of residents. AO19.3 An illuminated sign and site map of the layout of the development is located near the main entrance to the facility. AO20.1 The design of the Retirement facility ensures that external circulation and access and egress points on the site facilitate the evacuation of the site in an efficient manner. AO20.2 The site of a Retirement facility

Performance outcomes	Acceptable outcomes	Applicant response
	AO20.3 The location of the Retirement facility is readily accessible to emergency vehicles.	AO20.3 – Complies. The location of the site is readily accessible to emergency vehicles.
PO21 The development is designed for the needs of the age group, and to allow 'aging in place' to occur.	 AO21.1 Development applies adaptable housing principles. AO21.2 A range of housing designs and sizes are provided in the development to cater for different individual and household needs. 	PO21 The development has been designed as an over 50's retirement village and not intended as an aged facility. The site has been designed with a mix of one (1) and two (2) bedroom dwellings that provide a variety of off-street parking options and private open space.

Access, parking and servicing code

Performance outcomes	Acceptable outcomes	Applicant response
For self-assessable and asses	sable development	
 PO1 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: (eee) the desired character of the area; the nature of the particular use and its specific characteristics and scale; the number of employees and the likely number of visitors to the site; the level of local accessibility; the nature and frequency of any public transport serving the area; whether or not the use involves the retention of an existing building and the previous requirements for car parking for the building whether or not the use involves a heritage building or place of local significance; whether or not the proposed use involves the retention of significant vegetation. 	 AO1.1 The minimum number of onsite vehicle parking spaces is not less than the number prescribed in Error! Reference source not found. for that particular use or uses. Note - 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. AO1.2 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. AO1.3 Parking for motorcycles is substituted for ordinary vehicle parking to a maximum level of 2% of total ordinary vehicle parking. AO1.4 For parking areas exceeding 50 spaces parking, is provided for recreational vehicles as a substitute for ordinary vehicle parking to a maximum of 5% of total ordinary vehicle p	 AO1.1 Each dwelling has the provision of a single covered parking space. The proposed use will create the following demand. one (1) space per dwelling unit; plus one (1) visitor space per 5 dwelling units; plus one (1) space per two (2) staff members; plus One (1) space for ambulance parking. The proposed use will create a demand for 9 spaces over to what is provided for the dwellings. The site has the provision of 17 spaces for visitor/staff use. AO1.2 – Complies AO1.3 – Complies AO1.4 – Not applicable
PO2 Vehicle parking areas are designed and constructed in accordance with relevant standards.	AO2 Vehicle parking areas are designed and constructed in accordance with Australian Standard: (fff) AS2890.1; AS2890.3; AS2890.6.	AO2.1 – Complies. Parking is designed in accordance with the relevant Australian Standard.
PO3 Access points are designed and constructed: (ggg) to operate safely and efficiently; to accommodate the anticipated type and volume of vehicles to provide for shared vehicle (including cyclists) and	AO3.1 Access is limited to one access cross over per site and is an access point located, designed and constructed in accordance with: (hhh) Australian Standard AS2890.1; Planning scheme policy SC6.5 – FNQROC Regional	AO3.1 – Complies

Performance outcomes	Acceptable outcomes	Applicant response
Performance outcomes pedestrian use, where appropriate; so that they do not impede traffic or pedestrian movement on the adjacent road area; so that they do not adversely impact upon existing intersections or future road or intersection improvements; so that they do not adversely impact current and future on-street parking arrangements; so that they do not adversely impact on existing services within the road reserve adjacent to the site; so that they do not involve ramping, cutting of the adjoining road reserve or any built structures (other than what may be necessary to cross over a stormwater channel).	Acceptable outcomes Development Manual - access crossovers. AO3.2 Access, including driveways or access crossovers: (iii) are not placed over an existing: (iv) telecommunications pit; stormwater kerb inlet; sewer utility hole; water valve or hydrant. are designed to accommodate any adjacent footpath; adhere to minimum sight distance requirements in accordance with AS2980.1. AO3.3 Driveways are: (jjj) designed to follow as closely as possible to the existing contours, but are no steeper than the gradients outlined in Planning scheme policy SC6.5 – FNQROC Regional Development Manual; 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 in 6 (16.6%) prior to this area, for a distance of at least 5 metres; 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; 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;	AO3.2 – Complies.
	designed to include all necessary associated drainage that intercepts and directs storm water	
	runoff to the storm water drainage system.	

Performance outcomes	Acceptable outcomes	Applicant response
	AO3.4 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.	AO3.4 - Complies.
PO4 Sufficient on-site wheel chair accessible car parking spaces are provided and are identified and reserved for such purposes.	AO4 The number of on-site wheel chair accessible car parking spaces complies with the rates specified in AS2890 Parking Facilities.	PO4 The development can be conditioned to comply.
PO5 Access for people with disabilities is provided to the building from the parking area and from the street.	AO5 Access for people with disabilities is provided in accordance with the relevant Australian Standard.	PO5 The development can be conditioned to comply.
PO6 Sufficient on-site bicycle parking is provided to cater for the anticipated demand generated by the development.	AO6 The number of on-site bicycle parking spaces complies with the rates specified in Error! Reference source not found	PO6 The development can be conditioned to comply.
 PO7 Development provides secure and convenient bicycle parking which: (kkk) for visitors is obvious and located close to the building's main entrance; for employees is conveniently located to provide secure and convenient access between the bicycle storage area, end-of-trip facilities and the main area of the building; is easily and safely accessible from outside the site. 	 A07.1 Development provides bicycle parking spaces for employees which are co-located with end-of-trip facilities (shower cubicles and lockers); A07.2 Development ensures that the location of visitor bicycle parking is discernible either by direct view or using signs from the street. A07.3 Development provides visitor bicycle parking which does not impede pedestrian movement. 	PO7 The development can be conditioned to comply.
PO8 Development provides walking and cycle routes through the site which: (III) link to the external network and pedestrian and cyclist destinations such as schools, shopping centres, open space, public transport stations, shops and local activity centres along the safest, most	A08 Development provides walking and cycle routes which are constructed on the carriageway or through the site to: (mmm) create a walking or cycle route along the full frontage of the site; connect to public transport and existing cycle and walking routes at the frontage or boundary of the site.	AO8 – Complies. The proposal integrates connections within the existing cycle route within the road reserve fronting the site.

Performance outcomes	Acceptable outcomes	Applicant response
direct and convenient routes; encourage walking and cycling; ensure pedestrian and cyclist safety.		
PO9 Access, internal circulation and on-site parking for service vehicles are designed and constructed: (nnn) in accordance with relevant standards; so that they do not interfere with the amenity of the surrounding area; so that they allow for the safe and convenient movement of pedestrians, cyclists and other vehicles.	 AO9.1 Access driveways, vehicle manoeuvring and on-site parking for service vehicles are designed and constructed in accordance with AS2890.1 and AS2890.2. AO9.2 Service and loading areas are contained fully within the site. AO9.3 The movement of service vehicles and service operations are designed so they: (ooo) do not impede access to parking spaces; do not impede vehicle or pedestrian traffic movement. 	 AO9.1 – Complies. Access and driveways have been designed in accordance with the relevant Australian Standards. The internal road will have a typical width of 12.0m, consisting of a 6.0m wide carriageway and 3.0m verges. The internal road and utility infrastructure will be managed by the complex. AO9.2 – Complies.
P010 Sufficient queuing and set down areas are provided to accommodate the demand generated by the development.	AO10.1 Development provides adequate area on-site for vehicle queuing to accommodate the demand generated by the development where drive through facilities or drop-off/pick-up services are proposed as part of the use, including, but not limited to, the following land uses: (ppp) car wash; child care centre; educational establishment where for a school; food and drink outlet, where including a drive-through facility; hardware and trade supplies, where including a drive- through facility; hotel, where including a drive- through facility; service station. AO10.2 Queuing and set-down areas are designed and constructed in accordance with AS2890.1.	Not applicable

Filling and excavation code

Performance outcomes	Acceptable outcomes	
For self-assessable and asses	sable development	
Filling and excavation - Generation	al	
PO1 All filling and excavation work does not create a detrimental impact on the slope stability, erosion potential or visual amenity of the site or the surrounding area.	 AO1.1 The height of cut and/or fill, whether retained or not, does not exceed 2 metres in height. and Cuts in excess of those stated in A1.1 above are separated by benches/ terraces with a minimum width of 1.2 metres that incorporate drainage provisions and screen planting. AO1.2 Cuts are supported by batters, retaining or rock walls and associated benches/terraces are capable of supporting mature vegetation. AO1.3 Cuts are screened from view by the siting of the building/structure, wherever possible. AO1.4 Topsoil from the site is retained from cuttings and reused on benches/terraces. AO1.5 No crest of any cut or toe of any fill, or any part of any retaining wall or structure is closer than 600mm to any boundary of the property, unless the prior written approval of the adjoining landowner has been obtained. AO1.6 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. 	PO1 Complies. Filling of the western region of the site will be required to achieve flood immunity. The engineering investigation undertaken by Civil Walker Consulting Engineers provides a preliminary assessment of the required earthworks. It can be appropriately conditioned that Earthworks will be designed and constructed during the operational works phase in accordance with the requirements of the FNQROC Regional Development Manual and Australian Standard AS3798 – 2007 (as amended) "Guidelines on Earthworks for Commercial and Residential Developments".

Performance outcomes	Acceptable outcomes	
Visual Impact and Site Stability	y	
PO2 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.	AO2.1 The extent of filling and excavation does not exceed 40% of the site area, or 500m ² whichever is the lesser, except that AO2.1 does not apply to reconfiguration of 5 lots or more. AO2.2 Filling and excavation does not occur within 2 metres of the site boundary.	
Flooding and drainage	I	
PO3 Filling and excavation does not result in a change to the run off characteristics of a site which then have a detrimental impact on the site or nearby land or adjacent road reserves.	 AO3.1 Filling and excavation does not result in the ponding of water on a site or adjacent land or road reserves. AO3.2 Filling and excavation does not result in an increase in the flow of water across a site or any other land or road reserves. AO3.3 Filling and excavation does not result in an increase in the volume of water or concentration of water in a watercourse and overland flow paths. AO3.4 Filling and excavation complies with the specifications set out in Planning Scheme Policy No SC5 – FNQROC Development Manual.	PO3 Complies. Filling of the western region of the site will be required to achieve flood immunity. The engineering investigation undertaken by Civil Walker Consulting Engineers provides a preliminary assessment of the required earthworks. It can be appropriately conditioned that Earthworks will be designed and constructed during the operational works phase in accordance with the requirements of the FNQROC Regional Development Manual and Australian Standard AS3798 – 2007 (as amended) "Guidelines on Earthworks for Commercial and Residential Developments".
Water quality		
PO4 Filling and excavation does not result in a reduction of the water quality of receiving waters.	AO4 Water quality is maintained to comply with the specifications set out in Planning Scheme Policy No SC5 – FNQROC Development Manual.	AO4 – The development can be conditioned to comply
Infrastructure		
P05 Excavation and filling does not impact on Public Utilities.	AO5 Excavation and filling is clear of the zone of influence of public utilities.	AO5 – Complies. Filling is clear of the zone of influence of public utilities.

Infrastructure works code

Performance outcomes	Acceptable outcomes	
For self-assessable and asses	sable development	
Works on a local government road		
Works on a local government road do not adversely impact on footpaths or existing infrastructure within the road verge and maintain the flow, safety and efficiency of pedestrians, cyclists and vehicles.	AO1.1 Footpaths/pathways are located in the road verge and are provided for the hierarchy of the road and located and designed and constructed in accordance with Planning scheme policy SC5 – FNQROC Regional Development Manual. AO1.2 Kerb ramp crossovers are constructed in accordance with Planning scheme policy SC 5 – FNQROC Regional Development Manual. AO1.3 New pipes, cables, conduits or other similar infrastructure required to cross existing footpaths: (qqq) are installed via trenchless methods; or (rrr) where footpath infrastructure is removed to install infrastructure, the new section of footpath is installed to the standard detailed in the Planning scheme policy SC5 – FNQROC Regional Development Manual, and is not less than a 1.2 metre section. AO1.4 Where existing footpaths are damaged as a result of development, footpaths are reinstated ensuring: (a) similar surface finishes are used; (b) there is no change in level at joins of new and existing sections; (c) new sections are matched to existing in terms of dimension and reinforcement.	PO1 – Complies.

Performance outcomes	Acceptable outcomes	
	AO1.5 Decks, verandahs, stairs, posts and other structures located in the road reserve do not restrict or impede pedestrian movement on footpaths or change the level of the road verges.	
Accessibility structures		
PO2 Development is designed to ensure it is accessible for people of all abilities and accessibility features do not impact on the efficient and safe use of footpaths. Note – Accessibility features are those features required to ensure access to premises is provided for people of all abilities and include ramps and lifts.	 AO2.1 Accessibility structures are not located within the road reserve. AO2.2 Accessibility structures are designed in accordance with AS1428.3. AO2.3 When retrofitting accessibility features in existing buildings, all structures and changes in grade are contained within the boundaries of the lot and not within the road reserve. 	PO2 – Complies. Accessibility structures will be constructed within the subject lot and designed in accordance with the relevant Australian standards.
Water supply		
PO3 An adequate, safe and reliable supply of potable, fire fighting and general use water is provided.	AO3.1 The premises is connected to Council's reticulated water supply system in accordance with the Design Guidelines set out in Section D6 of the Planning scheme policy SC5 – FNQROC Regional Development Manual; or AO3.2 Where a reticulated water supply system is not available to the premises, on site water storage tank/s with a minimum capacity of 10,000 litres of stored water, with a minimum 7,500 litre tank, with the balance from other sources (e.g. accessible swimming pool, dam etc.) and access to the tank/s for fire trucks is provided for each new house or other development. Tank/s are to be fitted with a 50mm ball valve with a camlock fitting and installed and connected	AO3.1 - Complies. The premises will be connected to Council's reticulated water supply. Refer to engineering investigation undertaken by Civil Walker Consulting Engineers.

Performance outcomes	Acceptable outcomes	
	prior to occupation of the house and sited to be visually unobtrusive.	
Treatment and disposal of effluence	uent	
PO4 Provision is made for the treatment and disposal of effluent to ensure that there are no adverse impacts on water quality and no adverse ecological impacts as a result of the system or as a result of increasing the cumulative effect of systems in the locality.	AO4.1 The site is connected to Council's sewerage system and the extension of or connection to the sewerage system is designed and constructed in accordance with the Design Guidelines set out in Section D7 of the Planning scheme policy SC5 – FNQROC Regional Development Manual; or AO4.2 Where not in a sewerage scheme area, the proposed disposal system meets the requirements of Section 33 of the <i>Environmental Protection</i> <i>Policy (Water) 1997</i> and the proposed on site effluent disposal system is designed in accordance with the <i>Plumbing</i> <i>and Drainage Act (2002).</i>	AO4.1 - Complies. The premises will be connected to Council's sewerage system. Refer to engineering investigations undertaken by Civil Walker Consulting Engineers.
Stormwater quality		
P05 Development is planned, designed, constructed and operated to avoid or minimise adverse impacts on stormwater quality in natural and developed catchments by: (sss) achieving stormwater quality objectives; (ttt) protecting water environmental values; (uuu) maintaining waterway hydrology.	 AO5.1 A connection is provided from the premises to Council's drainage system; or AO5.2 An underground drainage system is constructed to convey stormwater from the premises to Council's drainage system in accordance with the Design Guidelines set out in Sections D4 and D5 of the Planning scheme policy SC5 – FNQROC Regional Development Manual. AO5.3 A stormwater quality management plan is prepared, and provides for achievable stormwater quality treatment measures meeting design 	PO5 – Complies. The engineering investigations undertaken by Civil Walker Consulting Engineers confirms that premises can be appropriately drained in accordance with best practices.

Performance outcomes	Acceptable outcomes	
	 objectives listed in Error! Reference source not found. and Error! Reference source not found., reflecting land use constraints, such as: (vvv) erosive, dispersive and/or saline soil types; (www) landscape features (including landform); (xxx) acid sulfate soil and management of nutrients of concern; (yyy) rainfall erosivity. AO5.4 Erosion and sediment control practices are designed, installed, constructed, monitored, maintained, and carried out in accordance with an erosion and sediment control plan. AO5.5 Development incorporates stormwater flow control measures to achieve the design objectives set out in Error! Reference source not found. and Error! Reference source not found., including management of frequent flows, peak flows, and construction phase hydrological impacts. Note – Planning scheme policy SC5 – FNQROC Regional Development Manual provides guidance on soil and water control measures to meet the requirements of the Environmental Protection Act 1994. Note – During construction phases of development, contractors and builders are to have consideration in their work methods and site preparation for their environmental duty to protect stormwater quality. 	
Non-tidal artificial waterways		
PO6 Development involving non- tidal artificial waterways is planned, designed, constructed and operated to: (zzz) protect water environmental values; (aaaa) be compatible with the land use constraints for the site for protecting water environmental values;	AO6.1 Development involving non- tidal artificial waterways ensures: (eeee) environmental values in downstream waterways are protected; (ffff)any ground water recharge areas are not affected; (gggg) the location of the waterway incorporates low	Not applicable

Performance outcomes	Acceptable outcomes	
(bbbb) be compatible with	lying areas of the	
existing tidal and non-tidal	catchment connected to an	
waterways;	existing waterway;	
(cccc) perform a function in	(hhhh) existing areas of	
addition to stormwater	ponded water are included.	
management; (dddd) achieve water quality	AO6.2	
objectives.	Non-tidal artificial waterways	
	are located:	
	(iiii) outside natural wetlands	
	and any associated buffer	
	areas; (jjjj) to minimise disturbing soils	
	or sediments;	
	(kkkk) to avoid altering the	
	natural hydrologic regime	
	in acid sulfate soil and	
	nutrient hazardous areas.	
	AO6.3	
	Non-tidal artificial waterways	
	located adjacent to, or	
	connected to a tidal waterway	
	by means of a weir, lock,	
	pumping system or similar ensures:	
	(IIII) there is sufficient flushing	
	or a tidal range of >0.3 m;	
	or	
	(mmmm) any tidal flow alteration does not	
	adversely impact on the	
	tidal waterway; or	
	(nnnn) there is no introduction	
	of salt water into	
	freshwater environments.	
	AO6.4	
	Non-tidal artificial waterways	
	are designed and managed for	
	any of the following end-use	
	purposes: (oooo) amenity (including	
	aesthetics), landscaping or	
	recreation; or	
	(pppp) flood management, in	
	accordance with a	
	drainage catchment management plan; or	
	(qqqq) stormwater harvesting	
	plan as part of an	
	integrated water cycle	
	management plan; or	
	(rrrr) aquatic habitat.	
	AO6.5 The end-use purpose of the	
	non-tidal artificial waterway is	

Performance outcomes	Acceptable outcomes	
	way that protects water environmental values.	
	AO6.6 Monitoring and maintenance programs adaptively manage water quality to achieve relevant water quality objectives downstream of the waterway.	
	AO6.7 Aquatic weeds are managed to achieve a low percentage of coverage of the water surface area, and pests and vectors are managed through design and maintenance.	
Wastewater discharge	1	
P07 Discharge of wastewater to waterways, or off site: (ssss) meets best practice environmental management; (tttt) is treated to: (v) meet water quality objectives for its receiving waters; (vi) avoid adverse impact on ecosystem health or waterway health; (vii) maintain ecological processes, riparian vegetation and waterway integrity; (viii) offset impacts on high ecological value waters.	A07.1 A wastewater management plan is prepared and addresses: (uuuu) wastewater type; (vvvv) climatic conditions; (www)water quality objectives; (xxxx) best practice environmental management. A07.2 The waste water management plan is managed in accordance with a waste management hierarchy that: (yyyy) avoids wastewater discharge to waterways; or (zzzz) if wastewater discharge cannot practicably be avoided, minimises wastewater discharge to waterways by re-use, recycling, recovery and treatment for disposal to sewer, surface water and ground water.	PO7 – Complies. The engineering investigations undertaken by Civil Walker Consulting Engineers confirms that premises can be appropriately drained in accordance with best practices.
	A07.3 Wastewater discharge is managed to avoid or minimise the release of nutrients of concern so as to minimise the occurrence, frequency and intensity of algal blooms.	
	A07.4	

Performance outcomes	Acceptable outcomes	
	Development in coastal catchments avoids or minimises and appropriately manages soil disturbance or altering natural hydrology and: (aaaaa) avoids lowering ground water levels where potential or actual acid sulfate soils are present; (bbbbb) manages wastewater so that: (ix) the pH of any wastewater discharges is maintained between 6.5 and 8.5 to avoid mobilisation of acid, iron, aluminium and other metals; (x) holding times of neutralised wastewater ensures the flocculation and removal of any dissolved iron prior to release; (xi) visible iron floc is not present in any discharge; (xii) precipitated iron floc is contained and disposed of; (xiii) wastewater and precipitates that cannot be contained and treated for discharge on site are removed and disposed of through trade waste or another lawful method.	
Electricity supply	1	
PO8 Development is provided with a source of power that will meet its energy needs.	AO8.1 A connection is provided from the premises to the electricity distribution network; or AO8.2 The premises is connected to	AO8.1 - Complies. The premises will be provided with the appropriate connection to Ergon's supply network.
	the electricity distribution network in accordance with the Design Guidelines set out in Section D8 of the Planning scheme policy SC5 – FNQROC Regional Development Manual.	

Performance outcomes	Acceptable outcomes	
	Note - Areas north of the Daintree River have a different standard.	
PO9 Development incorporating pad-mount electricity infrastructure does not cause an adverse impact on amenity.	AO9.1 Pad-mount electricity infrastructure is: (ccccc) not located in land for open space or sport and recreation purposes; (ddddd) screened from view by landscaping or fencing; (eeeee) accessible for maintenance. AO9.2	PO9 It is not envisaged that a padmount is required to supply the premises with electricity. The development can be appropriately conditioned that in the event that a padmount is required, the location must be endorsed by Council prior to issue of the development permit for building works.
	Pad-mount electricity infrastructure within a building, in a Town Centre is designed and located to enable an active street frontage.	
	Note – Pad-mounts in buildings in activity centres should not be located on the street frontage.	
Telecommunications		
PO10 Development is connected to a telecommunications service approved by the relevant telecommunication regulatory authority.	AO10 The development is connected to telecommunications infrastructure in accordance with the standards of the relevant regulatory authority.	AO10 - Complies. The premises will be provided with the required connection to telecommunication infrastructure.
PO11 Provision is made for future telecommunications services (e.g. fibre optic cable).	AO11 Conduits are provided in accordance with Planning scheme policy SC5 – FNQROC Regional Development Manual.	AO11 – Can be conditioned to comply.
Road construction		
 PO12 The road to the frontage of the premises is constructed to provide for the safe and efficient movement of: (ffff) pedestrians and cyclists to and from the site; (ggggg) pedestrians and cyclists adjacent to the site; (hhhhh) vehicles on the road adjacent to the site; (iiiii) vehicles to and from the site; (jjjjjj)emergency vehicles. 	AO12.1 The road to the frontage of the site is constructed in accordance with the Design Guidelines set out in Sections D1 and D3 of the Planning scheme policy SC5 – FNQROC Regional Development Manual, for the particular class of road, as identified in the road hierarchy. AO12.2 There is existing road, kerb and channel for the full road frontage of the site.	PO12 - Complies. The access to the site will be upgraded in accordance with the relevant requirements and would be subject to subsequent application for operational works. Refer to engineering investigation undertaken by Civil Walker Consulting Engineers.
	A012.3	

Performance outcomes	Acceptable outcomes	
	Road access minimum clearances of 3.5 metres wide and 4.8 metres high are provided for the safe passage of emergency vehicles.	
Alterations and repairs to publ	ic utility services	
PO13 Infrastructure is integrated with, and efficiently extends, existing networks.	A013 Development is designed to allow for efficient connection to existing infrastructure networks.	PO13 The development can be conditioned to comply. Details of the connections will be detailed in the subsequent operational works application.
PO14 Development and works do not affect the efficient functioning of public utility mains, services or installations.	AO14.1 Public utility mains, services and installations are not required to be altered or repaired as a result of the development;	PO14 The development can be conditioned to comply. Details of the connections will be detailed in the subsequent operational works application.
	or	
	AO14.2 Public utility mains, services and installations are altered or repaired in association with the works so that they continue to function and satisfy the relevant Design Guidelines set out in Section D8 of the Planning scheme policy SC5 – FNQROC Regional Development Manual.	
Construction management		
PO15 Work is undertaken in a manner which minimises adverse impacts on vegetation that is to be retained.	AO15 Works include, at a minimum: (kkkkk) installation of protective fencing around retained vegetation during construction; (IIIII)erection of advisory signage; (mmmm) no disturbance, due to earthworks or storage of plant, materials and equipment, of ground level and soils below the canopy of any retained vegetation; (nnnn) removal from the site of all declared noxious weeds.	PO15 The development can be conditioned to comply. Details of the connections will be detailed in the subsequent operational works application.

Performance outcomes	Acceptable outcomes	
P016 Existing infrastructure is not damaged by construction activities.	AO16 Construction, alterations and any repairs to infrastructure is undertaken in accordance with the Planning scheme policy SC5 – FNQROC Regional Development Manual. Note - Construction, alterations and any repairs to State-controlled roads and rail corridors are undertaken in accordance with the Transport Infrastructure Act 1994.	PO16 The development can be conditioned to comply. Details of the connections will be detailed in the subsequent operational works application.
For assessable development		
High speed telecommunication	n infrastructure	
PO17 Development provides infrastructure to facilitate the roll out of high speed telecommunications infrastructure.	AO17 No acceptable outcomes are prescribed.	PO17 The development can be conditioned to comply.
Trade waste		
PO18 Where relevant, the development is capable of providing for the storage, collection treatment and disposal of trade waste such that: (00000) off-site releases of contaminants do not occur; (ppppp) the health and safety of people and the environment are protected; (qqqqq) the performance of the wastewater system is not put at risk.	AO18 No acceptable outcomes are prescribed.	Not applicable
Fire services in developments title	accessed by common private	
PO19 Hydrants are located in positions that will enable fire services to access water safely, effectively and efficiently.	AO19.1 Residential streets and common access ways within a common private title places hydrants at intervals of no more than 120 metres and at each intersection. Hydrants may have a single outlet and be situated above or below ground. AO19.2 Commercial and industrial streets and access ways within	PO19 The development can be conditioned to comply.

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

Landscaping code

Performance outcomes	Acceptable outcomes	Applicant Response
For self-assessable and asses	sable development	
Landscape design		
 PO1 Development provides landscaping that contributes to and creates a high quality landscape character for the site, street and local areas of the Shire by: (rrrrr) promoting the Shire's character as a tropical environment; (ssss) softening the built form of development; (tttt) enhancing the appearance of the development from within and outside the development and makes a positive contribution to the streetscape; (uuuuu) screening the view of buildings, structures, open storage areas, service equipment, machinery plant and the like from public places, residences and other sensitive development; (vvvv) where necessary, ensuring the privacy of habitable rooms and private outdoor recreation areas; (wwww) 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; (xxxx) ensuring private outdoor recreation space is useable; (yyyy) providing long term soil erosion protection; (zzzz) providing a safe environment; (aaaaa) integrating existing vegetation and other natural features of the premises into the development; 	 AO1 Development provides landscaping: (cccccc) in accordance with the minimum area, dimensions and other requirements of applicable development codes; (ddddd) that is designed and planned in a way that meets the guidelines for landscaping outlined in Planning Scheme Policy SC6.7 – Landscaping; (eeeeee) 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. 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. 	PO1 - Complies. Vegetation will be retained within the frontage of the site. Landscaping within the road reserve will not be impacted as a result of the proposal. Landscaping within the central facility and common areas provides green relief and enhances the streetscape and amenity of the area. The development can be appropriately conditioned in that a landscaping plan must be endorsed by Council prior to issue of the Development Permit for building works.

Performance outcomes	Acceptable outcomes	Applicant Response
(bbbbbb) not adversely affecting vehicular and pedestrian sightlines and road safety.		
For assessable development		
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. Note - Landscaping is in accordance with the requirements specified in Planning scheme policy SC6.7 – Landscaping. AO2.2 Tropical urbanism is incorporated into building design. Note – 'Tropical urbanism' includes many things such as green walls, green roofs, podium planting and vegetation incorporated into the design of a building. 	PO2 – Complies. Refer to comment PO1.
PO3 Development provides 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.	 AO3.1 Existing vegetation on site 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. AO3.2 Mature vegetation on the site that is removed or damaged during development is replaced with advanced species. AO3.3 Where there is an existing landscape character in a street or locality which results from existing vegetation, similar species are incorporated into new development. AO3.4 Street trees are species which enhance the landscape character, with species chosen from the Planning scheme policy SC6.7 – Landscaping.	PO3 – Complies. Refer to comment PO1.
PO4 Plant species are selected with consideration to the scale and	AO4 Species are selected in accordance with Planning	PO4 – Can be conditioned to comply.

Performance outcomes	Acceptable outcomes	Applicant Response
form of development, screening, buffering, streetscape, shading and the locality of the area.	scheme policy SC6.7 – Landscaping.	
PO5 Shade planting is provided in car parking areas where uncovered or open, and adjacent to driveways and internal roadways.	AO5 Species are selected in accordance with Planning scheme policy SC6.7 – Landscaping.	PO5 – Complies. Existing shade tree will be retained in the vicinity of the carpark at the frontage of the site.
P06 Landscaped areas are designed in order to allow for efficient maintenance.	AO6.1 A maintenance program is undertaken in accordance with Planning scheme policy SC6.7 – Landscaping. AO6.2 Tree maintenance is to have regard to the 'Safe Useful Life Expectancy of Trees (SULE).	PO6 – Can be conditioned to comply.
	Note – 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.	
P07 Podium planting is provided with appropriate species for long term survival and ease of maintenance, with beds capable of proper drainage.	A07.1 Podium planting beds are provided with irrigation and are connected to stormwater infrastructure to permit flush out.	PO7 – Can be conditioned to comply.
	A07.2 Species of plants are selected for long term performance designed to suit the degree of access to podiums and roof tops for maintenance.	
PO8 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.	AO8 Weed and invasive species detected on a development site are removed in accordance with a management plan prepared by an appropriately qualified person.	PO8 – Can be conditioned to comply.
PO9 The landscape design enhances personal safety and reduces the potential for crime and vandalism.	AO9 No acceptable outcomes are specified. Note - Planning scheme policy SC6.3 – Crime prevention through environmental design (CPTED) provides guidance on meeting this outcome.	PO9 – Can be conditioned to comply.

Performance outcomes	Acceptable outcomes	Applicant Response
PO10 The location and type of plant species does not adversely affect the function and accessibility of services and facilities and service areas.	AO10 Species are selected in accordance with Planning scheme policy SC6.7 – Landscaping.	PO10 – Can be conditioned to comply.

Attachment C

State code 1: Development in a state-controlled road environment

Table 1.2.1: Development in a state-controlled road environment

Performance outcomes	Acceptable outcomes	Response
Buildings and structures		
PO1 The location of buildings, structures, infrastructure, services and utilities does not create a safety hazard in a state-controlled road, or cause damage to, or obstruct road transport infrastructure.	AO1.1 Buildings, structures, infrastructure, services and utilities are not located in a state-controlled road. AND	AO1.1 Complies, infrastructure and services are not located within the road reserve.
	AO1.2 Buildings, structures, infrastructure, services and utilities can be maintained without requiring access to a state-controlled road.	AO1.2 Complies, infrastructure and services can be maintained without requiring access to a state-controlled road.
PO2 The design and construction of buildings and structures does not create a safety hazard by distracting users of a state-controlled road.	AO2.1 Facades of buildings and structures facing a state-controlled road are made of non-reflective materials. OR	AO2.1 Facades of buildings and structures facing state-controlled structures will be of non-reflective materials.
	AO2.2 Facades of buildings and structures do not reflect point light sources into the face of oncoming traffic on a state-controlled road. AND	
	AO2.3 External lighting of buildings and structures is not directed into the face of oncoming traffic on a state-controlled road and does not involve flashing or laser lights.	AO2.3 The design of the buildings ensure that external lighting of buildings and structures will not be directed into the face of incoming traffic of Port Douglas Road.
	AND AO2.4 Advertising devices visible from a state- controlled road are located and designed in accordance with the Roadside Advertising Guide, 2 nd Edition, Department of Transport and Main Roads, 2017.	Not Applicable

Performance outcomes	Acceptable outcomes	Response
PO3 Road, pedestrian and bikeway bridges over a state-controlled road are designed and constructed to prevent projectiles from being thrown onto a state-controlled road.	AO3.1 Road, pedestrian and bikeway bridges over a state-controlled road include throw protection screens in accordance with section 4.9.3 of the Design Criteria for Bridges and Other Structures Manual, Department of Transport and Main Roads, 2018.	Not Applicable
Filling, excavation and retaining structures		
PO4 Filling and excavation does not interfere with, or result in damage to, infrastructure or services in a state-controlled road.	No acceptable outcome is prescribed.	PO4 Complies, filling and excavation will not be undertaken within the state-controlled road corridor
Note: Information on the location of services and public utility plants in a state-controlled road can be obtained from the Dial Before You Dig service.		
Where development will impact on an existing or future service or public utility plant in a state-controlled road such that the service or public utility plant will need to be relocated, the alternative alignment must comply with the standards and design specifications of the relevant service or public utility provider, and any costs of relocation are to be borne by the developer.		
Refer to the SDAP Supporting Information: Filling, excavation and retaining structures in a state-controlled road environment, Department of Transport and Main Roads, 2017, for further guidance on how to comply with this performance outcome.		
PO5 Filling, excavation, building foundations and retaining structures do not undermine, or cause subsidence of, a state-controlled road.	No acceptable outcome is prescribed.	PO5 Complies, filling/excavation/building foundations will not cause subsidence of the state controlled road.
Note: To demonstrate compliance with this performance outcome, it is recommended an RPEQ certified geotechnical assessment, prepared in accordance with the Road Planning and Design Manual 2 nd Edition: Volume 3, Department of Transport and Main Roads, 2016, is provided.		
Refer to the SDAP Supporting Information: Filling, excavation and retaining structures in a state-controlled road environment, Department of Transport and Main Roads, 2017, for further guidance on how to comply with this performance outcome and prepare a geotechnical assessment.		
PO6 Filling, excavation, building foundations and retaining structures do not cause ground water disturbance in a state-controlled road.	No acceptable outcome is prescribed.	PO6 Complies, filling/excavation/building foundations will not cause ground water disturbance in a state controlled road.

Performance outcomes	Acceptable outcomes	Response
Note: To demonstrate compliance with this performance outcome, it is recommended an RPEQ certified geotechnical assessment, prepared in accordance with the Road Planning and Design manual 2 nd Edition: Volume 3, Department of Transport and Main Roads, 2016, is provided.		
Refer to the SDAP Supporting Information: Filling, excavation and retaining structures in a state-controlled road environment, Department of Transport and Main Roads, 2017, for further guidance on how to comply with this performance outcome and prepare a geotechnical assessment.		
PO7 Excavation, boring, piling, blasting or fill compaction during construction of a development does not result in ground movement or vibration impacts that would cause damage or nuisance to a state-controlled road, road transport infrastructure or road works.	No acceptable outcome is prescribed.	PO7 Complies, any works resulting in ground movement or vibration impacts will be undertaken to ensure that no damage or nuisance will occur to the state-controlled road.
Note: To demonstrate compliance with this performance outcome, it is recommended an RPEQ certified geotechnical assessment, prepared in accordance with Road Planning and Design Manual 2 nd Edition: Volume 3, Department of Transport and Main Roads, 2016, is provided.		
Refer to the SDAP Supporting Information: Filling, excavation and retaining structures in a state-controlled road environment, Department of Transport and Main Roads, 2017, for further guidance on how to comply with this performance outcome and prepare a geotechnical assessment.		
PO8 Development involving the haulage of fill, extracted material or excavated spoil material exceeding 10,000 tonnes per year does not damage the pavement of a state-controlled road.	AO8.1 Fill, extracted material and spoil material is not transported to or from the development site on a state-controlled road.	Not applicable
Note: It is recommended a pavement impact assessment is provided.		
Refer to the SDAP Supporting Information: Filling, excavation and retaining structures in a state-controlled road environment, Department of Transport and Main Roads, 2017, and the Guide to Traffic Impact Assessment, Department of Transport and Main Roads, 2017, for further guidance on how to comply with this performance outcome and prepare a pavement impact assessment.		

Performance outcomes	Acceptable outcomes	Response
 PO9 Filling and excavation associated with the construction of vehicular access to a development does not compromise the operation or capacity of existing drainage infrastructure for a state-controlled road. Note: Refer to the SDAP Supporting Information: Filling, excavation and retaining structures in a state-controlled road environment, Department of Transport and Main Roads, 2017, for further guidance on how to comply with this performance outcome. 	No acceptable outcome is prescribed.	PO9 Complies, the upgrading of the existing access onto Port Douglas Road will be in accordance with TMR requirements.
PO10 Fill material used on a development site does not result in contamination of a state-controlled road. Note: Refer to the SDAP Supporting Information: Filling, excavation and retaining structures in a state-controlled road environment, Department of Transport and Main Roads, 2017, for further guidance on how to comply with this performance outcome.	 AO10.1 Fill material is free of contaminants including acid sulfate content. Note: Soils and rocks should be tested in accordance with AS 1289.0 – Methods of testing soils for engineering purposes and AS 4133.0-2005 – Methods of testing rocks for engineering purposes. AND AO10.2 Compaction of fill is carried out in accordance with the requirements of AS 1289.0 2000 – Methods of testing soils for engineering purposes. 	PO10 Complies, any fill onsite will be undertaken to ensure that contamination of the state-controlled road will not occur.
PO11 Filling and excavation does not cause wind- blown dust nuisance in a state-controlled road. Note: Refer to the SDAP Supporting Information: Filling, excavation and retaining structures in a state-controlled road environment, Department of Transport and Main Roads, 2017, for further guidance on how to comply with this performance outcome.	 AO11.1 Compaction of fill is carried out in accordance with the requirements of AS 1289.0 2000 – Methods of testing soils for engineering purposes. AND AO11.2 Dust suppression measures are used during filling and excavation activities such as wind breaks or barriers and dampening of ground surfaces. 	PO11 Complies, any filling of the site will be undertaken in accordance with the relevant standards and requirements.
Stormwater and drainage		
PO12 Development does not result in an actionable nuisance, or worsening of, stormwater, flooding or drainage impacts in a state-controlled road. Note: Refer to the SDAP Supporting Information: Stormwater and drainage in a state-controlled road environment, Department of	No acceptable outcome is prescribed.	PO12 Complies, stormwater from the site will continue to be discharged away from Port Douglas Road. Refer to Engineering Report Prepared by Civil Walker.

Performance outcomes	Acceptable outcomes	Response
Transport and Main Roads, 2017, for further guidance on how to comply with this performance outcome.		
PO13 Run-off from the development site is not unlawfully discharged to a state-controlled road. Note: Refer to the SDAP Supporting Information: Stormwater and drainage in a state-controlled road environment, Department of Transport and Main Roads, 2017, for further guidance on how to comply with this performance outcome.	 AO13.1 Development does not create any new points of discharge to a state-controlled road. AND AO13.2 Stormwater run-off is discharged to a lawful point of discharge. Note: Section 3.9 of the Queensland Urban Drainage Manual, Institute of Public Works Engineering Australasia (Queensland Division) Fourth Edition, 2016, provides further information on lawful points of discharge. AND 	Refer to comment PO12
	AO13.3 Development does not worsen the condition of an existing lawful point of discharge to the state-controlled road.	
P014 Run-off from the development site during construction does not cause siltation of stormwater infrastructure affecting a state-controlled road. Note: Refer to the SDAP Supporting Information: Stormwater and drainage in a state-controlled road environment, Department of	AO14.1 Run-off from the development site during construction is not discharged to stormwater infrastructure for a state-controlled road.	Refer to comment PO12
Transport and Main Roads, 2017, for further guidance on how to comply with this performance outcome.		
Vehicular access to a state-controlled road		
PO15 Vehicular access to a state-controlled road that is a limited access road is consistent with government policy for the management of limited access roads. Note: Refer to the SDAP Supporting Information: Vehicular access to a state-controlled road, Department of Transport and	AO15.1 Development does not require new or changed access to a limited access road. Note: Limited access roads are declared by the transport chief executive under section 54 of the <i>Transport Infrastructure</i> <i>Act 1994</i> and are identified in the DA mapping system. OR	Not Applicable – Port Douglas Road is not an limited access road

Performance outcomes	Acceptable outcomes	Response
Main Roads, 2017, for further guidance on how to comply with this performance outcome.	AO15.2 A new or changed access to a limited access road is consistent with the limited access policy for the state-controlled road.	
	Note: Limited access policies for limited access roads declared under the <i>Transport Infrastructure Act 1994</i> can be obtained by contacting the relevant Department of Transport and Main Roads regional office. AND	
	AO15.3 Where a new or changed access is for a service centre, access is consistent with the Service centre policy, Department of Transport and Main Roads, 2013 and the Access policy for roadside service centre facilities on limited access roads, Department of Transport and Main Roads, 2013, and the Service centre strategy for the state-controlled road.	
	Note: The Service centre policy, Department of Transport and Main Roads, 2013, Access policy for roadside service centre facilities, Department of Transport and Main Roads, 2013 and the relevant Service centre strategy for a state-controlled road can be accessed by contacting the relevant Department of Transport and Main Roads regional office.	
PO16 The location and design of vehicular access to a state-controlled road (including access to a limited	AO16.1 Vehicular access is provided from a local road.	PO16 Complies, the development will continue to utilise the existing access from Port Douglas Road.
access road) does not create a safety hazard for users of a state-controlled road or result in a worsening of operating conditions on a state-	OR all of the following acceptable outcomes apply:	As detailed within the Engineering Report prepared
controlled road. Note: Where a new or changed access between the premises and a state-controlled road is proposed, the Department of Transport and Main Roads will need to assess the proposal to	AO16.2 Vehicular access for the development is consistent with the function and design of the state- controlled road. AND	by Civil Walker, the proposed access arrangement is shown on drawing 188-002-SK03 with minor widening to the existing service road carriageway required. The service road will be extended to the

Performance outcomes	Acceptable outcomes	Response
determine if the vehicular access for the development is safe. An assessment can be made by Department of Transport and Main Roads as part of the development assessment process and a decision under section 62 of <i>Transport Infrastructure Act 1994</i> issued. Refer to the SDAP Supporting Information: Vehicular access to a state-controlled road, Department of Transport and Main Roads, 2017, for further guidance on how to comply with this performance outcome.	 AO16.3 Development does not require new or changed access between the premises and the state-controlled road. Note: A decision under section 62 of the <i>Transport Infrastructure Act 1994</i> outlines the approved conditions for use of an existing vehicular access to a state-controlled road. Current section 62 decisions can be obtained from the relevant Department of Transport and Main Roads regional office. AND AO16.4 Use of any existing vehicular access to the development is consistent with a decision under section 62 of the <i>Transport Infrastructure Act 1994</i>. Note: The development which is the subject of the application must be of an equivalent use and intensity for which the section 62 approval was issued and the section 62 approval must have been granted no more than 5 years prior to the lodgement of the application. AND AO16.5 On-site vehicle circulation is designed to give priority to entering vehicles at all times so vehicles do not queue in a road intersection or on the state-controlled road. 	site entrance with relocation of the existing pedestrian footpath required. It is noted that relocation of the exiting Bally Hooley rail platform is not required. Detailed design of the proposed access arrangement will be undertaken during the operational works phase.
Vehicular access to local roads within 100 metres of a	n intersection with a state-controlled road	
P017 The location and design of vehicular access to a local road within 100 metres of an intersection with a state-controlled road does not create a safety hazard for users of a state-controlled road.	A017.1 Vehicular access is located as far as possible from the state-controlled road intersection. AND	Not applicable
Note: Refer to the SDAP Supporting Information: Vehicular access to a state-controlled road, Department of Transport and Main Roads, 2017, for further guidance on how to comply with this performance outcome.	A017.2 Vehicular access is in accordance with parts, 3, 4 and 4A of the Road Planning and Design Manual, 2 nd Edition: Volume 3, Department of Transport and Main Roads, 2016. AND	

Performance outcomes	Acceptable outcomes	Response
	AO17.3 On-site vehicle circulation is designed to give priority to entering vehicles at all times so vehicles do not queue in the intersection or on the state-controlled road.	
Public passenger transport infrastructure on state-con	trolled roads	
PO18 Development does not damage or interfere with public passenger transport infrastructure, public passenger services or pedestrian or cycle access to public passenger transport infrastructure and public passenger services. Note: Refer to the SDAP Supporting Information: Vehicular access to a state-controlled road, Department of Transport and Main Roads, 2017, for further guidance on how to comply with this performance outcome.	 AO18.1 Vehicular access and associated road access works are not located within 5 metres of existing public passenger transport infrastructure. AND AO18.2 Development does not necessitate the relocation of existing public passenger transport infrastructure. AND AO18.3 On-site vehicle circulation is designed to give priority to entering vehicles at all times so vehicles using a vehicular access do not obstruct public passenger transport infrastructure and public passenger services or obstruct pedestrian or cycle access to public passenger services. AND AO18.4 The normal operation of public passenger services is not interrupted during construction of the development. 	Refer to comment PO16.
Planned upgrades	•	

Performance outcomes	Acceptable outcomes	Response
PO19 Development does not impede delivery of planned upgrades of state-controlled roads.	AO19.1 Development is not located on land identified by the Department of Transport and Main Roads as land required for the planned upgrade of a state-controlled road.	Not applicable
	Note: Land required for the planned upgrade of a state-controlled road is identified in the <u>DA mapping system</u> . OR	
	AO19.2 Development is sited and designed so that permanent buildings, structures, infrastructure, services or utilities are not located on land identified by the Department of Transport and Main Roads as land required for the planned upgrade of a state- controlled road.	
	OR all of the following acceptable outcomes apply:	
	AO19.3 Structures and infrastructure located on land identified by the Department of Transport and Main Roads as land required for the planned upgrade of a state-controlled road are able to be readily relocated or removed without materially affecting the viability or functionality of the development. AND	
	AO19.4 Vehicular access for the development is consistent with the function and design of the planned upgrade of the state-controlled road. AND	
	AO19.5 Development does not involve filling and excavation of, or material changes to, land required for a planned upgrade to a state-controlled road. AND	
	AO19.6 Land is able to be reinstated to the pre- development condition at the completion of the use.	

Performance outcomes	Acceptable outcomes	Response
Network impacts		
PO20 Development does not result in a worsening of operating conditions on the state-controlled road network.	No acceptable outcome is prescribed.	Refer to comment PO16
Note: To demonstrate compliance with this performance outcome, it is recommended that an RPEQ certified traffic impact assessment is provided. Please refer to the Guide to Traffic Impact Assessment, Department of Transport and Main Roads, 2017, for further guidance on how to comply with this performance outcome.		
PO21 Development does not impose traffic loadings on a state-controlled road which could be accommodated on the local road network.	AO21.1 The layout and design of the development directs traffic generated by the development to the local road network.	PO21 Complies, the site is only accessed via the state-controlled road.
PO22 Upgrade works on, or associated with, a state-controlled road are built in accordance with Queensland road design standards.	AO22.1 Upgrade works required as a result of the development are designed and constructed in accordance with the <i>Road Planning and Design Manual</i> , 2 nd edition, Department of Transport and Main Roads, 2016.	AO22.1 Complies, any upgrade works will be undertaken in accordance with the applicable standards and requirements.
	Note: Road works in a state-controlled road require approval under section 33 of the <i>Transport Infrastructure Act 1994</i> before the works commence.	

Table 1.2.2: Environmental emissions

Statutory note: Where a **state-controlled road** is co-located in the same transport corridor as a railway, the development should instead comply with table 2.2.2: Environmental emissions in State code 2: Development in a railway environment.

Refer to the SDAP Supporting Information: Environmental emissions in a state-controlled road environment, Department of Transport and Main Roads, 2017, for further guidance on how to comply with the performance outcomes in Table 1.2.2.

Performance outcomes	Acceptable outcomes	
Noise		
Accommodation activities		

Performance outcomes	Acceptable outcomes	
PO23 Development involving an accommodation activity or land for a future accommodation activity	AO23.1 A noise barrier or earth mound is provided which is designed, sited and constructed:	Refer to AO23.2
minimises noise intrusion from a state-controlled road or type 1 multi-modal corridor in habitable	 to meet the following external noise criteria at all facades of the building envelope: 	
rooms.	 a. ≤60 dB(A) L₁₀ (18 hour) façade corrected (measured L₉₀ (8 hour) free field between 10pm and 6am ≤40 dB(A)) 	
	 b. ≤63 dB(A) L₁₀ (18 hour) façade corrected (measured L₉₀ (8 hour) free field between 10pm and 6am >40 dB(A)) 	
	 in accordance with chapter 7 integrated noise barrier design of the Transport Noise Management Code of Practice: Volume 1 (Road Traffic Noise), Department of Transport and Main Roads, 2013. 	
	Note: To demonstrate compliance with the acceptable outcome, it is recommended that a RPEQ certified noise assessment report is provided, prepared in accordance with the SDAP Supporting Information: Environmental emissions in a state-controlled road environment, Department of Transport and Main Roads, 2017.	
	If the building envelope is unknown, the deemed-to-comply setback distances for buildings stipulated by the local planning instrument or relevant building regulations should be used.	
	In some instances, the design of noise barriers and mounds to achieve the noise criteria above the ground floor may not be reasonable or practicable. In these instances, any relaxation of the criteria is at the discretion of the Department of Transport and Main Roads.	
	OR all of the following acceptable outcomes apply:	AO23.2, AO23.3 AO23.4 Complies, buildings will be designed and constructed to ensure that habitable
	AO23.2 Buildings which include a habitable room are setback the maximum distance possible from a state-controlled road or type 1 multi-modal corridor. AND	rooms achieve the required noise criteria.

Performance outcomes	Acceptable outcomes	
	AO23.3 Buildings are designed and oriented so that habitable rooms are located furthest from a state-controlled road or type 1 multi-modal corridor.	
	AND	
	AO23.4 Buildings (other than a relevant residential building or relocated building) are designed and constructed using materials which ensure that habitable rooms meet the following internal noise criteria:	
	 ≤35 dB(A) L_{eq} (1 hour) (maximum hour over 24 hours). 	
	Note: Noise levels from a state-controlled road or type 1 multi- modal corridor are to be measured in accordance with AS1055.1– 1997 Acoustics – Description and measurement of environmental noise.	
	To demonstrate compliance with the acceptable outcome, it is recommended that a RPEQ certified noise assessment report is provided, prepared in accordance with the SDAP Supporting Information: Environmental emissions in a state controlled road environment, Department of Transport and Main Roads 2017.	
	Habitable rooms of relevant residential buildings located within a transport noise corridor must comply with the Queensland Development Code MP4.4 Buildings in a transport noise corridor, Queensland Government, 2015. Transport noise corridors are mapped on the State Planning Policy interactive mapping system.	
PO24 Development involving an accommodation activity or land for a future accommodation activity	AO24.1 A noise barrier or earth mound is provided which is designed, sited and constructed:	
minimises noise intrusion from a state-controlled road or type 1 multi-modal corridor in outdoor	 to meet the following external noise criteria in outdoor spaces for passive recreation: 	
spaces for passive recreation.	 a. ≤57 dB(A) L₁₀ (18 hour) free field (measured L₉₀ (18 hour) free field between 6am and 12 midnight ≤45 dB(A)) 	
	 b. ≤60 dB(A) L₁₀ (18 hour) free field (measured L₉₀ (18 hour) free field between 6am and 12 midnight >45 dB(A)) 	
	 in accordance with chapter 7 integrated noise barrier design of the Transport Noise 	

Performance outcomes	Acceptable outcomes	
	Management Code of Practice – Volume 1 Road Traffic Noise, Department of Transport and Main Roads, 2013.	
	Note: To demonstrate compliance with the acceptable outcome, it is recommended that a RPEQ certified noise assessment report is provided, prepared in accordance with the SDAP Supporting Information: Environmental emissions in a state controlled road environment, Department of Transport and Main Roads 2017 OR	
	AO24.2 Each dwelling has access to an outdoor space for passive recreation which is shielded from a state-controlled road or type 1 multi-modal corridor by a building, solid gap-free fence, or other solid gap- free structure. AND	AO24.2 Each dwelling has access to an outdoor recreation area shielded from the state-controlled road.
	AO24.3 Each dwelling with a balcony directly exposed to noise from a state-controlled road or type 1 multi-modal corridor has a continuous solid gap-free balustrade (other than gaps required for drainage purposes to comply with the Building Code of Australia).	Not applicable
Childcare centres and educational establishments		
PO25 Development involving a: 1. childcare centre; or	AO25.1 A noise barrier or earth mound is provided which is designed, sited and constructed:	Not applicable
 educational establishment minimises noise intrusion from a state-controlled road or type 1 multi-modal corridor in indoor education areas and indoor play areas. 	 to meet the following external noise criteria at all facades of the building envelope: a. ≤58 dB(A) L₁₀ (1 hour) façade corrected (maximum hour during normal opening hours) 	
	 in accordance with chapter 7 – Integrated noise barrier design of the Transport Noise Management Code of Practice: Volume 1 (Road Traffic Noise), Department of Transport and Main Roads, 2013. 	

Performance outcomes	Acceptable outcomes	
	Note: To demonstrate compliance with the acceptable outcome, it is recommended that a RPEQ certified noise assessment report is provided, prepared in accordance with the SDAP Supporting Information: Environmental emissions in a state controlled road environment, Department of Transport and Main Roads 2017.	
	If the building envelope is unknown, the deemed-to-comply setback distances for buildings stipulated by the local planning instrument or relevant building regulations should be used.	
	OR all of the following acceptable outcomes apply:	
	AO25.2 Buildings which include indoor education areas and indoor play areas are setback the maximum distance possible from a state-controlled road or type 1 multi-modal corridor.	
	AND	
	AO25.3 Buildings are designed and oriented so that indoor education areas and indoor play areas are located furthest from the state-controlled road or type 1 multi-modal corridor.	
	AND	
	AO25.4 Buildings are designed and constructed using materials which ensure indoor education areas and indoor play areas meet the following internal noise criteria:	
	 ≤35 dB(A) L_{eq} (1 hour) (maximum hour during opening hours). 	
	Note: Noise levels from a state-controlled road or type 1 multi- modal corridor are to be measured in accordance with AS1055.1– 1997 Acoustics – Description and measurement of environmental noise.	
	To demonstrate compliance with the acceptable outcome, it is recommended that a RPEQ certified noise assessment report is provided, prepared in accordance with the SDAP Supporting Information: Environmental emissions in a state controlled road	
	environment, Department of Transport and Main Roads 2017.	

Performance outcomes	Acceptable outcomes	
 PO26 Development involving a: 1. childcare centre; or 2. educational establishment minimises noise intrusion from a state-controlled road or type 1 multi-modal corridor in outdoor education areas and outdoor play areas. 	 ACCeptable outcomes AO26.1 A noise barrier or earth mound is provided which is designed, sited and constructed: 1. to meet the following external noise criteria in each outdoor education area or outdoor play area: a. ≤63 dB(A) L₁₀ (12 hour) free field (between 6am and 6pm) 2. in accordance with chapter 7 – Integrated noise barrier design of the Transport Noise Management Code of Practice: Volume 1 (Road Traffic Noise), Department of Transport and Main Roads, 2013. Note: To demonstrate compliance with the acceptable outcome, it is recommended that a RPEQ certified noise assessment report is provided, prepared in accordance with the SDAP Supporting Information: Environmental emissions in a state controlled road environment, Department of Transport and Main Roads 2017. OR AO26.2 Each outdoor education area and outdoor play area is shielded from noise generated from a state-controlled road or type 1 multi-modal corridor by a building, solid gap-free fence, or other solid gap-free structure. 	Not applicable
Hospitals		
PO27 Development involving a hospital minimises noise intrusion from a state-controlled road or type 1 multi-modal corridor in patient care areas.	AO27.1 Hospitals are designed and constructed using materials which ensure patient care areas meet the following internal noise criteria:	Not applicable
	 ≤35 dB(A) L_{eq} (1 hour) (maximum hour during opening hours). 	
	Note: Noise levels from a state-controlled road or type 1 multi- modal corridor are to be measured in accordance with AS1055.1– 1997 Acoustics – Description and measurement of environmental noise.	
	To demonstrate compliance with the acceptable outcome, it is recommended that a RPEQ certified noise assessment report is provided, prepared in accordance with the SDAP Supporting	

Performance outcomes	Acceptable outcomes	
	Information: Environmental emissions in a state controlled road	
	environment, Department of Transport and Main Roads 2017.	
Vibration		
Hospitals		
PO28 Development involving a hospital minimises vibration impacts from vehicles using a state-controlled road or type 1 multi-modal corridor in patient care areas.	AO28.1 Hospitals are designed and constructed to ensure vibration in the treatment area of a patient care area does not exceed a vibration dose value of 0.1m/s ^{1.75} . AND	Not applicable
	AO28.2 Hospitals are designed and constructed to ensure vibration in the ward area of a patient care area does not exceed a vibration dose value of 0.4m/s ^{1.75} .	
	Note: To demonstrate compliance with the acceptable outcome, it is recommended that a RPEQ certified vibration assessment report is provided.	
Air and light		
PO29 Development involving an accommodation activity minimises air quality impacts from a state- controlled road or type 1 multi-modal corridor in outdoor spaces for passive recreation.	AO29.1 Each dwelling has access to an outdoor space for passive recreation which is shielded from a state-controlled road or type 1 multi-modal corridor by a building, solid gap-free fence, or other solid gap-free structure.	AO29.1 Each dwelling has access to an outdoor recreation area.
 PO30 Development involving a: 1. childcare centre; or 2. educational establishment minimises air quality impacts from a state-controlled road or type 1 multi-modal corridor in outdoor education areas and outdoor play areas. 	AO30.1 Each outdoor education area and outdoor play area is shielded from a state-controlled road or type 1 multi-modal corridor by a building, solid gap- free fence, or other solid gap-free structure.	Not applicable
PO31 Development involving an accommodation activity or hospital minimises lighting impacts from a state-controlled road or type 1 multi-modal corridor.	AO31.1 Buildings for an accommodation activity or hospital are designed to minimise the number of windows or transparent/translucent panels facing a state-controlled road or type 1 multi-modal corridor. OR	Refer to comment AO23.2

Performance outcomes	Acceptable outcomes	
	AO31.2 Windows facing a state-controlled road or type 1 multi-modal corridor include treatments to block light from a state-controlled road or type 1 multi-modal corridor.	

Performance outcomes	Acceptable outcomes	
PO32 Development does not impede delivery of a future state-controlled road.	 AO32.1 Development is not located in a future state-controlled road. OR AO32.2 Development is sited and designed so that permanent buildings, structures, infrastructure, services or utilities are not located in a future state-controlled road. 	Not applicable
	OR all of the following acceptable outcomes apply: AO32.3 Structures and infrastructure located in a future state-controlled road are able to be readily relocated or removed without materially affecting the viability or functionality of the development. AND	
	 AO32.4 Development does not involve filling and excavation of, or material changes to, a future state-controlled road. AND AO32.5 Land is able to be reinstated to the pre-development condition at the completion of the use. 	
PO33 Vehicular access to a future state-controlled road is located and designed to not create a safety hazard for users of a future state-controlled road or result in a worsening of operating conditions on a future state-controlled road.	AO33.1 Development does not require new or changed access between the premises and a future state-controlled road. AND	Not applicable

Performance outcomes	Acceptable outcomes	
Note: Where a new or changed access between the premises and a future state-controlled road is proposed, the Department of Transport and Main Roads will need to assess the proposal to determine if the vehicular access for the development is safe. An assessment can be made by Department of Transport and Main Roads as part of the development assessment process and a decision under section 62 of <i>Transport Infrastructure Act 1994</i> issued.	AO33.2 Vehicular access for the development is consistent with the function and design of the future state-controlled road.	
 PO34 Filling, excavation, building foundations and retaining structures do not undermine, or cause subsidence of, a future state-controlled road. Note: To demonstrate compliance with this performance outcome, it is recommended that an RPEQ certified geotechnical assessment is provided, prepared in accordance with the Road Planning and Design Manual, 2nd edition: Volume 3, Department of Transport and Main Roads, 2016. Refer to the SDAP Supporting Information: Filling, excavation and retaining structures in a state-controlled road environment, Department of Transport and Main Roads, 2017, for further guidance on how to comply with this performance outcome and prepare a geotechnical assessment. 	No acceptable outcome is prescribed.	Not applicable
 PO35 Fill material from a development site does not result in contamination of land for a future state-controlled road. Note: Refer to the SDAP Supporting Information: Filling, excavation and retaining structures in a state-controlled road environment, Department of Transport and Main Roads, 2017, for further guidance on how to comply with this performance outcome. 	 AO35.1 Fill material is free of contaminants including acid sulfate content. Note: Soil and rocks should be tested in accordance with AS1289 Methods of testing soils for engineering purposes and AS4133 2005 – Methods of testing rocks for engineering purposes. AND AO35.2 Compaction of fill is carried out in accordance with the requirements of AS1289.0 2000 Methods of testing soils for engineering purposes. 	Not applicable
PO36 Development does not result in an actionable nuisance, or worsening of, stormwater, flooding or drainage impacts in a future state-controlled road. Note: Refer to the SDAP Supporting Information: Stormwater and drainage in a state-controlled road environment, Department of Transport and Main Roads, 2017, for further guidance on how to comply with this performance outcome.	No acceptable outcome is prescribed.	Not applicable

Performance outcomes	Acceptable outcomes	
PO37 Run-off from the development site is not unlawfully discharged to a future state-controlled road.	AO37.1 Development does not create any new points of discharge to a future state-controlled road.	Not applicable
	AND	
Note: Refer to the SDAP Supporting Information: Stormwater and drainage in a state-controlled road environment, Department of Transport and Main Roads, 2017, for further guidance on how to comply with this performance outcome.	AO37.2 Stormwater run-off is discharged to a lawful point of discharge. Note: Section 3.9 of the Queensland Urban Drainage Manual, Institute of Public Works Engineering Australasia (Queensland Division), Fourth Edition, 2016, provides further information on lawful points of discharge.	
	AND	
	AO37.3 Development does not worsen the condition of an existing lawful point of discharge to the future state-controlled road.	

Attachment D

