

**CAP MEETING – 8 MARCH 2023**  
**ITEM 8.1**

<b>DEVELOPMENT NO.:</b>	21017786
<b>APPLICANT:</b>	Cobbs Hill Estate
<b>ADDRESS:</b>	382B SWAMP RD OAKBANK SA 5243
<b>NATURE OF DEVELOPMENT:</b>	Construction of a function centre and restaurant building with associated car parking and landscaping, 100,000 litre underground water storage tank and variations to Development Authorisation 16/973/473 to increase the overall capacity, the number of functions and operating hours and Development Authorisation 16/882/473 to increase the capacity of the existing cellar door and to undertake the development in two stages: Stage 1: Vary cellar door capacity and number of functions, with deletion of special events, upgrade of car parking, vehicle access and waste control system, and Stage 2: Construction of the function centre and restaurant building and remainder of works
<b>ZONING INFORMATION:</b>	<b>Zones:</b> <ul style="list-style-type: none"> <li>• Productive Rural Landscape</li> </ul> <b>Overlays:</b> <ul style="list-style-type: none"> <li>• Environment and Food Production Area</li> <li>• Hazards (Bushfire - High Risk)</li> <li>• Hazards (Flooding - Evidence Required)</li> <li>• Limited Land Division</li> <li>• Mount Lofty Ranges Water Supply Catchment (Area 2)</li> <li>• Native Vegetation</li> <li>• Prescribed Water Resources Area</li> <li>• Water Resources</li> </ul>
<b>LODGEMENT DATE:</b>	27 July 2021
<b>RELEVANT AUTHORITY:</b>	Assessment Panel at Adelaide Hills Council
<b>PLANNING &amp; DESIGN CODE VERSION:</b>	2021.9
<b>CATEGORY OF DEVELOPMENT:</b>	Code Assessed - Performance Assessed
<b>NOTIFICATION:</b>	Yes
<b>RECOMMENDING OFFICER:</b>	Doug Samardzija Senior Statutory Planner
<b>REFERRALS STATUTORY:</b>	Environment Protection Authority
<b>REFERRALS NON-STATUTORY:</b>	Engineering Department Department for Health and Wellbeing (DHW)

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**DETAILED DESCRIPTION OF PROPOSAL:**

This proposal is for a construction of a function centre and restaurant building with associated car parking, underground water storage tank and a variation to two development authorisations to increase the overall capacity for the cellar door and functions, change the hours of operation and increase the number of functions. The key features of the proposal are:

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- Construction of a function centre and restaurant building of 410m<sup>2</sup> in floor area with an associated mezzanine level. The building is proposed to have a 4m wall height and an overall building height of 8m to the apex of the curved roof resembling a wine barrel;
- The new building is proposed to be setback 388m from the western boundary being the front allotment boundary, 357m from the southern boundary with Oakbank Road, 593m from the eastern boundary and 429m from the northern boundary.
- Restaurant use two times a week either on a Friday, Saturday or a Sunday 11:00am to 10:00pm at 130-person capacity;
- Associated landscaping surrounding the proposed building;
- Expansion of the existing car parking area to accommodate additional 72 parking spaces of those 19 would be the expansion of the existing parking area and 53 would be the new parking area to the north of the existing. The works would also including the widening of the internal access track to allow for two-way vehicle movements;
- 100,000 litre underground water storage tank;
- Variations to development authorisation 16/973/473 to increase the overall capacity and the number of functions from 130 persons 18 times a years and special events for 208 persons 7 times a year to functions for 130 persons 32 times a year 3pm to midnight on a Friday, Saturday and Sunday whilst at the same removing the proposed special events;
- Variation to development authorisation 16/882/473 to amend the capacity of the cellar door from 75 persons 7 days a week to 75 persons Monday to Friday and 200 persons Saturday and Sunday whilst maintaining existing hours of operation which is 10am to 6pm;
- Applicant seeks to undertake development in two stages:
  - Stage 1: Variation to development authorisations 16/973/473 and 16/882/473 to:
    - 75 patrons Monday to Friday, 10:00am – 18:00pm;
    - 200 patrons on Saturday and Sunday, 10:00am – 18:00pm;
    - Functions for maximum 130 patrons 32 times per year, 15:00pm – 12:00am (Midnight).The functions will take place at the lawn north of the existing cellar door building.
  - Stage 2: Construction of a function centre/restaurant building
    - Function use at 130 persons capacity and
    - Restaurant use two times a week at 130 persons capacity.
- Decommissioning of existing on-site waste system and installation of the new on-site waste system as approved by the Department for Health and Wellbeing (DHW) who were the relevant authority in assessment of the wastewater application. These works are required to be undertaken as part of the stage 1 outlined above.



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**BACKGROUND:**

APPROVAL DATE	APPLICATION NUMBER	DESCRIPTION OF PROPOSAL
18/08/2008	473/90/2006	Land Division - Boundary Realignment - DAC relevant authority
11/10/2016	473/466/16	Vineyard addition (11.33 hectares in total) to be undertaken in two (2) stages - Stage 1- 5.25 hectares - Stage 2- 6.08 hectares
13/11/2017	473/882/16	Change of use from dwelling to cellar door (maximum capacity 75) & motel (maximum of 6 guests), including two (2) freestanding advertising signs & associated car park & earthworks
01/06/2021	473/973/16	Change of use to a function centre (Special Events with maximum capacity 208 persons on 7 occasions a year & Functions with maximum capacity of 130 persons on 18 occasions a year) in association with existing cellar door & increase the car parking area (non-complying)
14/12/2021	20128842	Store building (bottled wine storage)
15/03/2021	21041517	Alterations and additions to existing cellar door (shop), verandah & deck
09/05/2022	22000517	Horticulture (vineyard)

**SUBJECT LAND & LOCALITY:**

**Site Description:**

The subject land is a large irregular shade primary production allotment consisting of two pieces with a combined area of 88 hectares. The allotment has two frontages with the primary frontage and access to the site from Swamp Road with an internal gravel access track whilst the secondary frontage and access is from Oakwood Road. Swamp Road is a sealed road. The subject land is one of undulating topography containing a large water course running north-east through the subject land as well as a number of other smaller water courses scattered throughout the site. The primary use of the site is primary production related activities in the form of viticulture with secondary uses being a cellar door and function venue, with associated bed and breakfast. All activities are contained within and surrounding the existing building on the site which was previously used as a homestead. Other site features include outbuildings and agriculture buildings predominantly clustered together with a small portion of buildings located in the other areas of the allotment. Whilst not part of the development site, the immediate adjoining allotment to the south of the Swamp Road access known as 382 Swamp Rd, Oakbank is under the same ownership as the subject land and this allotment contains a dwelling that is occupied by the caretaker of the Cobbs Hill Estate.

**Location reference:** 382B Swamp Rd, Oakbank SA 5243

**Title ref:** CT6035/473 **Plan Parcel:** D7987 QP 1 and QP 2

**Council:** Adelaide Hills Council

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#### Locality:

The locality is characterised by a mixture of allotment sizes and uses predominantly ranging from smaller rural living allotments of approximately 1 hectare to large primary production allotments of up to 88 hectares. Majority of the allotments in the locality are used for rural living purposes however there are a number of allotments smaller than the subject land which too are also used for a range of different primary production purposes. The locality is also characterised by dense vegetation on surrounding allotments along with water courses. East of the locality are the two closest townships of Balhannah and Oakbank.

#### CONSENT TYPE REQUIRED:

Planning Consent

#### CATEGORY OF DEVELOPMENT:

- **PER ELEMENT:**  
Shop: Code Assessed - Performance Assessed  
Function centre: Code Assessed - Performance Assessed  
Underground Water Storage Tank: Accepted Development
- **OVERALL APPLICATION CATEGORY:**  
Code Assessed - Performance Assessed

#### PUBLIC NOTIFICATION

- **REASON**

Proposal now includes a shop (restaurant) which fails to satisfy Table 5 Column B exemption DPF 6.1 (gross leasable floor area exceeds 100m<sup>2</sup> and seating capacity exceeds 75 seats)

Public Notification period – 23 August 2022 to 12 September 2022

A copy of the publicly notified documents is included as **Attachment 4- Publicly Notified Documents**.

- **LIST OF REPRESENTATIONS**

Representor Name	Representor's Property Address	Wishes to be heard (Y/N)	Nominated Speaker (if relevant)
Gai Adcock	339-357 Oakwood Road, Oakbank	Yes	Peter Meline
Duncan and Anne Young	426 Oakwood Road, Oakbank	Yes	Peter Meline
Margaret Wilson	423B Swamp Road, Lenswood	Yes	Margaret Wilson
Peter Salu	48 Carrington Street, Adelaide	Yes	Peter Salu
Michael Gallagher	61B Peacocks Road South, Oakbank	Yes	Michael Gallagher
Jill and Greg Brodie-Tyrrell	61A Peacock Road South, Oakbank	Yes	Jill Brodie-Tyrrell

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Duncan Young	426 Oakwood Road, Oakbank	Yes	Peter Meline
Katherine Parker	67 Peacock Road South, Oakbank	Yes	Darryl Parker and Jill Brodie- Tyrrell
Henry Young	426 Oakwood Road, Oakbank	Yes	Henry Young
William Marryat	29 Swamp Road, Balhannah	No	
Timothy Wright	423B Swamp Road, Lenswood	No	
Natalija and Silvio Apponyi	157 Swamp Road, Lenswood	No	
Darryl Parker	67 Peacock Road South, Oakbank	No	
Anne Young	426 Oakwood Road, Oakbank	No	
James Burnett	471 Swamp Road, Lenswood	No	

#### • SUMMARY

The issues contained in the representations can be briefly summarised as follows:

- Noise issues
- Traffic safety issues
- Patron capacity, number of functions, hours and days of operation
- Environmental impacts
- Impacts on rural character and amenity
- Appropriateness of the use in the area

A copy of the representations is included as **Attachment 5 – Representations** and the applicant's response is provided in **Attachment 6 – Response to Representations**.

#### AGENCY REFERRALS

- Environmental Protection Authority (EPA):

This application was referred to the EPA on two occasions. The first referral was undertaken prior to public notification and then subsequently it was re-referred after amendments were made in response to the concerns in representations during the public notification period. In both instances EPA advised that it is satisfied that the proposal is considered to have a beneficial or neutral impact on water quality. Original referral response had two conditions requiring decommissioning of the existing on-site wastewater system and installation of a new wastewater system prior to occupation of the new function centre and these conditions were reaffirmed in the second referral response. **Refer to recommended conditions 20 and 21.** EPA did not make any reference to the staging of the application as proposed by the applicant and therefore their conditions do not directly reflect this aspect of the application. As such Council has added an additional condition 16 which requires the applicant to install the new waste system prior to commencement of stage 1.

A copy of both of the referral response are included as ***Attachment 7 – Prescribed Body Response***.

## **INTERNAL REFERRALS**

- Engineering Department:

Council's Engineering Department reviewed the stormwater management plan as well as the traffic report, car parking and access arrangements. They have no objections to the proposed development with the following comments:

- Proposed on-site stormwater management is acceptable;
- Proposed car parking needs to comply with Australian Standards;
- The increase in traffic volume would have no significant impact on the existing traffic volumes of 1531 vehicles per day on Swamp Road;
- Council Engineering recommends the access driveway be widened to a minimum width of 6 metres to accommodate two-way traffic flow. A minimum of 100 metres of the access driveway should be widened to prevent any potential backing up of traffic on Swamp Rd, this will alleviate any potential safety issues, and
- The access is to be sealed from the road edge to 20m within the property boundary to prevent any material drag out onto Swamp Rd.

- Health Department:

Applicant needs to ensure that the kitchen in the new building complies with the Food Act 2001, Food Regulation 2017 and the Food Standards Code. Food Standards Code 3.2.3 refers to the premises and equipment including the water supply, if a premises is using untreated or a non-reticulated water supply, they may be require to have the waste tested regularly.

In addition the Safe Drinking Water Act 2011 and Regulations 2012 requires a drinking water provider to register with SA Health, develop, implement and review a Risk Management Plan and undergo regular independent inspection/audits.

## **PLANNING ASSESSMENT**

### ***Desired outcomes***

*Desired outcomes are policies designed to aid the interpretation of performance outcomes by setting a general policy agenda for a zone, subzone, overlay or general development policies module. Where a relevant authority is uncertain as to whether or how a performance outcome applies to a development, the desired outcome(s) may inform its consideration of the relevance and application of a performance outcome, or assist in assessing the merits of the development against the applicable performance outcomes collectively.*

### ***Performance outcomes***

*Performance outcomes are policies designed to facilitate assessment according to specified factors, including land use, site dimensions and land division, built form, character and hazard risk minimisation.*

**Designated performance features**

*In order to assist a relevant authority to interpret the performance outcomes, in some cases the policy includes a standard outcome which will generally meet the corresponding performance outcome (a designated performance feature or DPF). A DPF provides a guide to a relevant authority as to what is generally considered to satisfy the corresponding performance outcome but does not need to necessarily be satisfied to meet the performance outcome, and does not derogate from the discretion to determine that the outcome is met in another way, or from the need to assess development on its merits against all relevant policies.*

The application has been assessed against the relevant provisions of the Planning & Design Code, which are contained in **Attachment 8 – Relevant P&D Code Policies**.

**Productive Rural Landscape Zone:**

Desired Outcomes	
DO1	A diverse range of land uses at an appropriate scale and intensity that capitalise on the region's proximity to the metropolitan area and the tourist and lifestyle opportunities this presents while also conserving the natural and rural character, identity, biodiversity and sensitive environmental areas and scenic qualities of the landscape.
DO2	A zone that promotes agriculture, horticulture, value adding opportunities, farm gate businesses, the sale and consumption of agricultural based products, tourist development and accommodation that expands the economic base and promotes its regional identity.
DO3	Create local conditions that support new and continuing investment while seeking to promote co-existence with adjoining activities and mitigate land use conflicts.
Performance Outcomes (PO) & Deemed to Satisfy (DTS)/Designated Performance Feature (DPF) criteria	
POs: 1.1, 2.1, 2.2, 6.1, 6.2, 6.5, 6.6 and 11.1	
DPFs: 1.1, 2.1, 2.2, 6.1, 6.2, 6.5 and 6.6	

The Productive Rural Landscape Zone is one which encourages a diverse range of land uses of appropriate scale which are predominantly linked with the land either through a range of primary production related uses or associated value adding activities. This application is only proposing one additional use being the restaurant whilst other uses are existing considering that the site already has an established use for a cellar door and functions. That being said the proposal does seek to further entrench these uses by proposing a purpose built facility and increasing the capacity and hours of operation of those uses. The uses are considered to be consistent with PO 1.1 and DPF 1.1 given that they are value adding uses to existing primary production use and further promote tourism in the area. Both function centre and a shop are also specifically listed in DPF 1.1 as envisaged forms of land use.

Additionally the function centre and shop use are also consistent with POs 6.1, 6.2, 6.5, 6.6 and DPFs 6.1, 6.2, 6.5 and 6.6 with the exception of a departure from DPF 6.5 which sees the dining capacity of up to 75 persons. The capacity is proposed at 130 persons which is 55 more than envisaged by the DPF and whilst this departure is almost double the number it is still considered acceptable considering the allotment size and the fact that the proposal is able to manage the environmental impacts as well as the interface issues with adjoining sensitive receivers. At the same time the proposal is ensuring that the additional land use is not impacting on the main use of the land being for primary production related purposes. Outside this departure the uses are associated with the primary production related activities occurring on the land, are sufficiently setback from boundaries and adjoining sensitive receivers whilst the built form is within the required height and in a location that will not be readily visible from neighbouring properties or, the public realm.

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Whilst a building of 410m<sup>2</sup> and overall height of 8m is a large building it is considered to be acceptable given that the building is significantly setback from boundaries and is therefore not visible from the neighbouring properties or the public realm. Additionally, the design of the building is of a high standard that links back to the use of the land with the external finishes of a non-reflective nature that will blend in with the landscape. This proposal is therefore consistent with PO 11.1. Earthworks proposed for the development include approximately 1.3m of cut along the rear portion of the building and 2m of fill along the front portion of the building. The extent of the earthworks only in relation to the proposed fill is marginally above what is envisaged by DPF 2.2 it is considered to be acceptable given that the area is proposed to be landscaped plus it will not be visible from any of the neighbouring properties or the public realm. Therefore, the proposal will not create any visual impacts and as such it still satisfies PO 2.2 despite not meeting the corresponding DPF.

Existing access arrangements have been reviewed by a traffic engineer as well as Council's Engineering department and it has been deemed to be suitable for the intended use with some minor modification required internally to widen a section of the driveway for two-way vehicle movement and seal the first portion of the driveway to the edge of Swamp road to prevent drag out. The proposal is therefore consistent with PO 2.1 and DPF 2.1.

## Overlays

**Environment and Food Production Areas:**

Desired Outcomes	
DO1	Protection of valuable rural, landscape, environmental and food production areas from urban encroachment
Performance Outcomes (PO) & Deemed to Satisfy (DTS)/Designated Performance Feature (DPF) criteria	
POs: 1.1	
DPFs: -	

Considering that the proposed development is not related to land division the above overlay is not considered to be relevant in assessment of this application.

**Hazards (Bushfire-High Risk):**

Desired Outcomes	
DO1	Development, including land division is sited and designed to minimise the threat and impact of bushfires on life and property with regard to the following risks: <ul style="list-style-type: none"> <li>a) potential for uncontrolled bushfire events taking into account the increased frequency and intensity of bushfires as a result of climate change</li> <li>b) high levels and exposure to ember attack</li> <li>c) impact from burning debris</li> <li>d) radiant heat</li> <li>e) likelihood and direct exposure to flames from a fire front.</li> </ul>
DO2	Activities that increase the number of people living and working in the area or where evacuation would be difficult is sited away from areas of unacceptable bushfire risk.
DO3	To facilitate access for emergency service vehicles to aid the protection of lives and assets from bushfire danger.
Performance Outcomes (PO) & Deemed to Satisfy (DTS)/Designated Performance Feature (DPF) criteria	
POs: 1.1, 2.1, 3.1 and 6.1	
DPFs: 6.1	

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As mentioned earlier in the report, the proposed external colours and materials are of non-reflective nature. The only exception is the front and west elevations which are proposed to be of glass façade. That being said the proposal is still considered to be in a location that will not result in magnification or reflection of light and therefore become a bushfire risk. The proposal is consistent with PO 1.1. The building is also proposed in an area that is not covered in dense hazardous vegetation or steep terrain to ensure consistency with PO 2.1.

The proposed building is not elevated above ground and as such there is no potential for trapping of debris against or underneath the building which ensures consistency with PO 3.1.

Adequate access has been designed from the road to the proposed structure along with a turning area for emergency vehicles to ensure consistency with PO 6.1 and DPF 6.1. Whilst the proposed use will increase the number of people working in the area it has been designed in a way that ensures that those people are not exposed to unnecessary bushfire risk. This has been done by placing the building away from hazardous vegetation and through the upgrade of the access point as well as the internal track in a way that ensures vehicles, including the emergency vehicles, are able to easily enter and exit the site. The proposal is therefore consistent with the intent of DO 2.

**Hazards (Flooding-Evidence Required):**

Desired Outcomes	
DO1	Development adopts a precautionary approach to mitigate potential impacts on people, property, infrastructure and the environment from potential flood risk through the appropriate siting and design of development.
Performance Outcomes (PO) & Deemed to Satisfy (DTS)/Designated Performance Feature (DPF) criteria	
POs: 1.1	
DPFs: -	

The subject land is not flood prone nor is there any evidence to suggest that the site of development is flood prone. As such it is considered that the above overlay is not applicable to the assessment of this application.

**Limited Land Division:**

Desired Outcomes	
DO1	The long term use of land for primary production is maintained by minimising fragmentation through division of land.
Performance Outcomes (PO) & Deemed to Satisfy (DTS)/Designated Performance Feature (DPF) criteria	
POs: 1.1 and 1.2	
DPFs: -	

Considering that the proposed development is not related to land division the above overlay is not considered to be relevant in assessment of this application.

**Mount Lofty Ranges Water Supply Catchment (Area 1):**

Desired Outcomes	
DO	None
Performance Outcomes (PO) & Deemed to Satisfy (DTS)/Designated Performance Feature (DPF) criteria	
POs: 2.4	
DPFs: -	

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The main concerns in this overlay relate to the on-site effluent disposal area to ensure that the proposal does not impact on the water quality of the Watershed Area 1. Upgrades and amendments to the existing on-site waste system has been reviewed and approved by the Department for Health and Wellbeing (DHW) but also further reviewed by the EPA to ensure that the proposal result in neutral and beneficial outcome on the water quality. The location and the design of the effluent disposal area has been designed to ensure compliance with the Health Act. The requirements in the Act are very similar to those outlined in PO 2.4 which the proposed development complies with as it has been approved by the DHW.

**Mount Lofty Ranges Water Supply Catchment (Area 2):**

Desired Outcomes	
DO1	Safeguard Greater Adelaide's public water supply by ensuring development has a neutral or beneficial effect on the quality of water harvested from secondary reservoirs or diversion weir catchments from the Mount Lofty Ranges.
Performance Outcomes (PO) & Deemed to Satisfy (DTS)/Designated Performance Feature (DPF) criteria	
POs: 1.1 and 1.2, 2.1, 2.4, 2.5, 3.1, 3.2, 3.6, 3.9 and 4.1	
DPFs: 1.2, 2.1, 2.4, 2.5, 3.1, 3.6 and 3.9	

The Stormwater Management Plan prepared by Clive Steele Partners provides an outline on how the stormwater from the building and associated car parking area should be managed. The design of the stormwater system includes management of stormwater on site by directing stormwater from the building and the new car parking area to an appropriately size soakage pit. The Stormwater Management Plan was reviewed and supported by Council's Engineering Department. The proposal is therefore considered to be consistent with the relevant POs 1.2, 3.1, 3.2, 3.3, 3.9 and DPFs 1.2 and 3.9.

The subject site is not connected to mains sewer or the community wastewater management system and therefore an on-site waste system had to be designed to accommodate the anticipated waste generating activities. Given the size of the waste system, **Department for Health and Wellbeing (DHW)** were the relevant authority for assessing and approving the designed waste system (DHW approval is included in the application information). The proposal was also referred to, and reviewed by, the EPA who determined that the proposal is going to have a beneficial or neutral impact on water quality. The proposal is therefore in accordance with POs 2.3, 2.4 and DPFs 2.3 and 2.4.

**Native Vegetation:**

Desired Outcomes	
DO1	Areas of native vegetation are protected, retained and restored in order to sustain biodiversity, threatened species and vegetation communities, fauna habitat, ecosystem services, carbon storage and amenity values.
Performance Outcomes (PO) & Deemed to Satisfy (DTS)/Designated Performance Feature (DPF) criteria	
POs: 1.1 and 1.2	
DPFs: 1.1	

The proposal does not include removal of any native vegetation. Additionally a native vegetation declaration form has been signed and provided confirming that the proposal does not include removal of native vegetation. The proposal is therefore consistent with PO and DPF 1.1.



**Prescribed Water Resources Area:**

Desired Outcomes	
DO1	Sustainable water use in prescribed surface water resources areas maintains the health and natural flow paths of water courses
Performance Outcomes (PO) & Deemed to Satisfy (DTS)/Designated Performance Feature (DPF) criteria	
POs: 1.1	
DPFs: 1.1	

The subject land is not connected to mains water and as such is reliant on the adequate on-site water supply to cater for the proposed development. Whilst PO 1.1 is more concerned with adequate water supply being available for primary production related activities, it does all seek that all developments have a lawful, sustainable and reliable water supply that does not place undue strain on water resources in prescribed surface water areas. It is considered that the expansion of the existing use with the added restaurant use proposed will have adequate on-site water supply to cater for the needs and as such be consistent with PO 1.1. Councils Health Department has also advised that premises using untreated, or a non-reticulated water supply may be required to have the waste tested regularly. In addition, the Safe Drinking Water Act 2011 and Regulations 2012 requires a drinking water provider to register with SA Health, develop, implement and review a Risk Management Plan and undergo regular independent inspection/audits.

**Water Resources:**

Desired Outcomes	
DO1	Protection of the quality of surface waters considering adverse water quality impacts associated with projected reductions in rainfall and warmer air temperatures as a result of climate change.
DO2	Maintain the conveyance function and natural flow paths of watercourses to assist in the management of flood waters and stormwater runoff.
Performance Outcomes (PO) & Deemed to Satisfy (DTS)/Designated Performance Feature (DPF) criteria	
POs: 1.1, 1.2 and 1.5	
DPFs: 1.5	

The works proposed are close to watercourses however there is still sufficient setback from the multiple water courses running through the property. The closest water course to the proposed building work is approximately 55m north and downslope. PO 1.5 seeks that development that increases surface water runoff includes a suitable sized vegetated land on either side of the water course. The corresponding DPF specifically seeks a minimum of 20m which the proposed development sufficient satisfies. Recommended condition 7 has also been attached requiring that the Soil Erosion and Drainage Management Plan (SEDMP) be provided to Council prior to Building Consent.

POs 1.1 and 1.2 also seek that development avoids damage to water courses and interference with the existing hydrology or water regime. The proposal is considered to achieve these requirements because it does not include any works within the water course whilst impacts to the hydrology are maintained given that any additional stormwater is proposed to be retained in a water tank with an overflow to a soakage pit before any further stormwater overflow ends up in a water course.

**General Development Policies****Clearance from Overhead Powerlines:**

Desired Outcomes	
DO1	Protection of human health and safety when undertaking development in the vicinity of overhead transmission powerlines.
Performance Outcomes (PO) & Deemed to Satisfy (DTS)/Designated Performance Feature (DPF) criteria	
POs: 1.1	
DPFs: 1.1	

This proposal will not impact on any powerlines and a declaration to this effect has also been provided by the applicant confirming that construction of the building is going to be in accordance with the section 86 of the Electricity Act 1996.

**Design:**

Desired Outcomes	
DO1	<p>Development is:</p> <ul style="list-style-type: none"> <li>a) contextual - by considering, recognising and carefully responding to its natural surroundings or built environment and positively contributes to the character of the immediate area.</li> <li>b) durable - fit for purpose, adaptable and long lasting.</li> <li>c) inclusive - by integrating landscape design to optimise pedestrian and cyclist usability, privacy and equitable access, and promoting the provision of quality spaces integrated with the public realm that can be used for access and recreation and help optimise security and safety both internally and within the public realm, for occupants and visitors.</li> <li>d) sustainable - by integrating sustainable techniques into the design and siting of development and landscaping to improve community health, urban heat, water management, environmental performance, biodiversity and local amenity and to minimise energy consumption.</li> </ul>
Performance Outcomes (PO) & Deemed to Satisfy (DTS)/Designated Performance Feature (DPF) criteria	
POs: 1.4, 1.5, 2.1, 2.3, 3.1, 3.2, 5.1, 6.1, 7.2, 7.3, 7.6, 7.7, 8.1, 15.1, 19.3, 19.4, 19.5, 20.1, 31.1 and 31.2	
DPFs: 1.4, 6.1, 8.1, 19.2, 19.3, 19.4 and 19.5	

DO 1 seeks development that is durable, fit for purpose, adaptable and long lasting. The proposed building is considered to adequately address this desired outcome considering that it has been designed to take into account multiple existing uses on the site as well as the additional use as a restaurant.

The design of the building has been carefully considered with the overall height, external colours and finishes blending in with the landscape. The overall footprint of the building is one of a larger scale but appropriate given that the building is proposed in the middle of the site with the setbacks from all boundaries in excess of 300m, additionally any views of the building if present from the road or neighbouring properties are going to be distant in nature and with the external finishes proposed it will blend in with the landscape. Taking into account the overall design, external finishes and the location which is significant removed from neighbouring properties and the public realm, the overall size and height of the building is considered to be appropriate. The curved roof design takes inspiration from a wine barrel minimises the overall bulk and scale of the building but also links the overall design and the use of the building to the primary production use of the land. All plant equipment is proposed to be stored inside the building in the nominated mechanical area, whilst all waste

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management, loading and unloading areas will also be out of view and internal to the site. The proposal is therefore considered to be consistent with POs 1.4, 1.5 and 15.1,

The site plan provided also shows a rough outline of the intended landscaping around the building. A detailed landscaping plan in this instance has not been requested given that the area is not going to be visible from public realm but it is considered that appropriate landscaping will be and can be provided around the building which will be consistent with POs 3.1 and 3.2.

This proposal also includes an expansion of existing car parking by provision of an additional 54 spaces. Car parking is proposed on the southern side of the existing parking area nestled in-between the existing trees. As such all of the existing vegetation will ensure that the additional parking areas are well screened from the road. No additional landscaping is proposed or considered necessary. Internally appropriate gravel tracks have been proposed providing legible and direct link between parking areas with the development. Stormwater management plan has also been prepared which caters for stormwater runoff from the additional parking areas with a swale drain directing the stormwater to the soakage pit. The proposal is therefore consistent with POs 7.2, 7.3, 7.6, and 7.7.

The proposed development includes a combination of cut and fill. Total amount of excavation proposed is 1.2m and total amount of fill proposed is 1.3m. Additional earthworks are also required for the car parking area however these earthworks are not exceeding that required for the proposed building. Overall, the extent of earthworks is within what is anticipated by DPF 8.1. Additionally, these earthworks are not going to be visible from public realm or any of the neighbouring properties given their location. Apart from the above earthworks, some minor modification is also required for the existing access track to allow for a two-way vehicle movement as illustrated in the traffic report and approved by Council's Engineering Department. These earthworks are minor in nature and only include widening of the existing track. Overall, it is considered that all of the earthworks associated with the proposed development satisfies the relevant POs and DPFs.

Continuing on from the above, POs 19.3, 19.4 and 19.5 all seek that vehicle access points and driveways are safe, convenient and minimise interruption to the operations of the public road. As part of the traffic analysis, it was determined that the location of existing access point from Swamp Road is adequate but it is recommended the widening of the access point to 6 metres as well as internal driveway to a length of 100m to allow for two way vehicle movements is undertaken to prevent any potential queuing of traffic on Swamp Road. Recommendations from the traffic engineer and Council's Engineering have been accepted by the applicant which will ensure compliance with the above POs.

**Infrastructure and Renewable Energy Facilities:**

Desired Outcomes	
DO1	Efficient provision of infrastructure networks and services, renewable energy facilities and ancillary development in a manner that minimises hazard, is environmentally and culturally sensitive and manages adverse visual impacts on natural and rural landscapes and residential amenity.
Performance Outcomes (PO) & Deemed to Satisfy (DTS)/Designated Performance Feature (DPF) criteria	
POs: 1.1, 11.1, 12.1 and 12.2	
DPFs: 11.1, 12.1 and 12.2	

As mentioned earlier in the report, the subject land is not connected to main water which means that it does not satisfy the requirements of a DPF 11.1. That being said, adequate on-site water supply in the form of water tanks and bores with appropriate licences exist that will be provide the required water supply for the intended use and ensure compliance with PO 11.1.

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PO 12.1 seeks that the development is connected to an approved common wastewater disposal service which complies with the South Australian Public Health Act 2011. The subject site with its existing uses has an existing on-site waste system which was previously approved by DHW. Considering that this proposal includes an increase to the cellar door and the overall site capacity and also introduces a restaurant use it did require that the on-site waste system is upgraded. As such an amended waste system which includes the following was approved by DHW:

- The conversion of 2x 5kL secondary treatment systems for use as pump sumps.
- A Biocycle EP200 secondary treatment system of 30 kL/d hydraulic capacity and 9 kg BOD5/d organic capacity.
- An on-site land application system of 14.8 kL/d capacity, consisting of
- 1.3.1. A 3,290m<sup>2</sup> surface irrigation area.
- Decommissioning the following:
  - i. 2x Ozzie Kleen RP10 secondary treatment systems
  - ii. Ri-treat 3250 secondary treatment system.
  - iii. 200m<sup>2</sup> irrigation area.

Full details of the DHW approval are provided in the Internal Referral attachment.

**Interface between land Uses:**

Desired Outcomes	
DO1	Development is located and designed to mitigate adverse effects on or from neighbouring and proximate land uses.
Performance Outcomes (PO) & Deemed to Satisfy (DTS)/Designated Performance Feature (DPF) criteria	
POs: 1.2, 2.1, 4.1, 4.2, 4.5, 4.6, 6.1 and 6.2	
DPFs: 2.1, 4.1 and 4.6	

The majority of the concerns from the representors were in relation to the number of patrons and noise impacts that could result with the proposed development. PO 1.2 seeks that development adjacent to a site containing a sensitive receiver is designed to minimise impacts. This is done through limiting the noise impacts as well as hours of operation associated with the use. The hours of operation associated with the proposal vary depending on use. As mentioned in the outline of the proposal, the hours of operation associated with the cellar door are not changing from current approval being 7 days a week 10am to 6pm. The only change in relation to this use is the capacity of the cellar door is proposed to be increased on Saturday and Sunday from 75 persons to 200 persons. Whilst the hours of operation are not changing the additional capacity would create additional noise and as such these impacts need to be considered. As far as function use, the changes proposed in this area include increasing the overall capacity and the number of functions from 130 persons 18 times a year and special events for 208 persons 7 times a year to functions for 130 persons 32 times a year 3pm to midnight on a Friday, Saturday and Sunday and removing the special events. Additional use of a restaurant has also been proposed two (2) times a week at the 130 person capacity to operate on either Friday, Saturday or Sunday. At any one time the overall capacity of the site would be 330 persons during the overlap period when a cellar door is occupied with 200 patrons and a function or a restaurant of 130 persons is occupied. This overlap would only occur on weekends between the hours of 3pm and 6pm.

PO 2.1 outlines that in assessing the hours of operation one of the things that needs to be considered is the extent to which the development is desired in the zone. DPF 2.1 specifies hours of operations for different uses and whilst it excludes function centres it does include a shop with the recommended hours being consistent with the current cellar door hours of operation with the exception of a 1-hour departure for weekend trading. Functions centres and a restaurant are envisaged forms of land use in the Productive Rural Landscape Zone but only as a value adding activity associated with the primary production use of the land. It

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is also important to note that residential uses which the subject land is surrounded by is also an envisaged form of land use however it is also important to point out that whilst both of these uses are envisaged in the zone the primary use that is envisaged is primary production activities. As such in assessing the impacts of conflicting land uses in this circumstance it is important to establish residential use is not more envisaged than a function centre and vice versa as both are seen as additional uses to support the primary production use of the land.

Taking into consideration PO 2.1 which seeks that non-residential development does not unreasonably impact the sensitive receivers in the locality through hours of operation it was established above that part of this PO was satisfied because the uses are envisaged for the zone. In order to further establish if the hours of operation are appropriate it would need to be done by looking at POs 4.1, 4.2, 4.4, 4.6 and DPF 4.6 which speak to activities generating noise or vibration. An acoustic report has been prepared by the applicant which looks at the noise impact on the adjacent sensitive receivers. The noise generating activities that were taken into account include music, patron noise, delivery vehicles, rubbish collection, and car parking. Noise assessment investigation was undertaken factoring in 3 different scenarios and has determined that the music noise at the nearest sensitive receiver will be within the day and night time criterion with the following recommendations:

- No speaker are to be installed external to the proposed function centre;
- The sound pressure levels from the sound system be limited to not more than 90dBA with the levels are measured approximately in the middle of the function centre;
- external performers should only use the sound system provided by the function centre;
- the sound system should be tuned and commissioned by an acoustic engineer the speakers are in place and the sound limiter is installed; and
- The doors and any operable glazing be fitted with compressible acoustic seal.

These requirements have also been reinforced by recommended conditions 14, 15 and 16. In reference to existing approvals for the function centre, there are existing conditions which limit music noise and entertainment and these conditions will continue to apply to entertainment and music associated with outdoor functions with the exception to the operating hours for functions which this application is amending. These conditions are:

- The entertainment is not to exceed 57dB(A) between 10:00am and 10:00pm and 50dB(A) from 10:00pm and 12:00am (midnight) within nearby dwellings. Sound pressure level from the sound system shall be limited to be not more than 85dBA at 1m from each speaker. The Operator or Duty Manager duty shall measure the sound pressure level from each speaker at 1m and ensures it does not exceed 85dBA during the function and special events in accordance with the requirements set in the Noise Management Plan and in accordance with the Environmental Noise Assessment report prepared by BESTEC dated 1 September 2020.
- Entertainment shall be contained within the building during the operating hours of the functions and special events. Any outdoor entertainment associated with the functions and special events shall be limited to between 10:00am and 5:00pm on any day.

Noise levels from patrons based on the 3 different scenarios as mentioned above has also been looked at and was deemed to be in accordance with the criteria and as such no further acoustic treatments were required. Noise assessment associated with the delivery vehicles and rubbish collection was also undertaken assuming that delivery and rubbish collection would occur in the car parking area and was determined that noise levels associated with these activities were also within the day time criterion with recommendations that deliveries occur during day time hours being between 10am and 6pm whilst noting that rubbish collection will only occur during the day. Noise levels associated with car parking has also been assessed measuring it to the closest

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sensitive receiver being 350m away and was determined to comply with the selected criteria for environmental noise.

Based on the noise assessment undertaken for the proposed development and based on the proposed numbers it was determined that all noise generating activities will meet the required criterion with some added restrictions mainly in relation to music. As such it is considered that the proposal satisfies all of the relevant requirements in PO 2.1 and also the POs 4.1, 4.2, 4.4, 4.6 and DPF 4.6.

**Out of Activity Centre Development**

Desired Outcomes	
DO1	The role of Activity Centres in contributing to the form and pattern of development and enabling equitable and convenient access to a range of shopping, administrative, cultural, entertainment and other facilities in a single trip is maintained and reinforced.
Performance Outcomes (PO) & Deemed to Satisfy (DTS)/Designated Performance Feature (DPF) criteria	
POs: 1.1 and 1.2	
DPFs: -	

The subject land is in close proximity to Townships of Balhannah and Oakbank with both of these towns having the main street as its primary activity centre for shopping and administrative services. The proposed expansion of existing use as well as the addition of a restaurant use with the associated building work is considered a commercial activity for value adding purposes related to the primary production use of the land. The activity is located outside the Activity Centre and is of scale and nature that will not take away from activities found in the main street of the nearby Townships. The proposal is therefore confident with PO 1.1. The proposal however is not consistent with PO 1.2 given that it is not of nature which supports the needs of the local community nor does it expand the range of services on offer and support the role of the Activity Centre.

**Tourism Development:**

Desired Outcomes	
DO1	Tourism development is built in locations that cater to the needs of visitors and positively contributes to South Australia's visitor economy.
Performance Outcomes (PO) & Deemed to Satisfy (DTS)/Designated Performance Feature (DPF) criteria	
POs: 1.1	
DPFs: -	

PO 1.1 seeks that tourist development complements and contributes to local, natural, cultural and historical context by supporting immersive natural experience, showcases South Australian landscape and produce and with events and functions connected to local food, wine and nature. It is considered that the proposed development both from the land use perspective as well as the built form perspective satisfy all aspects of this PO. The zone envisages value adding activities associated with primary production related activities. As mentioned earlier in the report the primary use of this land is for viticulture purposes with already established secondary uses being a cellar door and a function centre. These activities are considered to contribute to the tourism in the area promoting the Adelaide Hills as a wine region. As such additional expansion of this use with the added restaurant use is considered to be in accordance with what the PO is seeking. Additionally, the proposed design of the building which takes inspiration from a wine barrel further links back to the primary production use of the land and what the region is known for.

**Transport, Access and Parking:**

Desired Outcomes	
DO1	A comprehensive, integrated and connected transport system that is safe, sustainable, efficient, convenient and accessible to all users.
Performance Outcomes (PO) & Deemed to Satisfy (DTS)/Designated Performance Feature (DPF) criteria	
POs: 1.1, 1.2, 1.3, 1.4, 3.1, 3.3, 3.4, 4.1, 5.1, 6.2, 6.4, 6.5, 6.6 and 6.7	
DPFs: 1.4, 3.1, 5.1 and 6.6	

The subject land is serviced by two existing access points, one being from Swamp Road and the other from Oakwood Rd. The primary access for the site and the existing cellar door and function centre use as well as the proposed building is from Swamp Road which is a sealed road in care and control of the Council. One of the concerns raised by the representors during the public notification process was the traffic and the impacts that this would have on the use of Swamp Road. As part of the response to the representations a traffic report was prepared by a qualified traffic engineer which determined that the location of the existing access point was satisfactory and that the Swamp Road would be able to appropriately accommodate the forecast increase in the volume of traffic. This report was also reviewed by Council's Engineering Department who agreed with the determinations on the capacity of Swamp Road and the location of the access point. However, further request was made by Council Engineering to have the driveway widened to minimum width of 6m and a length of 100m to allow for two-way vehicle movements which would prevent backing up of traffic on Swamp Road. Additionally, it was requested that the access be sealed from the road edge to 20m within the property boundary to prevent drag out onto the Road. Both of these recommendations were accepted by the applicant. As such it is considered that the proposal is consistent with POs and DPFs 1.1, 1.2, 1.3, 1.4, 3.1, 3.3 and 3.4.

The existing car parking layout contains 28 parking spaces on the northern side of the access track immediately next to the existing cellar door and function area space whilst staff parking spaces are scattered throughout different parts of the site but within the vicinity of the cellar door. This proposal now seeks to establish 54 new parking spaces on the southern side of the access track immediately opposite the existing parking spaces plus a universal access parking space immediately next to the proposed building, with all of the car parking spaces being in close proximity to the existing and proposed buildings with clear pedestrian paths between different areas. Table 1 General of Street Car Parking Requirements for a shop in the form of a restaurant seeks 0.4 spaces per seat and based on the proposed restaurant capacity of 130 persons there would be a requirements of 52 on-site parking spaces. As such it is considered that the restaurant element satisfies the parking requirements. In reference to the function centre use Table 5 is silent and does not provide specific car parking requirements for this use. As such if the same car parking ration was applied as to the restaurant it would satisfy the requirements based on the capacity of the proposed restaurant. If the same car parking requirements were applied as to the cellar door which is 5.5 spaces based on 100m<sup>2</sup> it would also satisfy the requirements. The traffic report that was prepared as a response to the representations also did not identify any concerns with the nominated car parking numbers and determined that the car parking layout satisfies *off-street car parking standards (AS/NZS 2890.1:2004 and AS/NZS 2890.6:2009) and will meet the requirements of a User Class 2 facility (medium term parking such as entertainment centres and accommodation facilities)*. The proposal is therefore consistent with POs and DPFs 4.1, 5.1, 6.2, 6.4, 6.5 and 6.7.

Loading and unloading areas have not been identified on the site plans provided however it is not considered necessary in this circumstance. Given the size of the allotment and considering that ample space would be available to provide loading and unloading areas in different parts of the property to service both the existing and proposed building it is considered that the proposal satisfies PO 6.6. Condition 5 has also been recommended restricting loading and unloading within the confines of the subject land between the hours of 10:00am and 6:00pm.

## **CONCLUSION**

The proposal is for a construction of a function centre and restaurant building with associated car parking and landscaping, 100,000 litre underground water storage tank and variations to Development Authorisations 16/973/473 to increase the overall capacity, the number of functions and operating hours and to 16/882/473 to increase the capacity of the existing cellar door. The main concern with the proposal is the increased capacity, frequency of functions and noise, as well as traffic issues that would be generated by the development and the overall appropriateness of the use in the area.

As mentioned earlier in the report, the only element of this proposal that is new in terms of the use of the land is the restaurant. All other uses are existing, and this proposal is seeking to further entrench those uses by proposing a purposed built facility and increase the overall capacity and frequency of use. The zoning is primarily focused on promoting primary production land uses whilst also encouraging value adding activities associated with those uses. A shop, both in a form of a cellar door and a restaurant, as well as a function centre, are all envisaged as appropriate uses in the zone provided issues associated with those uses can effectively be managed. As such it is considered that the use of the land is consistent with what the zone is seeking. The use is a value adding activity to what is a predominantly a primary production allotment used for viticulture purposes.

The main issues with the activities on the land and proposed expansion are noise and traffic issues as well as environmental issues all of which were also raised as concerns by the neighbours. Environmental issues have been addressed through the design of an appropriate on-site waste system which was approved by DHW. The overall proposal was also reviewed by the EPA from water quality perspective and deemed to have neutral or beneficial outcome on the water quality. Traffic issue was also considered and reviewed by the applicants traffic engineer as well as Council's Technical Officer. Swamp Road was deemed adequate to cater for the additional traffic volumes, car parking was also deemed adequate whilst some modification to the access point and internal driveway track were recommended to allow for two-way vehicle movements. Noise issues were also considered and the acoustic assessment undertaken has determined that music levels can be kept to the day time and night time Environmental Protection Noise Policy criterion with some additional measures recommended for music. Noise from patrons, car parking, as well as delivery and rubbish vehicles, were all deemed acceptable and within the noise level criteria.

The overall size and the design of the building is considered appropriate. The nominated location of the building will mean that it will not be readily visible from the public realm or any of the neighbouring properties. The design links back to the use of the land whilst the external colours and materials are of non-reflective nature that will blend in with the landscape. The location and the overall footprint of the works, including the areas around the building, the car parking, as well as the on-site waste system, are all clustered together with other buildings on site meaning that the works will not take away any significant primary production land.

Council staff are satisfied the proposed development is sufficiently in accord with the Planning and Design Code to warrant consent.

## **RECOMMENDATION**

**It is recommended that the Council Assessment Panel resolve that:**

- 1) Pursuant to Section 107(2)(c) of the Planning, Development and Infrastructure Act 2016, and having undertaken an assessment of the application against the Planning and Design Code, the application is NOT seriously at variance with the provisions of the Planning and Design Code; and**



**ITEM 8.1**

- 2) Development Application Number 21019844, for Construction of a function centre and restaurant building with associated car parking and landscaping, 100,000 litre underground water storage tank and variations to Development Authorisation 16/973/473 to increase the overall capacity, the number of functions and operating hours and Development Authorisation 16/882/473 to increase the capacity of the existing cellar door, and to undertake the development in two stages, Stage 1: Vary cellar door capacity and number of functions, with deletion of special events, upgrade of car parking, vehicle access and waste control system, Stage 2: Construction of the function centre and restaurant building and remainder of works, by Cobbs Hill Estate at 382B Swamp Road, Oakbank is granted Planning Consent subject to the following conditions:

**CONDITIONS**

**Planning Consent**

- 1) The development granted shall be undertaken and completed in accordance with the stamped plans and documentation, except where varied by conditions below.
- 2) All external lighting shall be directed away from residential development and, shielded if necessary to prevent light spill causing nuisance to the occupiers of those residential properties.
- 3) All external materials and finishes shall be of subdued colours which blend with the natural features of the landscape and are of a low-light reflective nature.

**NOTE:** browns, greys, greens and beige are suitable but galvanised iron and zincalume are not suitable.

- 4) Prior to stage 1 of the application being initiated, all car parking spaces, driveways and manoeuvring areas shall be designed, constructed, and delineated in accordance with Australian Standard AS 2890.1:2004. Delineation and directional arrows shall be clearly visible and maintained in good condition at all times.

Driveways, vehicle manoeuvring and parking areas shall be constructed of compacted gravel and maintained in good condition at all times to the reasonable satisfaction of the Council.

- 5) Prior to the stage 1 of the application being initiated the wastewater treatment system must be established in accordance with the report 'Wastewater Engineers Report Cobb's Hill Estate Wastewater System Upgrade for Function Centre & Cellar Door' by Ametqua, dated 21 June 2022 and existing on-site wastewater system must be decommissioned and the existing irrigation area incorporated into the new irrigation area.
- 6) Prior to the stage 1 of the application being initiated the access to the property shall be modified and constructed in accordance with the following requirements and maintained at all times to the reasonable satisfaction of Council:
  - Driveway crossover and internal access track shall be widened and constructed using compacted gravel to a width of 6m and a length of 100m to allow for a two way vehicle movement;
  - Bitumen seal shall be laid for a distance of 20 metres from the Swamp Road carriageway edge to inside the property boundary. Construction shall include 100mm of compacted rubble base and 40mm AC10 bitumen.
  - Maximum crossover width of 6 metres; and  
Driveway to be constructed in accordance with Council Standard Detail drawing for Piped Entrance for rural verge crossover (refer attachment).
- 7) Prior to Building Consent being granted for stage 2 of the application the applicant shall prepare and submit to Council a Soil Erosion and Drainage Management Plan (SEDMP) for the site for Council's approval. The SEDMP shall comprise a site plan and design sketches that detail erosion control methods, areas of stock piled soil and installation of sediment collection devices that will prevent:
  - soil moving off the site during periods of rainfall;
  - erosion and deposition of soil moving into the remaining native vegetation; and

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### **ITEM 8.1**

- soil transfer onto roadways by vehicles and machinery.

The works contained in the approved SEDMP shall be implemented prior to construction commencing and maintained to the reasonable satisfaction of Council during the construction period.

- 8) Prior to construction of the approved development straw bales (or other soil erosion control methods as approved by Council) shall be placed and secured below areas of excavation and fill to prevent soil moving off the site during periods of rainfall.

Any queries regarding the clearance of native vegetation should be directed to the Native Vegetation Council Secretariat on 8303 9777. This must be sought prior to Full Development Approval being granted by Council.

- 9) All materials and goods shall at all times be loaded and unloaded within the confines of the subject land between the hours of 10:00am and 6:00pm. All Materials and goods shall not be stored on the land in areas delineated for use as car parking.
- 10) At any one time, the overall capacity of the site shall be limited to a maximum of 330 persons. This includes any associated outdoor areas for liquor licensing purposes allowing the restaurant and a function to operate concurrently or the cellar door and a function to operate concurrently.
- 11) The overall capacity of the cellar door shall be 75 persons Monday to Friday and 200 persons Saturday and Sunday.
- 12)
- a) The number of functions in a calendar year shall not exceed 32 with only one (1) function to occur on site at a time. A record of all functions shall be maintained and available for inspection by the Council upon request.
- b) Such functions shall have a maximum capacity of 130 persons and the operating days and hours for the functions shall be Friday, Saturday or Sunday 11:00am to 12:00pm (Midnight). Any increase in the number of functions/capacity as well as hours or days of operation will require separate development approval.
- 13) The use of the restaurant shall be limited to twice a week and the maximum capacity of the restaurant shall be 130 persons at any one time. Operating days and hours of the restaurant shall be either Friday, Saturday or Sunday from 11:00am to 10:00pm.
- 14) Stormwater from the car park and all hard surface area areas shall be managed in accordance with the stormwater management plan prepared by Clive Steele Partners, drawing number 20126-SK1 version P2 approved by Adelaide Hills Council. All other stormwater generated by the development hereby approved shall be managed on-site to the satisfaction of Council. All stormwater infrastructure shall be installed within 3 months of the completion of each stage of the development.
- 15) All waste shall be removed from the subject land at least once weekly. Collection of waste shall be carried out only between the hours of 7:00am and 5:00pm and only Monday to Friday.
- 16) Entertainment in the form of a range of music shall be contained within the restaurant/function building during the operating hours. Windows and doors of the building shall be kept closed during times when music is played.
- 17) Prior to occupation, the sound system shall be tuned and commissioned by an acoustic engineer in accordance with the recommendations from the Bestec Acoustic Services 100% Design Report dated 19 January 2023. When the nominated noise levels are achieved, the sound limiter and main amplifier should be locked by the acoustic engineer to prevent the settings being adjusted by staff of performers.

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- 18) All external performers shall only use the sound system and amplifier provided by the function centre. No external sound systems and amplifiers are permitted to be used unless tuned and commissioned by an acoustic engineer prior to comply with the recommendations from Bestec Acoustic Services 100% Design Report dated 19 January 2023.
- 19) Except where varied by this authorisation, all other conditions, plans and details relating to Development Authorisations 16/973/473 and 16/882/473 continue to apply to this amended authorisation.

#### **Conditions imposed by Environment Protection Authority under Section 122 of the Act**

- 20) The existing on-site wastewater system (as detailed in the 'Wastewater Engineers Report Cobb's Hill Estate Wastewater System Upgrade for Function Centre & Cellar Door' by Ametqua, dated 21 June 2022) must be decommissioned and the existing irrigation area incorporated into the new irrigation area prior to occupation of the new function centre.
- 21) The wastewater treatment system must be established in accordance with the report 'Wastewater Engineers Report Cobb's Hill Estate Wastewater System Upgrade for Function Centre & Cellar Door' by Ametqua, dated 21 June 2022" prior to occupation of the new function centre.

#### **ADVISORY NOTES**

##### **General Notes**

- 1) No work can commence on this development unless a Development Approval has been obtained. If one or more consents have been granted on this Decision Notification Form, you must not start any site works or building work or change of use of the land until you have received notification that Development Approval has been granted.
- 2) Appeal rights – General rights of review and appeal exist in relation to any assessment, request, direction or act of a relevant authority in relation to the determination of this application, including conditions.
- 3) This Planning Consent is valid for a period of twenty-four (24) months commencing from the date of the decision, subject to the below or subject to an extension having been granted by the relevant authority. If applicable, Building Consent must be obtained prior to expiration of the Planning Consent.
- 4) Where an approved development has been substantially commenced within 2 years from the operative date of approval, the approval will then lapse 3 years from the operative date of the approval (unless the development has been substantially or fully completed within those 3 years, in which case the approval will not lapse).
- 5) The applicant is advised that any proposal to clear, remove limbs or trim native vegetation on the land, unless the proposed clearance is subject to an exemption under the Regulations of the Native Vegetation Act 1991, requires the approval of the Native Vegetation Council. For further information visit:  
[www.environment.sa.gov.au/Conservation/Native\\_Vegetation/Managing\\_native\\_vegetation](http://www.environment.sa.gov.au/Conservation/Native_Vegetation/Managing_native_vegetation)

**Advisory notes recommended by Environment Protection Authority under Section 122 of the Act**

- 6) The applicant is reminded of its general environmental duty, as required by section 25 of the Environment Protection Act 1993, to take all reasonable and practicable measures to ensure that the activities on the whole site, including during construction, do not pollute the environment in a way which causes or may cause environmental harm. This includes taking all reasonable and practicable measures to minimise the potential for pollution from sediment and waste generated on-site during construction. Further guidance can be sought from the EPA's Stormwater Pollution Prevention Code of Practice for the Building and Construction Industry and the EPA's Handbook for Pollution Avoidance on Commercial and Residential Building Sites ([http://www.epa.sa.gov.au/files/47790\\_bccop1.pdf](http://www.epa.sa.gov.au/files/47790_bccop1.pdf)).
- 7) The applicant is reminded of the relevant provisions of the Environment Protection (Water Quality) Policy 2015 including the requirement to take all reasonable and practicable measures to prevent or minimise environmental harm and the pollution of waters. The Environment Protection (Water Quality) Policy can be found at: [https://www.epa.sa.gov.au/environmental\\_info/water\\_quality](https://www.epa.sa.gov.au/environmental_info/water_quality).
- 8) More information about the Environment Protection Authority and the Environment Protection Act and policies can be found at: [www.epa.sa.gov.au](http://www.epa.sa.gov.au).

**OFFICER MAKING RECOMMENDATION**

**Name:** Doug Samardzija  
**Title:** Senior Statutory Planner

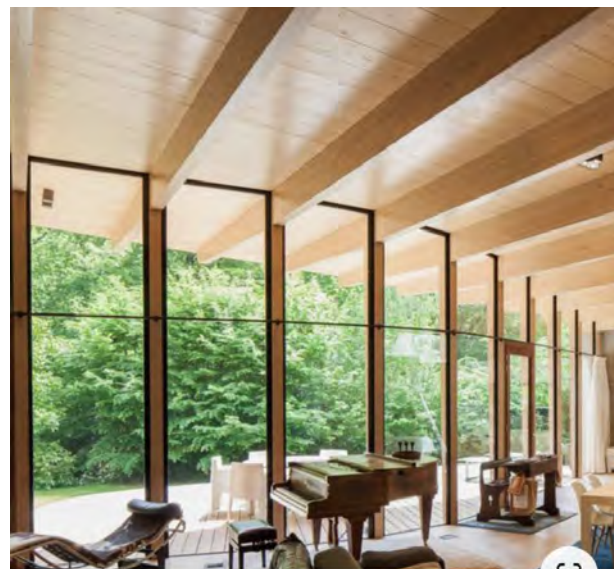




ARTISTS IMPRESSION



MOOD BOARD



04.03.2021 PLANNING ISSUE  
15.07.2021 PLANNING REV 2

anatoly patrick  
architect

0401 387 789

PROPOSED  
FUNCTION CENTRE

382 SWAMP RD  
OAKBANK

FOR  
COBBS HILL ESTATE

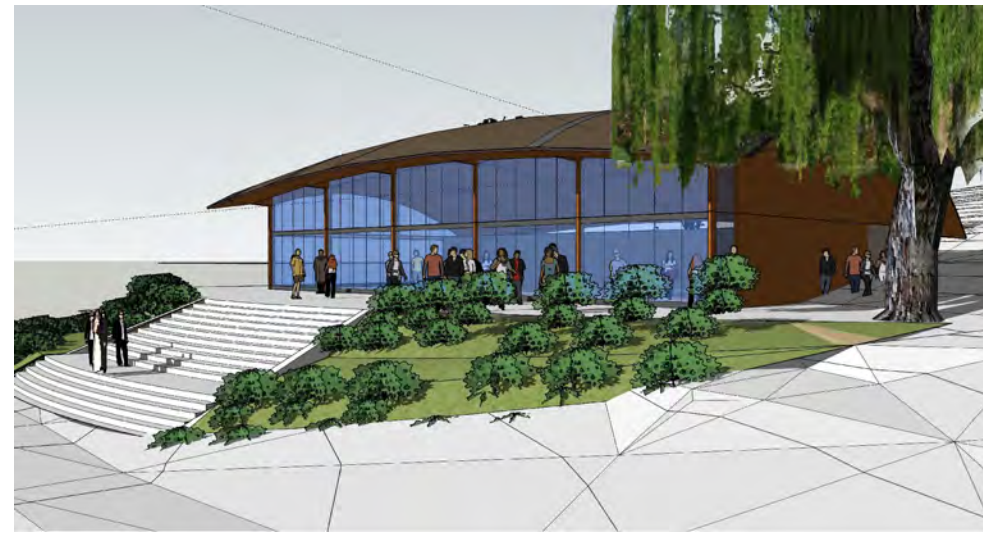
START DATE 2020  
JB NO 2014

**CONCEPT  
DESIGN**

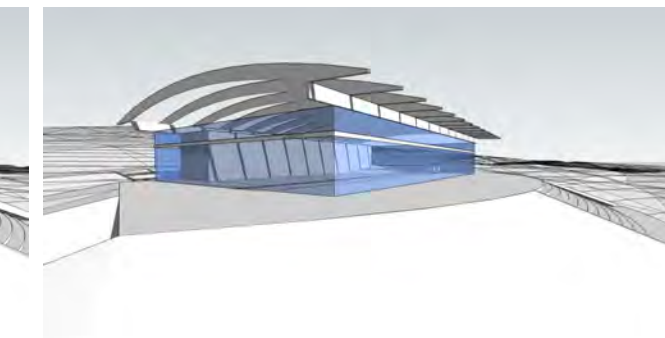
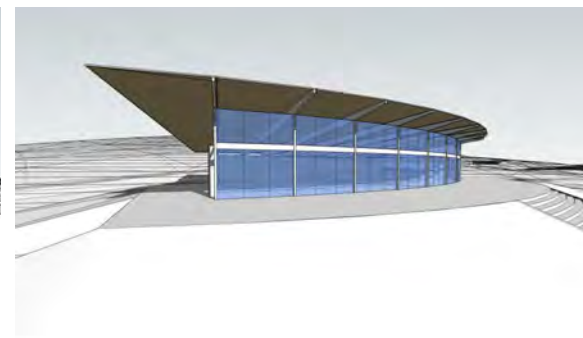
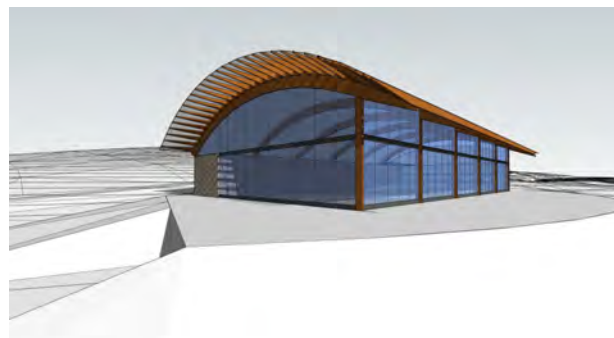
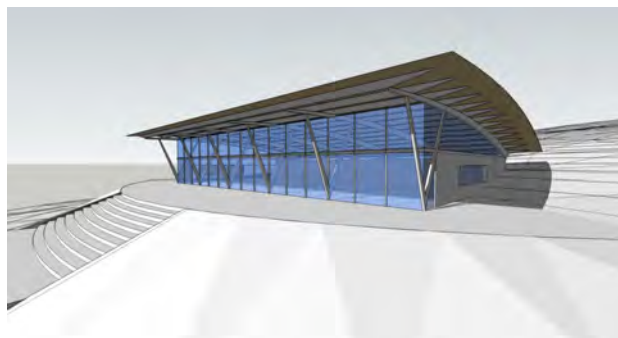
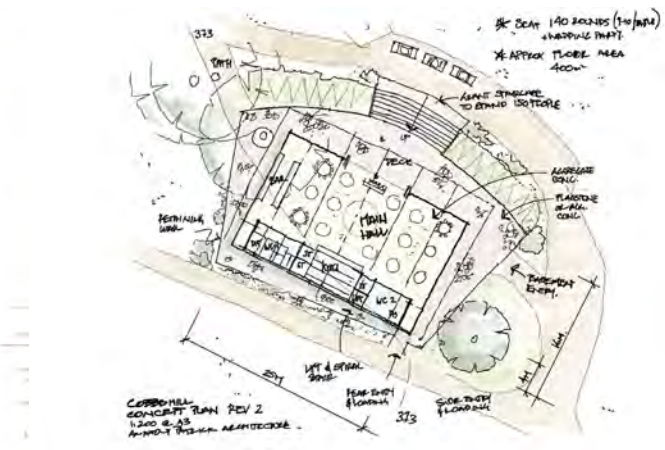
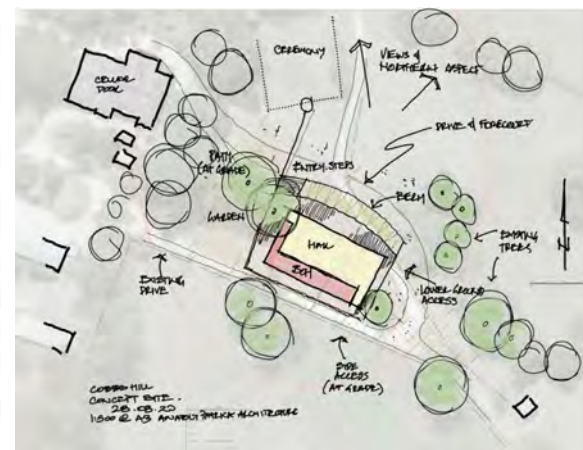
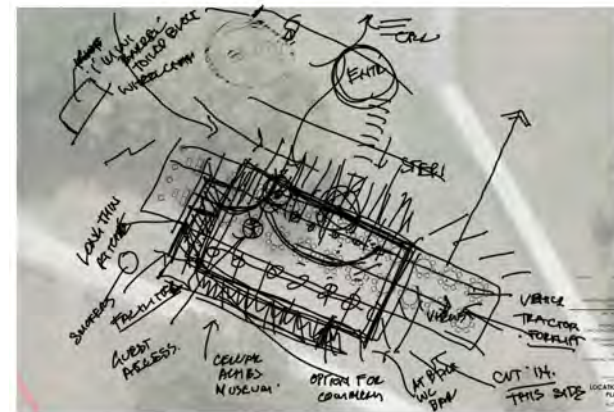
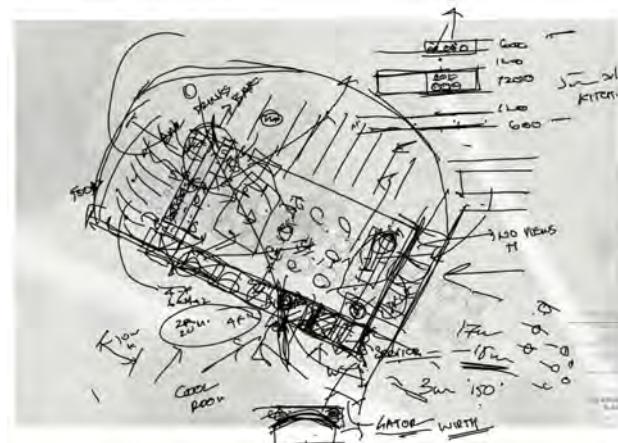
A/AA A

1:1 @ A3





DESIGN MODEL CONCEPT



DESIGN DEVELOPMENT

04.03.2021 PLANNING ISSUE  
15.07.2021 PLANNING REV 2

anatoly patrick  
architect

0401 387 789

PROPOSED  
FUNCTION CENTRE

382 SWAMP RD  
OAKBANK

FOR  
COBBS HILL ESTATE

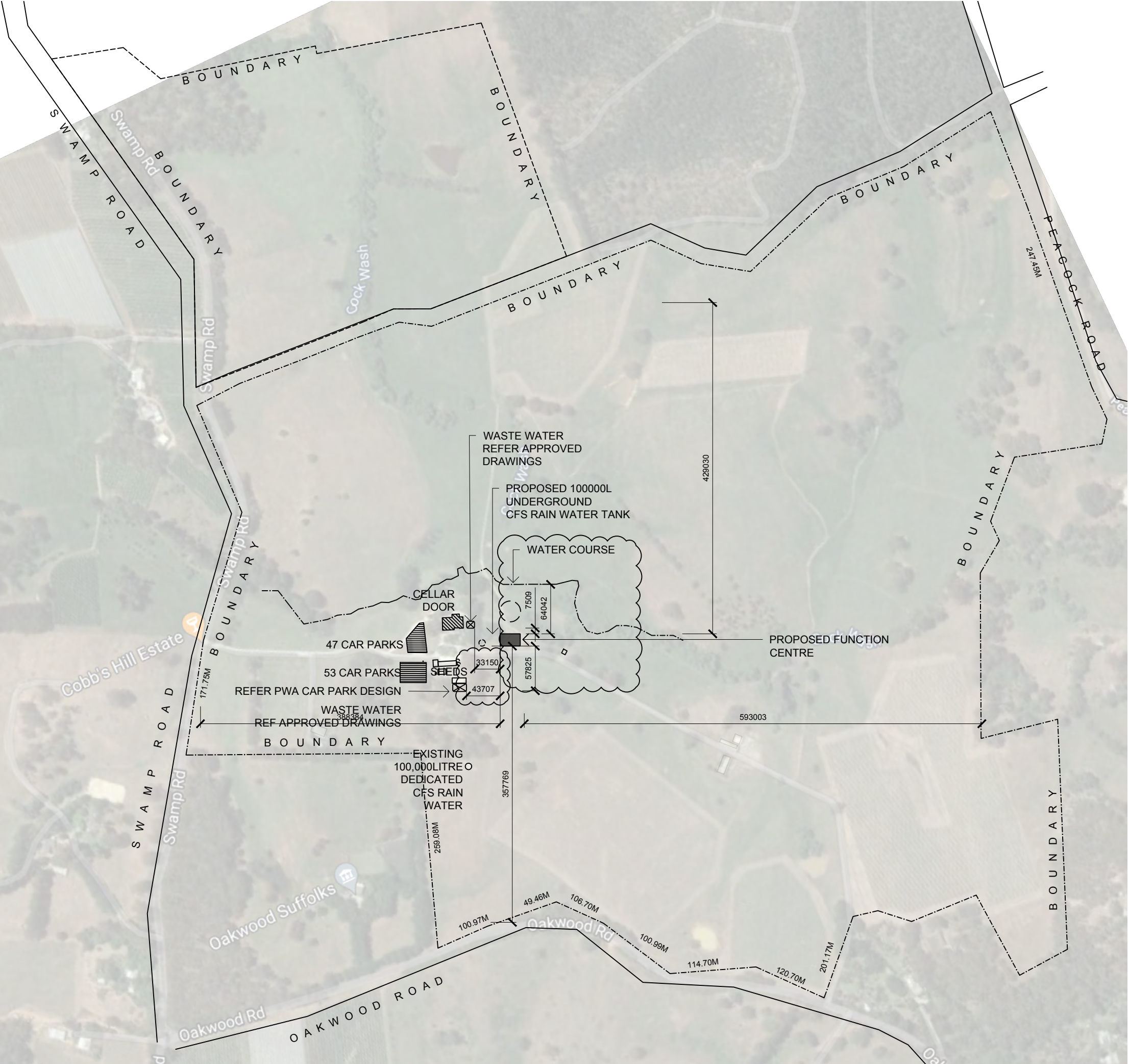
START DATE 2020  
JB NO 2014

**DESIGN  
DEVELOPMENT**

A/BB A

1:1 @ A3





- FIRE FIGHTING
- DEDICATED WATER TANKS PROVIDED FOR CFS USE
  - TURNING CIRCLE SUITABLE FOR FIRE TRUCK USE

04.03.2021 PLANNING ISSUE  
15.07.2021 PLANNING REV 2  
03.09.2021 DIMS TO WASTE WATER

  
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PROPOSED  
FUNCTION CENTRE  
  
382 SWAMP RD  
OAKBANK  
  
FOR  
COBBS HILL ESTATE

START DATE 2020  
JB NO 2014

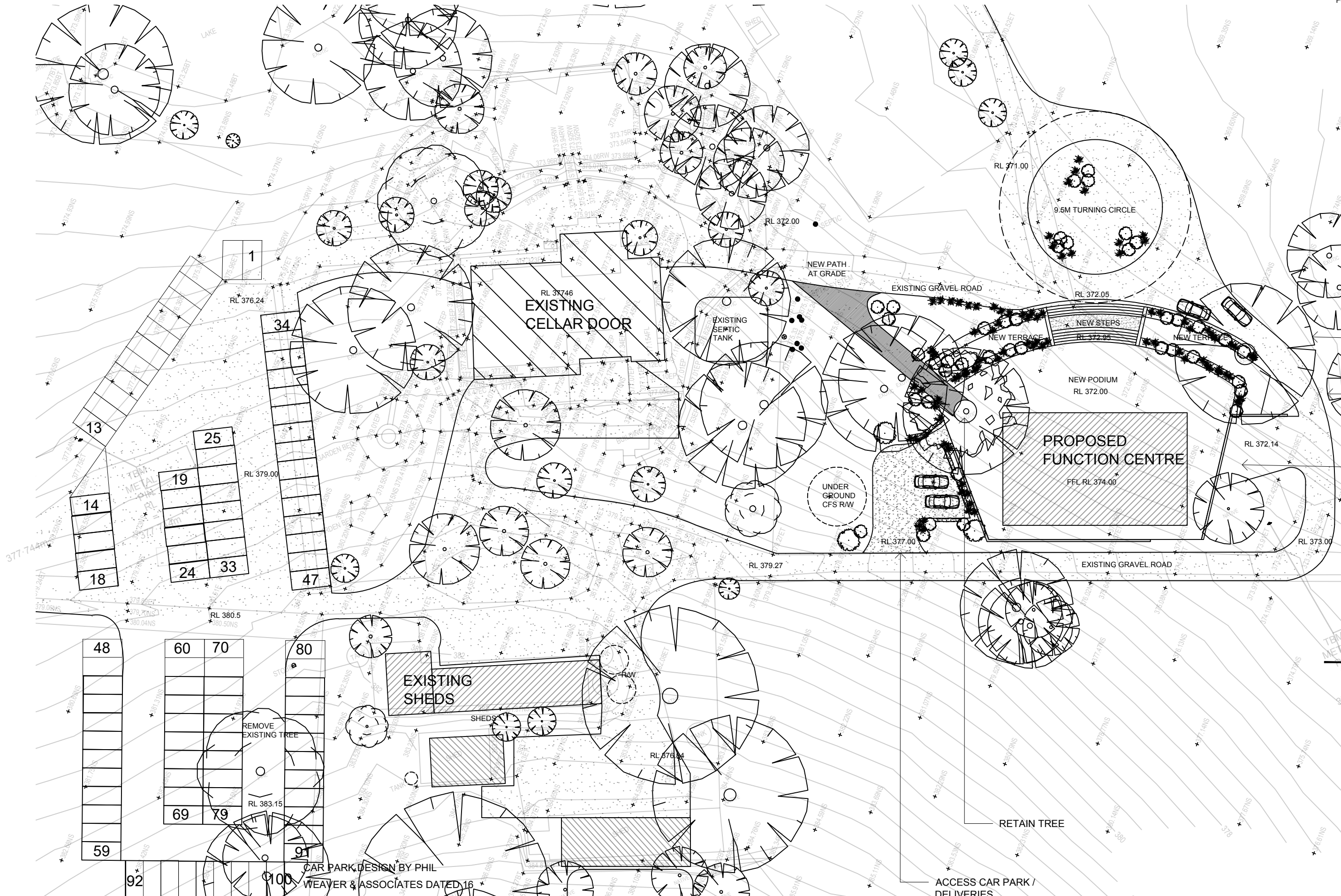
LOCATION  
PLAN

A/01 B

1:500 @ A3



FIRE FIGHTING  
DEDICATED WATER TANKS  
PROVIDED FOR CFS USE  
TURNING CIRCLE SUITABLE  
FOR FIRE TRUCK USE



REMOVE  
TREE  
(OLIVE)

REDIRECT  
GRAVEL  
ROAD

BASEMENT  
ACCESS

04.03.2021 PLANNING ISSUE  
15.07.2021 PLANNING REV 2  
27.02.2023 CAR PARK REV 3

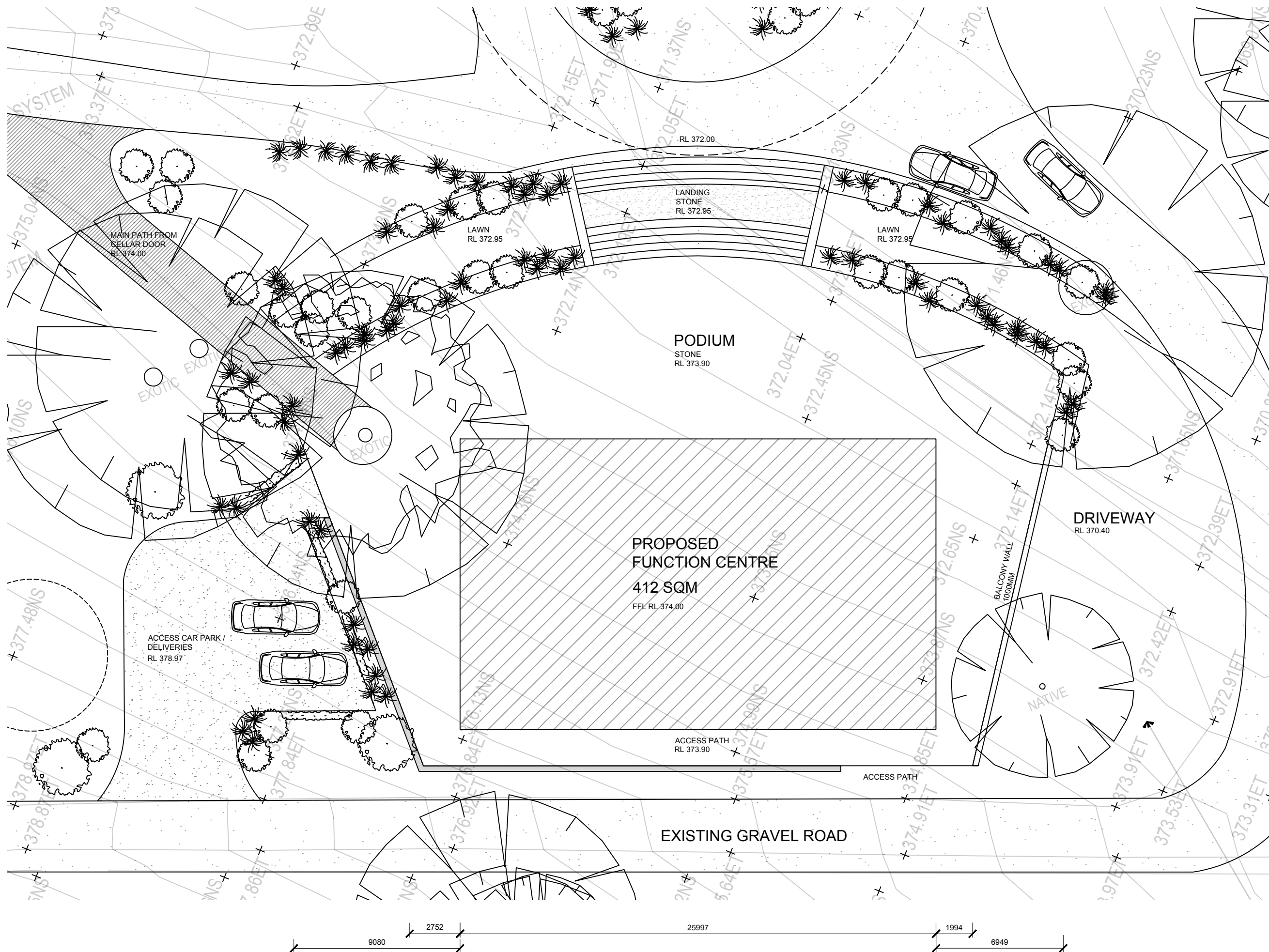
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architect  
0401 387 789

PROPOSED  
FUNCTION CENTRE  
382 SWAMP RD  
OAKBANK  
FOR  
COBBS HILL ESTATE

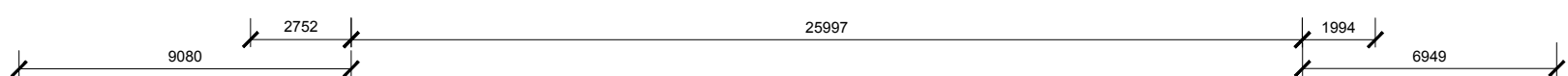
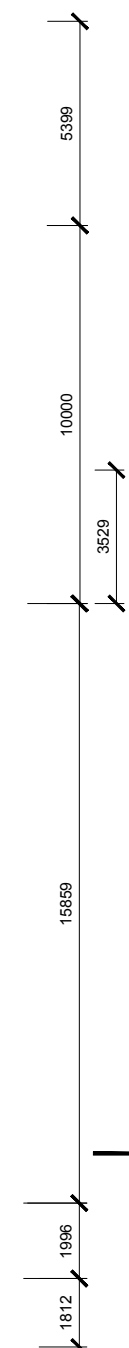
START DATE 2020  
JB NO 2014  
LOCATION  
PLAN  
A/02 B  
1:500 @ A3

CAR PARK DESIGN BY PHIL  
WEAVER & ASSOCIATES DATED 16  
JANUARY 2023 TO BE FOLLOWED





PROPOSED = 330 SQM  
FUNCTION ROOM AREA 292 SQM  
BACK OF HOUSE AREA 91.5 SQM



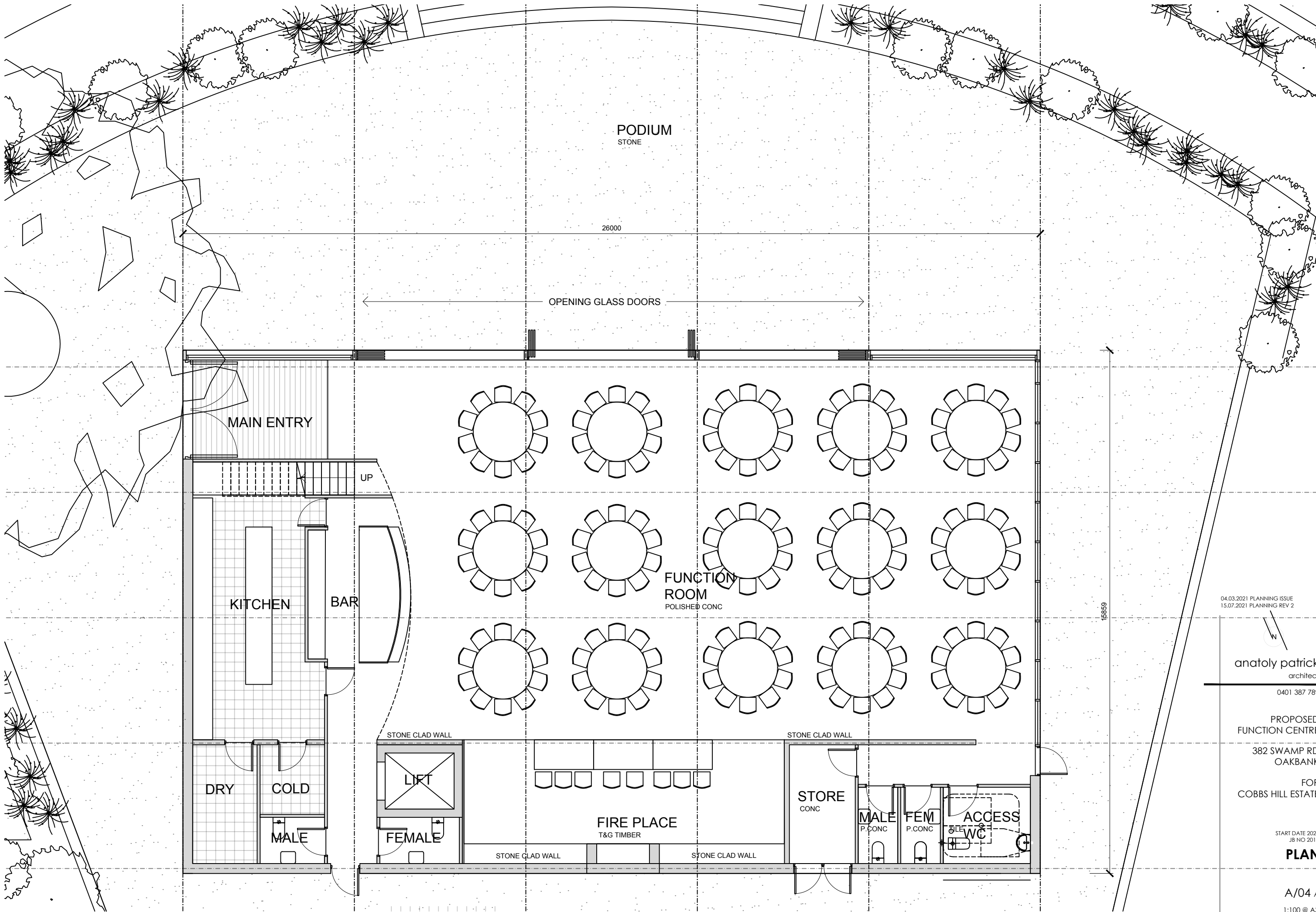
04.03.2021 PLANNING ISSUE  
15.07.2021 PLANNING REV 2

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architect  
0401 387 789

PROPOSED  
FUNCTION CENTRE  
382 SWAMP RD  
OAKBANK  
FOR  
COBBS HILL ESTATE

START DATE 2020  
JB NO 2014  
**SITE PLAN**

A/03 A  
1:200 @ A3



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15.07.2021 PLANNING REV 2

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architect

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PROPOSED  
FUNCTION CENTRE

382 SWAMP RD  
OAKBANK

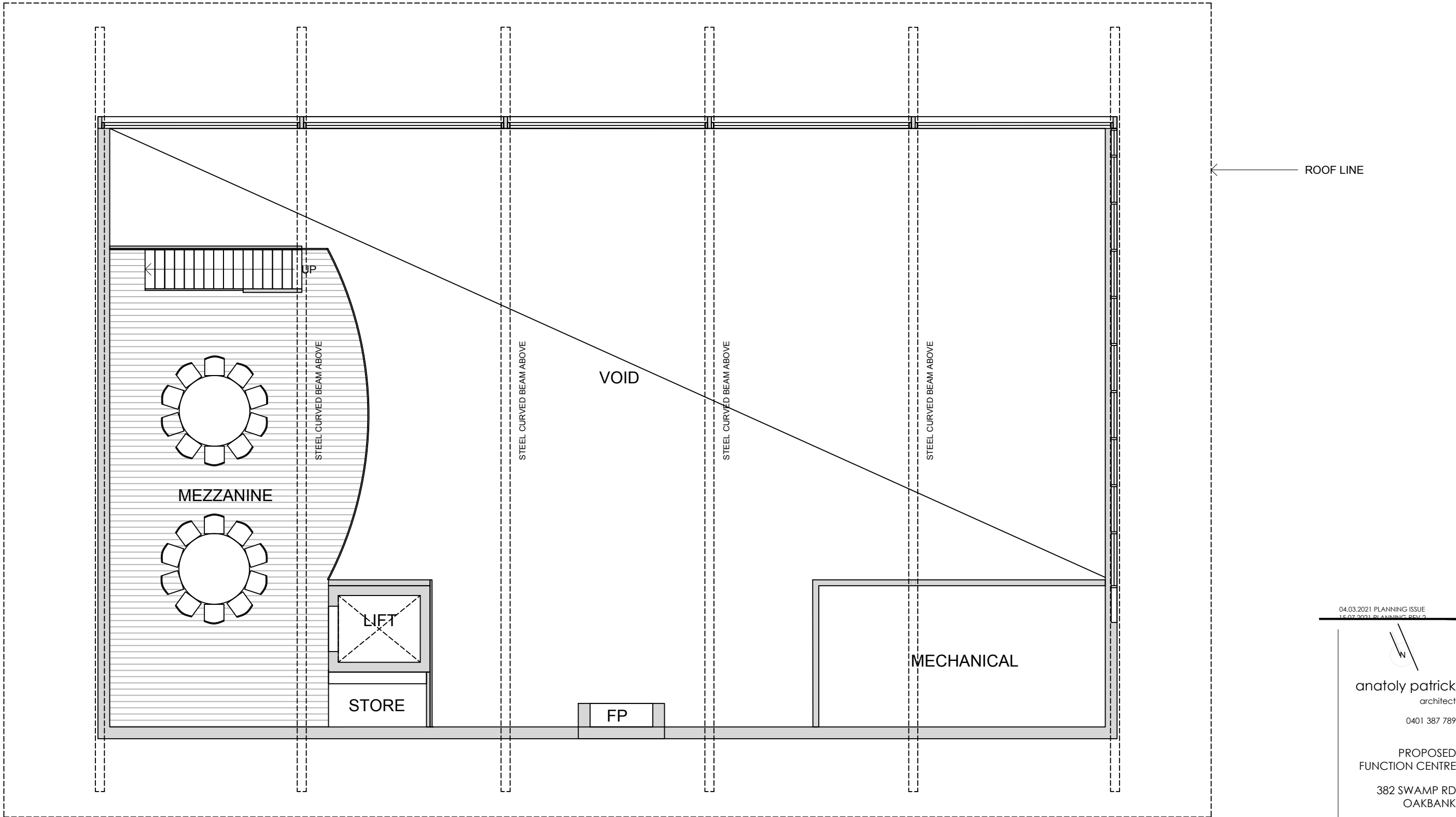
FOR  
COBBS HILL ESTATE

START DATE 2020  
JB NO 2014

PLAN

A/04 A

1:100 @ A3



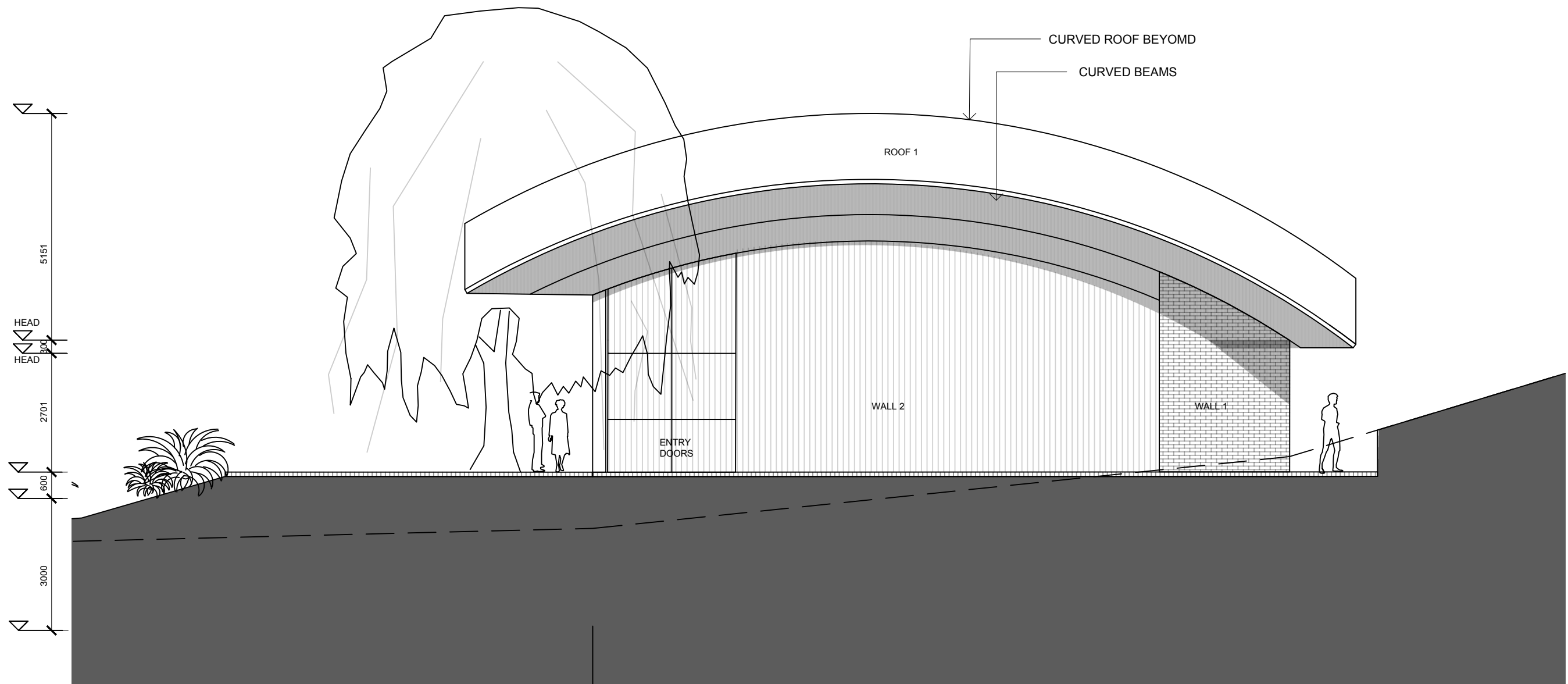
FIRST FLOOR  
PLAN

04.03.2021 PLANNING ISSUE  
15.07.2021 PLANNING REV. 2

  
anatoly patrick  
architect  
0401 387 789

PROPOSED  
FUNCTION CENTRE  
382 SWAMP RD  
OAKBANK  
FOR  
COBBS HILL ESTATE

START DATE 2020  
JB NO 2014  
**FIRST FLOOR  
PLAN**  
A/05 A  
1:100 @ A3



EAST ELEVATION

FINISHES SCHEDULE -  
REFER A/06

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15.07.2021 PLANNING REV 2

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PROPOSED  
FUNCTION CENTRE

382 SWAMP RD  
OAKBANK

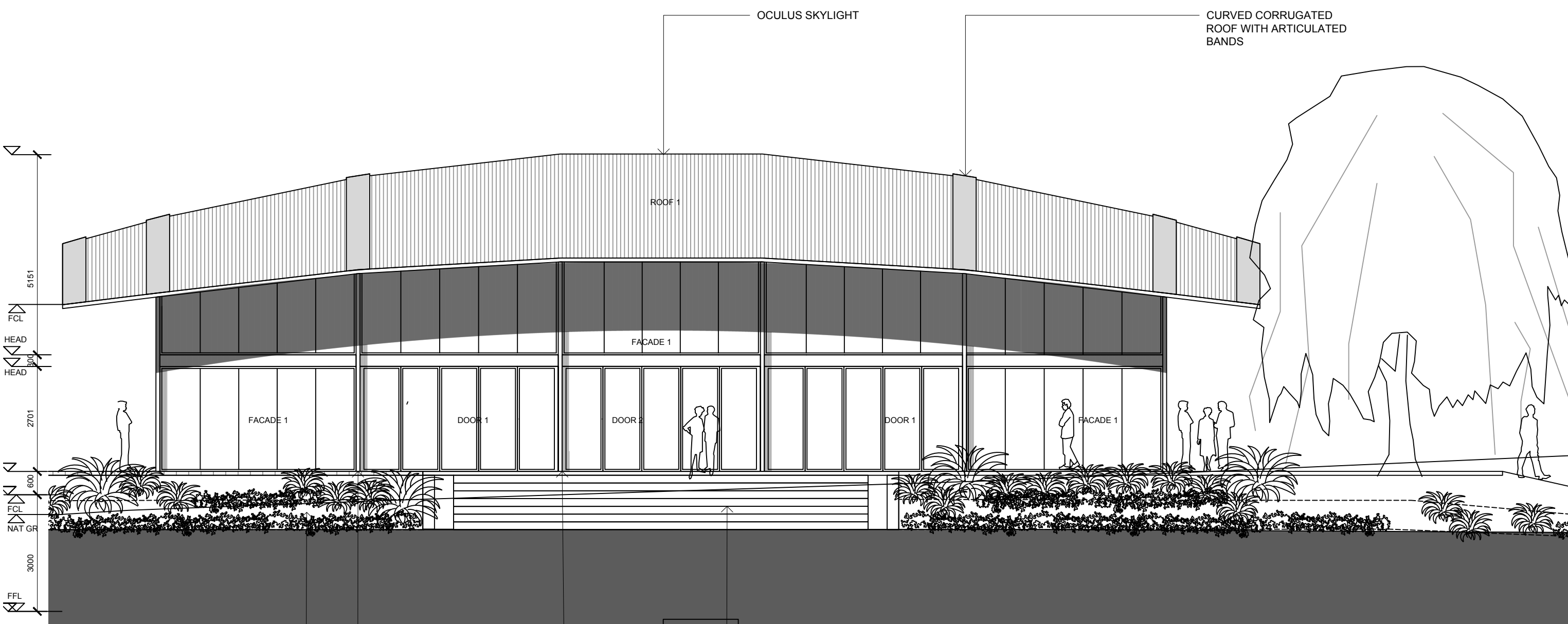
FOR  
COBBS HILL ESTATE

START DATE 2020  
JB NO 2014

**ELEVATION 02**

A/07 A

1:100 @ A3



NORTH ELEVATION

FINISHES		
WALL 1	PAINTED BRICK	OFF WHITE
WALL 2	TIMBER OAK	CLEAR COAT
FACADE 1	P/COAT ALUMINIUM FRAME FIXED	MATT BLACK
DOORS 1	P/COAT ALUMINIUM FRAME STACKING	MATT BLACK
DOORS 2	FRAMELESS CAFE STACKING	ARKAROO LA
ROOF	CORRUGATED IRON	CLEAR COAT
ROOF STRUCTURE	CURVED GLUE LAMINATED BEAMS	

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03.09.2021 PLANNING REV 2

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PROPOSED  
FUNCTION CENTRE

382 SWAMP RD  
OAKBANK

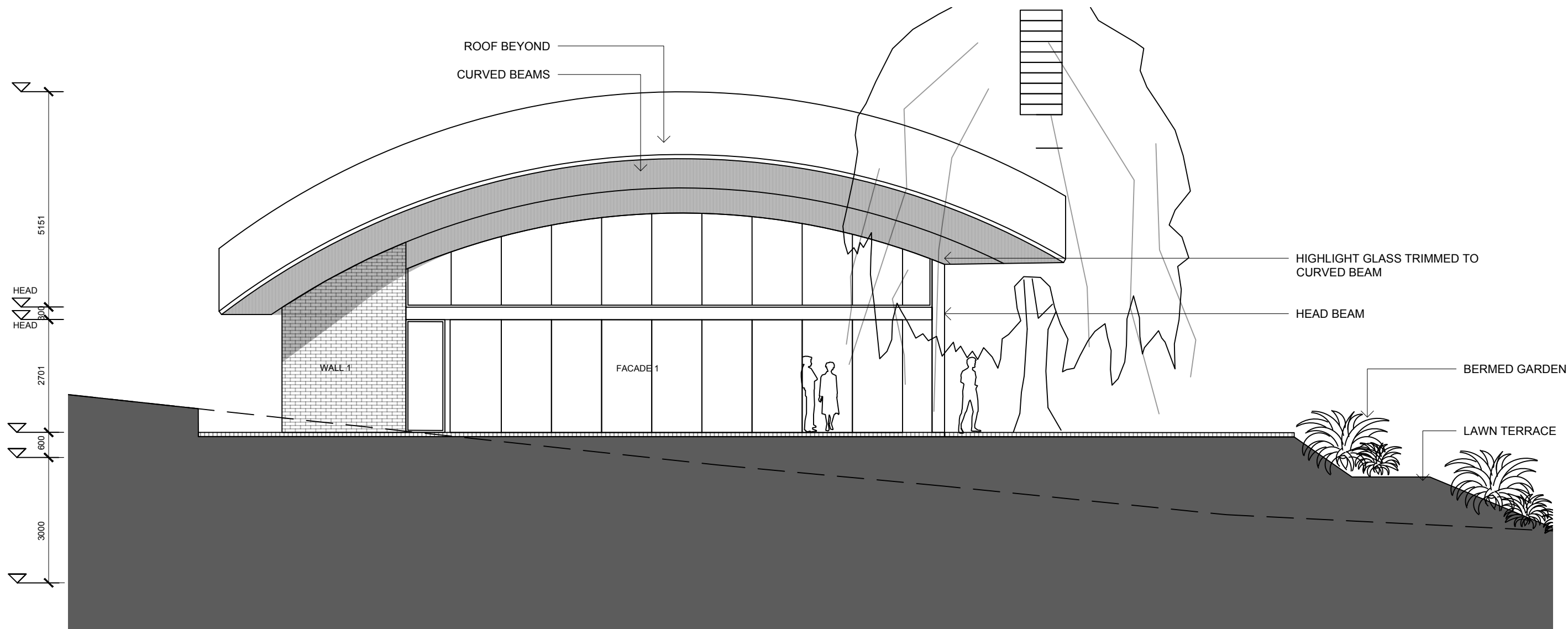
FOR  
COBBS HILL ESTATE

START DATE 2020  
JB NO 2014

ELEVATION 01

A/06 B

1:100 @ A3



WEST ELEVATION

FINISHES SCHEDULE -  
REFER A/06

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15.07.2021 PLANNING REV 2

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PROPOSED  
FUNCTION CENTRE

382 SWAMP RD  
OAKBANK

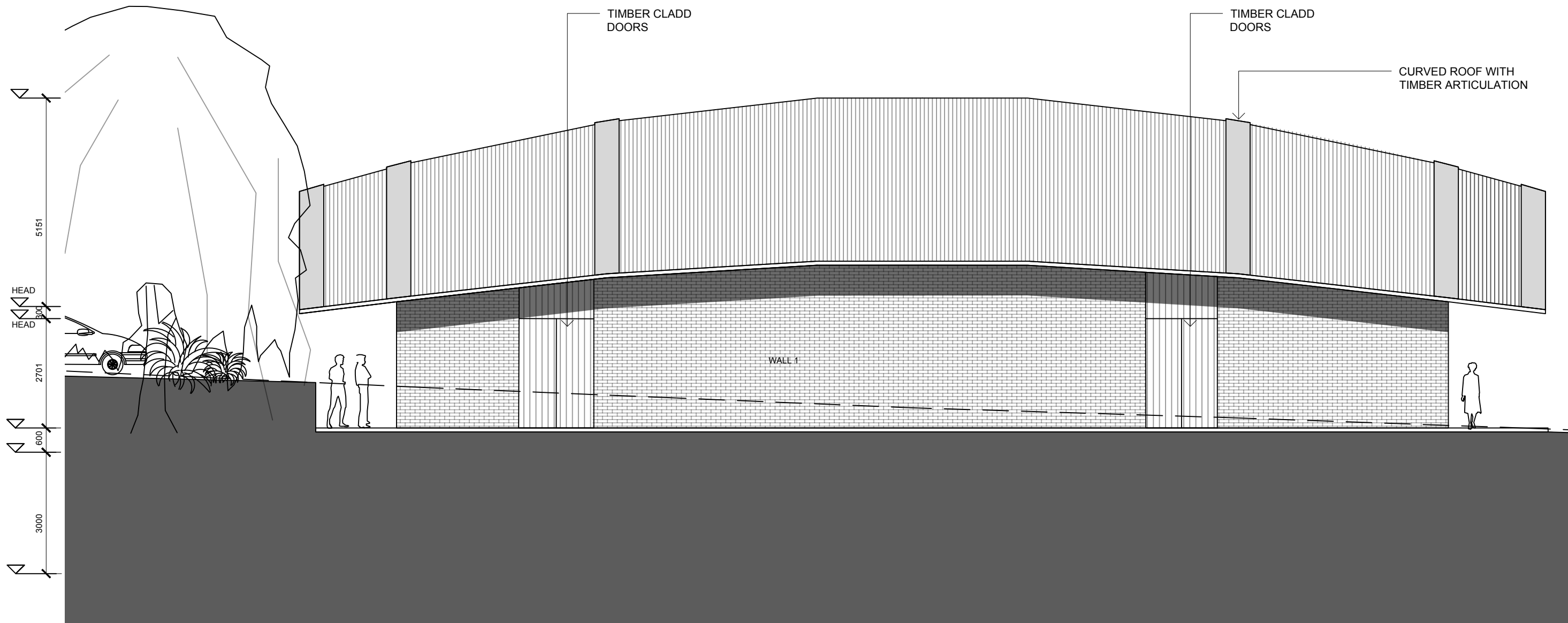
FOR  
COBBS HILL ESTATE

START DATE 2020  
JB NO 2014

**ELEVATION 03**

A/08 A

1:100 @ A3



SOUTH ELEVATION

FINISHES SCHEDULE -  
REFER A/06

04.03.2021 PLANNING ISSUE  
15.07.2021 PLANNING REV 2

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architect

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PROPOSED  
FUNCTION CENTRE

382 SWAMP RD  
OAKBANK

FOR  
COBBS HILL ESTATE

START DATE 2020  
JB NO 2014

**ELEVATION 04**

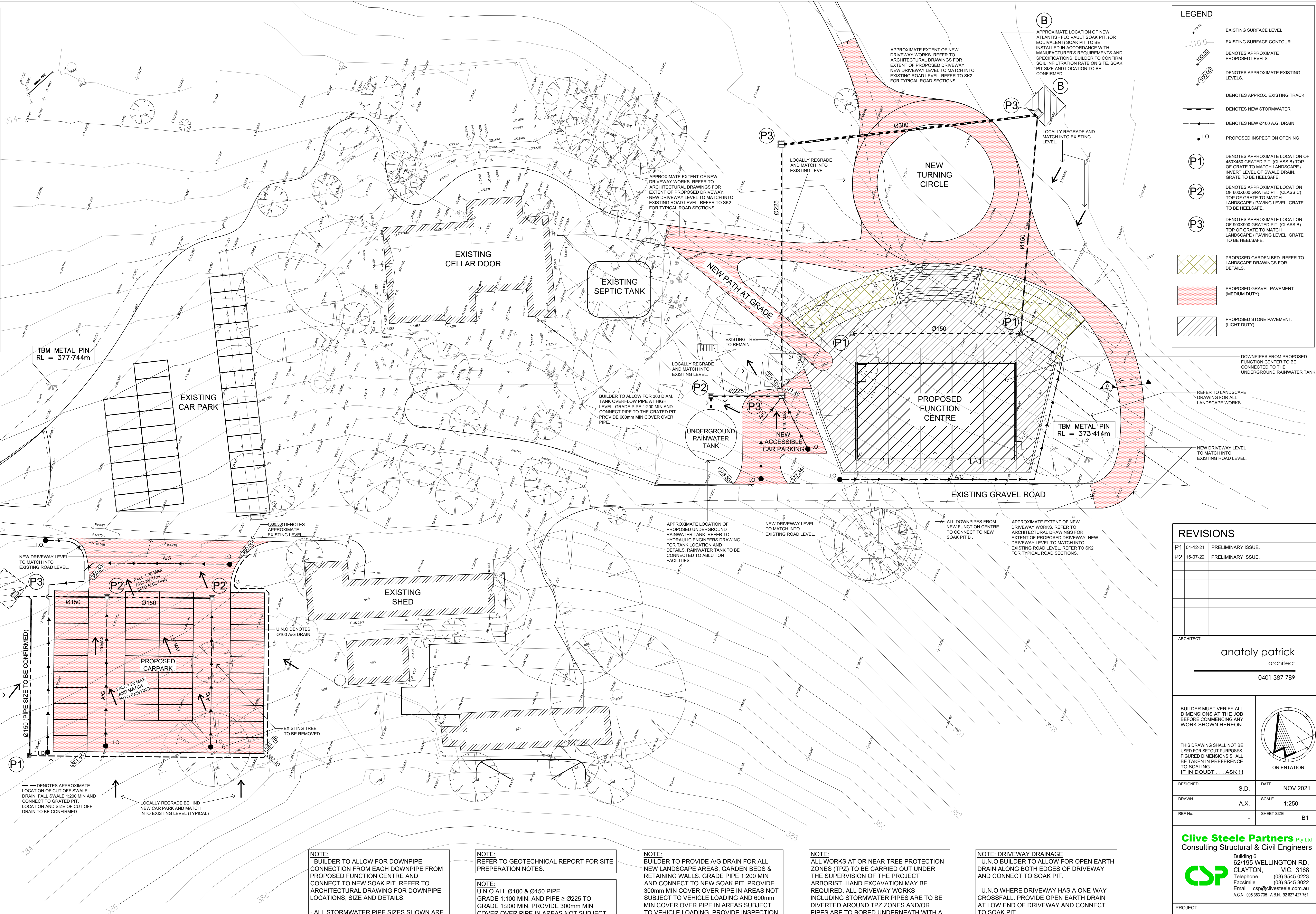
A/09 A

1:100 @ A3



CIVIL DESIGN NOTES

1. ALL STORMWATER WORKS AND MATERIALS TO BE IN ACCORDANCE WITH AS 3900.3.
2. UNLESS NOTED OTHERWISE, ALL DN100 STORMWATER PIPES TO BE UPVC CLASS SN10, ALL  $\geq$  DN150 STORMWATER PIPES TO BE UPVC CLASS SN8 AND ALL  $\geq$  DN375 STORMWATER PIPES TO BE RUBBER RING JOINTED REINFORCED CONCRETE IN ACCORDANCE WITH AS 1260 AND AS 3725.
3. REFER TO ARCHITECTURAL DRAWINGS FOR ALL ROOF GUTTER, DOWNPIPE, SUMP AND OVERFLOW MATERIAL, SIZE AND LOCATION.
4. REFER TO ARCHITECTURAL DRAWINGS FOR RAINWATER TANK LOCATION AND DETAIL.
5. REFER TO LANDSCAPE DRAWINGS FOR PLANTING DETAILS AND TREE PROTECTION ZONES. ALL WORK AT OR NEAR TREE PROTECTION ZONES TO BE CARRIED OUT UNDER THE SUPERVISION OF THE PROJECT ARBORIST. HAND EXCAVATION MAY BE REQUIRED.
6. BUILDER TO OBTAIN ALL WORK PERMITS REQUIRED FROM AUTHORITIES.
7. BUILDER TO ALLOW FOR TOP OF EXISTING SERVICES PITS TO BE ADJUSTED TO SUIT NEW PAVING AND/OR LANDSCAPE LEVELS.
8. BUILDER TO IDENTIFY ALL EXISTING SERVICES LOCATED WITHIN THE VICINITY OF NEW STORMWATER WORKS AND ENSURE PROPOSED STORMWATER DOES NOT INTERFERE WITH ANY EXISTING SERVICES BEFORE COMMENCING CONSTRUCTION.
9. BUILDER TO CO-ORDINATE ALL SERVICES CROSSING STORMWATER.
10. CARE TO BE TAKEN WHEN EXCAVATING AT OR NEAR EXISTING SERVICES. HAND EXCAVATION MAYBE REQUIRED. LIAISE WITH RELEVANT AUTHORITY.
11. ALL SURFACE LEVELS SHOWN ON CIVIL DRAWINGS ARE TO AUSTRALIAN HEIGHT DATUM (AHD), REFER TO PLAN OF SURVEY PREPARED BY WEBER FRANKW SURVEYORS. REFERENCE NO.8226.
12. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
13. CIVIL DRAWINGS TO BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS FOR THIS PROJECT.
14. CIVIL DRAWINGS ARE NOT TO USED FOR DIMENSIONS OR SETOUT PURPOSES. REFER TO ARCHITECT'S DRAWINGS FOR SETOUT INSTRUCTIONS.



**LEGEND**

EXISTING SURFACE LEVEL  
EXISTING SURFACE CONTOUR  
DENOTES APPROXIMATE PROPOSED LEVELS.  
DENOTES APPROXIMATE EXISTING LEVELS.  
DENOTES APPROX. EXISTING TRACK  
DENOTES NEW STORMWATER  
DENOTES NEW Ø100 A/G DRAIN  
I.O. PROPOSED INSPECTION OPENING  
P1 DENOTES APPROXIMATE LOCATION OF 450X450 GRATED PIT. (CLASS B) TOP OF GRATE TO MATCH LANDSCAPE / INVERT LEVEL OF SWALE DRAIN. GRATE TO BE HEELS SAFE.  
P2 DENOTES APPROXIMATE LOCATION OF 600X600 GRATED PIT. (CLASS C) TOP OF GRATE TO MATCH LANDSCAPE / PAVING LEVEL. GRATE TO BE HEELS SAFE.  
P3 DENOTES APPROXIMATE LOCATION OF 800X900 GRATED PIT. (CLASS B) TOP OF GRATE TO MATCH LANDSCAPE / PAVING LEVEL. GRATE TO BE HEELS SAFE.  
PROPOSED GARDEN BED. REFER TO LANDSCAPE DRAWINGS FOR DETAILS.  
PROPOSED GRAVEL PAVEMENT. (MEDIUM DUTY)  
PROPOSED STONE PAVEMENT. (LIGHT DUTY)  
DOWNPIPES FROM PROPOSED FUNCTION CENTRE TO BE CONNECTED TO THE UNDERGROUND RAINWATER TANK.  
REFER TO LANDSCAPE DRAWING FOR ALL LANDSCAPE WORKS.  
NEW DRIVEWAY LEVEL TO MATCH INTO EXISTING ROAD LEVEL.

REVISIONS		
P1	01-12-21	PRELIMINARY ISSUE
P2	15-07-22	PRELIMINARY ISSUE

ARCHITECT  
**anatomy patrick**  
architect  
0401 387 789

BUILDER MUST VERIFY ALL DIMENSIONS AT THE JOB BEFORE COMMENCING ANY WORK SHOWN HEREON.

THIS DRAWING SHALL NOT BE USED FOR SETOUT PURPOSES. FIGURED DIMENSIONS SHALL BE TAKEN IN PREFERENCE TO SCALING. IF IN DOUBT... ASK !!

ORIENTATION

DESIGNED	S.D.	NOV 2021
DRAWN	A.X.	SCALE 1:250
REF No.	-	SHEET SIZE B1

**Clive Steele Partners Pty Ltd**  
Consulting Structural & Civil Engineers

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CLAYTON, VIC. 3168  
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Facsimile (03) 9545 3022  
Email csp@clivesteele.com.au  
A.C.N. 005 363 753 A.B.N. 92 627 427 761

PROJECT  
**PROPOSED FUNCTION CENTRE**  
382 SWAMP RD OAKBANK

DRAWING  
**EXTERNAL WORKS**  
**STORMWATER DRAINAGE**

DRAWING No.	20126 - SK1	REV	P2
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**NOTE:**  
- BUILDER TO ALLOW FOR DOWNPIPE CONNECTION FROM EACH DOWNPIPE FROM PROPOSED FUNCTION CENTRE AND CONNECT TO NEW SOAK PIT. REFER TO ARCHITECTURAL DRAWING FOR DOWNPIPE LOCATIONS, SIZE AND DETAILS.  
- ALL STORMWATER PIPE SIZES SHOWN ARE TO BE CONFIRMED.

**NOTE:**  
ALL CAR PARKS TO GRADE 1:100 MIN AND/OR 1:40 MAX FOR ACCESSIBLE PARKING. GRADE 1:20 MAX FOR ALL OTHER PARKING.

**NOTE:**  
REFER TO GEOTECHNICAL REPORT FOR SITE PREPARATION NOTES.

**NOTE:**  
U.N.O ALL Ø100 & Ø150 PIPE GRADE 1:100 MIN. AND PIPE  $\geq$  Ø225 TO GRADE 1:200 MIN. PROVIDE 300mm MIN COVER OVER PIPE IN AREAS NOT SUBJECT TO VEHICLE LOADING AND 600mm MIN COVER OVER PIPE IN AREAS SUBJECT TO VEHICLE LOADING.

**NOTE:**  
LONGITUDINAL DRIVEWAY GRADE TO COMPLY WITH CFS ACCESS REQUIREMENTS.

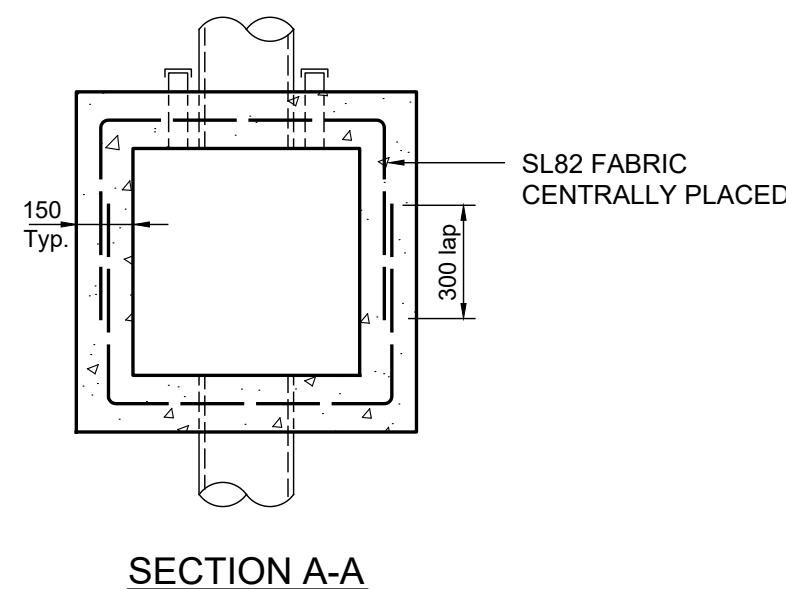
**NOTE:**  
BUILDER TO PROVIDE A/G DRAIN FOR ALL NEW LANDSCAPE AREAS, GARDEN BEDS & RETAINING WALLS. GRADE PIPE 1:200 MIN AND CONNECT TO NEW SOAK PIT. PROVIDE 300mm MIN COVER OVER PIPE IN AREAS NOT SUBJECT TO VEHICLE LOADING AND 600mm MIN COVER OVER PIPE IN AREAS SUBJECT TO VEHICLE LOADING. PROVIDE INSPECTION OPENING (I.O.) AT ALL UPSTREAM END OF PIPES AND AT 90.0m MAX INTERVAL. A/G DRAIN BEHIND ALL RETAINING WALLS TO BE WRAPPED IN GEOTEXTILE FABRIC.

**NOTE:**  
ALL WORKS AT OR NEAR TREE PROTECTION ZONES (TPZ) TO BE CARRIED OUT UNDER THE SUPERVISION OF THE PROJECT ARBORIST. HAND EXCAVATION MAY BE REQUIRED. ALL DRIVEWAY WORKS INCLUDING STORMWATER PIPES ARE TO BE DIVERTED AROUND TPZ ZONES AND/OR PIPES ARE TO BORED UNDERNEATH WITH A MINIMUM COVER OF 600mm TO TOP OF PIPE FROM NATURAL GROUND LEVEL TO THE SATISFACTION OF THE PROJECT ARBORIST.

**NOTE: DRIVEWAY DRAINAGE**  
- U.N.O BUILDER TO ALLOW FOR OPEN EARTH DRAIN ALONG BOTH EDGES OF DRIVEWAY AND CONNECT TO SOAK PIT.  
- U.N.O WHERE DRIVEWAY HAS A ONE-WAY CROSSFALL. PROVIDE OPEN EARTH DRAIN AT LOW END OF DRIVEWAY AND CONNECT TO SOAK PIT.

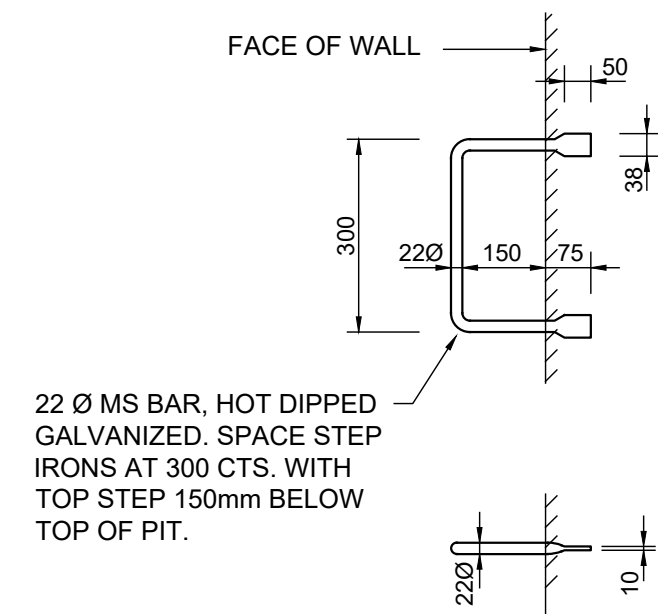
PRELIMINARY





TYPICAL PIT DETAIL  
1:20

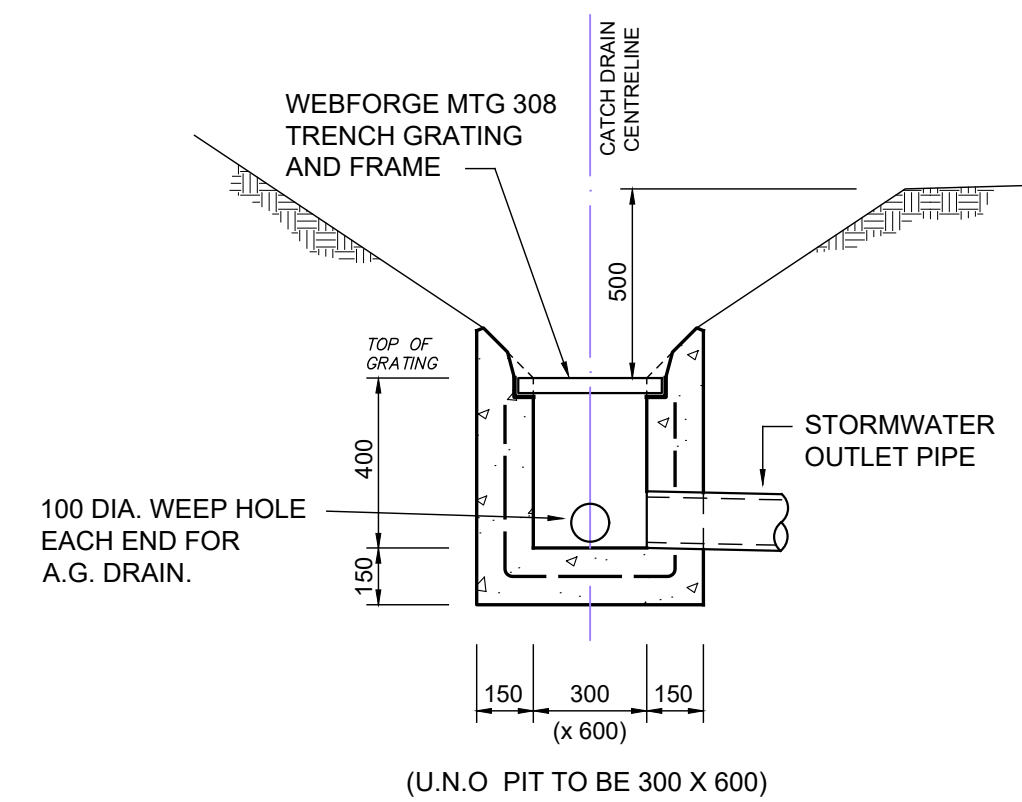
NOTE:  
STEP IRONS REQUIRED WHERE PIT  
DEPTH EXCEEDS 1200mm. (TYPICAL)



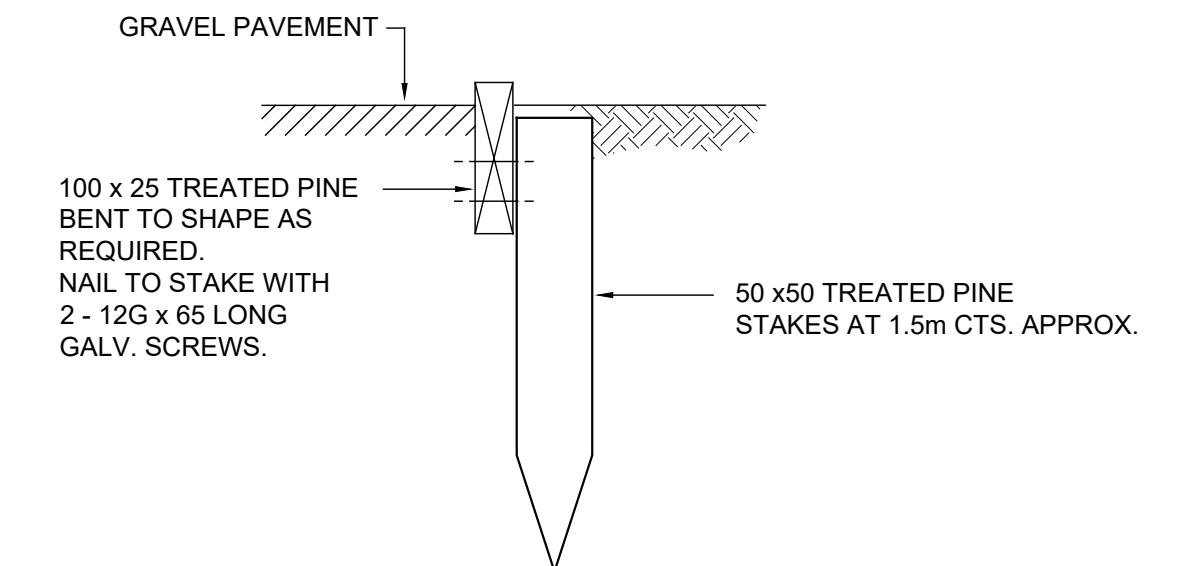
STEP IRON DETAIL  
(NOT TO SCALE)

**NOTE:**

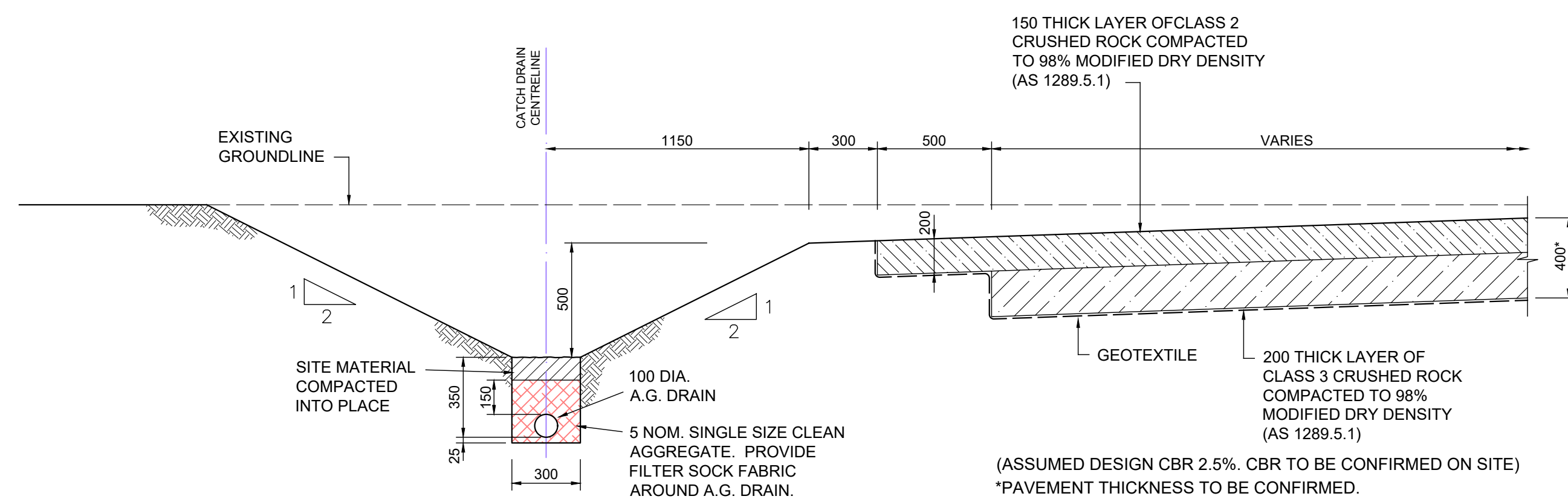
1. PITS DEEPER THAN 1200 TO BE FITTED WITH STEP IRONS.
2. PLACE STEP IRONS IN WALL WHICH IS CLEAR OF OPENINGS.



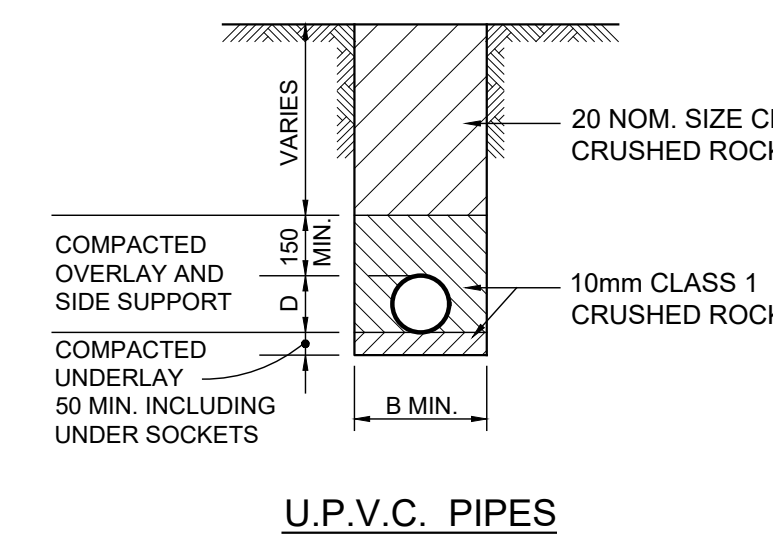
### CATCH PIT DETAIL



TIMBER EDGE DETAIL  
1:5



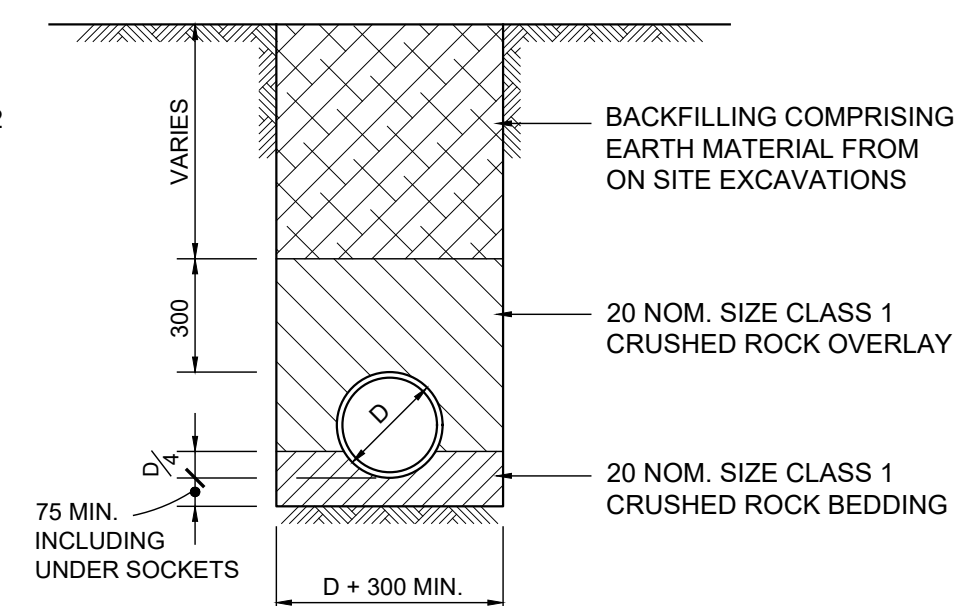
TYPICAL CATCH DRAIN DETAIL  
1:20



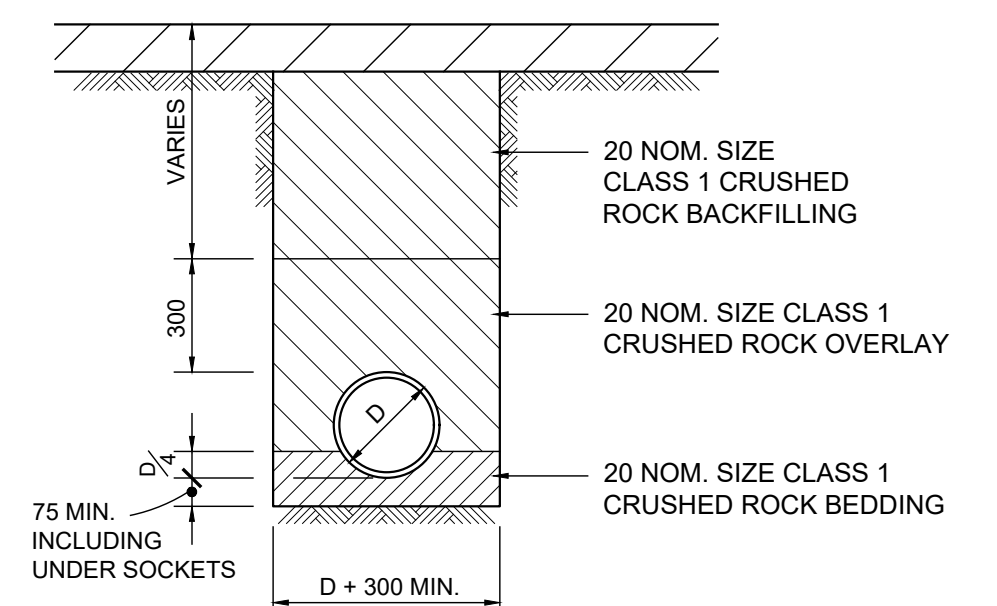
### U.P.V.C. PIPES

**NOTE:**

1. B MIN. = D + 200mm FOR 100mm  
NOMINAL SIZE AND ABOVE OR  
2D FOR SMALLER THAN 100mm.
2. BEDDING OVERLAY AND BACKFILL OF TRENCH  
TO BE PLACED IN LAYERS NOT EXCEEDING  
150mm LOOSE THICKNESS AND COMPACTED  
TO NOT LESS THAN 98% OF THE MAXIMUM  
DRY DENSITY. (AS 1289 5.1.1.0)



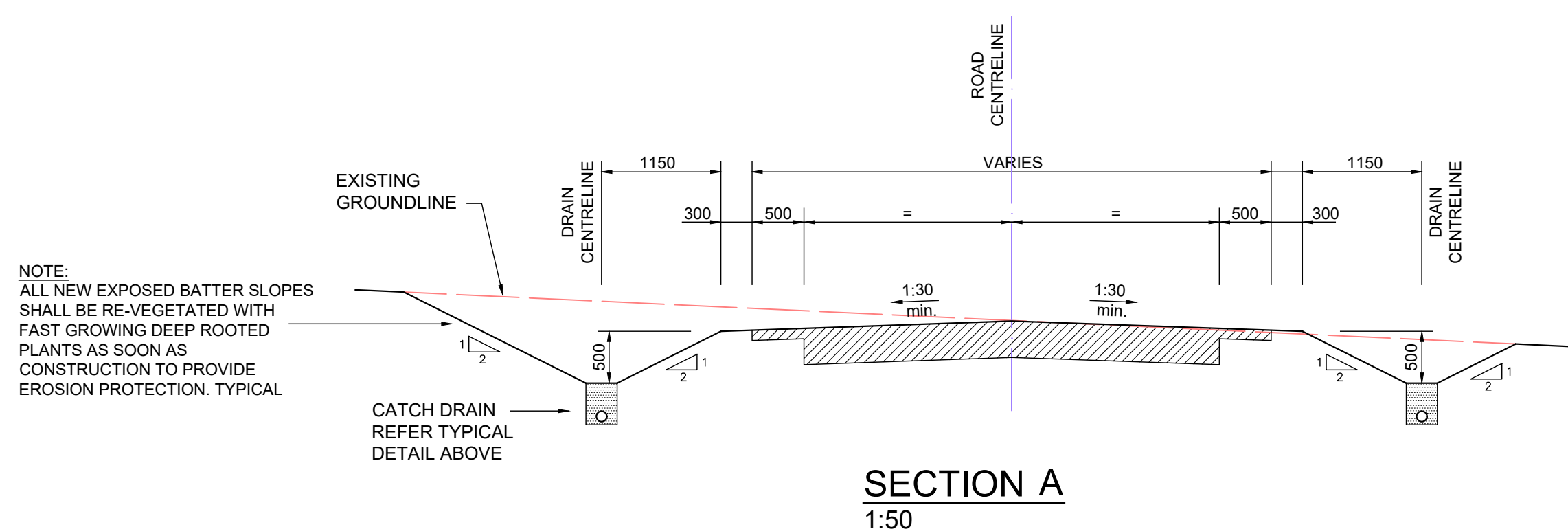
## REINFORCED CONCRETE PIPES

TRENCHES OTHER THAN BELOW  
STRUCTURES OR PAVEMENTS

## REINFORCED CONCRETE PIPES

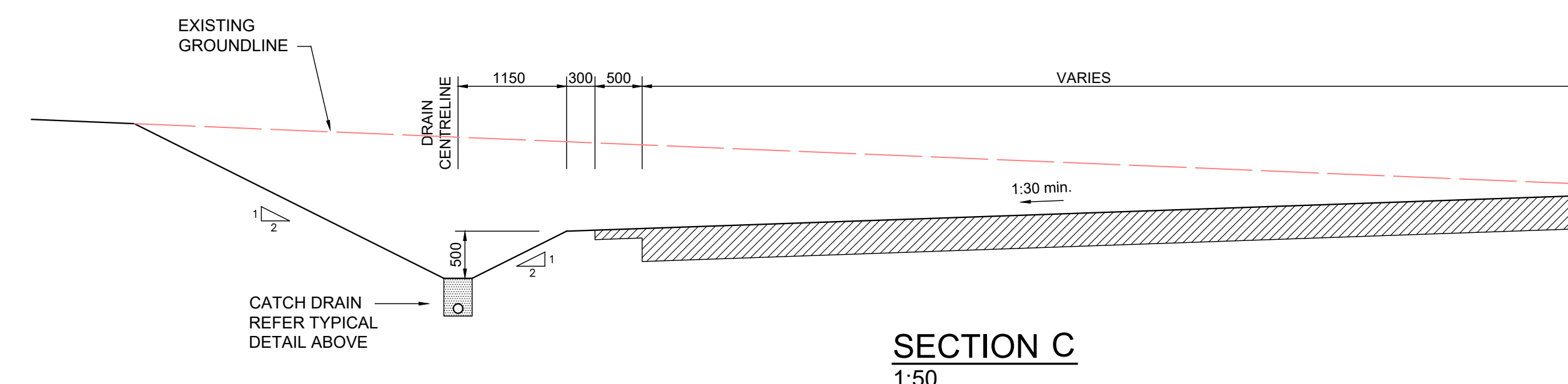
TRENCHES LOCATED WITHIN 300mm  
OF THE FOUNDATION SUPPORT ZONE  
FOR STRUCTURES OR PAVEMENTS

## TYPICAL PIPE TRENCH DETAILS



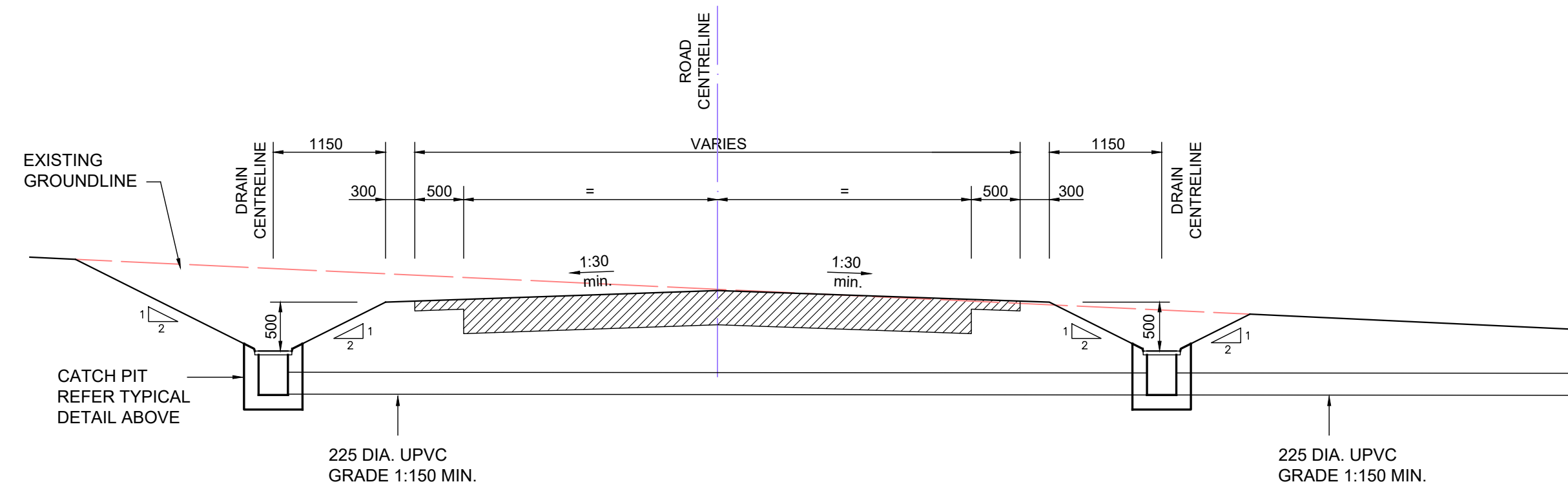
SECTION A  
1:50

TYPICAL ROAD SECTION - TWO WAY CROSSFALL



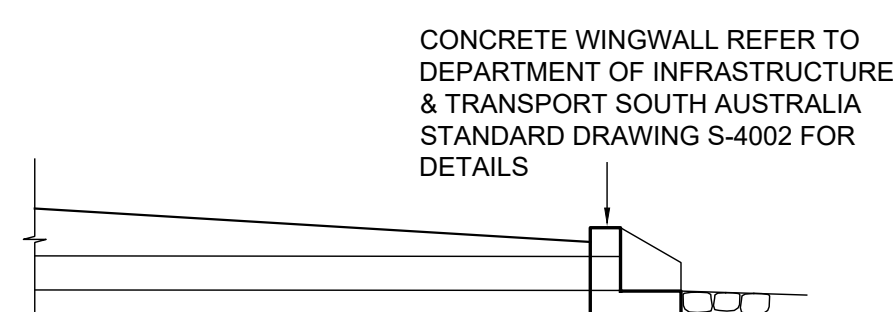
**SECTION C**  
1:50

TYPICAL ROAD SECTION - ONE WAY CROSSFALL ALONG BUILDING



**SECTION B**  
1:50

TYPICAL ROAD SECTION - TWO WAY CROSSFALL



CONCRETE WINGWALL REFER TO  
DEPARTMENT OF INFRASTRUCTURE  
& TRANSPORT SOUTH AUSTRALIA  
STANDARD DRAWING S-4002 FOR  
DETAILS

[illegible]

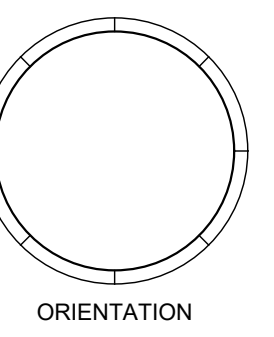
ARCHITECT

anatoly patrick

architect

0401 387 789

BUILDER MUST VERIFY ALL  
DIMENSIONS AT THE JOB  
BEFORE COMMENCING ANY  
WORK SHOWN HEREON.



THIS DRAWING SHALL NOT BE  
USED FOR SETOUT PURPOSES.  
FIGURED DIMENSIONS SHALL  
BE TAKEN IN PREFERENCE  
TO SCALING .....  
IF IN DOUBT ... ASK !!

DESIGNED	S.D.	DATE	NOV 2021
DRAWN	A.X.	SCALE	
REF No.	-	SHEET SIZE	B1

**Clive Steele Partners** Pty Ltd  
Consulting Structural & Civil Engineers  
AS NOTED



PROJECT

PROPOSED FUNCTION  
CENTRE  
382 SWAMP RD OAKBANK

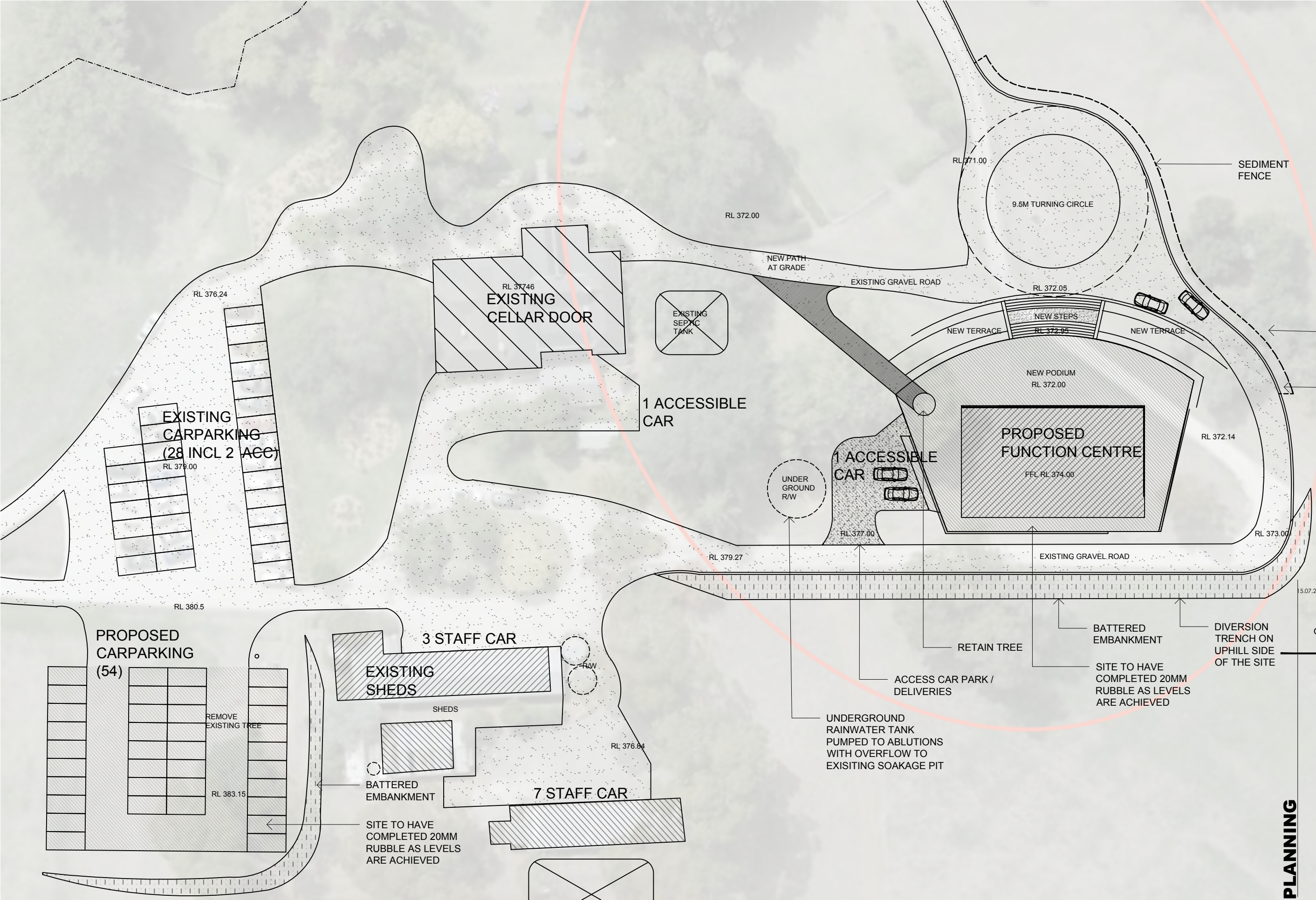
DRAWING

EXTERNAL WORKS  
DETAILS - Sheet 1

DRAWING No.	REV
20126 - SK2	P1

PRELIMINARY





REMOVE  
TREE  
(OLIVE)

REDIRECT  
GRAVEL  
ROAD

5.07.2022 ISSUE

anatomy patrick  
architect

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PROPOSED  
FUNCTION CENTRE

382 SWAMP RD  
OAKBANK

FOR  
COBBS HILL ESTATE

START DATE 2020  
JB NO 2014

LOCATION  
PLAN

A/02 c

1:500 @ A3

PLANNING





# BESTEC<sup>®</sup>

BRINGING BUILDINGS TO LIFE

COBB'S HILL ESTATE EXPANSION

ENVIRONMENTAL NOISE ASSESSMENT

ACOUSTIC SERVICES

IVD:IVD  
56706/6/1  
19 January 2023

Cobbs Hill Estate  
382 Swamp Road  
OAKBANK SA 5063

Attention: Mr J Hicks

Dear Sir,

**COBB'S HILL ESTATE EXPANSION  
ENVIRONMENTAL NOISE ASSESSMENT  
ACOUSTIC SERVICES**

As requested, we enclose a copy of our updated environmental noise assessment report for the above project.

We trust that the report provides sufficient information for your immediate purpose and we would be most pleased to further discuss any aspect upon your request.

Yours faithfully  
**BESTEC PTY LTD**



**IVAILO DIMITROV  
ASSOCIATE / PRINCIPAL ACOUSTIC CONSULTANT**

**DOCUMENT CONTROL**

REVISION	DATE	REVISION DESCRIPTION
00	20.12.22	Initial Issue
01	19.01.23	Updated Issue

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## Introduction

BESTEC Pty Ltd has been engaged to reassess the environmental noise impact to the nearest noise sensitive receivers resulting from the proposed function centre of Cobb's Hill Estate located at 382 Swamp Road, Oakbank.

This document presents a review of the proposed acoustic design criteria, results of the continuous environmental survey conducted at Cobb's Hill Estate, predicted noise levels associated with operation of the proposed expansion and the results of our assessment.

## Executive Summary

In summary:

- The SA Planning and Design Code has been reviewed to determine the relevant planning conditions and requirements applicable to the proposed development.
- A continuous noise survey was conducted over 7-day period at the boundary with the nearest noise sensitive property. The survey results are presented in Appendix A.
- Appropriate environmental noise criteria have been derived in accordance with the SA Environment Protection (Noise) Policy 2007.
- The architectural drawings and the location of the proposed function centre was reviewed and a 3D acoustic model representing Cobbs Hill estate and the nearest noise sensitive receivers was developed (refer Appendix B).
- The noise levels at the nearest noise sensitive receivers were predicted (refer Appendices C, D and E) and the following acoustic design recommendations were provided to ensure the selected criteria are achieved:
  - The day time music noise criterion will be achieved at the nearest noise sensitive receivers when functions take place in the proposed restaurant/function centre under the above conditions;
  - The day time and night time music noise criteria will be achieved at the nearest noise sensitive receivers when functions take place at the existing cellar door lawn under the above conditions.
  - In order to ensure the criterion is achieved at all times, we recommend:
    - No speakers are to be installed externally to the proposed function centre.
    - Before each function at the existing cellar door the Operator or Duty Manager measures the sound pressure level from each speaker at 1m and ensures it does not exceed 85dBA during the function in accordance with the requirements set in the Noise Management.
    - Before each function in the proposed restaurant/function centre, the Operator or Duty Manager measures the reverberant sound pressure level (approximately in the middle of the function centre) and ensures it does not exceed 90dBA<sup>1</sup> (L<sub>Aeq</sub>) during the function. We recommend an automatic sound limiter be used to monitor the sound pressure levels during performance. The sound limiter should be connected to the main amplifier power and set to cut the power if the maximum sound pressure level is exceeded. To facilitate this, the following is required:
      - Any external performers should use only the sound system and amplifier provided by the venue;
      - The sound system should be tuned and commissioned by an acoustic engineer once the speakers are in place and the sound limiter is installed.
      - The doors and any operable glazing be fitted with compressible acoustic seals (Raven or Schlegel ranges) and be kept closed when a function is taking place in the centre.
  - Patron noise – our assessment revealed that the selected continuous noise criterion will be achieved and therefore, no further acoustic treatment is required.
  - Noise associated with rubbish collection and carpark – our assessment revealed that the selected continuous noise criterion will be achieved and therefore, no further acoustic treatment is required.
- The noise levels at the nearest noise sensitive receivers resulting from the combined operational noise emissions from the proposed development have been calculated and assessed against the selected environmental noise criteria derived in accordance with the Environment Protection (Noise) Policy

<sup>1</sup> A reverberation time of 1.2 seconds was assumed within the function space, based on its volume. Please note that additional acoustic treatment will be required to reduce the reverberation in the space and achieve this reverberation time.

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2007. The assessment revealed that the selected criteria will be achieved at all locations and therefore, performance outcomes PO 1.2, PO 2.1, PO 4.1, PO 4.2, PO 4.5 and PO 4.6 of the SA Planning and Design Code will be achieved.

Based on the above, we conclude that the desired outcome stipulated in the SA Planning and Design Code Assessment Provisions (Section Interface between Land Uses of the), *DO 1: The development to be located and designed to mitigate adverse effects on or from neighbouring and proximate uses* will be achieved.



## References

The following documents have been referenced within the preparation of this report:

- [1] SA Planning and Design Code, 2022.
- [2] SA Environment Protection (Noise) Policy 2007.
- [3] World Health Organisation (1999) "Guidelines for Community Noise".
- [4] Music Noise from Indoor Venues and the South Australian Planning System, EPA Guideline, July 2015.
- [5] Jens Holger Rindel, The Acoustics of places of social gatherings, Euronoise, 2015, Maastricht.
- [6] Pearsons, Bennett and Fidel "Speech levels in various noise environments" Report EPA-600/1-77-025, Washington, D.C.: U.S. Environmental Protection Agency, May 1977.
- [7] Anatoly Patric Architects architectural drawings dated July 2021 provided by Cobb's Hill estate.

## Existing Development

Cobb's Hill Estate is located on land zoned Productive Rural Landscape (PRuL) in the SA Planning and Design Code [1] and currently includes a cellar door with maximum capacity of 75 guests, motel with maximum capacity of 6 guests and the associated carpark. In addition to the cellar door and short-term accommodation, the allotment is used as gardens, grazing land and vines.

The existing development has a hardstand parking area for 14 vehicles and mini bus drop off area.

The currently approved operation times are 10:00 to 18:00 (Monday to Sunday).

The nearest noise sensitive receivers are the residential properties on the following addresses:

- 432B Swamp Rd, Lenswood, located at approximately 770m north-west from the cellar door building;
- 426 Oakwood Rd, Oakbank, located at approximately 350m south-west from the cellar door building;
- 357 Oakwood Rd, Oakbank, located at approximately 1,000m south from the cellar door building;
- 61B Peacock Rd South, located at approximately 1,000m south-east from the cellar door building.

## Proposed Development and Conditions

The proposed expansion includes:

- Stage 1 – the existing cellar door operation be amended to:
  - 75 patrons Monday to Friday, 10:00 – 18:00;
  - 200 patrons on Saturday and Sunday, 10:00 – 18:00;
  - Functions for maximum 130 patrons 32 times per year, 15:00 – 0:00.The functions will take place at the lawn north of the existing cellar door building.
- Stage 2 – construction of a restaurant and function centre for 130 patrons operating from 11:00 to 22:00, 2 days a week.

Functions taking place at the existing cellar door and at the new function centre building (indicated with L2 in Figure 1) will comply with the following conditions:

- The new function centre can operate in restaurant mode while a function is taking place at the cellar door;
- The cellar door can operate while a function is taking place at the new function centre;
- Two functions cannot occur concurrently on site.

The new function centre's building envelope construction is indicated on the architectural drawings as follows:

- Solid façade – combination
  - Brick veneer construction consisting of 110mm brick with internal lining of 1 layer of 13mm plasterboard on 90mm timber studs with cavity infill of 50mm, 11kg/m<sup>3</sup> glasswool.
  - Timber Oak cladding (we assumed 20mm thickness) with 10mm plasterboard and R2.0 thermal insulation in the wall cavity (90mm deep).
- Glazed façade – 10.38mm laminated glass.
- Roof – corrugated iron roof with 13mm plasterboard fixed to underside of 125mm deep purlins with R2.5 thermal insulation in the cavity.

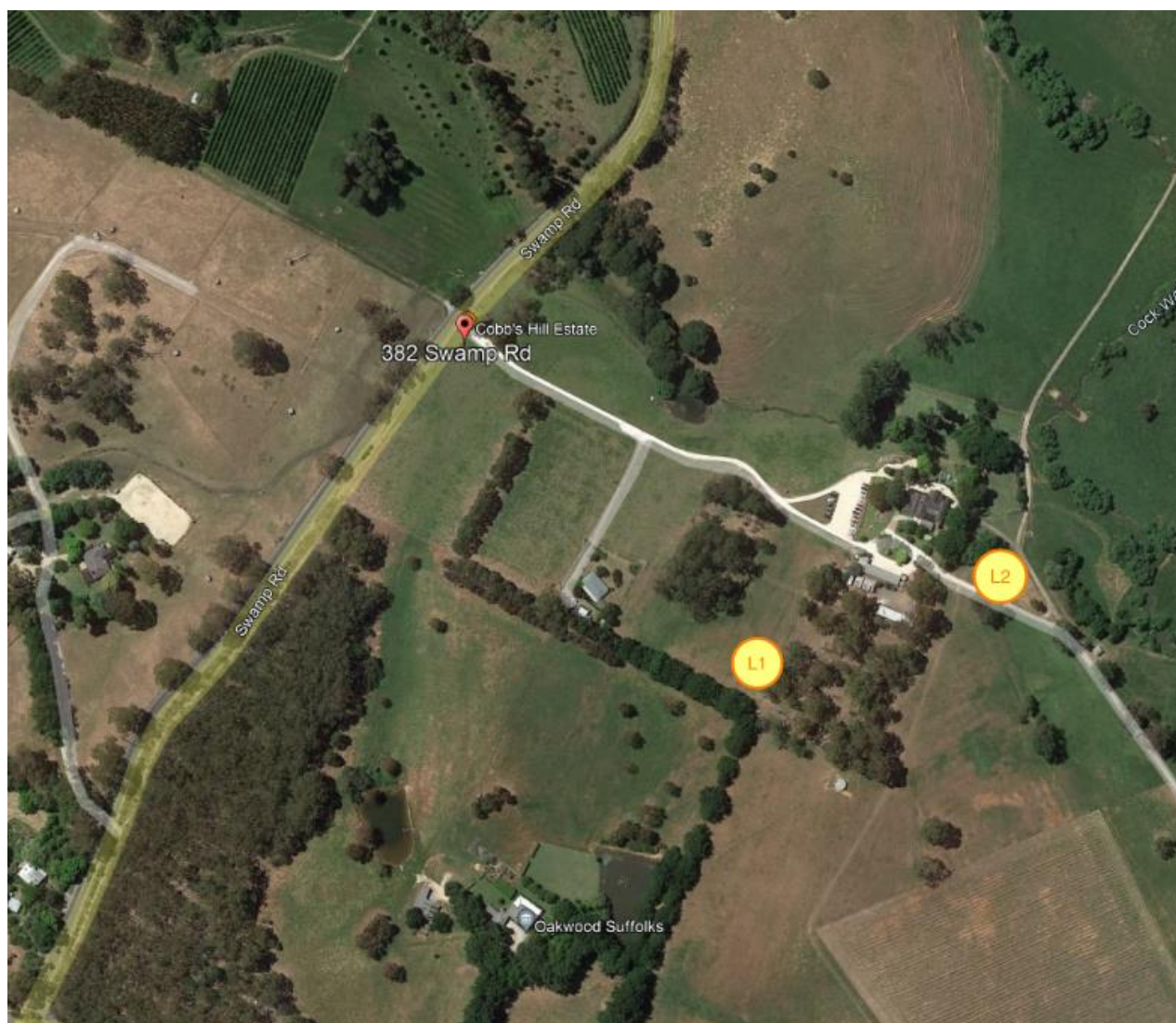
To accommodate the increased number of patrons, additional 36 carpark spaces are proposed.

The Noise Management Plan also outlines the Duty Manager responsibilities to noise management as follows:

- Assess, prior to a function or an event, the suitability (i.e. type, style, amplification) of the proposed entertainment or amusement;
- Notify in writing the organiser of a function or an event if the entertainment or amusement is deemed inappropriate.
- Monitor noise levels from entertainment or amusement and if deemed to be too high will warn the performers and/or DJ no more three times and thereafter (if not complied with) will switch off power to the amplifier.
- Call "last drinks" 30 minutes before the close of the function or event.
- Operate amplified music in accordance with any conditions of consent as may be required by a Development Approval issued by the relevant Council planning authority.

### **Existing Acoustic Environment**

An unattended noise survey was conducted in the south-western boundary of the estate (adjoining the nearest noise sensitive receiver) between 14 and 21 August 2020 in order to establish the existing ambient and background noise levels. The survey was conducted using an automatic noise logger SVAN 953, SN8951 (due for calibration on 16 April 2021).



**Figure 1:** Location of the environmental logger during the survey

The logger was set to continuously measure and average A-weighted equivalent continuous noise levels ( $L_{Aeq,15min}$ ), A-weighted maximum noise levels ( $L_{Amax}$ ) and statistical noise descriptors ( $L_{A01}$ ,  $L_{A10}$ ,  $L_{A90}$ ) using 1/3-octave bands (31.5Hz – 10,000Hz) over 15-minute intervals using Fast time weighting and audio recording set to record the ambient sound continuously. The calibration of the unit was checked before and after the survey and no drift was detected. Copy of the calibration certificate is available on request.

The detailed survey data are presented in Appendix A. The highlighted portions of the graphs represent the proposed hours of operation of the extension.

The analysis of the collected data revealed:

- The measured background noise levels ( $L_{A90}$ ) hours during the proposed of operation were:
  - Night time - the measured minimum background noise level was 30dBA.
  - Day time – the measured minimum background noise levels was 32dBA.
- The ambient noise levels ( $L_{Aeq}$ ) measured during the proposed of operation were:
  - Night time - the measured minimum ambient noise level was 34dBA.
  - Day time - the measured minimum ambient noise level was 39dBA.

## Conditions

The SA Planning and Design Code [1] sets the Desired Outcome (DO) for developments, which might affect sensitive receivers in adjacent areas as follows:

*DO 1 Development is located and designed to mitigate adverse effects on or from neighbouring and proximate uses.*

As the estate is a non-residential development, the SA Planning and Design Code [1] requirements (performance outcomes) relevant to Section Interface Between Land Uses) apply:

*PO 1.2 Development adjacent to a site containing a sensitive receiver (or lawfully approved sensitive receiver) or primarily intended to accommodate sensitive receivers is designed to minimise adverse impacts*

*PO 2.1 Non-residential development does not unreasonably impact on the amenity of sensitive receivers (or lawfully approved sensitive receivers), or an adjacent zone primarily for sensitive receivers through its hours of operation having regard to:*

- (a) The nature of the development;*
- (b) Measures to mitigate off-site impacts;*
- (c) The extent to which the development is desired in the zone;*
- (d) Measures that might be taken in an adjacent zone primarily for sensitive receivers that mitigate adverse impacts without unreasonably compromising the intended use of land.*

A non-residential development is deemed to satisfy the above requirement if the noise emissions that affect the noise sensitive receivers achieves the relevant Environment Protection (Noise) Policy criteria (DTS/DPF 4.1).

*PO 4.1 Development that emits noise (other than music) does not unreasonably impact the amenity of sensitive receivers (or lawfully approved) sensitive receivers.*

*PO 4.2 Areas for the on-site manoeuvring of service and delivery vehicles, plant and equipment, outdoor work spaces (and the like) are designed and sited to not unreasonably impact the amenity of adjacent sensitive receivers (or lawfully approved sensitive receivers) and zones primarily intended to accommodate sensitive receivers due to noise and vibration by adopting techniques including:*

- (a) Locating openings of buildings and associated services away from the interface with the adjacent sensitive receivers and zones primarily intended to accommodate sensitive receivers.*
- (b) When sited outdoors, locating such areas as far as practicable from adjacent sensitive receivers and zones primarily intended to accommodate sensitive receivers.*
- (c) Housing plant and equipment within an enclosed structure or acoustic enclosure.*



- (d) *Providing a suitable acoustic barrier between the plant and / or equipment and the adjacent sensitive receiver boundary or zone.*

*PO 4.5 Outdoor areas associated with licensed premises (such as beer gardens or dining areas) are designed and/or sited to not cause unreasonable noise impact on existing adjacent sensitive receivers (or lawfully approved sensitive receivers).*

*PO 4.6 Development incorporating music achieves suitable acoustic amenity when measured at the boundary of an adjacent sensitive receiver (or lawfully approved sensitive receiver) or zone primarily intended to accommodate sensitive receivers.*

A development incorporating music should include noise attenuation measures that will achieve less than 8dB above the level of background noise ( $L_{90,15min}$ ) in any octave band of the sound spectrum ( $L_{OCT10,15min} < L_{OCT90,15min} + 8dB$ ) externally at the nearest existing or envisaged noise sensitive location (DTS/DPF 4.6).

## Design Criteria

### Environmental Noise

As the Deemed-to-Satisfy/Designed Performance Feature (DTS/DPF 4.1) refers to compliance with relevant Environment Protection (Noise) Policy criteria, the environmental noise assessment has been conducted against the criteria set by the Environment Protection (Noise) Policy 2007 [2].

The EPP 2007 [2], sets out the maximum allowable continuous noise in terms of A-weighted Equivalent Continuous Noise Level ( $L_{Aeq}$ ) based on the time of day and zoning / use of land in which the noise source and receiver are located. With reference to the SA Planning and Design Code [1], we note that both Cobbs Hill estate and the nearest noise sensitive receiver are located on land zoned Productive Rural Landscape (PRuL), which is essentially a rural living zone. Table 1 details the indicative noise factors based on time of day and land-use as stipulated in Table 2 of the EPP 2007 [1]. As the EPP 2007 does not stipulate indicative noise levels for land zoned Deferred Urban, the indicative noise levels for Residential zone have been used.

Land Use Category	Day Time (07:00 to 22:00)	Night Time (22:00 to 07:00)
Rural Living	47	40

**Table 1:** Indicative noise factors based on time of day and land use

In accordance with the Policy, the predicted continuous noise level due to the proposed development (for application for development authorisation) should not exceed the indicative noise level, minus 5dBA.

Based on the average of the relevant land use categories, minus 5dBA for planning purposes, the applicable day and night time continuous noise criteria become:

- Day-time (07:00 to 22:00): 42dBA
- Night time (22:00 to 07:00): 35dBA

Note that if noise emitted by the proposed development contains any tones, modulation, impulsive or low frequency characteristics, the continuous noise level of the noise source must be adjusted as follows:

- Noise containing 1 characteristic - 5dBA penalty added to source continuous noise level.
- Noise containing 2 characteristics - 8dBA penalty added to source continuous noise level.
- Noise containing 3 or 4 characteristics - 10dBA penalty added to source continuous noise level.

### Intermittent Noise

The criteria provided in the above section relate to continuous noise sources, and do not cater for intermittent noise events. We recommend the use of the World Health Organisation (WHO) Guidelines [3], which recommends a maximum A-weighted noise level  $L_{Amax}$ , of 45dBA in a bedroom in order to avoid sleep disturbance, which is equivalent to approximately 55dBA to 60dBA at the façade of the residential building with windows partially open.

### Music Noise

The assessment of music noise emissions is to be conducted against the criteria set by the EPA Guidelines for Development Proposal Assessment for venues where music may be played [3] and the principles of development control in the SA Planning and Design Code [1].

The EPA Guidelines [3] state that:

*"The music noise ( $L_{10,15min}$ ) from an entertainment venue when assessed at the nearest noise sensitive locations should be:*

- *Less than 8dB above the level of background noise ( $L_{90,15min}$ ) in any octave band of the sound spectrum, and*

- *Less than 5dB(A) above the level of background noise ( $L_{A90, 15min}$ ) for the overall (sum of octave bands) A-weighted level."*

Based on the above EPA SA Guideline and DTS/DPF 4.6, to control music noise emissions from the proposed function venue, we derived the music noise criteria based on the lowest background noise levels ( $L_{90}$ ) measured during our continuous noise survey. Therefore, the calculated music noise criteria relevant to the neighbouring noise sensitive receivers will be as detailed in Table 2 and Table 3 below.

	Octave band sound pressure level dB re 20µPa at Octave Band Centre Frequency, Hz								Overall level, dBA
	63	125	250	500	1000	2000	4000	8000	
Lowest background noise level $L_{90, 15min}$ (day time)	32	32	30	31	26	22	22	20	32
Maximum allowable exceedance	8	8	8	8	8	8	8	8	5
Maximum allowable music noise level, $L_{10,15min}$ at the nearest noise sensitive boundary	<b>40</b>	<b>40</b>	<b>38</b>	<b>39</b>	<b>34</b>	<b>30</b>	<b>30</b>	<b>28</b>	<b>37</b>

**Table 2:** Proposed music noise criteria – day time

	Octave band sound pressure level dB re 20µPa at Octave Band Centre Frequency, Hz								Overall level, dBA
	63	125	250	500	1000	2000	4000	8000	
Lowest background noise level $L_{90, 15min}$ (night time)	31	30	30	24	26	20	18	16	30
Maximum allowable exceedance	8	8	8	8	8	8	8	8	5
Maximum allowable music noise level, $L_{10,15min}$ at the nearest noise sensitive boundary	<b>39</b>	<b>38</b>	<b>38</b>	<b>32</b>	<b>34</b>	<b>28</b>	<b>26</b>	<b>24</b>	<b>35</b>

**Table 3:** Proposed music noise criteria – night time

## SoundPlan Models

We developed 3D acoustic model based on the site topography using SoundPlan 8.2 software package and predicted the noise levels at nearest noise sensitive receivers taking into account the following:

- Location and ground elevation of the existing door cellar and function area as well as the proposed restaurant/function centre relative to the noise sensitive receivers.
- The building envelope of the restaurant/function centre as defined above.
- Distances to the noise sensitive receivers and ground elevations.
- The topography of the area where the noise source and noise sensitive receivers are located.
- Ground sound reflectivity – we assumed ground reflectivity of 40% (40% of the sound incident to the ground will be reflected and 60% will be absorbed).
- Meteorological conditions:
  - Daytime – CONCAWE Category 5;
  - Night time – CONCAWE Category 6.
- Distances as measured from the site plan and Google Earth.
- When function is taking place in the proposed restaurant/function centre, the doors on the northern façade were modelled to stay open for 15 minutes in every hour in order to allow patrons to move between the restaurant and the outside podium;
- Reverberant noise level in the restaurant resulting from 16 patrons talking at raised voice level and 16 patrons talking at normal voice level (based on the results of the US EPA study [6]) of 83dBA, calculated in accordance with [5];
- Combined noise level of 79dBA at 1m resulting 32 patrons (16 male and 16 female) talking at raised voice level in front of the restaurant/function centre;
- Combined noise level of 79dBA at 1m resulting 32 patrons (16 male and 16 female) talking at raised voice level on the loan in front of the existing cellar door in function mode;
- Combined noise level of 86dBA at 1m resulting 100 patrons (50 male and 50 female) talking at raised voice level at the loan north of the existing cellar door (cellar door mode);

We calculated the following scenarios:

- Scenario 1:
  - A function of 130 guests taking place at the loan north from the existing cellar door building from 15:00 till midnight with recorded music played from 2 speakers at 85dBA ( $L_{A10}$ ) at 1m from each speaker; and
  - Combined noise level of 79dBA at 1m resulting 32 patrons (16 male and 16 female) talking at raised voice level on the loan in front of the existing cellar door;
  - The restaurant operating at full capacity (130 patrons) with half of them inside and half of them outside (16 male and 16 female talking at raised voice level resulting in combined noise level of 79dBA at 1m) with background music only played inside.

Assessment of the music noise conducted against music noise criteria (Table 2 and Table 3) and assessment of patron noise – against the environmental noise criteria (refer Section Environmental Noise).

- Scenario 2:
  - The cellar door operates in restaurant/cellar door mode at full capacity of 200 patrons outside (25 male and 25 female patrons talking at normal voice level, 25 male and 25 female patrons talking at raised voice level) and no music played; and
  - A function with 130 guests taking place in the restaurant/function centre with recorded music played in from 4 speakers located inside resulting in reverberant sound pressure level of 90dBA ( $L_{A10}$ ) with half of the guests inside and half of the guests outside (16 male and 16 female talking at raised voice level resulting in combined noise level of 79dBA at 1m).

Assessment of the music noise conducted against music noise criteria (Table 2) and assessment of patron noise – against the environmental day time noise criterion (refer Section Environmental Noise).

- Scenario 3:
  - The cellar door operates in restaurant/cellar door mode at full capacity of 200 patrons outside (25 male and 25 female patrons talking at normal voice level, 25 male and 25 female patrons talking at raised voice level) and no music played; and
  - The proposed restaurant operates at full capacity (130 guests) with only background music played inside (reverberant sound level of 70dBA) and with half of the guests inside and half of the guests outside (16 male and 16 female talking at raised voice level resulting in combined noise level of 79dBA at 1m) .

Assessment of the music noise conducted against music noise criteria (Table 2) and assessment of patron noise – against the environmental day time noise criterion (refer Section Environmental Noise).

Graphic representation of the calculation results is provided in Appendices B and C.

## Assessment and Recommendations

### Music Noise

We calculated the music noise levels at the nearest noise sensitive receiver resulting from typical function taking place in the proposed function centre under the conditions described above and taking into account the distances from the function centre to the noise sensitive receiver, the construction of the building envelope elements and their area based on the architectural plans.

Based on above, our assessment revealed:

- The day time music noise criterion will be achieved at the nearest noise sensitive receivers when functions take place in the proposed restaurant/function centre under the above conditions;
- The day time and night time music noise criteria will be achieved at the nearest noise sensitive receivers when functions take place at the existing cellar door lawn under the above conditions.

The calculated music noise levels under the different scenarios are presented in Table 4, Table 5 and Table 6 along with the selected music noise criteria.

Calculated music noise level at receiver	Octave band sound pressure level dB re 20µPa at Octave Band Centre Frequency, Hz								Overall level, dBA
	63	125	250	500	1000	2000	4000	8000	
426 Oakwood Rd, Oakbank (Receiver 1)	40	37	38	36	29	22	10	-	36
432B Swamp Rd, Lenswood (Receiver 2)	37	36	37	35	30	24	9	-	36
357 Oakwood Rd, Oakbank (Receiver 3)	20	14	15	13	7	-	-	-	13
61B Peacock Rd South (Receiver 4)	37	31	30	31	28	20	-	-	31
Maximum allowable music noise level, L <sub>10,15min</sub> at the noise sensitive boundary	40	40	38	39	34	30	30	28	37

**Table 4:** Calculated music noise levels – Scenario 1, day time

	Octave band sound pressure level dB re 20µPa at Octave Band Centre Frequency, Hz								Overall level, dBA
	63	125	250	500	1000	2000	4000	8000	
426 Oakwood Rd, Oakbank (Receiver 1)	37	37	36	32	29	22	9	-	33
432B Swamp Rd, Lenswood (Receiver 2)	34	34	35	32	28	21	7	-	33
357 Oakwood Rd, Oakbank (Receiver 3)	17	14	13	11	3	-	-	-	12
61B Peacock Rd South (Receiver 4)	33	28	27	28	25	18	-	-	29
Maximum allowable music noise level, L <sub>10,15min</sub> at the nearest noise sensitive boundary	39	38	38	32	34	28	26	24	35

**Table 5:** Calculated music noise levels – Scenario 1, night time

	Octave band sound pressure level dB re 20µPa at Octave Band Centre Frequency, Hz								Overall level, dBA
	63	125	250	500	1000	2000	4000	8000	
426 Oakwood Rd, Oakbank (Receiver 1)	29	28	14	9	2	-	-	-	14
432B Swamp Rd, Lenswood (Receiver 2)	27	27	25	22	18	8	-	-	23
357 Oakwood Rd, Oakbank (Receiver 3)	15	12	1	-	-	-	-	-	-
61B Peacock Rd South (Receiver 4)	22	20	12	7	1	-	-	-	1
Maximum allowable music noise level, L <sub>10,15min</sub> at the nearest noise sensitive boundary	39	38	38	32	34	28	26	24	35

**Table 6:** Calculated music noise levels – Scenario 2, day time

To ensure the criterion is achieved at all times, we recommend:

- No speakers are to be installed externally to the proposed function centre.
- Before each function, the Operator or Duty Manager measures the reverberant sound pressure level (approximately in the middle of the function centre) and ensures it does not exceed 90dBA<sup>2</sup> (L<sub>Aeq</sub>) during the function. We recommend an automatic sound limiter be used to monitor the sound pressure levels during performance. The sound limiter should be connected to the main amplifier power and set to cut the power if the maximum sound pressure level is exceeded. To facilitate this, the following is required:
  - Any external performers should use only the sound system and amplifier provided by the venue;
  - The sound system should be tuned and commissioned by an acoustic engineer once the speakers are in place and the sound limiter is installed.
- The doors and any operable glazing be fitted with compressible acoustic seals (Raven or Schlegel ranges) and be kept closed when a function is taking place in the centre.

<sup>2</sup> A reverberation time of 1.2 seconds was assumed within the function space, based on its volume. Please note that additional acoustic treatment will be required to reduce the reverberation in the space and achieve this reverberation time.

### Patron Noise

Our assessment revealed that the selected environmental noise criterion will be achieved and therefore, no further acoustic treatment is required.

### Noise Associated with Delivery Vehicles

We note that there is no specified loading area currently indicated on the provided preliminary drawings. Therefore, for the purpose of this assessment we have assumed that the loading and unloading activities will occur in the existing carpark adjacent the southern façade of the existing shed.

We calculated the A-weighted Equivalent Continuous Noise Level over a typical 15-minute interval ( $L_{Aeq,15min}$ ) assuming the following activity durations and measured noise levels from similar activities on a previous project:

- Delivery vehicle accessing the loading dock (including reverse alarm) – 90 seconds, 73dB(A) at 5m.
- Loading/unloading activities including noise from refrigeration unit on the delivery vehicle – 8 minutes, 76dB(A) at 5m.
- Delivery vehicle departing – 90 seconds, 70dB(A) at 5m.
- The balance of a 15-minute interval – 4 minutes, 54dB(A) (ambient noise level).

The calculated A-weighted Equivalent Continuous Noise Level over a typical 15-minute interval ( $L_{Aeq, 15min}$ ) resulting from delivery vehicle activities, which we used in the assessment was 74dB(A) at 5m.

Based on the above and taking into account the distance to the nearest residences across Pipeline Rd (approximately 450m from the delivery zone), we predicted incident noise levels of 35dB(A) at the nearest residence, which achieves both daytime environmental noise criteria and night-time environmental noise criteria. However, we recommend deliveries be scheduled between 10:00am and 6:00pm in order to further reduce the noise impact associated with the proposed development.

### Noise Associated with Rubbish Collection

We note that there is no specified rubbish collection area currently indicated on the provided preliminary drawings. Therefore, for the purpose of this assessment we have assumed that the rubbish collection will occur in the existing carpark to the west of the existing cellar door building. We assessed the noise impact on the nearest residential property resulting from noise emissions from typical rubbish collection vehicle including the following activities:

- Rubbish collection vehicle accessing the waste loading zone (including reverse alarm).
- Rubbish collection.
- Rubbish collection vehicle departing.

We calculated the A-weighted Equivalent Continuous Noise Level over a typical 15-minute interval ( $L_{Aeq,15min}$ ) assuming the following activity durations and measured noise levels from similar activities on a previous project:

- Rubbish collection vehicle accessing the waste loading zone (including reverse alarm) – 90 seconds, 73dB(A) at 5m.
- Rubbish collection – 7 minutes, 65dB(A) at 5m.
- Rubbish collection vehicle departing – 90 seconds, 70dB(A) at 5m.
- The balance of a 15-minute interval – 5 minutes, 54dBA (ambient noise level).

The calculated A-weighted Equivalent Continuous Noise Level over a typical 15-minute interval ( $L_{Aeq,15min}$ ) resulting from rubbish collection activities, which we used in the assessment was 66dBA at 5m. Taking into account the distance to the nearest residence to the south-west (approximately 350m from the waste collection zone), we calculated the A-weighted Equivalent Continuous Noise Level over a typical 15-minute interval ( $L_{Aeq,15min}$ ) at the façade of the nearest residence as 34dBA, which achieves both day time environmental noise criterion (we note that the rubbish collection will occur during day time only – between 7:00 and 17:00, Monday to Friday).

### Noise Associated with Car Park

We assessed noise from the car park entrance lane (off Swamp Rd) using a time weighted average approach to generate an average noise level of 55dB(A) ( $L_{Aeq, 15min}$ ), based on 8 car exits/entries and egress per 15 min period down the laneway. Therefore, the predicted noise level at the nearest noise sensitive residence

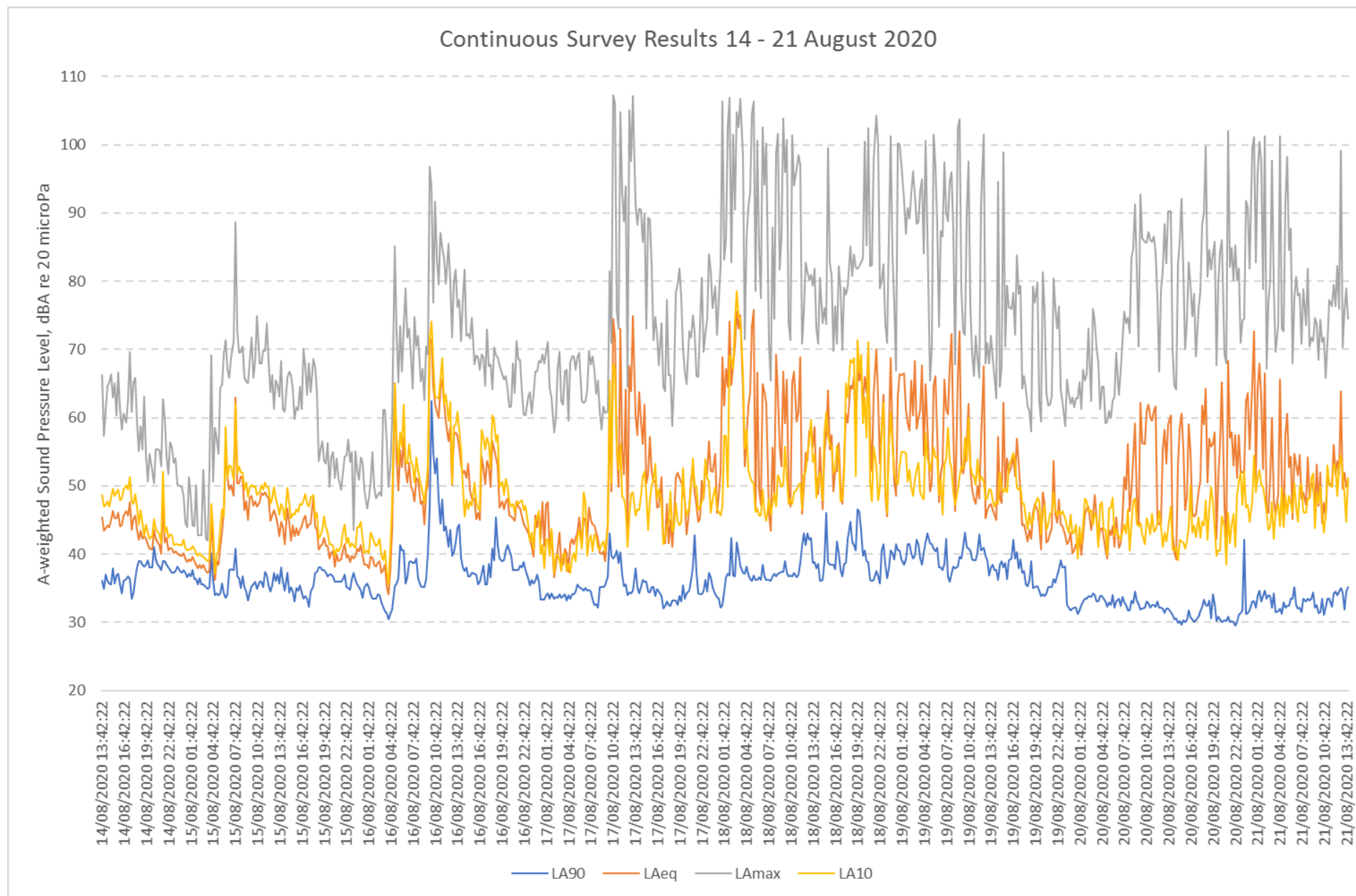


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(approximately 350m away) would be 24dB(A), which complies with the selected criteria for environmental noise.

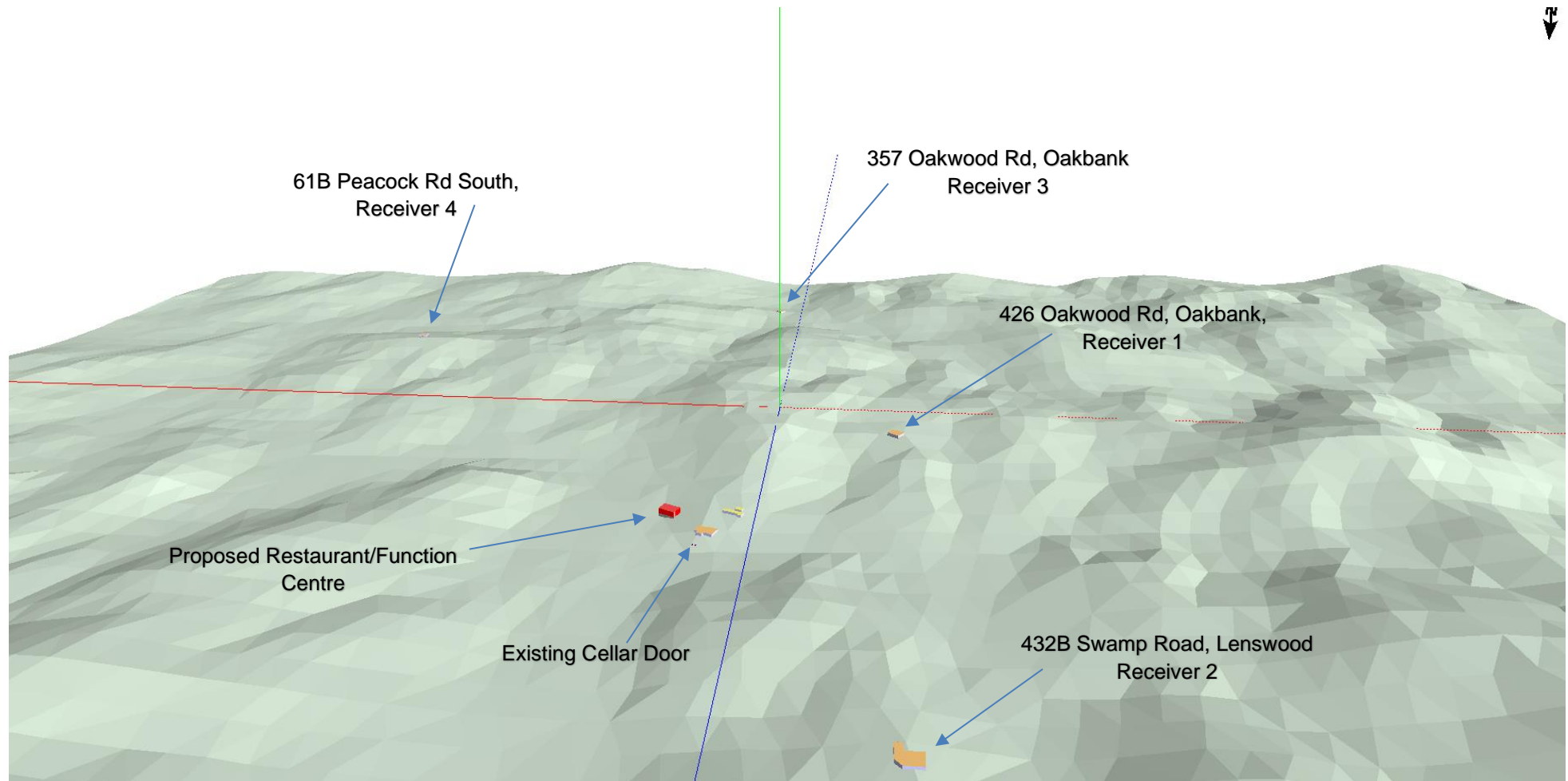
## **APPENDIX A**

### Continuous Noise Survey Results



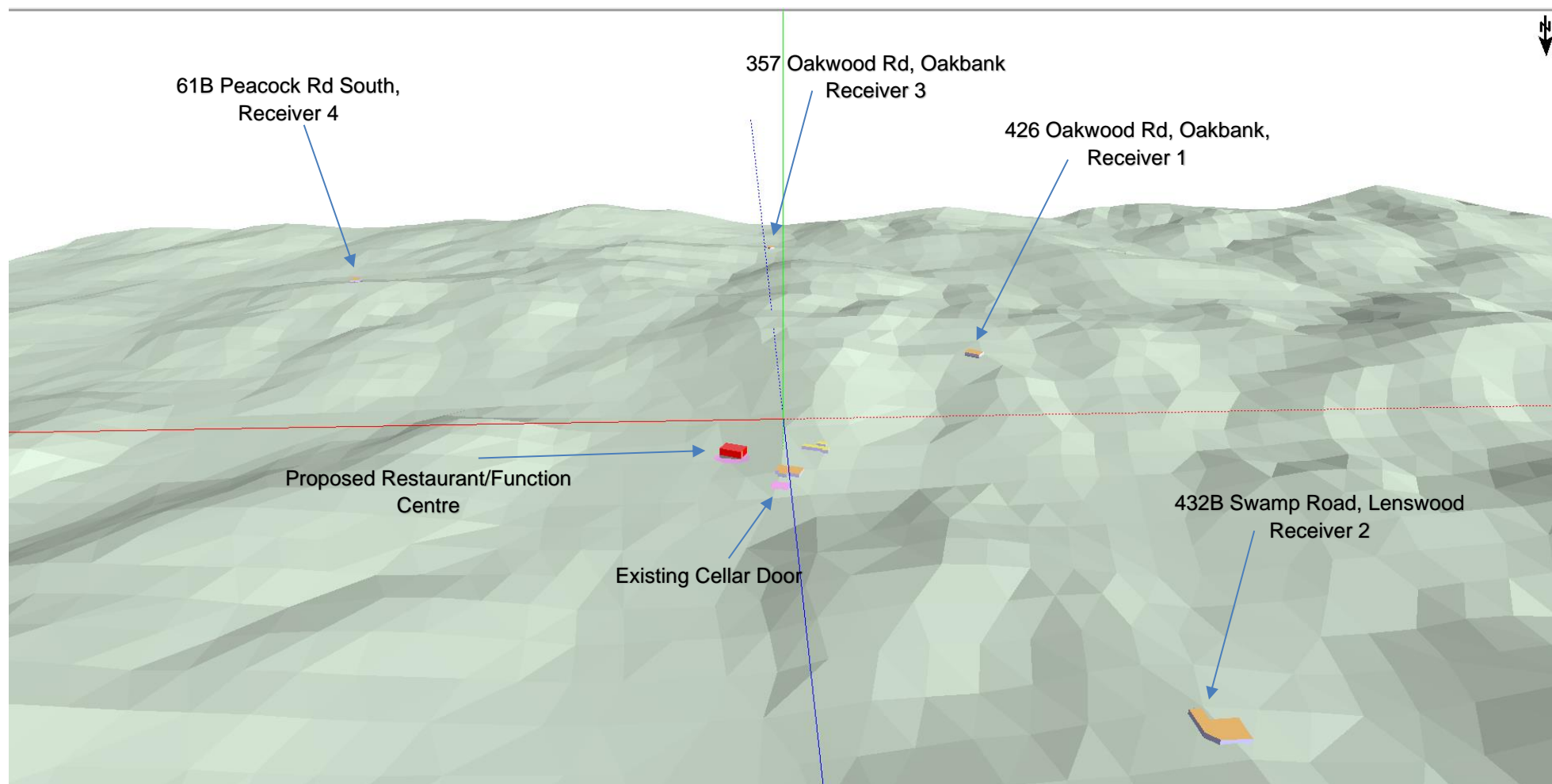
## **APPENDIX B**

### SoundPlan Models



**Figure B 1:** SoundPlan 3D model - Music Noise (the red dots indicate the outdoor loudspeakers)

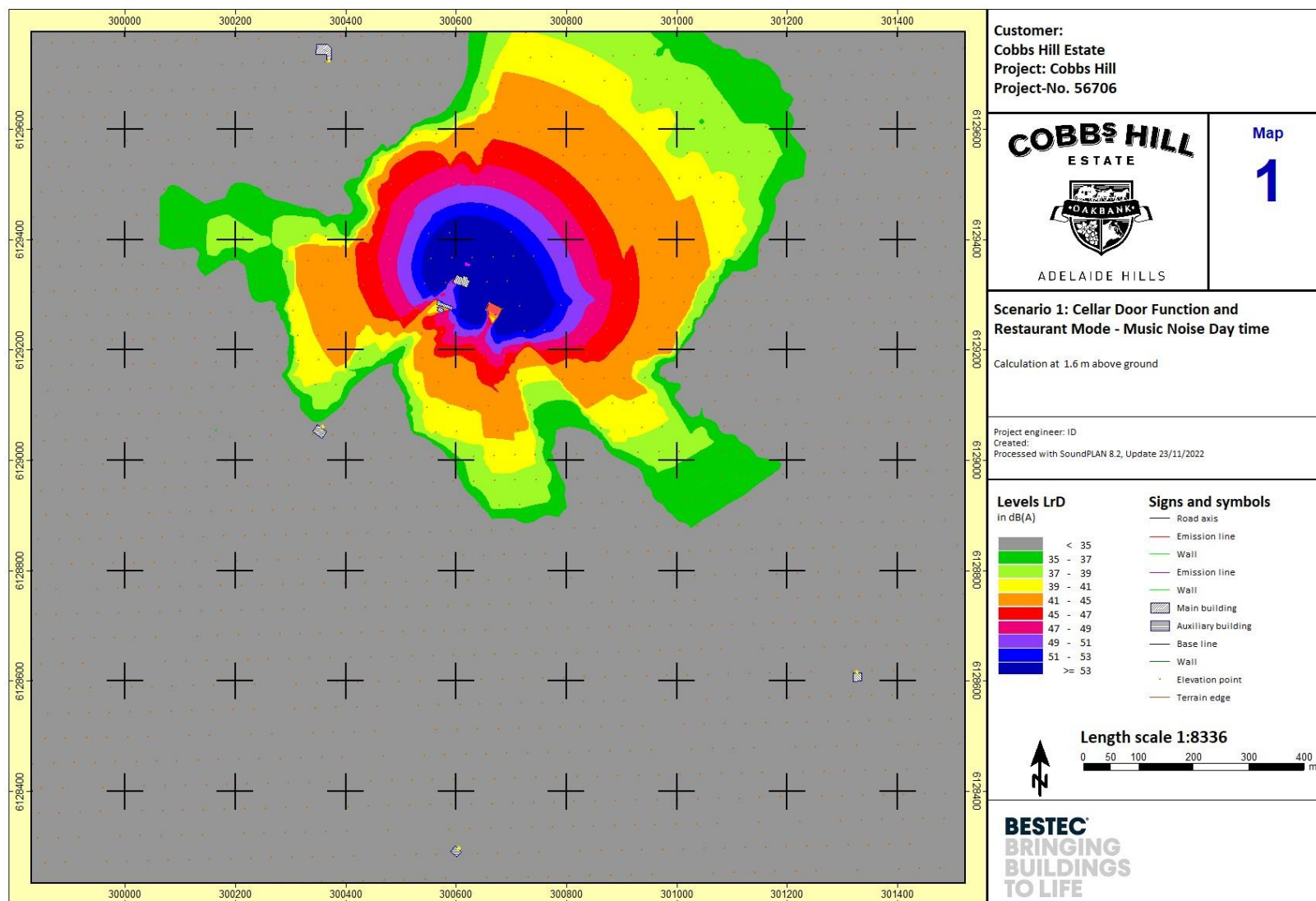




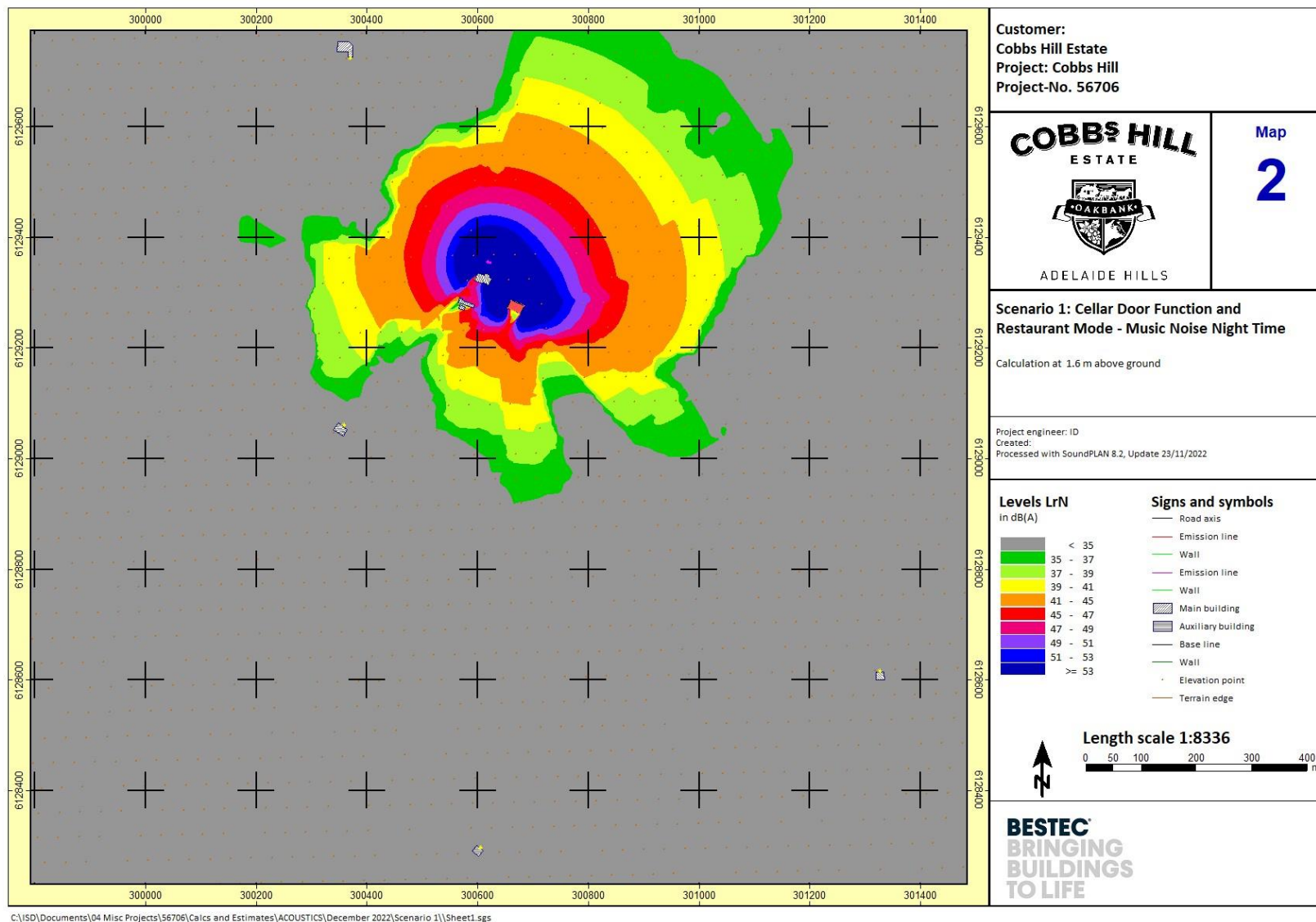
**Figure B 2:** SoundPlan 3D model - Patron Noise (the pink areas indicate patrons outdoor)

## **APPENDIX C**

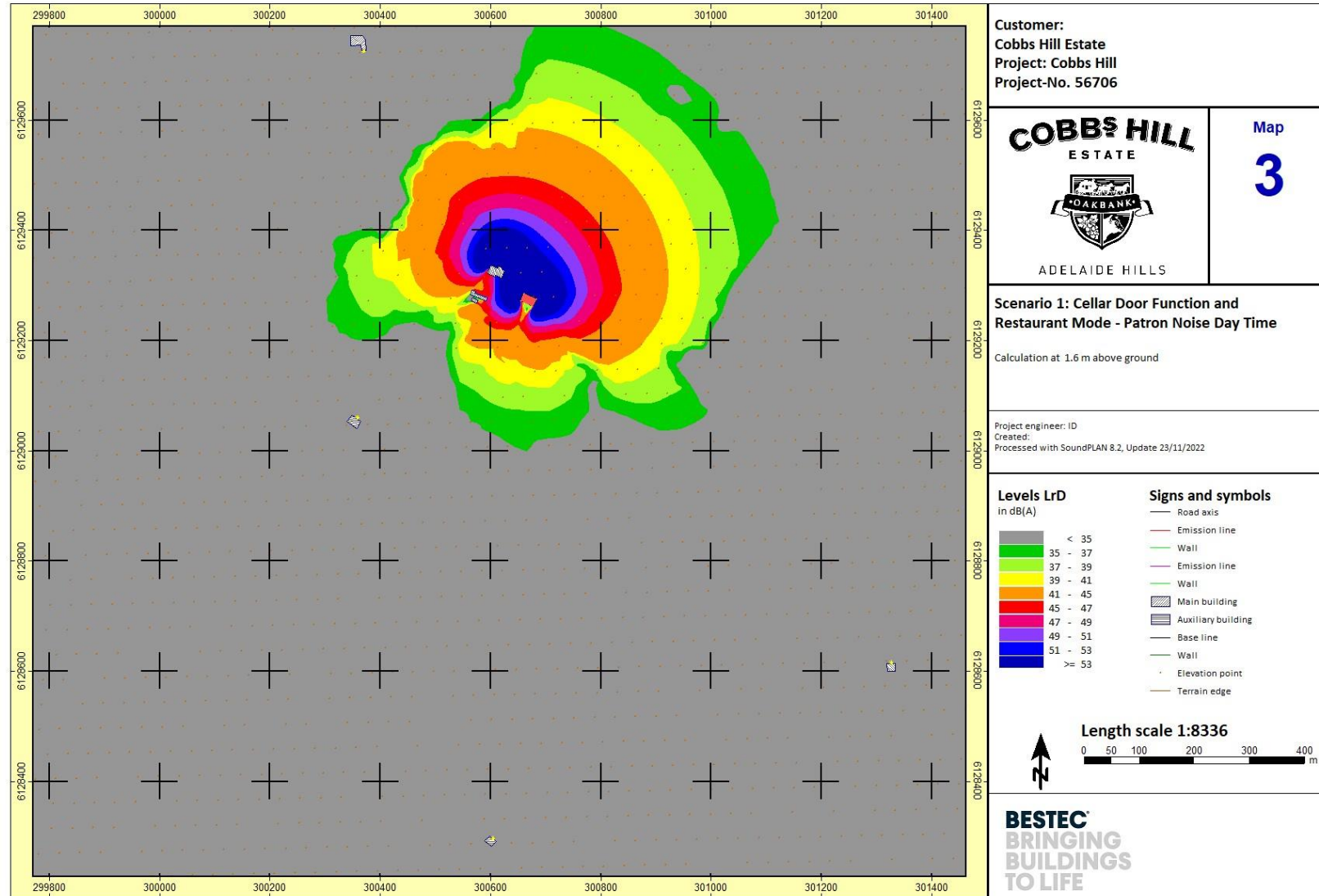
### SoundPlan Results – Scenario 1



**Figure C 1: Calculated Day Time Noise Levels - Music Noise**

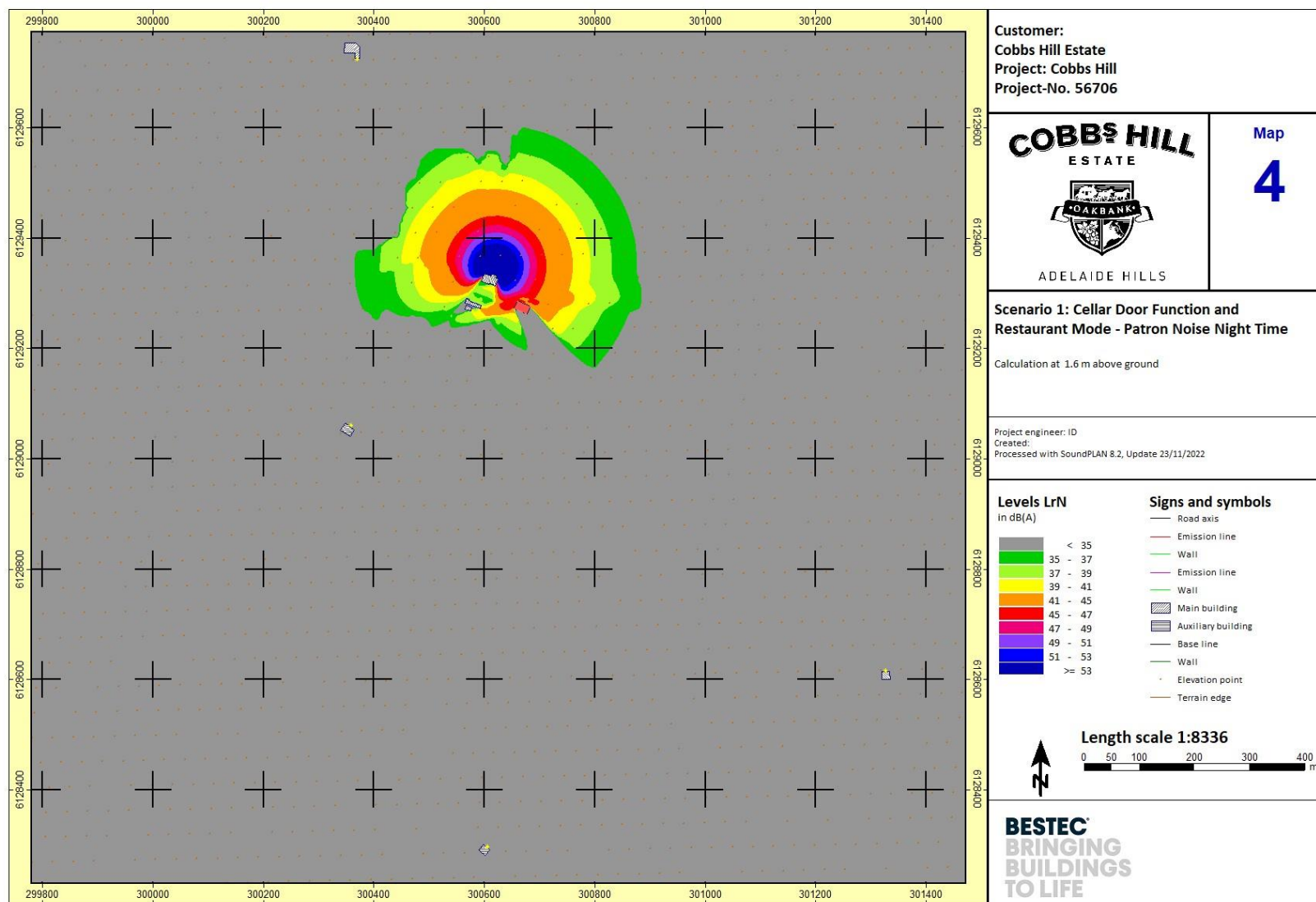


**Figure C 2: Calculated Night Time Noise Levels - Music Noise**



**Figure C 3: Calculated Day Time Noise Levels - Patron Noise**

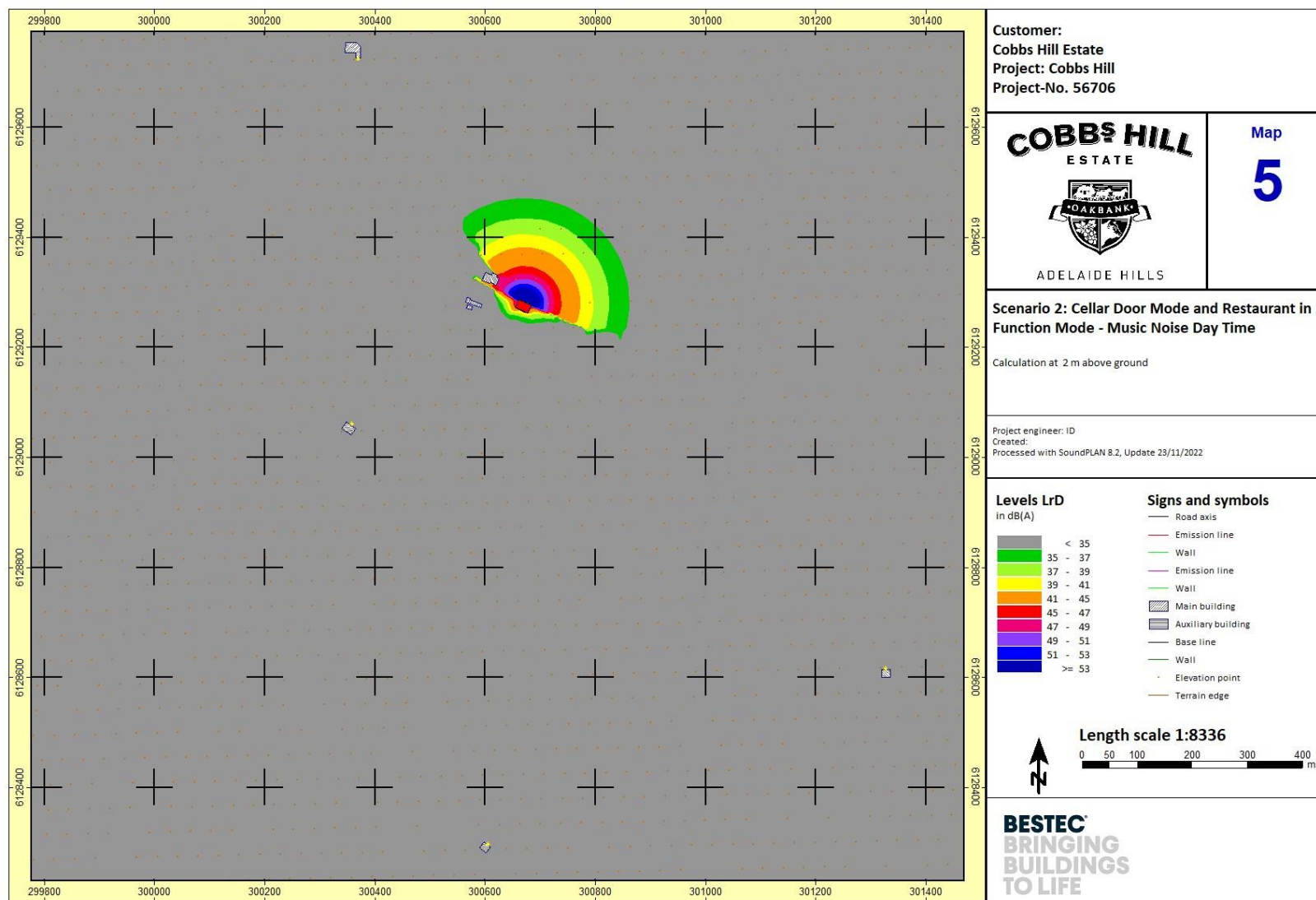




**Figure C 4: Calculated Night Time Noise Levels - Patron Noise**

## **APPENDIX D**

### SoundPlan Results – Scenario 2



**Figure D 1: Calculated Day Time Noise Levels – Music Noise**

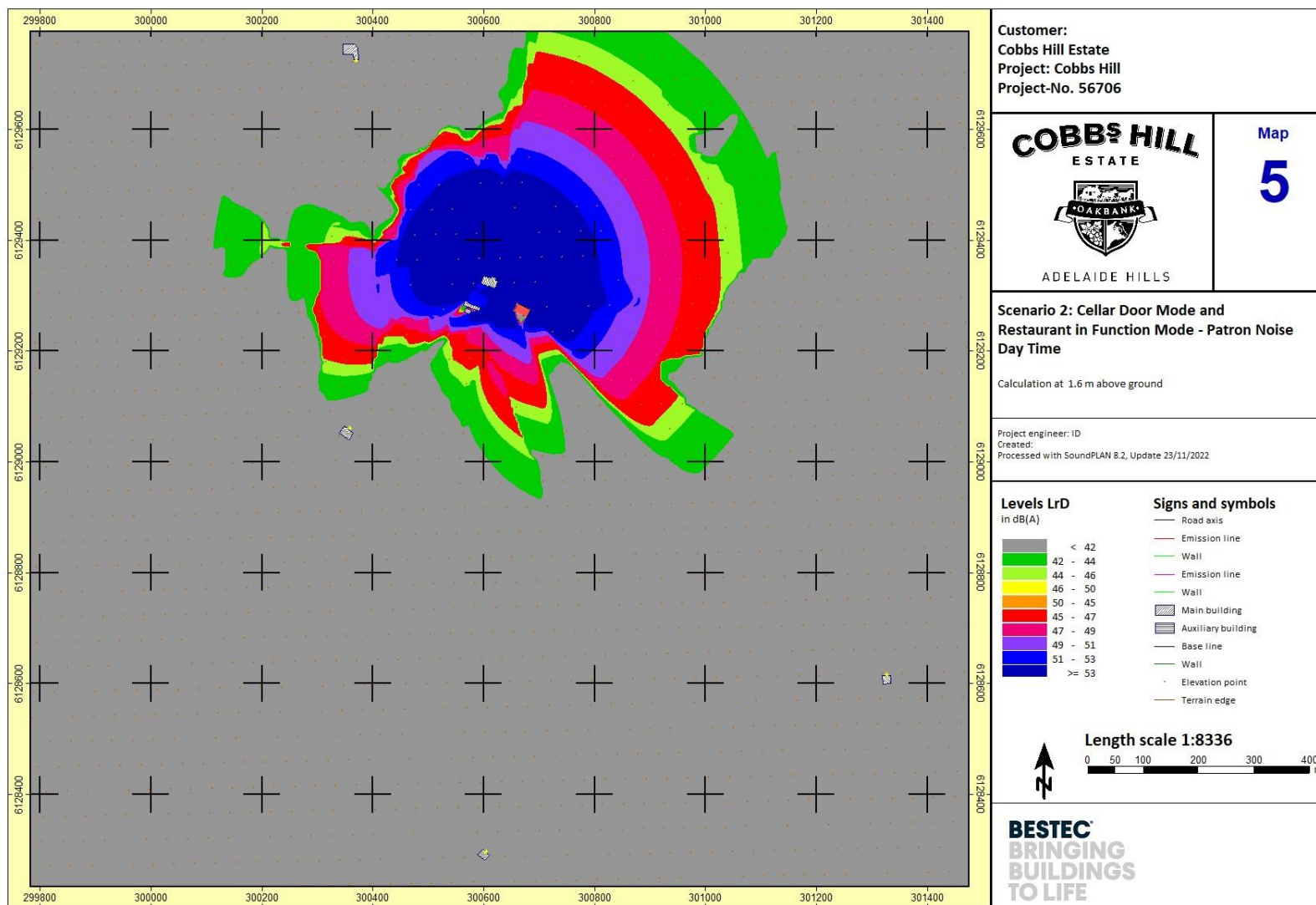
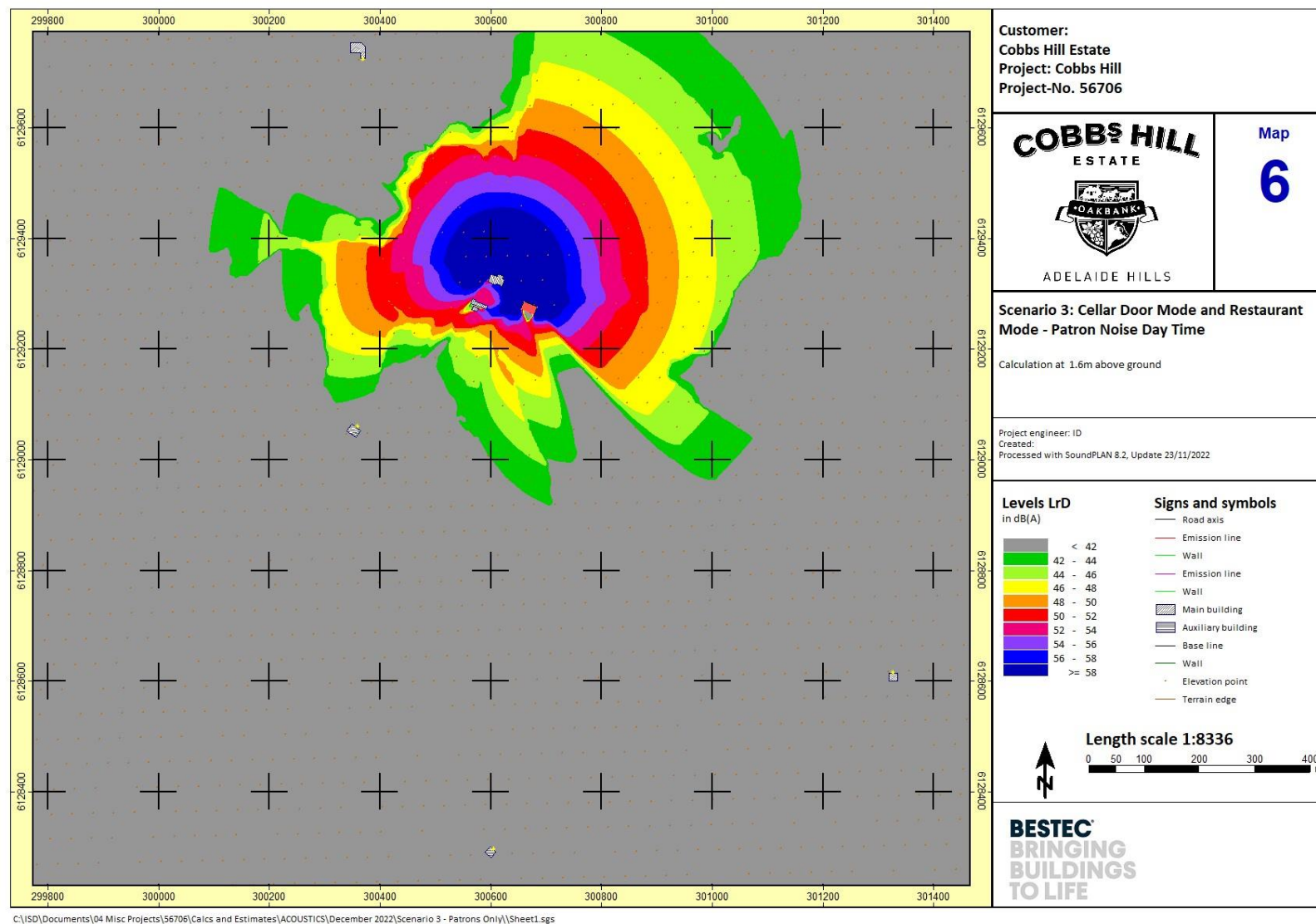


Figure D 2: Calculated Day Time Noise Levels – Patron Noise

## **APPENDIX E**

### SoundPlan Results – Scenario 3





**Figure E 1: Calculated Day Time Noise Levels – Patron Noise**

## **APPENDIX F**

### Glossary of Acoustic Terminology

**dB(A)**

Also referred to as dBA. A unit of measurement, decibels(A), of sound pressure level which has its frequency characteristics modified by a filter ("A-weighted") so as to more closely approximate human ear response at a loudness level of 40 phons. The table below outlines the subjective rating of different sound pressure levels.

Noise Level (dBA)	Subjective Rating
25-30	Barely audible and very unobtrusive.
30-35	Audible but very unobtrusive.
35-40	Audible but unobtrusive.
40-45	Moderate but unobtrusive.
45-50	Unobtrusive with low levels of surrounding activity.
50-55	Unobtrusive with high levels of surrounding activity.

**L<sub>1</sub>**

The noise level which is equalled or exceeded for 1% of the measurement period. L<sub>1</sub> is an indicator of the impulse noise level, and is used in Australia as the descriptor for intrusive noise (usually in dBA).

**L<sub>10</sub>**

The noise level which is equalled or exceeded for 10% of the measurement period. L<sub>10</sub> is an indicator of the mean maximum noise level, and is used in Australia as the descriptor for intrusive noise (usually in dBA).

**L<sub>90</sub>, L<sub>95</sub>**

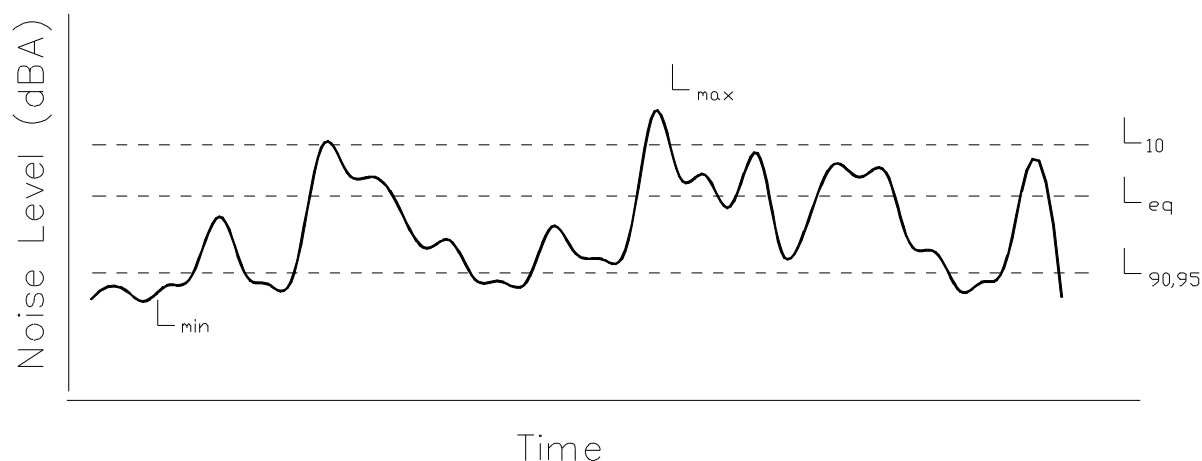
The noise level which is equalled or exceeded for 90% of the measurement period. L<sub>90</sub> or L<sub>95</sub> is an indicator of the mean minimum noise level, and is used in Australia as the descriptor for background or ambient noise (usually in dBA).

**L<sub>eq</sub>**

The equivalent continuous noise level for the measurement period. L<sub>eq</sub> is an indicator of the average noise level (usually in dBA).

**L<sub>max</sub>**

The maximum noise level for the measurement period (usually in dBA).



**Note:** The subjective reaction or response to changes in noise levels can be summarised as follows: A 3dBA increase in sound pressure level is required for the average human ear to notice a change; a 5dBA increase is quite noticeable and a 10dBA increase is typically perceived as a doubling in loudness.

**STC/R<sub>w</sub>**

Sound Transmission Class or Weighted Sound Reduction Index. Provides a single number rating (from the sound transmission loss or sound reduction index for each frequency band) of the sound insulation performance of a partition. The higher the value, the better the performance of the partition. The subjective impression of different ratings is shown in the table below.

Type of noise source	STC/R <sub>w</sub> Rating				
	40	45	50	55	60
Normal Speech	Audible	Just Audible	Not Audible		
Raised speech	Clearly Audible	Audible	Just Audible	Not Audible	
Shouting	Clearly Audible	Clearly Audible	Audible	Just Audible	Not Audible
Small television/small entertainment system	Clearly Audible	Clearly Audible	Audible	Just Audible	Not Audible
Large television/large hi-fi music system	Clearly Audible	Clearly Audible	Clearly Audible	Audible	Just Audible
DVD with surround sound	Clearly Audible	Clearly Audible	Clearly Audible	Audible	Audible
Digital television with surround sound	Clearly Audible	Clearly Audible	Clearly Audible	Audible	Audible

**FSTC/R<sub>w</sub>'**

The equivalent of STC/R<sub>w</sub>, unit for sound insulation performance of a building element measured in the field.

**C<sub>i</sub>, C<sub>tr</sub>**

The ratings (R<sub>w</sub>, D<sub>nTw</sub>, L<sub>nTw</sub>) are weighted in accordance to a spectrum suited to speech. This term modifies the overall rating to account for noise with different spectra, such as traffic (C<sub>tr</sub>) or footfalls (C<sub>i</sub>). The ratings may be written as R<sub>w</sub>+C<sub>tr</sub>, or D<sub>nTw</sub>/L<sub>nTw</sub>+C<sub>i</sub>.

**NNIC/D<sub>nTw</sub>**

Normalised Noise Isolation Class, or Weighted Standardised Sound Level Difference. Provides a single number rating of the sound level difference between two spaces, and incorporates the effects of flanking noise between two spaces. This rating is generally accepted to be about 5 points less than the STC/R<sub>w</sub> rating.

**IIC/L<sub>nw</sub>**

Impact Insulation Class, or Weighted Normalised Impact Sound Level. L<sub>nw</sub>=110-IIC. The higher the IIC rating, or the lower the L<sub>nw</sub> rating the better the performance of the building element at insulating impact noise. The table below gives the subjective impression of different ratings:

IIC	L <sub>nw</sub>	Subjective Rating
40	70	Clearly Audible
45	65	Clearly Audible
50	60	Audible
55	55	Audible
60	50	Just Audible
65	45	Inaudible

**FIIC/L<sub>nTw</sub>'**

The equivalent of IIC/L<sub>nw</sub>, but the performance is for the building element measured in the field.



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File: 22-350

16 January 2023

Mr Gregg Jenkins  
Heynen Planning Consultants  
Suite 15, 198 Greenhill Road  
EASTWOOD SA 5063

Via email: [gregg@heynenplanning.com.au](mailto:gregg@heynenplanning.com.au)

Dear Gregg,

**PROPOSED ALTERATIONS AND ADDITIONS TO COBBS HILL ESTATE, 382B SWAMP ROAD, OAKBANK (APPLICATION ID: 21017786) – TRAFFIC AND PARKING ASSESSMENT (AMENDED)**

I refer to our previous discussions with respect to the above proposed development. I understand that this development will include alterations and additions to the existing development on the subject site including the proposed construction of a function centre and changes to existing on-site parking together with amendments to the licenced capacity and trading hours of the existing development.

We have previously undertaken an assessment of the traffic and parking related aspects of the above development in a report dated 21 December 2021. I understand that since the completion of that report a number of comments in relation to the traffic and parking related aspects of the proposed development from Council's Technical Officer have been included within an email from Council. Accordingly I have summarised and provided a response to these comments in the following amended report.

**Existing Situation**

The subject land is located on the eastern side of Swamp Road, Oakbank, within a *Productive Rural Landscape Zone*. The subject site is within the Adelaide Hills Council.

The subject land currently accommodates an existing residence, cellar door sales facility, motel/tourist accommodation facility containing three bedrooms, function area and outdoor seating associated with dining on-site. The tasting room, lounge areas and motel accommodation are provided in the building previously used as a residential dwelling i.e. the former homestead.

The existing development on the site is accessed via a two-way gateway on the eastern side of Swamp Road. The design of this access point provides an approximately 6.5m wide gate which is set back approximately 7.5 m from the eastern edge of Swamp Road. This gateway provides access to an internal gravel driveway providing vehicular access to the existing facilities on the subject site.

The initial section of this driveway extending east from the gate maintains a width of approximately 6.5 width for a distance of approximately 15 m which then narrows to approximately 3.5 m. Passing opportunities are subsequently provided intermittently along this section of roadway.

Swamp Road, adjacent to the subject land, is a two-lane roadway line marked with edge lines on each side of the roadway and centre lines between the northbound and southbound traffic lanes. The width of this roadway between the edge lines is approximately 6.5m.

The speed limit on Swamp Road adjacent to the site is 80 km/h.

We understand that Swamp Road carries approximately 1,531 vehicles per day (vpd).

A review of sight distances along Swamp Road to the north and south of the access point into the subject site indicates that sight distance in both directions is adequate for drivers approaching the subject access point to identify vehicles exiting from the site or turning right into the site from the northbound lane of Swamp Road. It is noted that curve warning advisory signs are installed within the combination crest vertical / horizontal curve on Swamp Road to the north of the subject access point.

From a review of the Location SA Map Viewer website it is identified that there have been no recorded road crashes reported in the most recent five-year recording period (2017-2021 inclusive) along Swamp Road adjacent to the boundary of the subject site including the intersection of the subject access point with Swamp Road.

Parking for patrons of the subject development is currently provided primarily on the northern side of the internal driveway to the west of the existing cellar door sales facility. An overflow car parking area is also provided on the southern side of the internal driveway. These car parking areas currently have a capacity to accommodate parking for the use of patrons and customers of the subject development. Parking associated with staff typically occurs adjacent to the various sheds and buildings on the site.

The design of the internal driveways provides access to the existing sheds on the site and traffic circulation is provided around the area of the site accommodating the former homestead building

The subject site and adjacent locality are identified in *Figure 1* below.



*Figure 1: Existing Development and adjoining locality*

### Current operation

The current operation of the subject development provides for use of the existing buildings on the subject site to accommodate a cellar door facility and functions including special events. I note that the current planning consent (DA 16/973/473) as dated 26 November 2020 provides for the use of the existing buildings on the subject site to accommodate: -

- Special Events with maximum capacity 208 persons on 7 occasions a year, or
- Functions with a maximum capacity of 130 persons on 18 occasions a year, and
- Use of the Cellar Door area with a maximum capacity of 75 persons.

The opening hours of the functions and special events are restricted to 10.00 am to 12.00 am (Midnight) on either Friday, Saturday or Sunday. I understand that the current hours of operation of the Cellar Door facility are from 11.00 am to 5.00 pm seven days per week.

Based upon the current conditions of Planning Consent, I understand that the above Special Events and smaller functions cannot coincide. However either of these events / functions can coincide with the day to day operation of the cellar door facility.

Hence, it is calculated that the maximum number of patrons who can attend the site at any one time is currently limited to 283 persons. Such a capacity would generally occur on weekends given that functions held on site on Fridays are most likely to occur in evening periods i.e. after the cellar door is closed.

## The Proposed Development

I note that the proposed development (as previously submitted to Council) is identified on a series of plans prepared by *Anatoly Patrick Architect* including a **Location Plan A/02**. This plan identifies that the proposed development will include:-

- Alterations and additions to the existing on-site parking areas with the plans nominally identifying a total of 82 car parking spaces,
- Minor alterations to the internal road network, and
- The construction of a proposed function centre with a total floor area of 412 m<sup>2</sup>.

The above plan identifies provision for accessible (disability) car parking including the provision of:-

- one accessible car parking space and associated shared area on the western side of the proposed function centre,
- One accessible car parking space and associated shared area to the south-east of the existing cellar door facility, and
- Two accessible car parking spaces within the existing car parking area to the west of the cellar door facility.

The proposed development also provides for formalisation of existing overflow car parking area on the southern side of the main driveway. The plans indicate removal of potentially two or three existing trees within the site. While the notation on the plans suggests the provision of 54 car parking spaces of the area the actual design suggests only the provision of 36 spaces within the area.

Consequently we have undertaken a review of the car parking layout and have suggested minor changes to the design in order to maximise the number of car parking spaces within the proposed southern (overflow) car parking area. These changes are identified in Figure 2 provided within the appendix to this report.

The plans previously prepared by the architects (Anatoly Patrick Architecture) indicate the inclusion of a circular section of roadway to the north of the proposed function centre which would be similar to a roundabout with a clockwise circulation traffic flow.

A review of the above proposed treatment using Autotrack software has indicated some need for minor changes to this proposed feature in order to accommodate turning of large delivery vehicles up to and including the length of a Medium Rigid Vehicle (MRV) with a total length of 8.8m. These changes would be only minor and essentially consist of a reduction in the diameter of the central island to 15m and a consequent widening of the circulation roadway together with minor widening of the radius of the driveway entering this area from the west.



Subject to the incorporation of the minor amendments indicated above these vehicles would be able to circulate within the site around the existing and proposed buildings. These changes could be incorporated within the final civil engineering design.

The design of the two at-grade car parking areas as per Figure 2 would both reflect a medium term parking area (User Class 2) facility typically associated with a restaurant or function centre use providing the following dimensions:-

- Car parking spaces of 2.5m in width,
- Car parking spaces of 5.4m in length,
- An aisle width of at least 5.8m, and desirably 6.2m.

The accessible (disability) car parking spaces should be at least 2.4 in width with a 2.4m wide adjacent shared area.

On the above basis the design of the on-site car parking areas would more fully conform to the requirements of the relevant off-street car parking standards (*AS/NZS 2890.1:2004* and *AS/NZS 2890.6:2009*) and will meet the requirements of a *User Class 2* facility (medium term parking such as entertainment centres and accommodation facilities).

The internal driveways and car parking areas will typically be constructed from a permeable gravel surface. As such, it is considered that the car parking spaces should be delineated by wheel stops at the front end of each space.

The slope of the car parking areas should not exceed 1 in 20 (5%) measured parallel to the angle of parking, or 1 in 16 (6.25%) measured in any other direction.

### **The Proposed Operation**

I understand that the proposed development will include changes to the existing hours and capacity of the subject development in conjunction with the proposed construction of the function centre. The proposed development will consequently result in the following:-

- Construction of the proposed restaurant and function centre building with a maximum capacity of 130 persons;
- Construction of the amended car parking areas and associated landscaping,
- Retention of the existing capacity of 75 persons within the cellar door facility with the hours of operation slightly changed to 10.00 am until 6.00 pm Monday to Friday,
- An increase in the capacity within the cellar door facility to 200 persons on Saturday, Sunday and Public Holidays from 10.00 am until 6.00 pm, and
- The number of functions to vary from the current 130 persons 18 times per year and 208 persons 7 times a year, to 130 persons 32 times per year.

Hence, I understand that the maximum number of patrons able to attend the site at any one time would be 330 persons compared to the current capacity of 283 persons. This would represent only an approximately 17% increase in the on-site capacity.

Such a maximum capacity would only occur on afternoon periods on weekends or public holidays given that use of the cellar door facility would be limited to 10.00 am until 6.00 pm on any day. Functions held in evening periods would mostly occur after the cellar door is closed.

## **Parking Assessment**

The *Planning and Design Code* (version 2022.23) Planning and Design Code – 16 December 2022 includes car parking rates considered relevant to the subject development, namely:-

- Tourist accommodation - 1 car parking space per accommodation unit/guest room, and
- Shop (in the form of a restaurant) – 0.4 spaces per seat for premises with dine in service only.

On the basis of a capacity of:-

- A maximum of 330 persons attending either a function or using the cellar door facility on-site there would be a theoretical requirement for 132 car parking spaces associated with these components, and
- Theoretically a further three (3) car parking spaces associated with the accommodation facility. However advice from the operator indicates that in reality there would typically be only a single booking for the use of this area if there is an event, in order to accommodate guests such as a bridal party at a wedding, or otherwise it is not used during a function.

Hence in theory there would be a theoretical requirement for approximately 133 car parking spaces to be provided on-site.

However, in reality, the car parking demand associated with the proposed development should be lower than indicated above given the regional location of the subject development which should encourage a higher car occupancy than 2.5 persons per car compared to a similar development in a metropolitan area.

Furthermore a proportion of patrons attending functions, in particular, are likely to arrive by mini bus with higher occupancy levels than cars. Hence it is considered that there will be sufficient on-site car parking provided for the proposed development.

On the basis of a car parking rate of one space per three seats as required for a dining area associated hotel development i.e. a comparable land use there should be a total parking requirement for approximately 110 parking spaces. This would be met by a combination of the suggested changes to the existing car parking area as identified in Figure 2 below together with the staff parking spaces proposed on site and the provision of the two accessible car parking space to be located adjacent to the existing cellar door facility and the proposed function centre.

## Traffic Assessment

Function centre developments do not have typical traffic generation rates. On a first-principles basis it is assumed that:-

- There would be one arrival and one departure vehicle movement for every 3 persons on-site, to correspond with the on-site car parking requirements and noting that visitors would not typically require multiple movements to and from the subject site,
- Staff movements and persons setting up functions would not occur during peak visitor arrival and departure periods,
- All attendees / guests are anticipated to arrive in the same one-hour period prior to a function. However it is unlikely that all departure movements would occur in the same one-hour period as function departure times can vary. For the purpose of this assessment, it is assumed that approximately two-thirds of guests attending a function would exit the site in any one-hour period,
- Peak periods associated with function centres typically occurs on weekends, particularly Saturday afternoons / evenings, and are unlikely to correspond with peak commuter periods on the public road network, and
- The majority of functions would not reach the maximum capacity of 130 person on-site.

On the above basis it is anticipated that the subject development could generate, on an infrequent worst-case basis, up to approximately 80 peak-hour vehicle trips on the basis that there would be some level of overlap between traffic generated by functions and the cellar door sales facility. It is anticipated that such volumes would typically occur on a Saturday afternoon / evening and that the subject development would potentially generate of the order of:-

- 70 entry and 10 exit movements in the one-hour period prior to a function commencing, and
- 5 entry and 45 exit movements in any one-hour period at the end of a function on the basis that drivers exiting the site during this period would take longer to leave than arrive and that departure from an event would generally occur after the cellar door facility is closed.

The existing access point on Swamp Road is appropriately designed to accommodate such volumes given that the width of this access point provides for simultaneous entry and an exit movements and the mostly tidal nature of the forecast traffic volumes before and after an event at the proposed function centre.

On the above basis it is considered that the proposed development will have not result in adverse traffic impacts on the capacity of the adjoining road network particularly given the volumes of traffic currently generated by the existing development on the subject site.

## Council Comments

I note that the following comments relating to the traffic and parking related aspects of the proposed development were provided in an email from Mr Doug Samardzija, Senior Statutory Planner, Adelaide Hills Council, in an email to you dated Friday 13 January 2023, namely: -

*"Additionally Council's Technical Officer has reviewed your Traffic Report and has provided (the) following comments:*

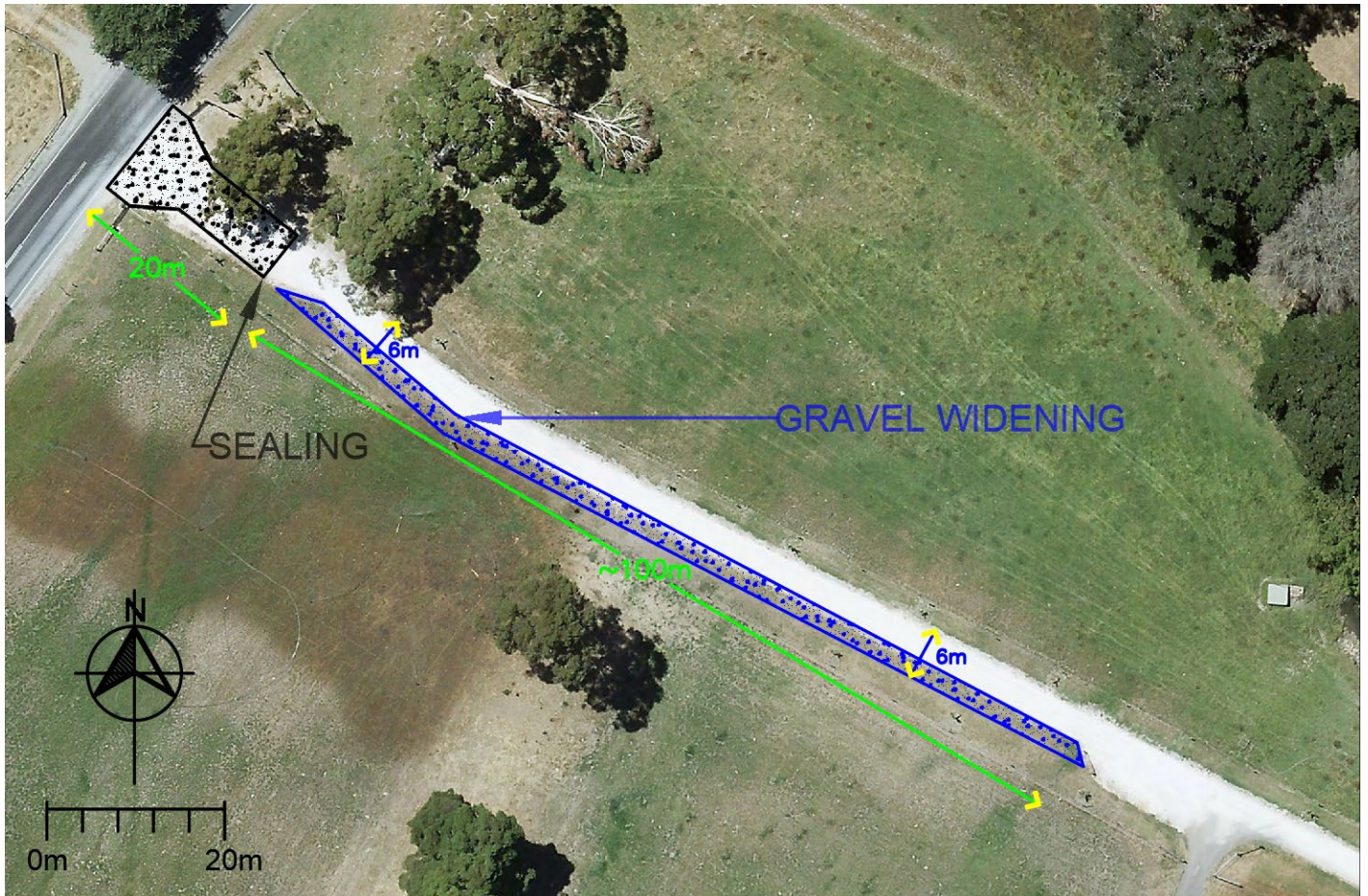
- 1. The increase in traffic volume would have no significant impact on the existing traffic volumes of 1531 vehicles per day on Swamp Road.*
- 2. Council recommends the access driveway be widened to a minimum width of 6 metres to accommodate two way traffic flow. A minimum of 100 metres of the access driveway should be widened to prevent any potential backing up of traffic on Swamp Rd, this will alleviate any potential safety issues.*
- 3. The access is to be sealed from the road edge to 20m within the property boundary to prevent any material drag out onto Swamp Rd.*

*(An) Amended site plan should be provided showing the above changes to the driveway."*

In response:-

- I interpret the comment (point 1 above) in relation to the capacity of Swamp Road to appropriately accommodate the forecast increases in the volumes of traffic to be generated by the proposed development to have been acknowledged By Council's Technical Officer, and
- *Figure A* below is an aerial overlay plan identifying:
  - the 100m of driveway widening to a minimum width of 6m, i.e., in the area between the existing sections of two-way driveway (point 2 above), and
  - the recommended sealing of the first 20m of the access driveway into the site (point 3 above) inclusive of the verge area between the sealed carriageway of Swamp road and the property boundary.





*Figure A: Access driveway aerial overlay plan*

## Summary and Conclusions

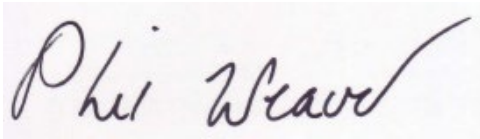
In summary, I note that the proposed development will:-

- Provide a total of approximately 110 formalised car parking spaces on site. The proposed car parking areas will include provision for parking by the disabled with such spaces incorporating appropriately designed shared areas,
- Continue to provide accommodation for two mini-buses within the set down area which is located to the east of the cellar door facility,
- Be able to provide a design standard for the proposed car parking areas and associated driveways that would meet the requirement of the relevant Australian Standards for off-street car parking areas, subject to minor recommended alterations identified within this report,
- Not generate excessive increases in traffic, noting that capacity of the subject development would increase by only approximately 37 persons from the current maximum capacity of 283 persons to the proposed 330 person capacity, and given the tidal nature of these anticipated traffic movements. On this basis, there should be minimal change in the traffic generation during peak events associated with the subject development,

- Primarily generate traffic movements by cars entering and exiting the site. There should be only infrequent traffic movements by larger vehicles entering and exiting the site albeit the current design accommodates access by trucks and buses, and
- Incorporate sealing of the first 20m of the existing access driveway and minimum access driveway widening of a further 100m as identified in *Figure A*.

In summary, I remain of the opinion that there should not be adverse traffic or impacts associated with the subject development and that there will be adequate car parking provided on the site to meet the anticipated peak parking demands of the subject development.

Yours sincerely

A handwritten signature in dark ink, reading "Phil Weaver". The signature is fluid and cursive, with a long, sweeping underline that extends to the right.

Phil Weaver  
Phil Weaver and Associates Pty Ltd

*Enc: Figure 2*



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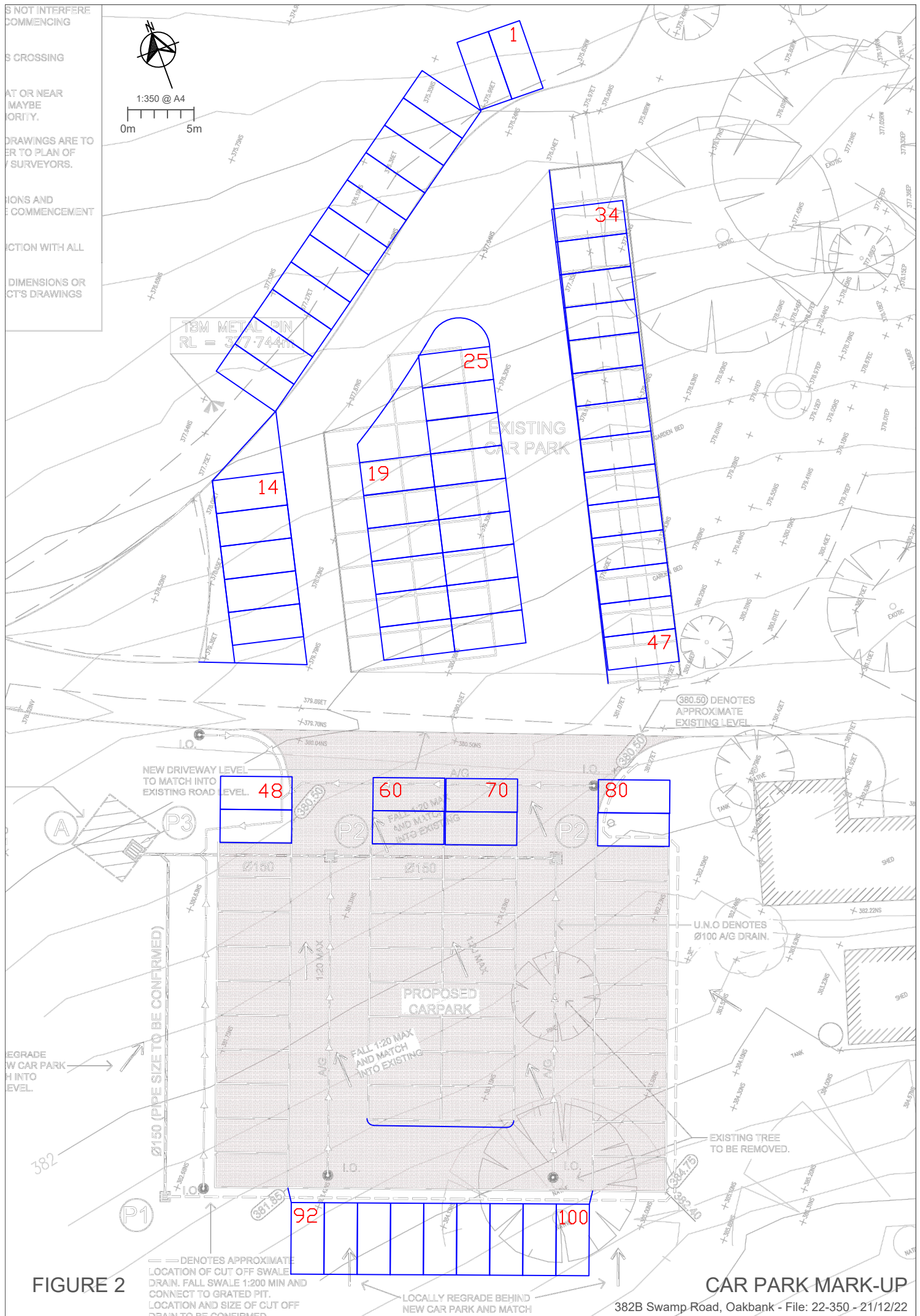
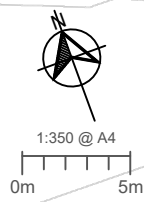


FIGURE 2

CAR PARK MARK-UP

**COBB'S HILL**  
ESTATE



# **Wastewater Engineer's Report**

## **Cobb's Hill Estate**

### **Wastewater System Upgrade for Function Centre & Cellar Door**

**Document Status:** FINAL  
**Document Date:** 21/06/2022



**Document Information**

Prepared for	Mount Barker District Council
Project name	Cobb's Hill Estate Wastewater Treatment Facility Design
Job reference	CHE-001
File reference	<i>Cobbs Hill Wastewater Engineers Report.docx</i>
Date	Tuesday, 21 June 2022
Version	4
Author	RKC

**Document History**

Version	Date	Description of Revision	Author
1	13 MAY 22	For SA Health submission	RKC
2	27 MAY 22	Additional information included	RKC
3	08 JUN 22	Incorporating EPA and SAH feedback	RKC
4	21 JUN 22	Incorporating EPA and SAH requests	RKC

**Scope Limitations**

This report has been prepared using the data provided to the author by the client (unless referenced from the public domain herein). It has been assumed that this data is complete and accurate in the preparation of this report. Errors in the data will inherently make the analysis herein inaccurate and therefore any recommendations contained in this report are limited in accuracy to the data provided and as such no warranty or guarantee (express or implied) is made in respect to reported data and the associated conclusions made on this data.

This report has been prepared for the client in accordance with the agreements of engagement. This report and the associated conclusions should not be relied upon by any third party.

If any recommendation contained in this report relates to cost estimates it must be remembered that this is general information only and any cost estimates which intend to be relied upon should be developed by and appropriately trained quantity surveyor.

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## Acronyms & Definitions

Term	Definition
BOD	Biochemical oxygen demand
CHE	Cobb's Hill Estate
DIR	Design Irrigation Rate
<i>E. coli</i>	<i>Escherichia coli</i>
EP	Equivalent Person(s)
EPA	Environment Protection Authority
MEC	Minimum Effective Capacity
N	Nitrogen
SA	South Australia

# 1. Introduction

## 1.1 Background

Cobb's Hill Estate (CHE) is winery cellar door and restaurant located on an 89 Ha rural block on Swamp Road in Oakbank. CHE is seeking to build a function centre on the site to service guests and this expansion will require a new wastewater treatment and disposal solution.

This Wastewater Engineer's report has been prepared in accordance with the requirement of the SA Health *2013 On-site Wastewater Systems Code* ('the Code') to support the development application for new function centre. The details of the Wastewater Engineer completing the report are shown in Box 1 below.

The Code defines a Wastewater Engineer as an engineer who—

- (a) is a member of the Institution of Engineers Australia of the category "Chartered Professional Engineer" or is registered on the National Professional Engineering Register administered by that institution; and
- (b) has experience in wastewater system or geotechnical engineering.

This Wastewater Engineer's Report has been prepared by Robran Cock who –

- (a) is a Fellow of Engineers Australia and has been a Chartered Professional Engineer in the Chemical College since 2009; and
- (b) has worked since 2002 on municipal and industrial wastewater treatment plant engineering.

**Box 1:** Wastewater Engineer's evidence of competency

## 1.2 Proposed Development

The details of the proposed function centre at CHE are detailed in the associated development approval application lodged with the Adelaide Hills Council. In summary, the facility will be an approximately 420 m<sup>2</sup> function facility with a commercial kitchen and associated amenities. The function facility will augment the existing cellar door tasting, wine sales and restraint which will continue to operate.



**Figure 1:** Artist's impression of function facility (per Anatoly Patrick architect).

The function facility will incorporate a number of indoor plumbing fixtures which will feed the new treatment facility. The underfloor plumbing plan is provided as Appendix A (as developed by *Archer Environmental (2021)*). A total of six latrines and seven sinks will flow directly to the collection pump chamber, while the kitchen fixtures (a combination of three hand basins and dishwashers) will flow through a 2,400 L grease trap first.

It is noted that the existing wastewater treatment facilities on the site will be decommissioned as part of this development. The load serviced by the existing facilities has been incorporated into the volume estimates in sizing the new wastewater treatment system. Where possible the existing system elements will be beneficially reused with two if the 'Ozzie Kleen' units being used for a pump sump and the remainder set aside for future deployment elsewhere (as required and subject to approval). The existing irrigation area will continue to be utilised and form a fraction of the new irrigation area.

The patronage capacity of the site has been stipulated in the development application and has been provided by CHE for the purpose of determining the required capacity of the wastewater system. The site occupancy including the function facility, cellar door and staff is presented in Table 1 below with the overriding capacity limitation being 400 persons onsite at any one time.

**Table 1:** Projected site occupancy as result of the development

Utility	Occupancy	Frequency
Wine tasting without meals	50 people	5 times per week
Wine tasting with meals	50 people	5 times per week
Wine tasting without meals	100 people	2 times per week
Wine tasting with meals	100 people	2 times per week
Function	200 people	1 per week
Restaurant	200 people	1 per week

Careful interrogation of Table 1 reveals that it is possible for the daily maximum persons to exceed 400 on site if the function centre and restaurant were operated at capacity on the same day. Because of the impact on sizing the wastewater system if this was to occur, CHE were approached to provide details on how the occupancy limits would be enforced. In order to ensure that only 200 people can be accommodated across the function and restaurant, CHE have advised that only one of these will physically be available per day because of limitations in the business configuration. That is, if there is a function planned on a particular day, it is not possible for CHE to operate the restaurant on that day also so it will remain closed on function days. They can however operate the cellar door concurrently and as such the maximum people which can be served in a day is 200 through the cellar door and 200 in either the restaurant or function centre.



## 2. Wastewater System Design

### 2.1 Capacity Determination

#### 2.1.1 Hydraulic Capacity

Because of the mixed-use nature of the site, the hydraulic capacity has been determined using the methodology outlined in Appendix E of the Code. Using the input from Table 1, the hydraulic capacity is detailed in Table 2 below.

**Table 2:** Determination of hydraulic flowrate for wastewater system

Utility	'P2' Definition	'P2' Value	Rate (L/p/d)	Daily Flow Rate (L/d)
Wine tasting without meals	highest daily number over a 7-day period plus staff	100	8	800
Wine tasting with meals	highest daily number over a 7-day period plus staff	100	20	2,000
Function	total seating capacity plus staff	200	40	8,000
Restaurant	highest daily number over a 7-day period plus staff	200	20	4,000
<b>TOTAL</b>				<b>14,800</b>

From the above, the daily flow predicted by the methodology outlined in the Code is 14.8 kL/d. Using an average daily flow of 150 L/EP/d, this is equivalent to a 99 EP wastewater system. It is noted, because the function and restaurant activities are not concurrent that the actual expected hydraulic capacity required is 10.8 kL/d, however the more conservative 14.8 kL/d has been adopted for the design because the load is the limiting parameter.

#### 2.1.2 Weekly Average Flows

In order to assess the development, the Environment Protection Authority (EPA) requires an assessment of the average weekly flows from the wastewater system. This has been prepared in the table below. It is noted that these average flows are much less than the peak design capacity determined above.

**Table 3:** Determination of average weekly flows for wastewater system

Premises	No. of Persons (p)	Weekly Frequency (No./wk)	Wastewater Flowrate (L/p/No.)	Volume of Wastewater (L/wk)
Wine tasting with meals	50	5	20	5,000
Wine tasting without meals	50	5	8	2,000
Wine tasting with meals	100	2	20	4,000
Wine tasting without meals	100	2	8	1,600
Function	200	1	40	8,000
Restaurant	200	1	20	4,000
<b>TOTAL</b>				<b>24,600</b>

### 2.1.3 Minimum Effective Capacity

The Code requires the determination of the minimum effective capacity (MEC) of the wastewater system. This is a function of both the daily flow into the system (per Section 2.1.1) and a volume allowance for the accumulation of sludge and scum. Again, the values used in Appendix E of the Code have been used to determine the volume allowance for sludge.

**Table 4:** Determination of sludge/scum accumulation rate for wastewater system

Utility	'P1' Definition	'P1' Value	Rate (L/p/y)	Daily Flow Rate (L/y)
Wine tasting without meals	average daily number over a 7-day period plus staff	65	5	325
Wine tasting with meals	average daily number over a 7-day period plus staff	65	35	2,275
Function	total seating capacity plus staff	200	35	7,000
Restaurant	average daily number over a 7-day period plus staff	29	35	1,015
<b>TOTAL</b>				<b>10,615</b>

From the above an allowance of 10.6 kL/y is required to allow for the accumulation of sludge and scum in the wastewater system. This rate of sludge and scum accumulation is borderline between requiring a desludging frequency of either annually or every two years according to Table 5-4 of the Code. To take a conservative approach, a desludging frequency of every two years will be adopted here which requires an allowance of 21.2 kL in the system. In reality, it is likely that the system will be desludged more frequently than annually as part of CHE maintenance program.

Combining the hydraulic flows and the allowance for sludge and scum, the system MEC will be required to be greater than 36 kL.

### 2.1.4 Organic Capacity

The individual organic loading capacities have been calculated according to Appendix E of the Code and are presented in Table 5 below.

**Table 5:** Determination of organic capacity for wastewater system

Utility	'P2' Definition	'P2' Value	Rate (gBOD/p/d)	BOD load (gBOD/d)
Wine tasting without meals	highest daily number over a 7-day period plus staff	100	8	800
Wine tasting with meals	highest daily number over a 7-day period plus staff	100	15	1,500
Function	total seating capacity plus staff	200	30	6,000
Restaurant	highest daily number over a 7-day period plus staff	200	15	3,000
<b>TOTAL</b>				<b>11,300</b>

From the above, the daily predicted BOD load predicted by the methodology outlined in the Code is 11.3 kg/d. Using an average daily BOD of 50 g/EP/d, this is equivalent to a 226 EP wastewater system. However, it is noted that the function centre and restaurant will not be operating at capacity

on the same days, as this would breach the 400 people on the site per day maximum. Accordingly, the load from the restaurant can be dropped off from the design load (as it is the lesser of the function and restaurant loads) and as a result the required design capacity is 8,300 gBOD/d (166 EP).

It is explicitly noted that it is the opinion of the Wastewater Engineer that the Code overpredicts the organic loading for such wastewater flows as demonstrated by the hydraulic capacity prediction of 99 EP opposed to the organic capacity prediction of 160 EP. It is recommended that during operations, CHE closely monitor the system performance and adjust desludging frequencies as required to adapt to the actual received load.

### 2.1.5 Irrigation Area Sizing

Treated wastewater will be disposed of on-site via irrigation. Previous engineering reports provided by CHE (refer to *RFE Consulting (2020)* and *Archer Environmental (2021)* reports) have confirmed that the site is appropriate for the disposal of treated wastewater by irrigation. Furthermore, previous extensive soil sampling (refer to RFE Consulting (2020) report) has indicated that a design irrigation rate (DIR) of 4.5 L/m<sup>2</sup>/d is appropriate for a sustainable irrigation rate on the property. Accordingly, the irrigation area required to sustainably dispose of the 14.8 kL/d of treated wastewater is 3,290 m<sup>2</sup>. The existing 600 m<sup>2</sup> irrigation area will form a fraction of this total on the northern boundary of the irrigation area.

For practicality reasons onsite it is proposed to use a standard six port indexing valve to cycle treated wastewater automatically across six irrigation zones each of 550 m<sup>2</sup>. The site can accommodate a 50 m by 66 m area to provide the irrigation area while still allowing room for any future expansion should an irrigation zone become unusable.

### 2.1.6 Minimum Required Design Capability Summary

The table below summarises the various minimum design capacities for the wastewater system determined in the previous sections.

**Table 6:** Summary of minimum required design capability

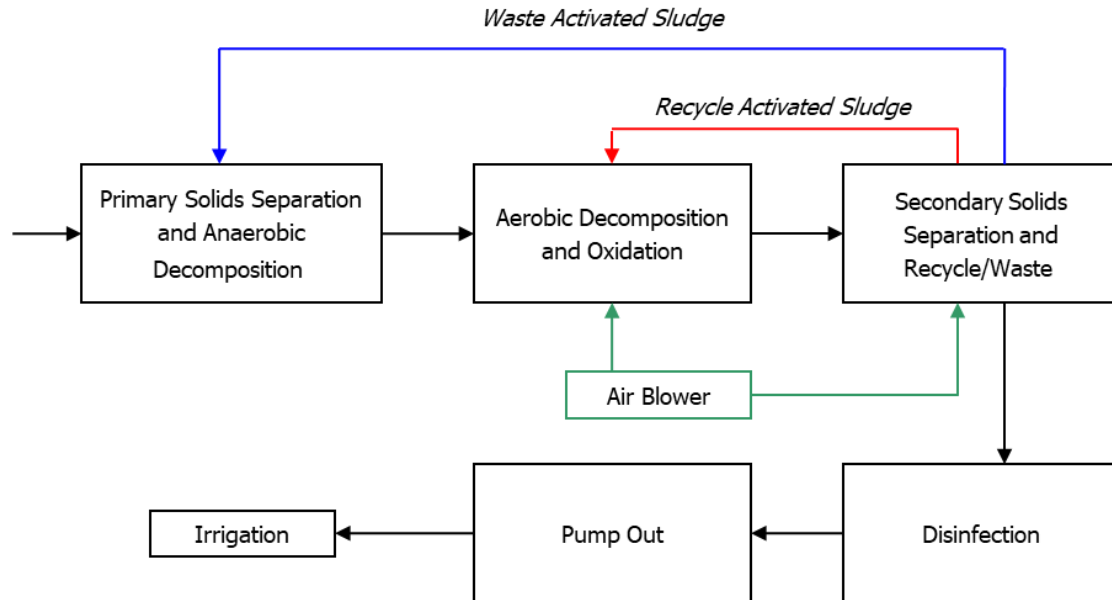
Parameter	Units	Value
Minimum hydraulic design capacity	L/d	14,800
Wastewater system MEC	L	36,000
Minimum organic design capacity	gBOD/d	7,930
Minimum irrigation area	m <sup>2</sup>	3,290

## 2.2 Wastewater Treatment System

The existing wastewater treatment system servicing existing facilities will be decommissioned and replaced with a new wastewater treatment system. The elements of the existing system which will be reused are two of the existing 'Ozzi Kleen' tanks will be repositioned and redeployed as wastewater pump sumps and the existing irrigation area will form a portion (approximately 20%) of the new irrigation area required.

The minimum design capability determined above was presented to the market and an off-the-shelf treatment system from Biocycle JOWA Group has been selected as the preferred solution. The model

is the EP200 which consists of two 22 kL and seven 8 kL steel reinforced precast concrete tanks. The process flow diagram for the EP200 is shown in Figure 2 below. The design drawing is reproduced in Appendix B.



**Figure 2:** EP200 system process flow diagram

The detailed design calculations provided by Biocycle JOWA Group are included as Appendix C for reference. Table 7 below depicts how the design of the EP200 system compares to the minimum required design capability.

**Table 7:** Minimum design capacity vs EP200 specifications

Parameter	Units	Minimum Required	EP200 Specification
Minimum hydraulic design capacity	L/d	14,800	30,000
Wastewater system MEC	L	36,000	46,000
Minimum organic design capacity	gBOD/d	7,930	9,000

It can be seen that the EP200 system easily meets the minimum treatment requirements for the wastewater system. It is noted that the hydraulic capacity far exceeds the requirements. However, this is required to meet the organic loading as this is the limiting factor as outlined in Section 2.1.3. The level of treatment expected to be achieved by the EP200 will be suitable for restricted reuse and will be consistent with that shown in Table 8 below.

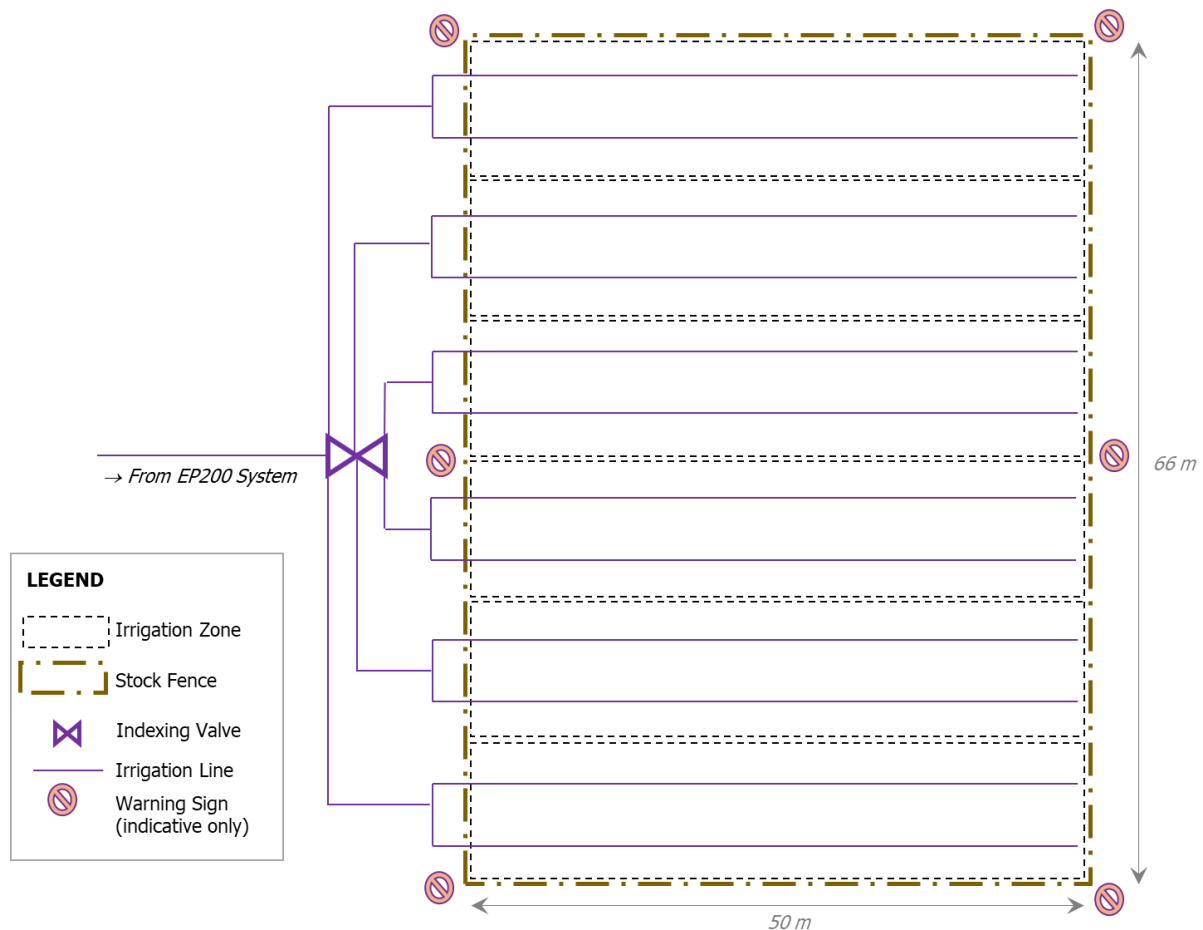
**Table 8:** Design treated wastewater standard

Parameter	Units	Statistic	Value
BOD	mg/L	Annual average	< 20
Suspended solids	mg/L	Annual average	< 30
<i>E. coli</i>	org/ 100 mL	Annual median	< 10
Free chlorine	mg/L	Typical range	0.5 – 2.0

It is noted that the standard design of the EP200 system is that it provides for BOD and solids removal with disinfection. It is not designed for nutrient removal and as a result, nitrogen and phosphorus will be largely unaffected by the treatment system and subsequently is an issue to be aware of when managing the irrigation area in the future. Because of the very long sludge age the system will run, it is expected that a large portion of the ammonia in the wastewater will be converted to nitrate, however not denitrification is allowed for.

## 2.3 Irrigation Area Design

As detailed in Section 2.1.4 the irrigation area will be nominally 50 by 66 m and will be split into six zones. The schematic of this arrangement is shown in Figure 3 below. The irrigation area shall have signs warning of irrigation water as required under the Code such that they are visible from all directions. Additionally, to restrict access to the area, a fence shall be erected around the irrigation area. This fence can be a low stock type fence and should be constructed at least 0.5 m from the edge of the furthest throw of the sprinkler.



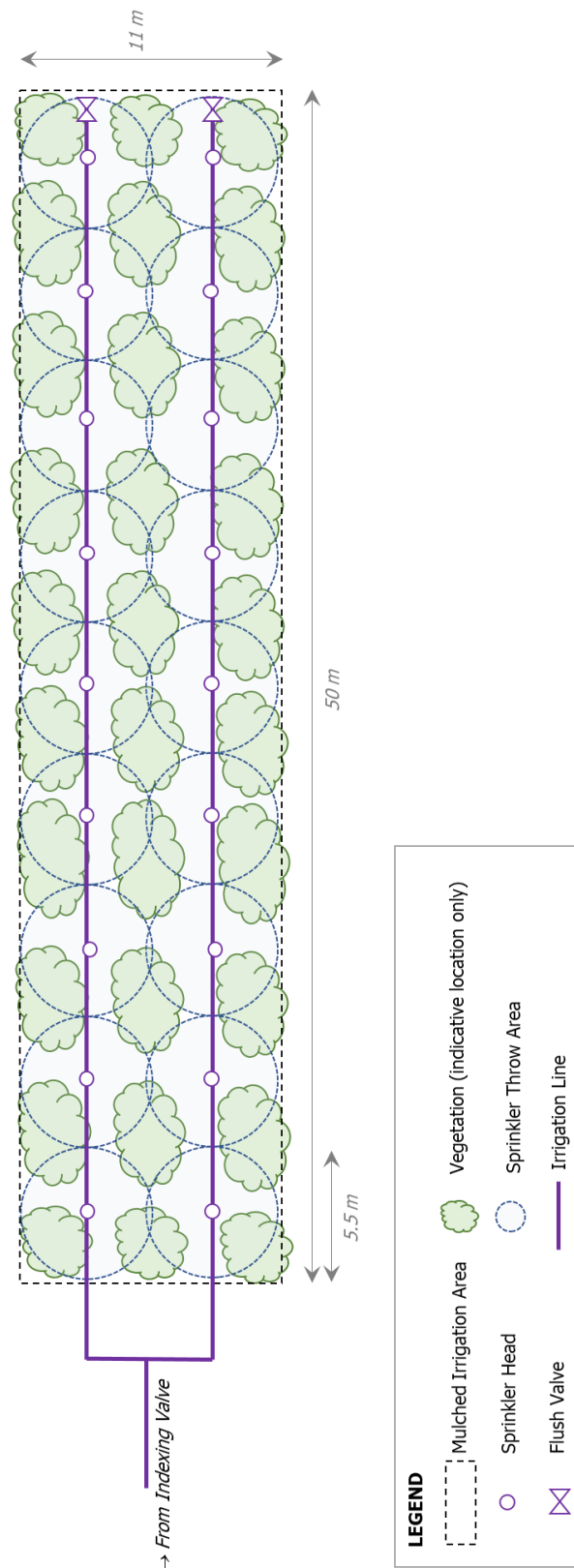
**Figure 3:** Irrigation area layout

The irrigation area shall be mulched and planted with vegetation as defined in Appendix D of the Code. It is intended by CHE to plant out the new irrigation area with blue gum species which will be maintained and harvested for use in wedding decorations on the site.



The sprinklers should be placed in two rows per zone with a flush valve on the far end to allow clearing of the irrigation line if needed. Surface sprinklers can be used to promote the evapotranspiration of treated wastewater through the planted vegetation. Each zone will require approximately 18 sprinklers with a nominal throw radius of 2.75 m. All pipework shall be lilac or marked in accordance with the relevant Australian standard. Schematically this is shown in Figure 3, however it is recommended that a specialist irrigation designer be engaged to install the irrigation equipment.

The required irrigation area has been designed primarily on the basis of its hydraulic capacity. However, the sizing has also been checked to ensure that the planting and management of the irrigation area is sufficient to provide uptake of nitrogen to mitigate any potential risk of contamination of the Greater Adelaide Drinking Water Catchment. Based on the published design guidelines by WaterNSW, a mixed tree and shrub irrigation area can process 150 kgN/ha/y and the output of an aerated treatment system can be taken as 30 mgN/L. Allowing for environmental uptake in the soil, the sized irrigation area can therefore process 49.4 kgN/y which is in excess of the calculated requirement of 34.5 kgN/y.



**Figure 4:** Irrigation zone indicative layout detail (six required per Figure 2)

The irrigation area must be constructed with the following considerations in order to ensure the neutral or beneficial requirements for the protection of the drinking water catchment are met:

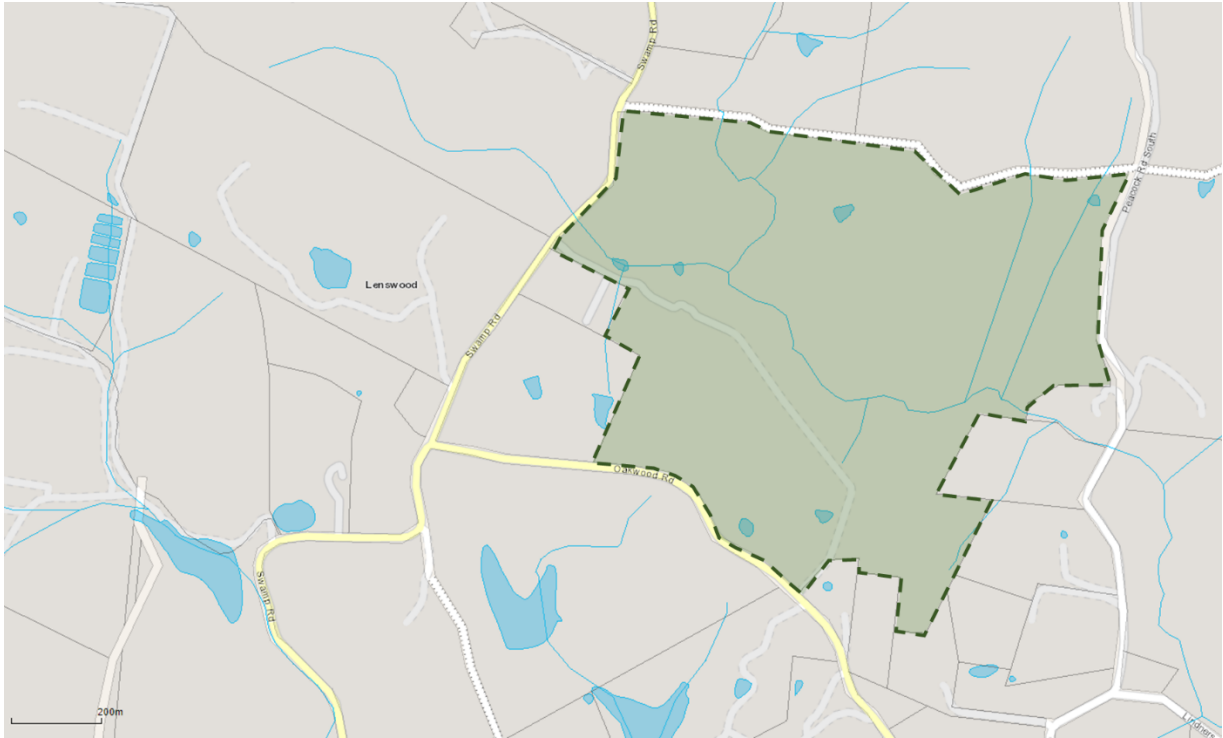
- a) Surface water flows to be diverted away from the irrigation areas to prevent potential runoff contamination.
- b) All onsite installations are to be confirmed by the installing contractor subject to local conditions and must ensure that the minimum setback distances are met.
- c) Sprinkler heads should be those which produce a flat downward trajectory to prevent wind drift of irrigation sprays. These may either be the "Antelco ReUzit" sprinklers to match the existing install or standard "wobbler" irrigation sprinklers (if appropriately coloured).
- d) Sprinkler head height must not exceed 100 mm.
- e) Soil improvement through ripping to a minimum of 150 mm and adding a surface layer of appropriate mulch across the irrigation area.
- f) Warning signs must be positioned around the irrigation area warning that recycled water is used for irrigation. Warning signs must be in accordance with the specifications of the Code.
- g) Irrigation area to be planted with Blue Gum (Eucalyptus Globus) trees and intermediate lower profile shrubs (selected from those specified in the Code) to increase nitrogen uptake.
- h) Blue Gum and shrub cuttings to be removed from the irrigation area periodically to keep growth active on all plants.
- i) Each irrigation row benched to ensure gradient is less than or equal to 5% (1:20).
- j) Retention bund to be positioned at down gradient boundary of each row to retain irrigation water within the appropriate area.
- k) Maintenance program to be adopted by site management to ensure system is operating correctly.

## 3. Site Details

### 3.1 Site Overview

The site is a rural block at 382b Swamp Road, Oakbank. The site does not have access to SA Water services and must rely on rainwater and their own onsite wastewater systems. There is an existing cellar door facility which offers wine tasting and sales as well as light meals. This will be augmented with the construction of the new function centre. There are various outbuildings surrounding the existing cellar door facility.

The wastewater facility must be placed to the south of the existing buildings to ensure it is appropriately set back from the water courses which flows through the site, the dam to the north of the cellar door facility as well as two registered bores on the property. Figure 4 below shows the location of the site and the surrounding waterways.



**Figure 5:** CHE site location map (per SA Property Planning Atlas)

### 3.2 Site Overview

The site overview is shown below in Figure 5 which shows the relative locations of the assets and buildings on the site. The new function facility will have a grease trap and will drain by gravity to two of the existing 'Ozzi Kleen' tanks onsite. Two tanks will be required to provide the emergency storage capacity. The existing cellar door facility (and attached staff ablutions) will drain by gravity to these same tanks. From here, a submersible pump will transfer wastewater to the primary tank of the EP200 wastewater system. The wastewater system will be placed behind the existing outbuildings and sheds maintaining the required setback distances (3.0 m) from all existing buildings. From the last tank of the EP200 wastewater system, recycled water will be transferred to the new irrigation area located to the south of the wastewater system.

The nine tanks should be laid out in the most efficient and logical arrangement available. To reduce footprint and the size of the excavation. Subject to any manufacturer installation restrictions, the primary and secondary septic tanks should be located to the north-east of the installation with subsequent tanks snaking back on itself such that the pump-out tank is located at the most south - easterly point of the installation. This layout is reflected in Figure 5.

It is noted that the alignment and grade of the gravity and pumping mains will be detailed by the licenced plumbing contractor upon installation in accordance with relevant codes. Similarly, depending on the final site grades, it may be required to use two of the existing 'Ozzi Kleen' tanks as pump chambers for the cellar door and function facility respectively. A total pumping chamber minimum volume of 7.4 kL will be required to ensure that the requirement of 50% redundant capacity is available in the system for outages at the pump station to prevent overflows. Given the capacity of the primary tank in the EP200 wastewater treatment system, the arrangement of the reused

infrastructure as balance tanks is immaterial to system performance provided the pumps are adequately sized to maintain the pump sumps below a high level.

The pumps selected to transfer wastewater to the EP200 wastewater treatment system should be of a duty such that they can provide 30 L/min at an operating head of 10 mH<sub>2</sub>O. At this duty the pump will nominally run for approximately 500 min/d, or 34% of the time. Standby pumps will be provided and consideration should be given to cutting impellers (subject to manufacturer's recommendations) to reduce the likelihood of blockages of the rising main. In addition, high level alarming of the pumping sump will be installed to provide indication of pump faults.

The location of the irrigation disposal area is to the south of the new treatment facility and will build on the existing irrigation area. This area will need to be terraced appropriately to ensure run off is minimised. As previously mentioned, it is intended to plant out the irrigation area with tree species that will be able to be utilised onsite for wedding decorations through regular harvesting. The proposed area under irrigation is only frequented by staff and risk management processes (as detailed in the draft risk management plan) will effectively mitigate any risk to the public. The irrigation area is also more than fifty metres from the watercourse which crosses the property and from the registered bores.

The EP200 wastewater treatment system is supplied with a Davey DCS40 submersible pump to supply water to the irrigation area. This pump has a duty point of 240 L/min at 12 mH<sub>2</sub>O which is more than sufficient for the duty required and will result in the area being irrigated for around one hour per day in total.

The position of the irrigation area shown in the site overview has been assessed against the development requirements specified in the Planning & Design Code, and specifically the Mount Lofty Ranges Water Supply Catchment (Area 2) Overlay, for appropriateness for protection of surface and groundwaters. The summary of this assessment is provided in the table below.

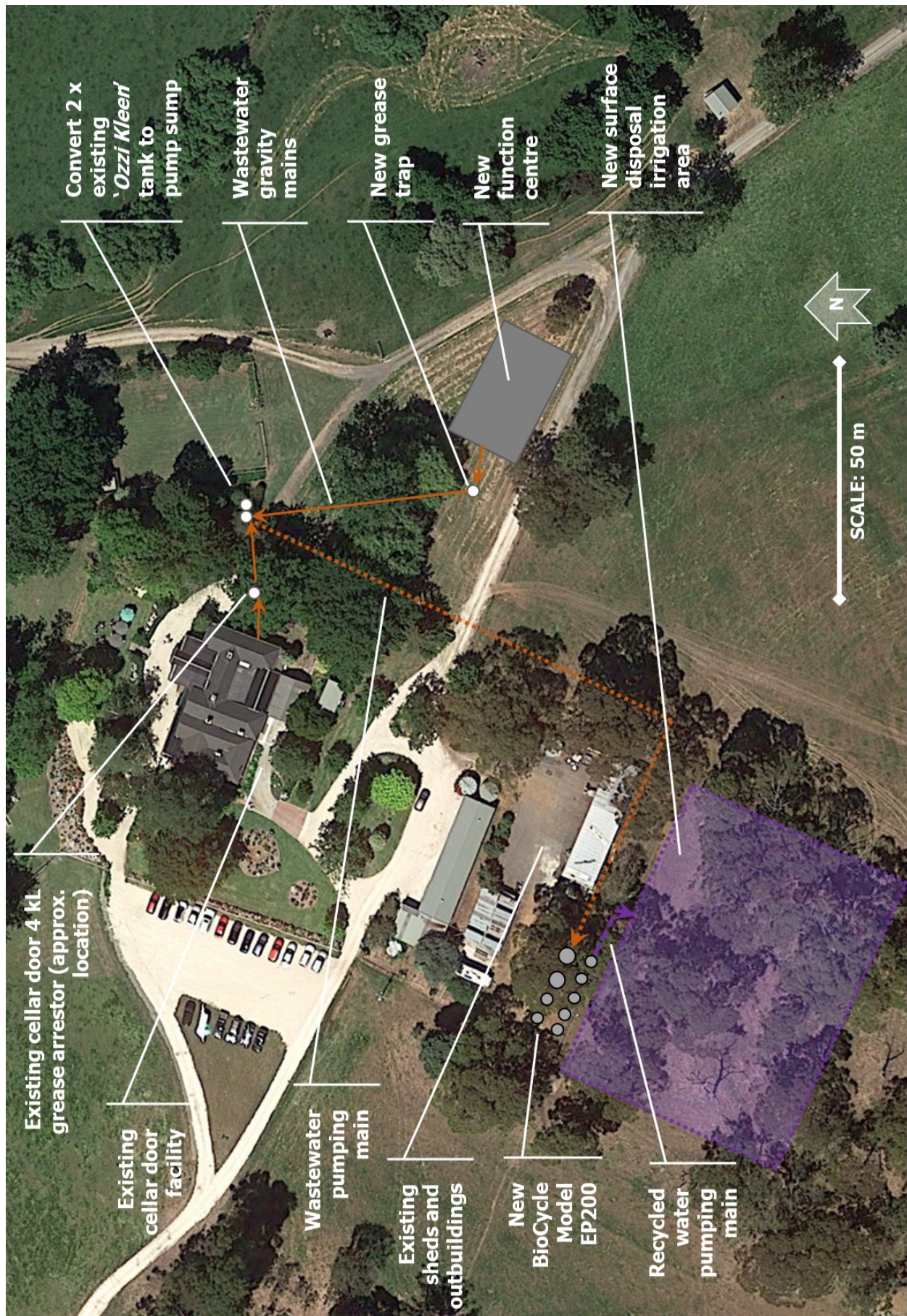
**Table 9:** Performance outcome assessment of irrigation area location

Deemed-to-Satisfy Criteria / Designated Performance Feature	Assessment
All components of an effluent disposal area are setback 50 metres or more from a watercourse	<p>The nearest water course is the creek labelled "Cock Wash" (the Creek) which flows ultimately into the Onkaparinga River. The shortest point measured from the irrigation area boundary and the Creek has been measured to be 99 m.</p> <p>There are four registered bores within 300 m of the irrigation area. The nearest two are on the Cobb's Hill property and are 78 m north-west and 115 m west of the irrigation area if measured from the shortest points.</p> <p>The nearest dam to the irrigation area is located approximately 157 m south of the irrigation area with the Cobb's Hill Estate cellar door facility located in between.</p> <p>It is considered that the location of the irrigation area provides adequate buffer distances from all water courses, bores and dams based on these measurements.</p>
All components of an effluent disposal area are setback 100 metres or more from a public water supply reservoir	There are no public water supply reservoirs within the vicinity of the development that need to be considered.



Deemed-to-Satisfy Criteria / Designated Performance Feature	Assessment
All components of an effluent disposal area are located on land with a slope no greater than 1-in-5 (20%)	The irrigation area will need to be constructed and terraced appropriately to ensure that the gradient is not more than 1:20 (5%) to ensure that the irrigation area gradient is much less than the required maximum slope of 20%.
All components of an effluent disposal area are located on land with 1.2 m or more depth to bedrock or a seasonal or permanent water table	Site bore logs were taken as part of previous studies by RFE Consulting across the proposed irrigation area. This reported noted heavy rainfall in the days prior to drilling which should provide some confidence in the water table height. Six boreholes were drilled to 2.1 m and one to 6.2 m. These bores indicated silty clay approximately 1.3 m below the surface and rock around 1.7 m. There were no mentions of groundwater encountered above 1.2 m on any bore hole. The most recent reported standing water level of bore 6628-18627 (115 m west of the irrigation area) was 6 m in September 1997 at the time of drilling. It can therefore be interpreted with some certainty that the irrigation area is more than 1.2 m above the ground water table.
All components of an effluent disposal area are above the 10% AEP flood level	Flood information for the location was assessed against the publicly available information from the flood studies associated with the River Murray Flood Extent 1956, River Torrens Flood Inundation Study 1999 and the Upper Onkaparinga Floodplain Mapping 2004. The extent of any floods (even those more severe than the 10% AEP) do not encroach on the proposed irrigation area. This is consistent with the site being at the upper reach of the Creek and not subject to flows from upstream.





**Figure 6:** Site overview and asset location



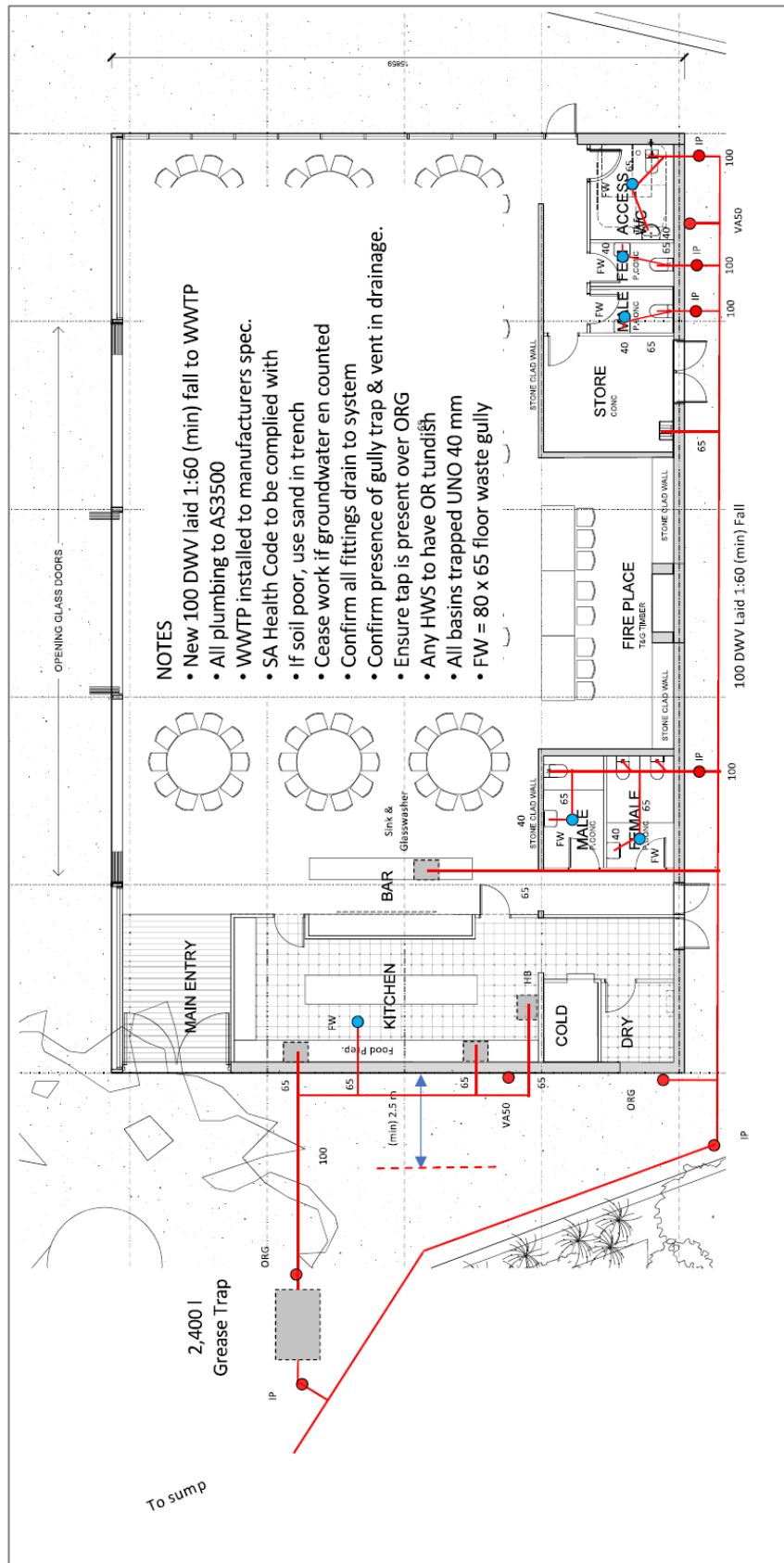
### 3.3 Site Soil Conditions

Extensive soil sampling has been carried out previously as part of the investigation by RFE Consulting in November 2019 and February 2020. These bore logs confirm the expected soil conditions of loam over brown or dark clay (soil type F1) on the site (per Department of Environment & Water *NatureMaps 3.0* database). A summary of these soil reports is provided in Appendix D.

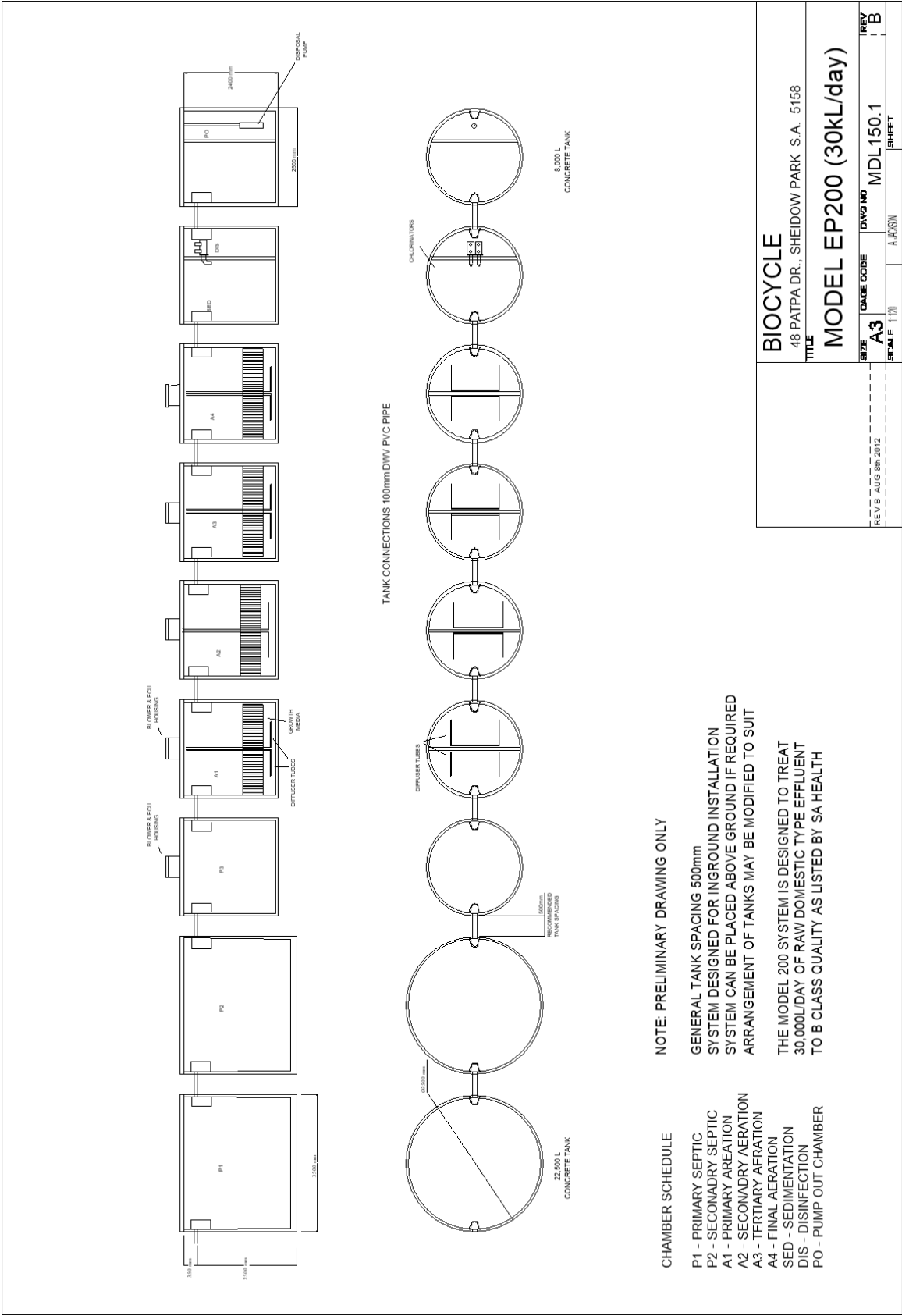
In summary, clay was between 0.2 and 0.5 m from the surface with silty sand located above. Rock is down around 4.7 m below surface. With this depth of clay horizon, when tilling the new irrigation area for planting, specific attention should be paid to the depth of soil and if needed additional friable material imported to ensure the irrigation area plating will grow adequately. Because of the clay sub surface, it is important that the irrigation is planted with plants that are actively growing to ensure treated wastewater is disposed of via evapotranspiration rather than percolation into the ground.

It is expected that the size of the irrigation area identified will be a long-term sustainable solution for treated wastewater disposal on the site and will be sufficient for disposal year-round. However, it is noted that the Adelaide Hills can experience wet and cold winters and so regular inspections of the irrigation area must be carried out to ensure water logging is avoided. Where surface water may be pooling, all public access must be restricted to the irrigation area and the problem rectified.

## Appendix A: Function Centre Underfloor Plumbing Plan



Appendix B: EP200 Design Drawing





## Appendix C: EP200 Vendor Design Calculations

### DESIGN CALCULATIONS

Equivalent Population	200
Hydraulic Flow	150 L/p/day
<b>SLUDGE PRODUCED</b>	80 L/p/year
Desludging Freq	once every 1 years
EP	200 = 16000 L/year
	= 1333.333 L/month
	= 307.6923 L/week
	= 43.83562 L/day



### SEWERAGE CONDITIONS

Total BOD per day =	300.00 mg/L
	300.00 ppm
	9000 g/day
Hydraulic Flow =	30000 L/day
	30 m <sup>3</sup> /day
Suspended Solids =	250 mg/L
	250 ppm

### TREATED SEWERAGE

BOD (Total) =	20 mg/L
	20 ppm
SS (Total) =	30 mg/L
	30 ppm

### PRIMARY TREATMENT VOLUME (S X P1 X D) + (P2 X HF)

Volume (Total) =	46,000 Litres
Volume (Primary 1) =	30667 Litres
Volume (Primary 2) =	15333 Litres

### AERATION TREATMENT VOLUME

Volume (Total) =	30,000 Litres
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### AIR REQUIREMENTS **2.4 kg O<sub>2</sub> per 1 kg BOD per day**

Volume (Total) =	21.6 kg O <sub>2</sub> per day
	0.9 kg O <sub>2</sub> per hour
Volume (Total) =	689.06 Litres(O <sub>2</sub> ) per hour
	3132.10 Litres(Air) per hour
	62642.05 Litres(air) per hour at 5% Transfer Efficiency
	1044.03 Litres(air) per minute at 5% Transfer Efficiency

### MEDIA VOLUME 12.5 gBOD per m<sup>2</sup>

Area Required (Total) =	720 m <sup>2</sup>
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**BIO-BLOK (Dry) = 100m<sup>2</sup>/m<sup>3</sup>**

**BIO-BLOK (2mm BioFlim) = 233m<sup>2</sup>/m<sup>3</sup>**

Media Volume =	3.1 m <sup>3</sup>
Number of Blocks =	19.5 Blocks

### SEDIMENTATION CHAMBER VOLUME

### DISINFECTION / PUMP OUT CHAMBER VOLUME

Volume (Total) =	4500 Litres	Volume (Total) =	4500 Litres
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### Total Estimated Power Consumption

33.36 kWh/day

**TOTAL CAPACITY = 85,000 Litres**

## Appendix D: Site Borehole Log Reports

The below borehole logs were drilled by JR Soil Sampling and logged by RFE Consulting on 11 November 2019 and 5 February 2020 and reported in the RFE Consulting report (2020).

### Borehole 1 - 11 November 2019

Soil Horizon Depth (m)	Soil Description	Soil Colour	Unified Soil Classification Symbol (USCS)	Moisture Content
0.0 – 0.1	Silty SAND, fine to medium grained, trace roots, medium plasticity fines	Brown	SM	Dry
0.1 – 0.25	Silty Gravely SAND, fine to medium grained, fine-grained gravel, medium plasticity fines	Pale red brown	SM	Dry
0.25 – 0.8	Silty CLAY medium to high plasticity, trace roots, stiff	Red brown mottled orange brown	CI – CH	<PL
0.8 – 1.7	Silty CLAY, low plasticity	Orange brown mottled red brown mottled grey	CL	<PL
1.7 – 2.1	Extremely weathered rock (inferred Siltstone) fine to medium sub-angular to angular gravel cuttings	Grey	-	Dry

### Borehole 2 - 11 November 2019

Soil Horizon Depth (m)	Soil Description	Soil Colour	Unified Soil Classification Symbol (USCS)	Moisture Content
0.0 – 0.15	Silty SAND, fine to medium grained, trace roots, medium plasticity fines	Brown	SM	Dry
0.15 – 0.5	Silty Gravely SAND, fine to medium grained, fine-grained gravel, medium plasticity fines	Pale red brown	SM	Dry
0.5 – 1.3	Silty CLAY medium to high plasticity, trace roots, stiff	Red brown mottled orange brown	CI – CH	<PL
1.3 – 2.1	Silty CLAY, low plasticity	Orange brown mottled red brown mottled grey	CL	<PL

### Borehole 3 - 11 November 2019

Soil Horizon Depth (m)	Soil Description	Soil Colour	Unified Soil Classification Symbol (USCS)	Moisture Content
0.0 – 0.15	Silty Gravelly SAND, fine to medium grained, fine to medium angular to sub-angular gravel, medium plasticity fines, trace roots.	Grey brown	SM	Dry

Soil Horizon Depth (m)	Soil Description	Soil Colour	Unified Soil Classification Symbol (USCS)	Moisture Content
0.15 – 0.45	Silty GRAVEL, fine to medium grained, angular to sub angular gravel, trace roots.	Pale red brown	SM	Dry
0.45 – 1.25	Silty CLAY, stiff, medium to high plasticity, trace fine to medium grained gravel.	Red brown mottled orange brown	CI – CH	<PL
1.25 – 1.5	Silty CLAY, low to medium plasticity with some fine to medium grained gravel.	Yellow brown mottled orange brown	CL – CI	<PL
1.5 – 1.6	GRAVEL, quartzite gravel lense, fine to coarse grained.	White	GP	Dry
1.6 – 1.7	Weathered Rock (inferred Siltstone)	Grey (blue grey)	-	Dry
1.7 – 2.1	Silty CLAY, low to medium plasticity with some fine-grained siltstone gravel inclusions.	Orange brown with some dark red brown staining	CL – CI	<PL

**Borehole 4 - 11 November 2019**

Soil Horizon Depth (m)	Soil Description	Soil Colour	Unified Soil Classification Symbol (USCS)	Moisture Content
0.0 – 0.05	Silty Gravelly SAND, fine to medium grained, fine to medium angular to sub-angular gravel, medium plasticity fines, trace roots.	Grey brown	SM	Dry
0.05 – 0.35	Silty GRAVEL, fine to medium grained, angular to sub angular gravel, trace roots.	Pale red brown	SM	Dry
0.35 – 1.1	Silty CLAY, stiff, medium to high plasticity, trace fine to medium grained gravel.	Red brown mottled orange brown	CI – CH	<PL
1.1 – 1.5	Silty CLAY, low to medium plasticity with some fine to medium grained gravel.	Yellow brown mottled orange brown	CL – CI	<PL
1.5 – 1.6	GRAVEL, quartzite gravel lense, fine to coarse grained.	White	GP	Dry
1.6 – 1.8	Weathered Rock (inferred Siltstone)	Grey (blue grey)	-	Dry
1.6 – 1.7 1.8 – 2.1	Silty CLAY, low to medium plasticity with some fine-grained siltstone gravel inclusions.	Orange brown with some dark red brown staining	CL – CI	<PL

**Borehole 5 - 11 November 2019**

Soil Horizon Depth (m)	Soil Description	Soil Colour	Unified Soil Classification Symbol (USCS)	Moisture Content
0.0 – 0.1	Silty SAND, fine to medium grained, trace roots, medium plasticity fines	Brown	SM	Dry

Soil Horizon Depth (m)	Soil Description	Soil Colour	Unified Soil Classification Symbol (USCS)	Moisture Content
0.1 – 0.25	Silty Gravely SAND, fine to medium grained, fine-grained gravel, medium plasticity fines	Pale red brown	SM	Dry
0.25 – 0.8	Silty CLAY medium to high plasticity, trace roots, stiff	Red brown mottled orange brown	CI – CH	<PL
0.8 – 1.7	Silty CLAY, low plasticity	Orange brown mottled red brown mottled grey	CL	<PL
1.7 – 2.1	Extremely weathered rock (inferred Siltstone) fine to medium sub-angular to angular gravel cuttings	Grey	CL	Dry

**Borehole 6 - 11 November 2019**

Soil Horizon Depth (m)	Soil Description	Soil Colour	Unified Soil Classification Symbol (USCS)	Moisture Content
0.0 – 0.15	Silty SAND, fine to medium grained, trace roots, medium plasticity fines	Brown	SM	Dry
0.15 – 0.5	Silty Gravely SAND, fine to medium grained, fine-grained gravel, medium plasticity fines	Pale red brown	SM	Dry
0.5 – 1.3	Silty CLAY medium to high plasticity, trace roots, stiff	Red brown mottled orange brown	CI – CH	<PL
1.3 – 2.1	Silty CLAY, low plasticity	Orange brown mottled red brown mottled grey	CL	<PL

**Borehole 7 - 5 February 2020**

Soil Horizon Depth (m)	Soil Description	Soil Colour	Unified Soil Classification Symbol (USCS)	Moisture Content
0.0 – 0.1	Silty SAND, fine to medium grained, trace roots and fibres	Grey brown	SM	Slightly moist
0.1 – 0.4	Silty GRAVEL, fine to medium angular to sub-angular gravel, trace root and fibre inclusions	Pale red brown		
0.4 – 1.2	Silty CLAY, medium to high plasticity with some fine to medium grained gravel inclusions	Red brown mottled orange brown	CI – CH	<PL
1.2 – 1.7	Silty CLAY, low to medium plasticity with some fine to medium angular to subangular gravel inclusions	Yellow brown mottled orange brown	CL – CI	<PL
1.7 – 1.9	Weathered Rock (inferred Siltstone)	Brown grey	-	Dry
1.9 – 2.8	Silty CLAY, high plasticity	Grey brown mottled red brown	CH	<PL

Soil Horizon Depth (m)	Soil Description	Soil Colour	Unified Soil Classification Symbol (USCS)	Moisture Content
2.8 – 4.7	Extremely weathered rock (SILTSTONE) chalky silty cuttings	Pale green grey	-	Dry
4.7 – 6.2	Weathered Rock (SILTSTONE/ SANDSTONE) Very hard (high resistance) solid auger drilling	Red brown	-	Dry

**Comments:** Push tube to 0.0 to 2.3 m below ground level. V-bit solid auger 2.3 to 6.0 m below ground level. High rainfall event in the days prior to the drilling (48.6 mm in 1 Feb and 9.8 mm on 2 Feb as recorded at the Lenswood BOM Station ID: 23801)



# **Recycled Water Risk Management Plan (Draft)**

## **Cobb's Hill Estate On-Site Treatment & Disposal facility**

[Revision 2: 21 June 2022]

### **1. Commitment to Responsible Use and Management of Recycled Water Quality**

As a recycled water supplier Cobbs Hill Estate (CHE) is committed to the operation and management of a suitably designed recycled water system to ensure appropriate water quality is always maintained to mitigate risks to public and environmental health as a result of on-site irrigation.

CHE will make best endeavours to provide adequate resources for the recycling water program including adherence to this risk management plan (RMP) including the engagement of expert contractors as required. The point of contact for SA Health enquires is shown below.

**Table 1:** CHE contact details

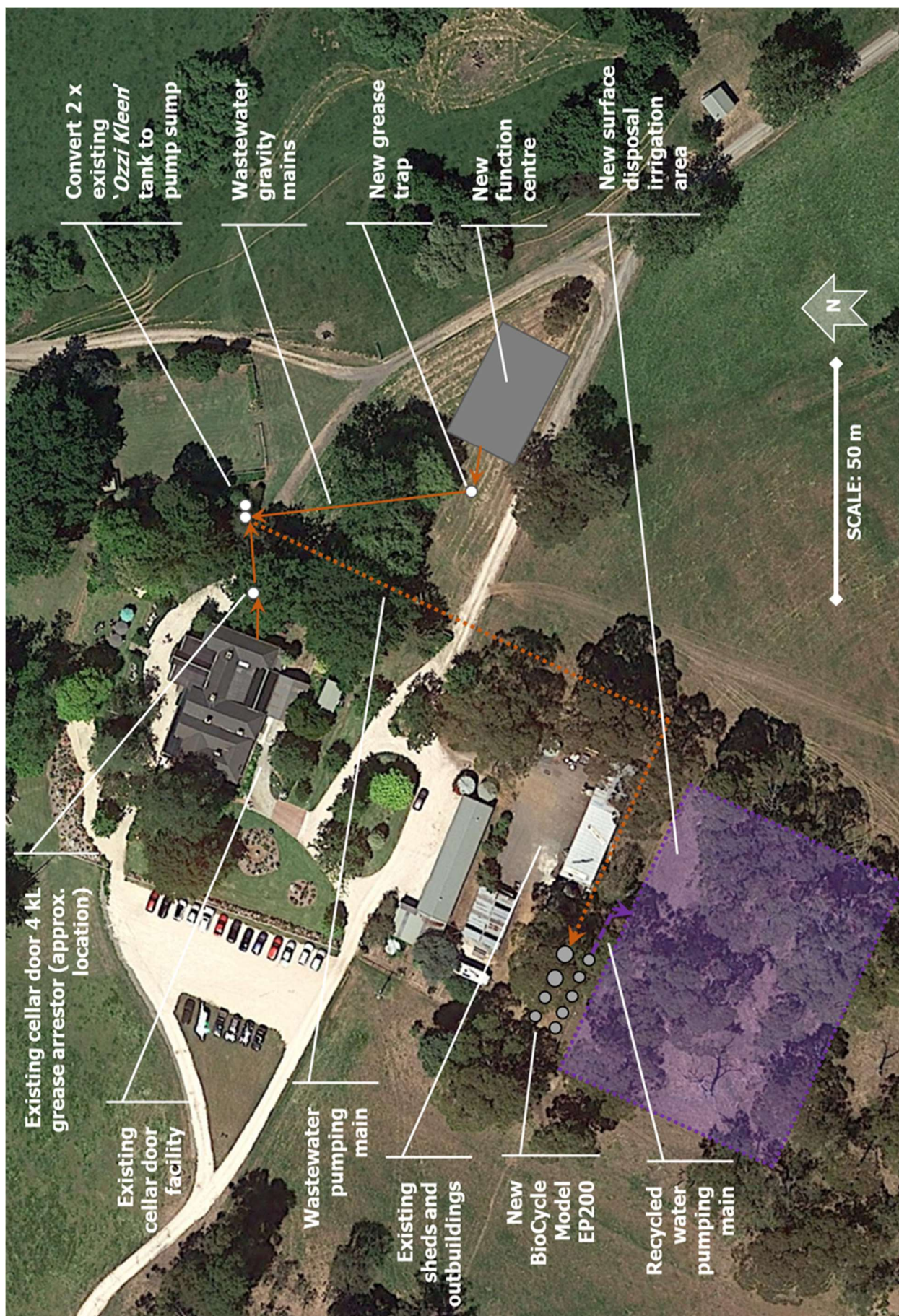
<b>Name</b>	<b>Position</b>	<b>Phone</b>	<b>Email</b>
Jedd Hicks	General Manager	0467 541 715	jed@cobbshillestate.com.au

### **2. Assessment of the Recycled Water System**

CHE is located on a large property on Swamp Road at Oakbank. Broadly the facilities for the production of wastewater are located centrally on a plot of land bordered by Swamp Road, Oakwood Road and Peacock Road. The property is mostly planted with grape vines and a small creek flows north west to south east through the property. The property is gently sloping with the area where the buildings are located being terraced.

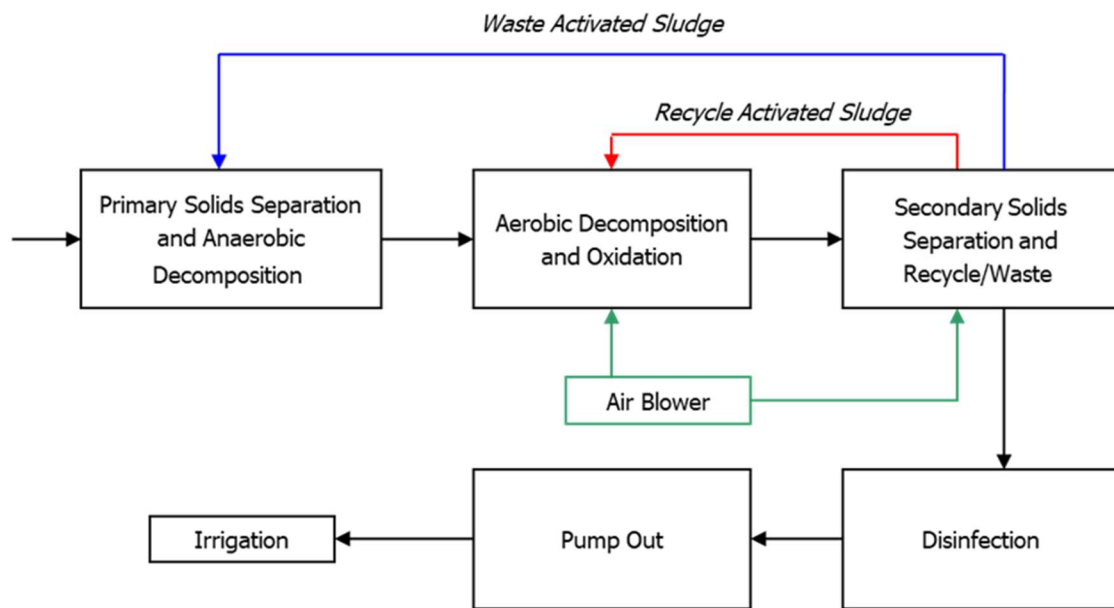
The treatment process accepts water from the grease traps of the kitchens and the toilets from the cellar door sales (CDS) and new restaurant/ conference centre. This wastewater is buffered through existing underground tanks before being pumped to a BioCycle 200 EP treatment system. The treatment system is located behind sheds from at the south of the property to ensure public amenity is maintained and to reduce the risk of public access.

Once treated and disinfected, the recycled water is irrigated on an area to the south of the treatment facility. The area will be fenced and signed and is located away from the publicly accessible area of the facility. Figure 1 below shows the relative locations of the disposal areas and Figure 2 provides an overview of the treatment process.



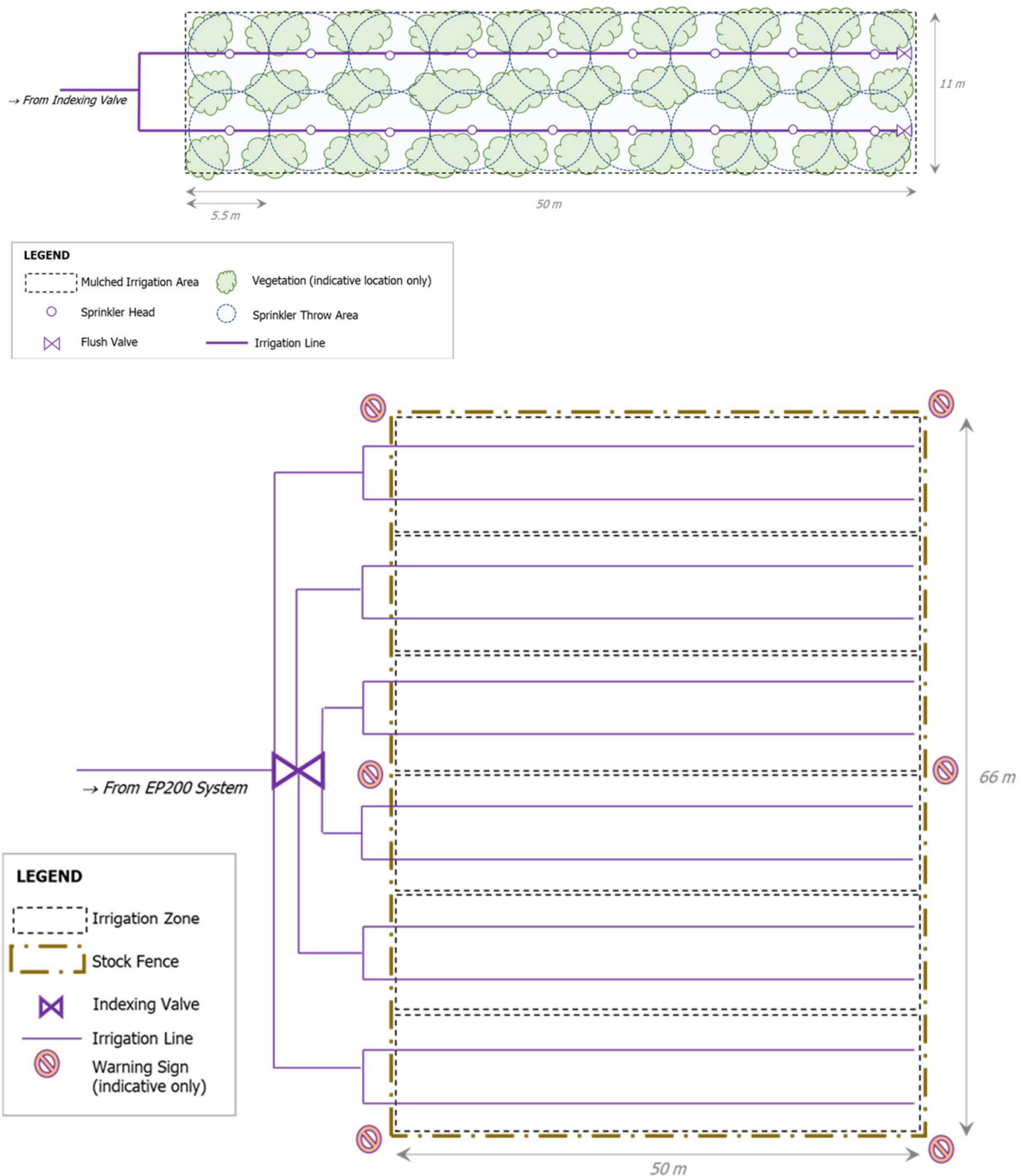
**Figure 1: Site location plan**





**Figure 2: Treatment Schematic Overview**

The irrigation area is terraced to provide an area of 3,300 m<sup>2</sup> with a gradient of less than 5% (1:20) comprised of six equally sized irrigation zones. Each zone is nominally 11 m by 50 m and equipped with 360° surface sprinklers with a flat downward trajectory to prevent wind drift of irrigation sprays (such as ‘wobbler’ sprinklers). The irrigation area will be mulched and plated per regulatory requirements and must be actively managed. The area will be fenced to restrict access and warning signs placed around the perimeter. The figure below details the irrigation area.



**Figure 3: Irrigation area detail**

Apart from the final chlorine contact tank of the BiocCylce 200 EP system, there is no recycled water storage associated with the system.

Four bores (reference ID 662809234, 662815434, 662818662 and 66281827) are located on the property to the north east of the irrigation disposal site. All are more than 50 m away. There is a creek which runs through the property with the nearest encroachment being approximately 78 m east of the disposal site.





Barrier	Bacteria	Virus	Protozoa	Reference
No public access during and after irrigation. Fencing and non-grassed.	3.0	3.0	3.0	AGWR Table 3.5
Buffer Zone (25 – 30 m)	1.0	1.0	1.0	AGWR Table 3.5
Spray drift control sprinklers	1.0	1.0	1.0	AGWR Table 3.5
<b>Total</b>	<b>5.0</b>	<b>5.0</b>	<b>5.0</b>	

To support the above LRV assessment a qualitative risk assessment of the process has been conducted as summarised below. The measures of risk have been applied from the AGWR (Tables 2.5 – 2.7) and are reproduced in Figure 5 below.

Table 2.5 Qualitative measures of likelihood		
Level	Descriptor	Example description
A	Rare	May occur only in exceptional circumstances. May occur once in 100 years
B	Unlikely	Could occur within 20 years or in unusual circumstances
C	Possible	Might occur or should be expected to occur within a 5- to 10-year period
D	Likely	Will probably occur within a 1- to 5-year period
E	Almost certain	Is expected to occur with a probability of multiple occurrences within a year

Table 2.6 Qualitative measures of consequence or impact		
Level	Descriptor	Example description
1	Insignificant	Insignificant impact or not detectable
2	Minor	Health — Minor impact for small population Environment — Potentially harmful to local ecosystem with local impacts contained to site
3	Moderate	Health — Minor impact for large population Environment — Potentially harmful to regional ecosystem with local impacts primarily contained to on-site
4	Major	Health — Major impact for small population Environment — Potentially lethal to local ecosystem; predominantly local, but potential for off-site impacts
5	Catastrophic	Health — Major impact for large population Environment — Potentially lethal to regional ecosystem or threatened species; widespread on-site and off-site impacts

Table 2.7 Qualitative risk estimation					
Likelihood	Consequences				
	1-Insignificant	2-Minor	3-Moderate	4-Major	5-Catastrophic
A Rare	Low	Low	Low	High	High
B Unlikely	Low	Low	Moderate	High	Very high
C Possible	Low	Moderate	High	Very high	Very high
D Likely	Low	Moderate	High	Very high	Very high
E Almost certain	Low	Moderate	High	Very high	Very high

Note: Level of environmental risk is specific to definitions of likelihood and consequence defined in Tables 2.5 and 2.6

**Figure 5: Risk assessment framework per AGWR**

The risk assessment for the wastewater works and irrigation system is summarised in Table 3 below.

**Table 3: Qualitative risk assessment**

Potential Hazardous Event	Uncontrolled Risk (likelihood x impact = risk)	Existing controls	Residual Risk (likelihood x impact = risk)	Additional Controls Required
<b>Sewerage System</b>				

Potential Hazardous Event	Uncontrolled Risk (likelihood x impact = risk)	Existing controls	Residual Risk (likelihood x impact = risk)	Additional Controls Required
Discharges of domestic/house hold chemicals	A x 2 = Low	Closed catchment, known users	A x 1 = Low	None required
Discharges of toxic material	A x 2 = Low	Closed catchment, known users	A x 1 = Low	None required
Infiltration of stormwater	A x 2 = Low	Closed catchment, known stormwater connections	A x 1 = Low	None required
Trade-waste discharges	B x 2 = Low	Grease traps, grease trap inspections	A x 1 = Low	None required
<b>Treatment System</b>				
Disinfection malfunctions	C x 2 = Moderate	Regular inspections, sampling, maintenance program	B x 2 = Low	None required
Equipment malfunctions	C x 2 = Moderate	Regular inspections, maintenance program	B x 2 = Low	None required
Failure of alarms and monitoring equipment	D x 2 = Moderate	Regular inspections, maintenance program	B x 2 = Low	None required
Inadequate equipment or unit processes	B x 2 = Low	Design review, expert design, regular inspections, maintenance program	A x 2 = Low	None required
Poor reliability of processes	B x 2 = Low	Design review, expert design, regular inspections, maintenance program	A x 2 = Low	None required
Power failures	E x 1 = Low	None required	E x 1 = Low	None required
Sabotage and natural disasters	B x 2 = Low	None required	B x 2 = Low	None required
Significant flow variations through water treatment system	B x 2 = Low	Closed system, no stormwater or groundwater intrusion	A x 2 = Low	None required
<b>Distribution System</b>				

<b>Potential Hazardous Event</b>	<b>Uncontrolled Risk (likelihood x impact = risk)</b>	<b>Existing controls</b>	<b>Residual Risk (likelihood x impact = risk)</b>	<b>Additional Controls Required</b>
Biofilms, sloughing and resuspension, regrowth	D x 1 = Low	Inspections, maintenance,	D x 1 = Low	None required
Deliberate or inadvertent misuse of recycled water	D x 1 = Low	Closed system, restricted access	D x 1 = Low	None required
Failure to identify recycled water systems	C x 2 = Low	Lilac fixtures, single user, regular plumber used	B x 1 = Low	None required
Failure to maintain buffer zones and other access controls	B x 1 = Low	None required	B x 1 = Low	None required
Groundwater intrusion	A x 1 = Low	None required	A x 1 = Low	None required
Human or livestock access, absence of exclusion areas	D x 2 = Moderate	Fenced area, irrigation area away from public, restricted area	B x 2 = Low	None required
Inadequate repair and maintenance, inadequate system flushing	C x 2 = Low	Inspections, maintenance, regular plumber used	B x 2 = Low	None required
Lack of separation between recycled water and drinking water systems	A x 4 = High	Large physical distance between recycled and drinking systems	A x 2 = Low	None required
Inappropriate materials and coatings or material failure	C x 2 = Low	Lilac fixtures, single user, regular plumber used	B x 1 = Low	None required
Pipe bursts or leaks	D x 2 = Moderate	Inspections, maintenance, regular plumber used	B x 2 = Low	None required

Potential Hazardous Event	Uncontrolled Risk (likelihood x impact = risk)	Existing controls	Residual Risk (likelihood x impact = risk)	Additional Controls Required
Raised water tables, salinisation, soil structure decline	C x 2 = Moderate	Inspections, rotation of irrigation zones	B x 2 = Low	None required
Soil, groundwater or surface water contamination by recycled water	C x 2 = Moderate	Inspections, rotation of irrigation zones	B x 2 = Low	None required
Waterlogging of plants	C x 2 = Moderate	Inspections, rotation of irrigation zones	B x 2 = Low	None required
<b>Use of Recycled Water</b>				
Inadequate education and information about permitted uses	A x 1 = Low	None required	A x 1 = Low	None required
Overwatering	C x 2 = Moderate	Inspections, rotation of irrigation zones	B x 2 = Low	None required
Potential for unauthorised use	B x 2 = Low	Single user, closed site and restricted access	A x 2 = Low	None required
Use of inappropriate plumbing and construction materials	B x 2 = Low	Single user, regular plumber used	A x 2 = Low	None required

#### 4. Preventative Measures for Recycled Water Management

There are a number of preventative measures in place to reduce pathogens through the treatment process which all effectively combine to ensure that the activated sludge process operates in accordance to its design parameters. These include:

- The provision of a well-maintained grease arrestor on the commercial kitchen drain to reduce the risk of grease and oil entering the treatment system.
- The former treatment tanks will act as balance tanks to buffer flow to the treatment system.
- Pathogens will be removed through the treatment process through primary sedimentation, secondary treatment and secondary sedimentation. The most important barrier to pathogens is the disinfection stage.

In addition to the treatment process, there are controls around the irrigation area to mitigate the risk to public and environmental health. These include:

- A farm fence surrounding the irrigation area with locked gates to prevent public access.
- Warning signs placed around the irrigation area as shown in Figure 3 with text “RECYCLED WATER DO NOT DRINK”.
- Where practical, valve boxes will be placed underground with access lids coloured lilac.
- Recycled pipework and sprinklers will be coloured lilac.
- Work health and safety protocols are in place such that any employees or contractors working on the wastewater and irrigation systems are aware of the need to wash their hands before eating or smoking.

Note that there are no public drinking water supplies on the property other than rainwater tanks. These are separated from the recycled water system by some distance.

Because of the restricted access, it is appropriate to irrigate the area at any time. The irrigation occurs when the pump out chamber reaches a specified level and will continue until the low level is reached.

## **5. Operational Procedures and Process Control**

The treatment process will be operated in accordance with the supplied BioCycle operations and maintenance manuals. The process will operate in fully automatic mode all of the time. If an alarm occurs, an audible alarm and warning light will activate and the fault with the malfunctioning equipment can be rectified.

The performance of the mechanical equipment (aerators and pumps) will be checked by a plumber quarterly and reported to the relevant agencies. Disinfection will be checked monthly to ensure chlorine contact times are met.

The primary and secondary sedimentation will be desludged quarterly by an appropriately licenced contractor.

The irrigation area shall be inspected weekly with attention paid to water pooling and sprinkler operation. Application of recycled water should be as even as possible across the area.

Records of inspection and fault rectifications shall be maintained in a logbook held onsite.

Any other operational procedures requested by SA Health will be included in this RMP as required.

## **6. Water Quality Monitoring**

The recycled water shall be tested quarterly for *E.coli* by an appropriate qualified laboratory.

SA Health may advise on additional water quality monitoring requirements



## 7. Management of Incidents and Emergencies

The management of all incidents of the wastewater system will follow the same emergency procedures in place for CHE. Specific responses to emergencies are summarised in the table below.

**Table 4:** Emergency mitigation

Event	Impact	Mitigation
Flooding	Waterlogging of irrigation area	Contractor to attend site and pump recycled water from holding tank
Extreme rainfall		
Spill of wastewater	Contamination of environment and public health risk	Clean area and disinfect with hypochlorite spray
Extended power outage	Potential for spill of wastewater	Contractor to attend site and pump out wastewater holding tank.

Any incident which results in a notifiable incident will be reported to SA Health.

## 8. Operator, Contractor and End User Awareness and Training

Training on the wastewater system will be provided by BioCycle and will be based on the operations and maintenance manual upon commissioning of the system. All new staff will be trained on the wastewater system as required.

Contractors will be made aware of the wastewater system, the irrigation area and the risks associated with working with wastewater as part of the CHE contractor inductions.

## 9. Documentation and Reporting

Records of the wastewater system will be maintained in the onsite log book and in the form of quarterly servicing reports. Water quality monitoring results will be reported to SA Health annually if requested.

## 10. Evaluation and Audit

The effectiveness of this RMP will be assessed annual by CHE management.

Contact: Katie Koto  
Telephone: 08 8226 7100  
Email: [healthwastewatermanagement@sa.gov.au](mailto:healthwastewatermanagement@sa.gov.au)



Government of South Australia

SA Health

Health Protection and  
Licensing Services

Citi Centre Building  
11 Hindmarsh Square  
Adelaide SA 5000

PO Box 6  
Rundle Mall SA 5000  
DX 243

Tel 08 8226 7100

Fax 08 8226 7102

ABN 97 643 356 590

[www.health.sa.gov.au](http://www.health.sa.gov.au)

Our reference: WWI-11002

Mr N Vinecombe  
C/O Mr J Hicks  
Cobb's Hill Estate  
382a Swamp Road  
OAKBANK SA 5243

Dear Mr Vinecombe,

**RE: ON-SITE WASTEWATER SYSTEM SERVICING COBB'S HILL ESTATE – 382B SWAMP ROAD, OAKBANK, SA (CT 6035, FOLIO 473)**

I refer to your wastewater works application relating to wastewater management at the above location.

Pursuant to the South Australian Public Health (Wastewater) Regulations 2013, the wastewater system has been approved by the Department for Health and Wellbeing (DHW) subject to the following conditions:

1. The approved system incorporates:
  - 1.1. The conversion of 2x 5kL secondary treatment systems for use as pump sumps.
  - 1.2. A Biocycle EP200 secondary treatment system of 30 kL/d hydraulic capacity and 9 kg BOD<sub>5</sub>/d organic capacity.
  - 1.3. An on-site land application system of **14.8 kL/d capacity**, consisting of
    - 1.3.1. A 3,290m<sup>2</sup> surface irrigation area.
  - 1.4. Decommissioning the following:
    - 1.4.1. 2x Ozzie Kleen RP10 secondary treatment systems
    - 1.4.2. Ri-treat 3250 secondary treatment system.
    - 1.4.3. 200m<sup>2</sup> irrigation area.
  - 1.5. Existing 4,000L grease arrestor.
  - 1.6. 2,400L grease arrestor.
  - 1.7. Sanitary plumbing and drainage.
2. The system is to be installed, commissioned, operated and maintained in accordance with:

- 2.1. The reports, plans and specifications as referenced in this approval.
  - 2.2. Designers, manufacturers, installers and equipment suppliers' instructions and recommendations.
  - 2.3. South Australian On-site Wastewater Systems Code.
  - 2.4. The Recycled Water Risk Management Plan (Draft), *Cobb's Hill Estate On-site Treatment & Disposal facility, Rev 2: 21 June 2022*.
  - 2.5. AS/NZS 3500 Plumbing and drainage.
  - 2.6. Operation and maintenance procedures and supporting systems.
  - 2.7. All other relevant standards and codes.
  - 2.8. Conditions of this approval.
3. In regard to the Recycled Water Risk Management Plan (Draft), *Cobb's Hill Estate On-site Treatment & Disposal facility, Rev 2: 21 June 2022*:
- 3.1. The RWRMP must be kept up-to-date and reviewed prior to any modification, expansion or change to the wastewater treatment system.
  - 3.2. The RWRMP may be amended from time to time subject to approval by the Department for Health and Wellbeing (DHW).
4. A licensed plumber must carry out the installation of the sanitary plumbing and drainage components and submit to the DHW a plumbing certificate of compliance and 'as-constructed' drawings within 28 days of the works being completed.
5. The DHW shall be notified, prior to backfill, of the following installation stages:
- 5.1. Tank/ treatment system.
  - 5.2. Land application area.
- Notification shall be given at least 24 hours prior to inspection by phone or email.
6. System lids and access openings must be childproof, gas and watertight.
7. The following discharges must not enter an on-site wastewater system:
- 7.1. Storm water.
  - 7.2. Back flush waters from a swimming pool or water softener.
  - 7.3. Discharge or back flush from a spa bath/pool in excess of 680 litres.
  - 7.4. Sanitary napkins, clothing, plastic material, wet wipes or liners.
  - 7.5. Paint, petroleum products, strong alkaline, acids or other flammable or explosive substance whether solid, liquid or gas.

- 7.6. Trade waste, other than those receiving pre-treatment as per Conditions 1.5 and 1.6.
8. Primary treatment tanks must be de-sludged on a minimum **two-yearly** basis.
9. Pre-treatment devices shall be maintained in accordance with manufacturer's instructions and de-sludged at a frequency that ensures the devices are operating as intended.
10. Removal of wastewater and sludge must be undertaken by an EPA licenced waste transporter. Records of pump-outs shall be maintained by the operator.
11. The secondary treatment system is to be **serviced quarterly**, in accordance with the manufacturer's specifications and instructions.
12. Pumps must be suitable for their intended load and operating environment.
13. With regard to the on-site land application system:
- 12.1. There shall be no pooling or runoff of recycled water.
  - 12.2. The area is to be signposted to indicate recycled water is in use and is not suitable for drinking.
  - 12.3. Accessible taps, valves and fittings are to be painted purple and/or marked to indicate that recycled water is in use and is not suitable for drinking.
  - 12.4. Areas must not be subject to vehicle traffic or structural loadings.
13. Personnel responsible for the operation and maintenance of the system must be adequately trained to do so in accordance with the manufacturers' procedures and supporting systems.
14. Employees and others who could potentially be exposed to recycled water are to be instructed in appropriate personal hygiene measures or health and safety procedures pursuant to the *Work Health and Safety Act*.
15. There shall be no cross connections with any other water supply without backflow prevention to protect that supply as specified in AS/NZS 3500 and the requirements of SA Water and the Office of the Technical Regulator (OTR).
16. The recycled water is to meet the following water quality criteria:
- 16.1. BOD5 < 20 mg/L.
  - 16.2. Suspended solids < 30 mg/L.
  - 16.3. *E.coli* < 100 org/100mL.
  - 16.4. Total chlorine > 1 mg/L.

17. With regard to recycled water monitoring:
  - 17.1. The recycled water is to be sampled quarterly for the parameters listed in condition 16, except for total chlorine, which is to be sampled monthly.
  - 17.2. Samples are to be taken from final disinfected effluent.
  - 17.3. Sample points shall be signed and easily accessible.
  - 17.4. Analysis of samples is to be carried out by a laboratory registered by NATA for those parameters, except for total chlorine, which may be measured on-site.
18. The following operational monitoring must be undertaken for the system:
  - 18.1. Totalised flow discharged to the land application system must be recorded quarterly.
  - 18.2. Pump sump levels must be monitored using an audio and visual high-level alarm meeting the requirements of the On-site Wastewater Systems Code.
  - 18.3. Aerator operation must be monitored using an audio-visual alarm.
  - 18.4. The land application system must be inspected monthly, to ensure that run-off or pooling is not occurring.
19. Upon request, an annual report must be submitted in a format as determined by the DHW by 30 September each year, for the financial period from 1 July to 30 June.
20. Within **eight weeks** of practical completion of the installation, engineering certification by a wastewater engineer is to be submitted to the Minister for Health and Wellbeing (C/- Wastewater Management Section, DHW). The engineering certification is to clearly state the compliance or otherwise, of both system components and the system as a whole, including:
  - 20.1. Compliance with the conditions of this approval
  - 20.2. Compliance of all components of the installation with relevant industry codes and standards, including:
    - 20.2.1. Construction and installation methodology.
    - 20.2.2. Structural soundness and suitability of materials used.
    - 20.2.3. Inspection and acceptance testing, including for watertightness, of the installation.
    - 20.2.4. Marking and colour coding of reticulation mains and laterals.
    - 20.2.5. Suitability of materials used, construction/installation methodology, trenching, bedding, jointing, etc.



- 20.2.6. Compliance with designers, manufacturers and equipment suppliers' instructions and recommendations.

The applicant is responsible to ensure that auditing of the wastewater system during installation is undertaken as per the standards, guidelines and specifications referred to by this approval, and that compliance is maintained with installation methods, correctness of materials used, and the testing of the system.

The engineering certification is to be based on the assessment results including tests carried out during construction of the wastewater system.

21. Non-compliance with any of the conditions of approval shall be reported as soon as practicable but within one business day by email to the Minister for Health and Wellbeing (c/o Wastewater Management Section, Department for Health and Wellbeing).
22. Pursuant to the South Australian Public Health (Wastewater) Regulations 2013, the DHW reserves the right to vary any or all of the approval conditions, and require the repair, replacement, rectification, or alteration of the system or any part thereof should at any time:
- 22.1. The system or a component thereof not be manufactured, installed and/or operated in accordance with the approval conditions; or
  - 22.2. The system is defective and not able to perform the function for which the approval was issued; or
  - 22.3. The system is operated in a manner that is prejudicial to public and environmental health or causes environmental nuisance.
23. This approval shall become void if the installation is not completed within 24 months of the date of this approval.

Approved by:

Date: 8 July 2022



Karen Bennink

**Manager, Wastewater Management**

Delegate of the Minister for Health and Wellbeing

CC: Adelaide Hills Council

**References:**

- Wastewater Engineer's Report, Cobb's Hill Estate, Wastewater System Upgrade for Function Centre & Cellar Door, prepared by ametqua, dated 21/06/2022.
- Recycled Water Risk Management Plan (Draft), Cobb's Hill Estate On-site Treatment & Disposal facility, Rev 2: 21 June 2022.

**Note 1:** The approval does not abrogate responsibilities under other Acts or Regulations to obtain the necessary approvals, permits or licences from other agencies, including but not limited to:

- Environment Protection Authority
- Department of Environment and Water
- Natural Resource Management Boards
- Department of Primary Industries and Regions SA
- State Planning Commission
- Local Council

## Gregg Jenkins

---

**From:** Koto, Katie (Health) <Katie.Koto@sa.gov.au>  
**Sent:** Wednesday, 18 January 2023 10:19 AM  
**To:** Jed Hicks  
**Cc:** Robran Cock; Gregg Jenkins  
**Subject:** RE: Cobbs Hill SA Health Wastewater Application

OFFICIAL

Thanks Jed.

No amendment to your approval required, unless you wanted to downsize the selected treatment system.

Regards,

**Katie Koto | Senior Environmental Health Officer**  
Wastewater Management | SA Health  
Government of South Australia  
T: 08 8226 7100  
F: 08 8226 7105  
E: [katie.koto@health.sa.gov.au](mailto:katie.koto@health.sa.gov.au)  
W: [www.sahealth.sa.gov.au/wastewater](http://www.sahealth.sa.gov.au/wastewater)

---

**From:** Jed Hicks <jed@cobbshillestate.com.au>  
**Sent:** Wednesday, 18 January 2023 10:16 AM  
**To:** Koto, Katie (Health) <Katie.Koto@sa.gov.au>; Robran Cock <rcock@insideinfrastructure.com.au>  
**Cc:** gregg@heyneplanning.com.au  
**Subject:** RE: Cobbs Hill SA Health Wastewater Application

Hi Katie,

It will be:  
Cellar door – 200  
Function OR restaurant – 130  
Total: 330

Regards

**Jed Hicks**

General Manager

**COBBS HILL**  
ESTATE



ADELAIDE HILLS

T: (08) 83884261  
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E: [jed@cobbshillestate.com.au](mailto:jed@cobbshillestate.com.au)  
W: [cobbshillestate.com.au/](http://cobbshillestate.com.au/)  
A: 382 Swamp Road  
Oakbank, SA, 5243



---

**From:** Koto, Katie (Health) <[Katie.Koto@sa.gov.au](mailto:Katie.Koto@sa.gov.au)>  
**Sent:** Wednesday, 18 January 2023 10:10 AM  
**To:** Jed Hicks <[jed@cobbshillestate.com.au](mailto:jed@cobbshillestate.com.au)>; Robran Cock <[rcock@insideinfrastructure.com.au](mailto:rcock@insideinfrastructure.com.au)>  
**Cc:** [gregg@heyneplanning.com.au](mailto:gregg@heyneplanning.com.au)  
**Subject:** RE: Cobbs Hill SA Health Wastewater Application

**OFFICIAL**

Hi Jed,

Can you please confirm the maximum people on site on your busiest day?

Will it be:

Cellar door – 200  
Function OR restaurant – 130  
Total: 330

OR

Cellar door – 200  
Function – 130  
Restaurant – 130  
Total: 460

I'll be able to provide an answer once this has been confirmed, thank you.

Regards,

**Katie Koto | Senior Environmental Health Officer**  
Wastewater Management | SA Health  
Government of South Australia  
T: 08 8226 7100  
F: 08 8226 7105  
E: [katie.koto@health.sa.gov.au](mailto:katie.koto@health.sa.gov.au)  
W: [www.sahealth.sa.gov.au/wastewater](http://www.sahealth.sa.gov.au/wastewater)

---

**From:** Jed Hicks <[jed@cobbshillestate.com.au](mailto:jed@cobbshillestate.com.au)>  
**Sent:** Wednesday, 18 January 2023 8:56 AM  
**To:** Robran Cock <[rcock@insideinfrastructure.com.au](mailto:rcock@insideinfrastructure.com.au)>; Koto, Katie (Health) <[Katie.Koto@sa.gov.au](mailto:Katie.Koto@sa.gov.au)>  
**Cc:** [gregg@heyneplanning.com.au](mailto:gregg@heyneplanning.com.au)  
**Subject:** RE: Cobbs Hill SA Health Wastewater Application

Hi Katie,

Sorry sent that before completed. Did we need to present an amendment to our application or are you happy that we are presenting a system that is over capacity for needs?

Regards

**Jed Hicks**

General Manager



T: (08) 83884261  
M: 0467541715  
E: [jed@cobbshillestate.com.au](mailto:jed@cobbshillestate.com.au)  
W: [cobbshillestate.com.au/](http://cobbshillestate.com.au/)  
A: 382 Swamp Road  
Oakbank, SA, 5243



---

**From:** Jed Hicks <[jed@cobbshillestate.com.au](mailto:jed@cobbshillestate.com.au)>

**Sent:** Wednesday, 18 January 2023 8:53 AM

**To:** 'Robran Cock' <[rcock@insideinfrastructure.com.au](mailto:rcock@insideinfrastructure.com.au)>; 'Koto, Katie (Health)' <[Katie.Koto@sa.gov.au](mailto:Katie.Koto@sa.gov.au)>

**Cc:** [dsamardzija@ahc.sa.gov.au](mailto:dsamardzija@ahc.sa.gov.au); 'gregg@heyneplanning.com.au' <[gregg@heyneplanning.com.au](mailto:gregg@heyneplanning.com.au)>

**Subject:** FW: Cobbs Hill SA Health Wastewater Application

Hi Katie,

With the representations we have reduced our capacity to satisfy councils requests. Will this

**Jed Hicks**

General Manager



T: (08) 83884261  
M: 0467541715  
E: [jed@cobbshillestate.com.au](mailto:jed@cobbshillestate.com.au)  
W: [cobbshillestate.com.au/](http://cobbshillestate.com.au/)  
A: 382 Swamp Road  
Oakbank, SA, 5243



---

**From:** Gregg Jenkins <[gregg@heyneplanning.com.au](mailto:gregg@heyneplanning.com.au)>

**Sent:** Tuesday, 17 January 2023 3:26 PM

**To:** Jed Hicks <[jed@cobbshillestate.com.au](mailto:jed@cobbshillestate.com.au)>

**Subject:** Cobbs Hill SA Health Wastewater Application

Hi Jed

Please find attached version 2 of my response to reps with the 2 x weekly restaurant inclusion.

Can you please revisit the SA Health approval for the wastewater system.

Council will not finalise their assessment until the SA Health approval has been granted with numbers that reflect the attached response (extracted below for clarity).

**STAGE 1** - Vary Cellar Door numbers from 75 persons 7 days per week to 75 persons Monday to Friday and 200 persons on Saturday and Sunday. Hours to remain at 10:00 am until 6:00 pm

Vary Functions from 130 persons 18 times per year and Special Events for 208 persons 7 times per year to Functions for 130 persons 32 times per year 3:00 pm until midnight on Fridays, Saturdays and Sundays (delete the special events for 208 persons)

**STAGE 2** - Construction of a Restaurant and Function Building for 130 persons 2 days per week from 11:00 am until 10:00 pm.



Can you please send me the final SA Health wastewater approval documents when they come through.

Regards

Gregg Jenkins

BUrb&RegPlan(Hons)

**Heynen Planning Consultants**

Suite 15, 198 Greenhill Road

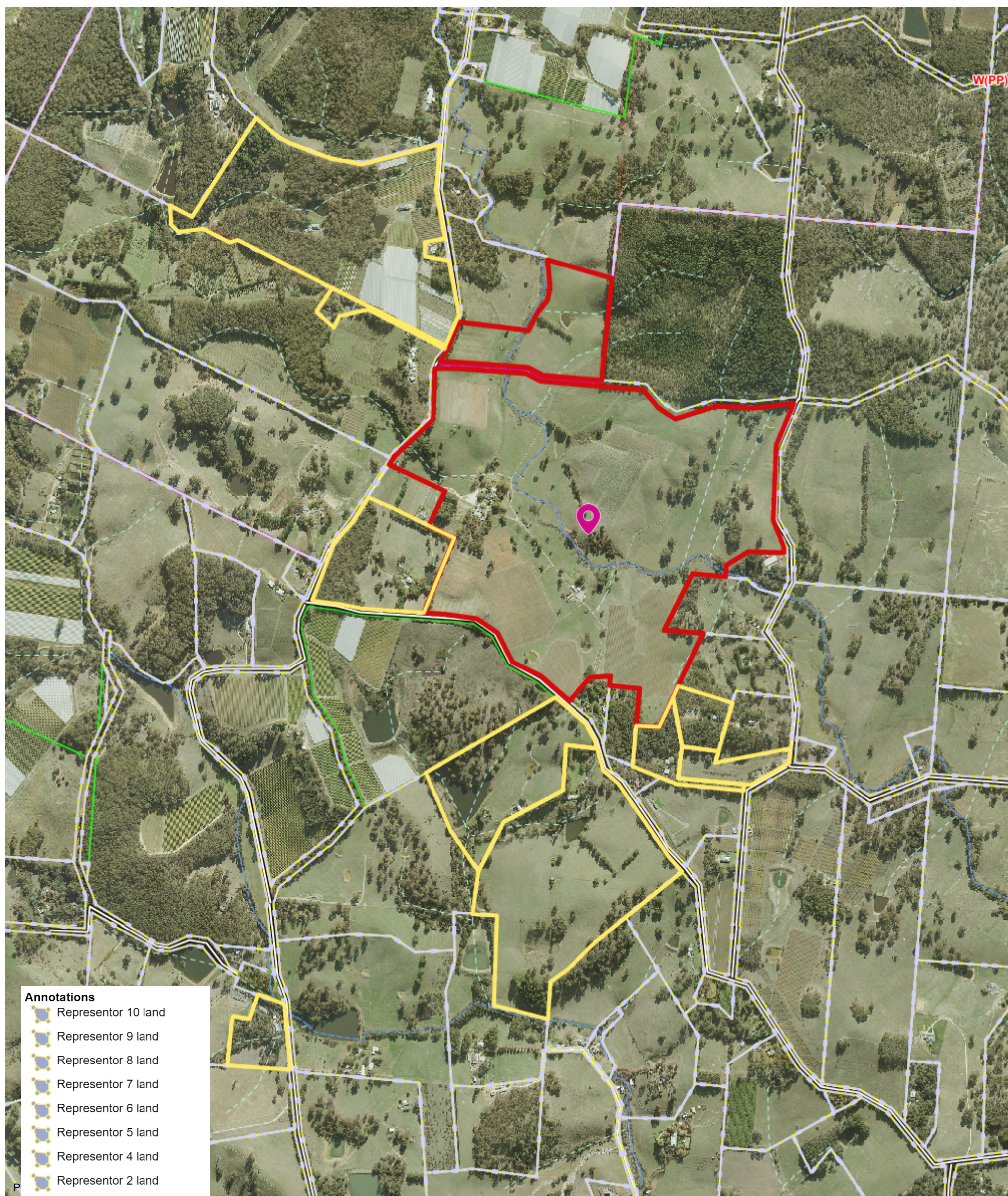
EASTWOOD SA 5063

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**M** 0475 933 823

**T** 8272 1433

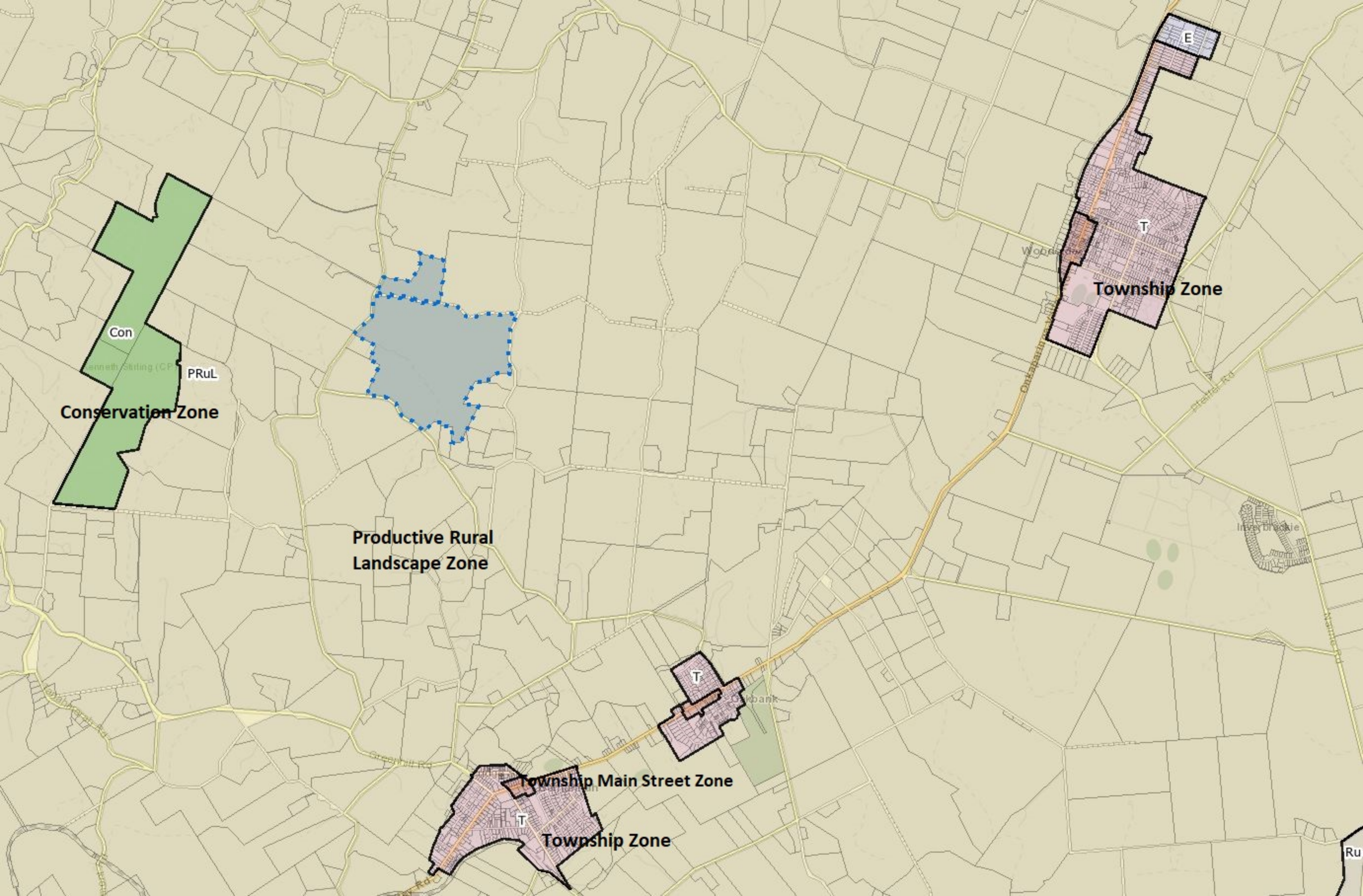




Scale =  
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500 m





Con  
Kenneth Stirling (CP)  
PRuL  
**Conservation Zone**

**Productive Rural  
Landscape Zone**

**Township Zone**

**Township Main Street Zone**

**Township Zone**

Inverbrackie

Woodbank

Woodbank

Ru



**HEYNEN**  
PLANNING CONSULTANTS

T 08 8271 7944  
Suite 15, 198 Greenhill Road  
EASTWOOD SA 5063

ABN 54 159 265 022  
ACN 159 265 022

31 March 2022

Adelaide Hills Council  
ATT: Doug Samardzija  
PO Box 44  
WOODSIDE SA 5244

**Via Plan SA**

Dear Doug

**RE: APPLICATION ID: 21017786 - 382B SWAMP ROAD OAKBANK SA 5243**

Further to the prior upload to PlanSA and Council's subsequent requests for information dated 20 August 2021, 30 December 2021 and 23 February 2022 the following documents are pertinent:

- (a) Environmental Noise Assessment, prepared by Bestec, comprising 24 pages, dated 10 February 2022;
- (b) Civils Plans, 2 pages, prepared by Clive Steele Partners, dated Nov 2021;
- (c) Review of Wastewater Application, dated 28 March 2022, prepared by Ametqua Pty Ltd, comprising 4 pages; and
- (d) Architectural Plans, prepared by Anatoly Patrick comprising 10 Sheets, dated 15.07.2021, Rev 2 comprising:
  - Artists impression and Mood Board, Sheet A/00;
  - Design Model and Design Development, Sheet A/BB;
  - Location Plan, Sheet A/01;
  - Location Plan, Sheet A/02;
  - Site Plan, Sheet A/03;
  - Plan, Sheet A/04;
  - First Floor Plan, Sheet A/05;
  - Elevating 1, Sheet A/06;
  - Elevating 2, Sheet A/07;
  - Elevating 3, Sheet A/08; and
  - Elevating 4, Sheet A/9.

I can confirm that the previously proposed lower level "store" element has been deleted from the application and therefore the development will not include the element of a "winery". Dining will include casual eating and the element of a "shop" (in the form of a restaurant) will need to be incorporated into the description of the proposal.

**Background and Additional Information**

The site is occupied by Cobbs Hill Estate which comprises a variety of existing uses including a caretaker's residence, viticulture, grazing of cattle, motel (maximum 6 guests), cellar door and most recently development approval was issued for the change of use to a function centre (special events with maximum capacity 208 persons on 7 occasions a year & functions with maximum capacity of 130 persons on 18 occasions a year).

As per condition 9, functions or events are to be restricted to the existing cellar door area and the lawn and garden area as depicted on plans prepared by Graham Bettany Architecture and date stamped by Council 02/09/2020.Proposed Development

The proposal herein seeks for the construction of a building for guests to experience dining and the consumption of wine that is produced by Cobb's Hill. The dining experience will include smaller individual tables (such as that for a restaurant) and is to also include larger bookings, such as weddings (i.e. a function).

The proposal seeks for *a maximum of 100 patrons at any one time on the premises except up to two times per week where a maximum of 400 patrons are to be on the premises (comprised of a maximum of 200 patrons in the function building and maximum 200 patrons in the combined cellar door and garden).*

Guests will at times utilise the proposed building and concurrently the existing cellar door and surrounding grounds, subject to the maximum numbers espoused above.

Proposed hours of operation are 10:00 am until Midnight, Monday to Sunday.

A wastewater application is currently under assessment by SA Health, and I understand that a response from the EPA (by way of a formal referral response) is sought prior to Council and SA Health progressing their assessment of the development application and wastewater applications respectively.

The applicant has also advised that on 'catastrophic fire' days or when a bushfire is active within the area, the facility will be closed and alternative arrangements made for any bookings. I am aware that this is common practice for events within high risk bushfire areas, while all potential clients will be made aware of the policies regarding cancellations as a result of catastrophic fire risk days, or when a bushfire is active within the area.

#### Brief Planning Opinion

The proposal seeks to ensure the long term viability of Cobbs Hill Estate via value adding in main by selling the wine which is produced from grapes grown on site. More generally, Cobbs Hill seeks to provide a tourism opportunity within the Adelaide Hills.

Put another way, the proposed development will facilitate the appreciation of food and wine, and visitation to the region as contemplated by the Productive Rural Landscape Zone.

Additionally, the proposed use is consistent with the sale of wine via the existing License which will further support the "economic base of the region" and the existing consents applicable to the land.

Patently, the proposal will achieve the following within the Code:

#### **Productive Rural Landscape Zone**

**DO 1** A diverse range of land uses at an appropriate scale and intensity that capitalise on the region's proximity to the metropolitan area and the tourist and lifestyle opportunities this presents while also conserving the natural and rural character, identity, biodiversity and sensitive environmental areas and scenic qualities of the landscape.

**DO 2** A zone that promotes agriculture, horticulture, value adding opportunities, farm gate businesses, the sale and consumption of agricultural based products, tourist development and accommodation that expands the economic base and promotes its regional identity.

**PO 6.5** Function centres are associated with the primary use of the land for primary production or primary production related value adding industry.



Turning to the consideration of the proposed building, the architecture responds to the context of the site, contemplates the sensitivity of the land and provides a contemporary built form which provides a well-considered reference to the land it is upon and draws inspiration from the art of winemaking.

The building will clearly display minimal visibility from the adjoining road network and adjacent land. The following provisions are therefore upheld by the proposal:

**PO 11.1** Large buildings designed and sited to reduce impacts on scenic and rural vistas by:

- (a) having substantial setbacks from boundaries and adjacent public roads using low
- (b) reflective materials and finishes that blend with the surrounding landscape
- (c) being located below ridgelines

### **Design**

**DO 1** Development is:

- (a) contextual - by considering, recognising and carefully responding to its natural surroundings or built environment and positively contributes to the character of the immediate area
- (b) durable - fit for purpose, adaptable and long lasting
- (c) inclusive - by integrating landscape design to optimise pedestrian and cyclist usability, privacy and equitable access, and promoting the provision of quality spaces integrated with the public realm that can be used for access and recreation and help optimise security and safety both internally and within the public realm, for occupants and visitors
- (d) sustainable - by integrating sustainable techniques into the design and siting of development and landscaping to improve community health, urban heat, water management, environmental performance, biodiversity and local amenity and to minimise energy consumption.

The applicant has advised that no native vegetation requires clearance in order to facilitate the proposed development. As a result, achievement of the following is observed:

### **Native Vegetation Overlay**

**PO 1.1** Development avoids, or where it cannot be practically avoided, minimises the clearance of native vegetation taking into account the siting of buildings, access points, bushfire protection measures and building maintenance.

A wastewater engineer has also been engaged and an application lodged with SA Health. Likewise civil plans are incorporated into the amended proposal, and on receipt of an approved wastewater system and agreement on the suitability of the civil design, the neutral or positive impact will ensure achievement of the following:

### **Beverage Production in Rural Areas**

**PO 2.4** Stormwater runoff from areas unlikely to cause contamination by beverage production and associated activities (such as roof catchments and clean hard-paved surfaces) is diverted away from beverage production areas and wastewater management systems.

### **Mount Lofty Ranges Water Supply Catchment (Area 2) Overlay**

**DO 1** Safeguard Greater Adelaide's public water supply by ensuring development has a neutral or beneficial effect on the quality of water harvested from secondary reservoirs or diversion weir catchments from the Mount Lofty Ranges.

**PO 1.1** Development results in a neutral or beneficial effect on the quality of water draining from the site to maintain and enhance the role of the catchment as a water supply.

**PO 2.4** Wastewater management systems result in a neutral or beneficial effect on the quality of water draining from the site.

**Water Resources Overlay**

**PO 1.1** Watercourses and their beds, banks, wetlands and floodplains (1% AEP flood extent) are not damaged or modified and are retained in their natural state, except where modification is required for essential access or maintenance purposes.

Noting the relatively flat topography of the site of the development, the generous boundary setbacks and the authorized use of the land, the following are able to be achieved:

**Design**

**PO 7.2** Vehicle parking areas are appropriately located, designed and constructed to minimise impacts on adjacent sensitive receivers through measures such as ensuring they are attractively developed and landscaped, screen fenced and the like.

**PO 7.6** Vehicle parking areas and associated driveways are landscaped to provide shade and positively contribute to amenity.

**PO 8.1** Development, including any associated driveways and access tracks, minimises the need for earthworks to limit disturbance to natural topography.

**Interface between Land Uses**

**PO 4.1** Development that emits noise (other than music) does not unreasonably impact the amenity of sensitive receivers (or lawfully approved sensitive receivers).

**Transport, Access and Parking**

**PO 5.1** Sufficient on-site vehicle parking and specifically marked accessible car parking places are provided to meet the needs of the development or land use having regard to factors that may support a reduced on-site rate such as:

- (a) availability of on-street car parking
- (b) shared use of other parking areas

**PO 10.1** Development is located and designed to ensure drivers can safely turn into and out of public road junctions.

In considering the required car parking, I have reviewed rate of carparking as per the approval for 75 people for the current cellar door and event use, of which the applicant has advised is sufficient.

In consideration of the current approval, I note that 14 car parks are attributed to the cellar door and functions for 75 people. The additional two car parks for the accommodation remain unaltered.

Accordingly, a rate of 1 car park per 5.35 people is considered appropriate and “carried over” for my empirical assessment.

As depicted on page 4 of 11 of the architectural plans, car parking comprising 94 spaces are proposed by way of:

- 28 existing carparks west of the cellar door;
- 1 accessible car park south of the cellar door;
- 10 staff car parks south of the existing cellar door;
- 54 proposed car parks southwest of the cellar door; and
- 1 accessible car park southeast of the cellar door.

The provision of a mini bus drop-off zone 30 metres south of the cellar door is unaltered by the proposal and will allow for additional safe and convenient access for larger groups, with a large mini bus parking area allowing for buses to remain on-site if required between drop off and pick up times. The (approximately) 25 m by 25 m area will allow mini buses to exit the site in a forward direction.

Having operated the cellar door with the maximum of 75 persons onsite, and conducted both Crush and Winter Reds events, the applicant has advised that a significant number of people choose to either access the premises in mini buses or via a taxi or ride sharing services, or car pool.

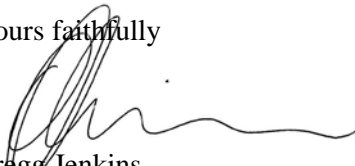
Therefore with 94 car parks, 1 car park per 4.25 persons is proposed, exceeding that of 1 per 5.35 persons as previously approved for the site.

### Summary

Having weighed up the nature of the development, the context of the site and locality, the scale of the building and the positive impact on primary production capacity I am of the opinion that the development is appropriate for the site and displays high levels of consistency with the Code.

The applicant looks forward to receiving Councils favourable consideration of the proposal and commencement of the mandatory referral to the EPA.

Yours faithfully



Gregg Jenkins  
**BUrb&RegPlan(Hons)**  
Heynen Planning Consultants  
M 0475 933 823  
T 8272 1433  
E [gregg@heynenplanning.com.au](mailto:gregg@heynenplanning.com.au)

**From:** [Gregg Jenkins](#)  
**To:** [Jed Hicks](#)  
**Subject:** Numbers  
**Date:** Thursday, 5 May 2022 3:09:00 PM

---

Increase Cellar Door from 75 to:

100 persons 5 times per week

200 persons 2 times per week (Saturday or Sunday)

Remove current functions and special events and replace with:

Function – maximum capacity 200 persons 1 time per week (Friday, Saturday or Sunday)

Restaurant – maximum capacity 200 persons 1 time per week (Friday, Saturday or Sunday)

Inclusive of the above (not in addition to) a maximum of 400 persons on site at any one time only on a Friday, Saturday or Sunday.

Regards

Gregg Jenkins

BUrb&RegPlan(Hons)

Heynen Planning Consultants

Suite 15, 198 Greenhill Road

EASTWOOD SA 5063

Celebrating 28 years of independent consulting

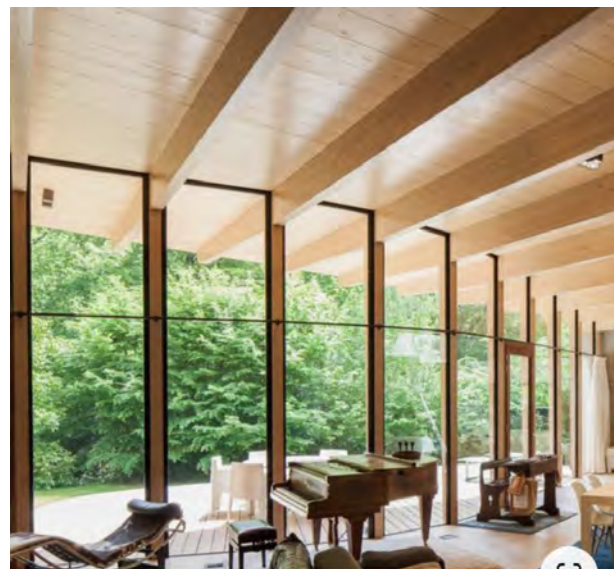
M 0475 933 823

T 8272 1433





ARTISTS IMPRESSION



MOOD BOARD

04.03.2021 PLANNING ISSUE  
15.07.2021 PLANNING REV 2

anatoly patrick  
architect

0401 387 789

PROPOSED  
FUNCTION CENTRE

382 SWAMP RD  
OAKBANK

FOR  
COBBS HILL ESTATE

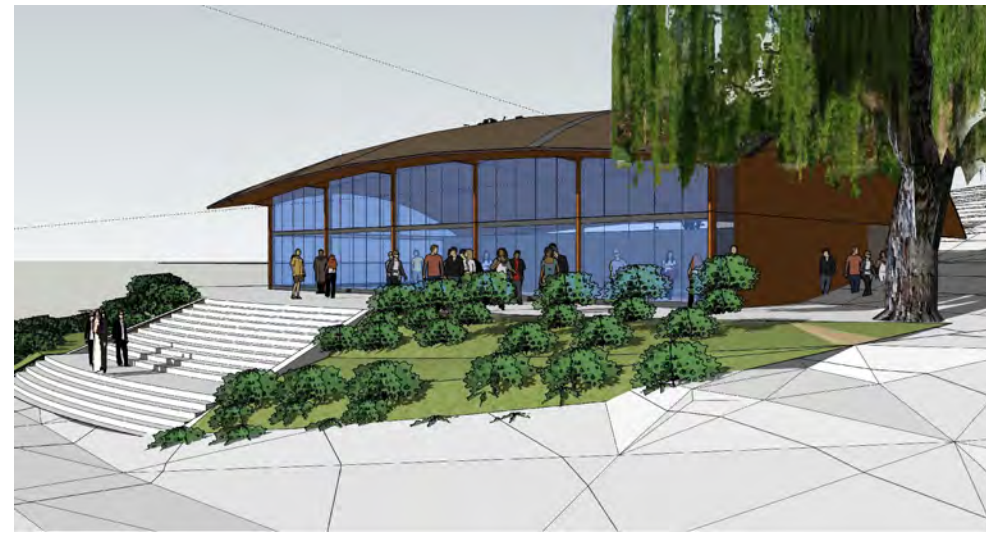
START DATE 2020  
JB NO 2014

**CONCEPT  
DESIGN**

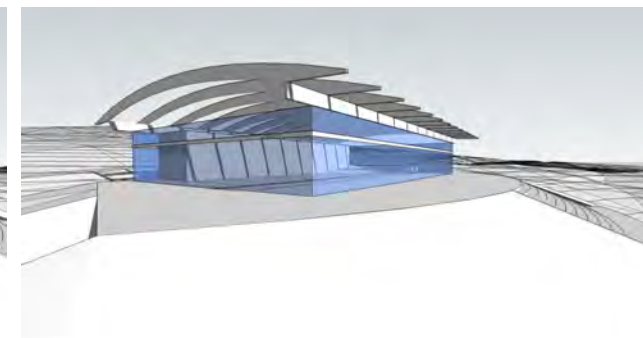
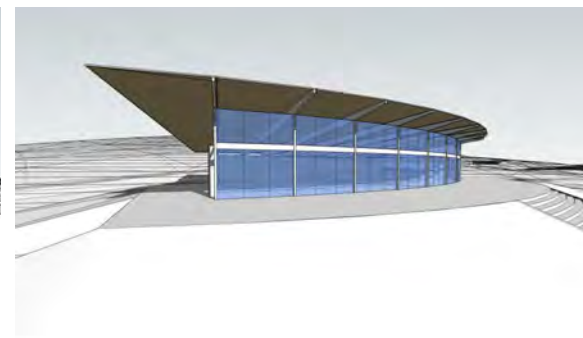
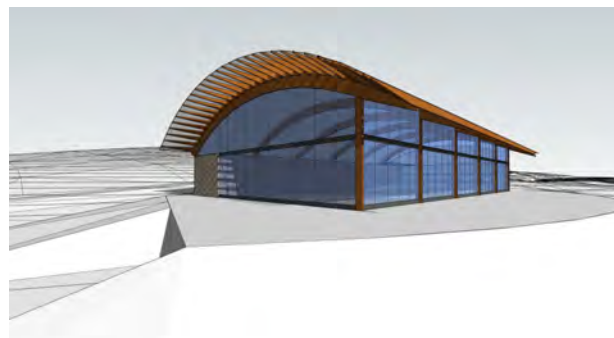
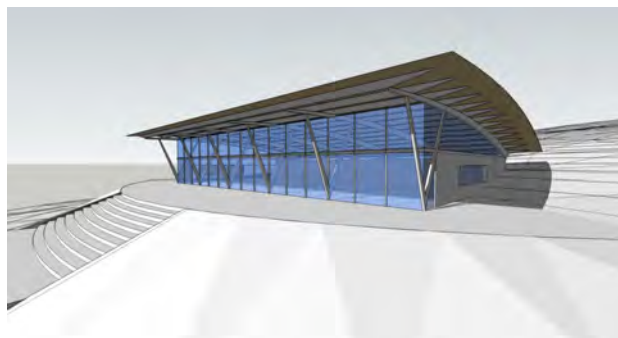
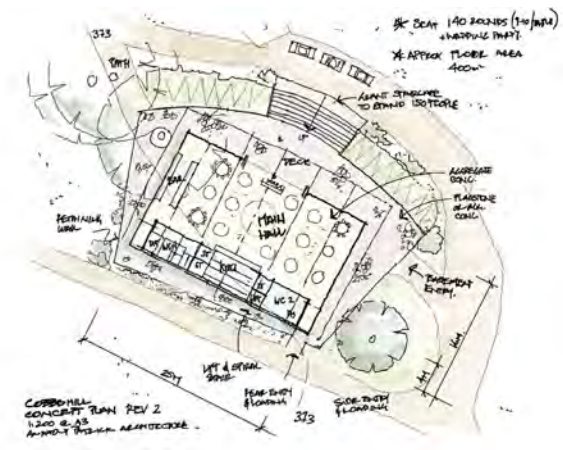
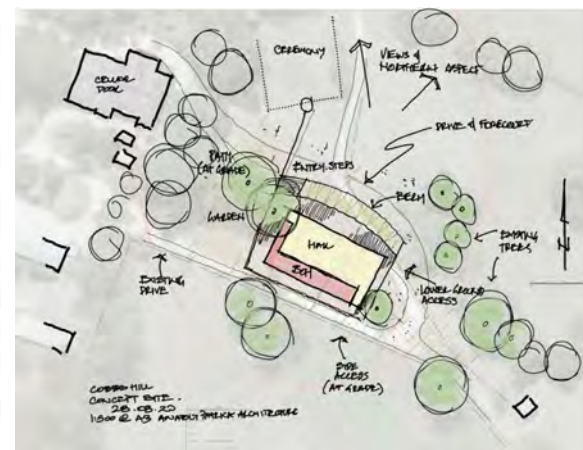
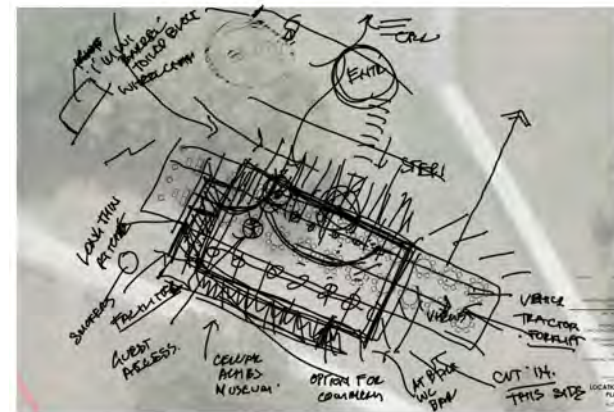
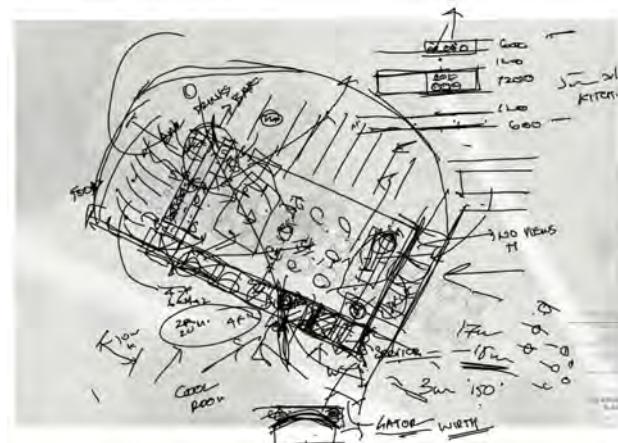
A/AA A

1:1 @ A3





DESIGN MODEL CONCEPT



DESIGN DEVELOPMENT

04.03.2021 PLANNING ISSUE  
15.07.2021 PLANNING REV 2

anatoly patrick  
architect

0401 387 789

PROPOSED  
FUNCTION CENTRE

382 SWAMP RD  
OAKBANK

FOR  
COBBS HILL ESTATE

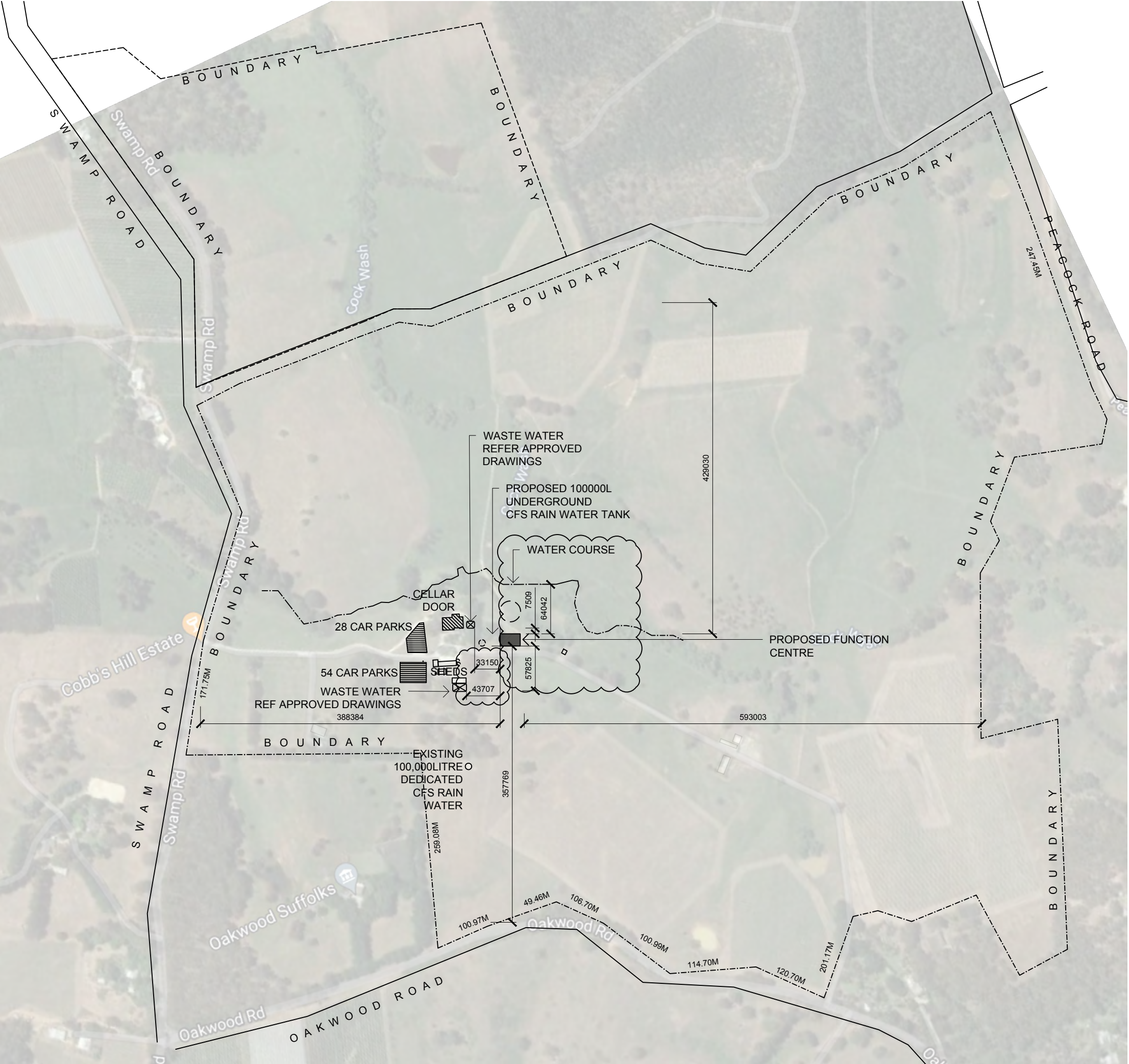
START DATE 2020  
JB NO 2014

**DESIGN  
DEVELOPMENT**

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- FIRE FIGHTING
- DEDICATED WATER TANKS PROVIDED FOR CFS USE
  - TURNING CIRCLE SUITABLE FOR FIRE TRUCK USE

04.03.2021 PLANNING ISSUE  
15.07.2021 PLANNING REV 2  
03.09.2021 DIMS TO WASTE WATER

anatoly patrick  
architect

0401 387 789

PROPOSED  
FUNCTION CENTRE  
  
382 SWAMP RD  
OAKBANK  
  
FOR  
COBBS HILL ESTATE

START DATE 2020  
JB NO 2014

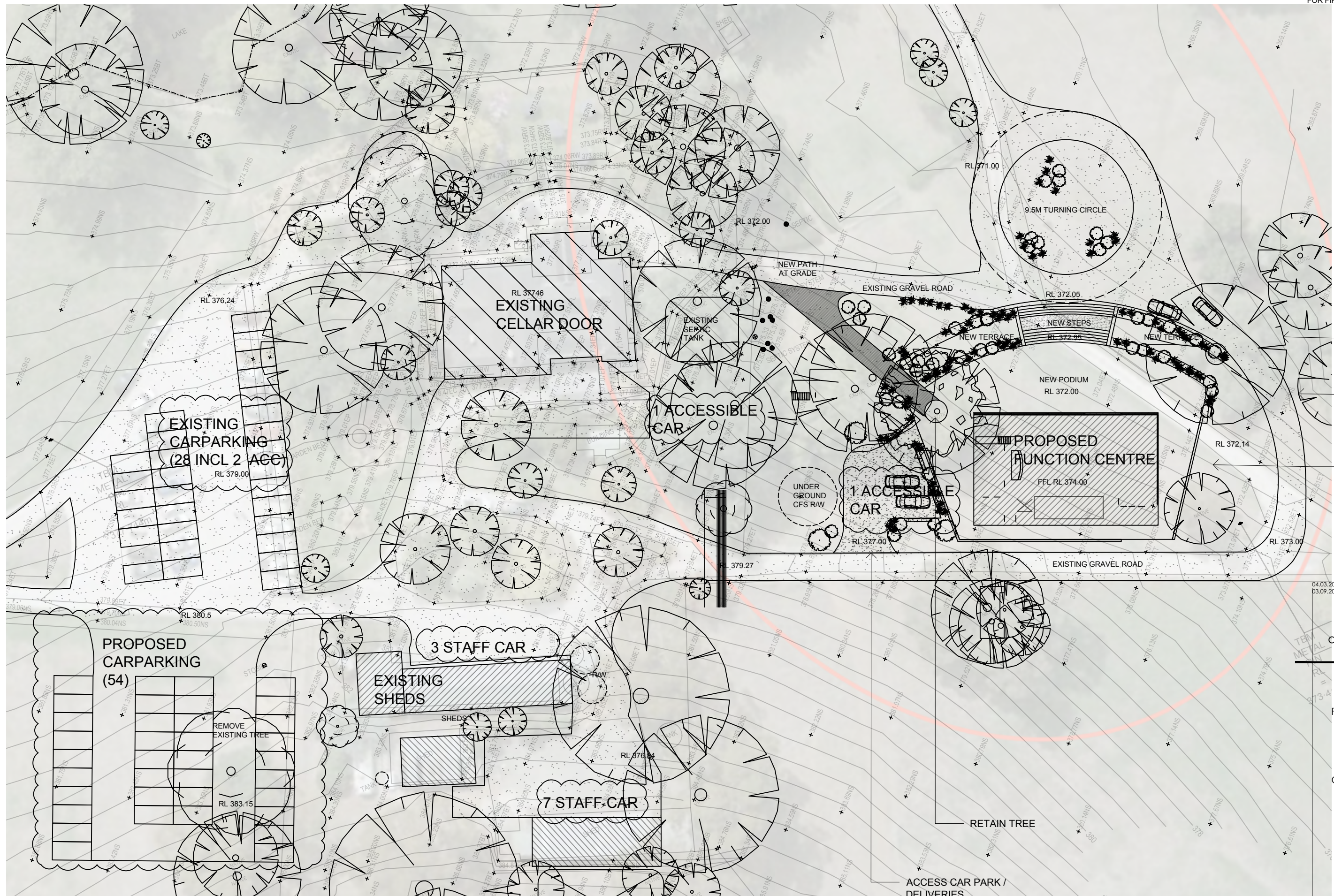
LOCATION  
PLAN

A/01 B

1:500 @ A3



FIRE FIGHTING  
· DEDICATED WATER TANKS  
· PROVIDED FOR CFS USE  
· TURNING CIRCLE SUITABLE  
· FOR FIRE TRUCK USE



REMOVE  
TREE  
(OLIVE)

REDIRECT  
GRAVEL  
ROAD

BASEMENT  
ACCESS

04.03.2021 PLANNING ISSUE  
03.09.2021 PLANNING REV 2

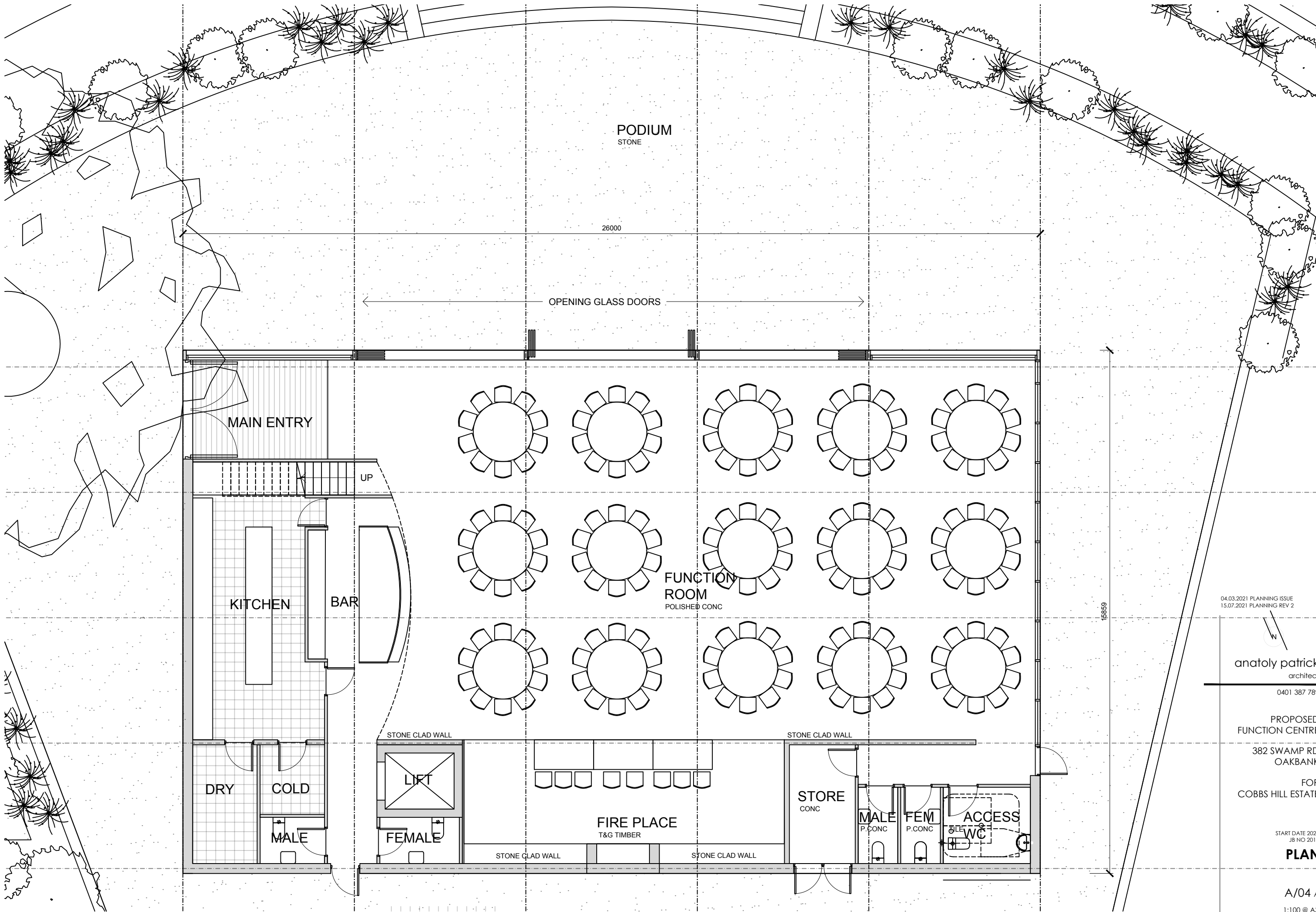
anatomy patrick  
architect  
0401 387 789

PROPOSED  
FUNCTION CENTRE  
382 SWAMP RD  
OAKBANK  
FOR  
COBBS HILL ESTATE

START DATE 2020  
JB NO 2014  
**LOCATION  
PLAN**  
A/02 B  
1:500 @ A3







04.03.2021 PLANNING ISSUE  
15.07.2021 PLANNING REV 2

anatoly patrick  
architect

0401 387 789

PROPOSED  
FUNCTION CENTRE

382 SWAMP RD  
OAKBANK

FOR  
COBBS HILL ESTATE

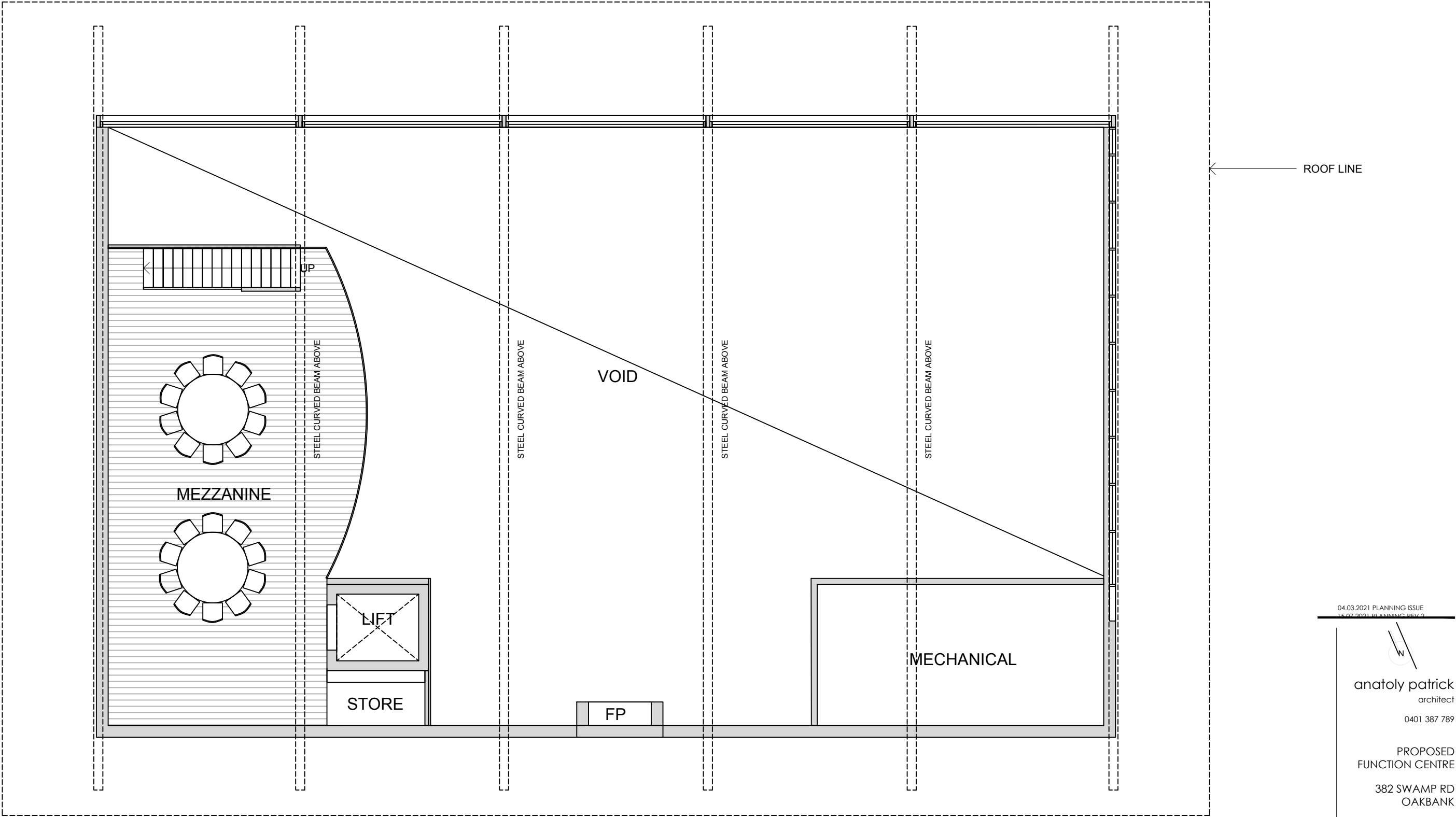
START DATE 2020  
JB NO 2014

PLAN

A/04 A


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FIRST FLOOR  
PLAN

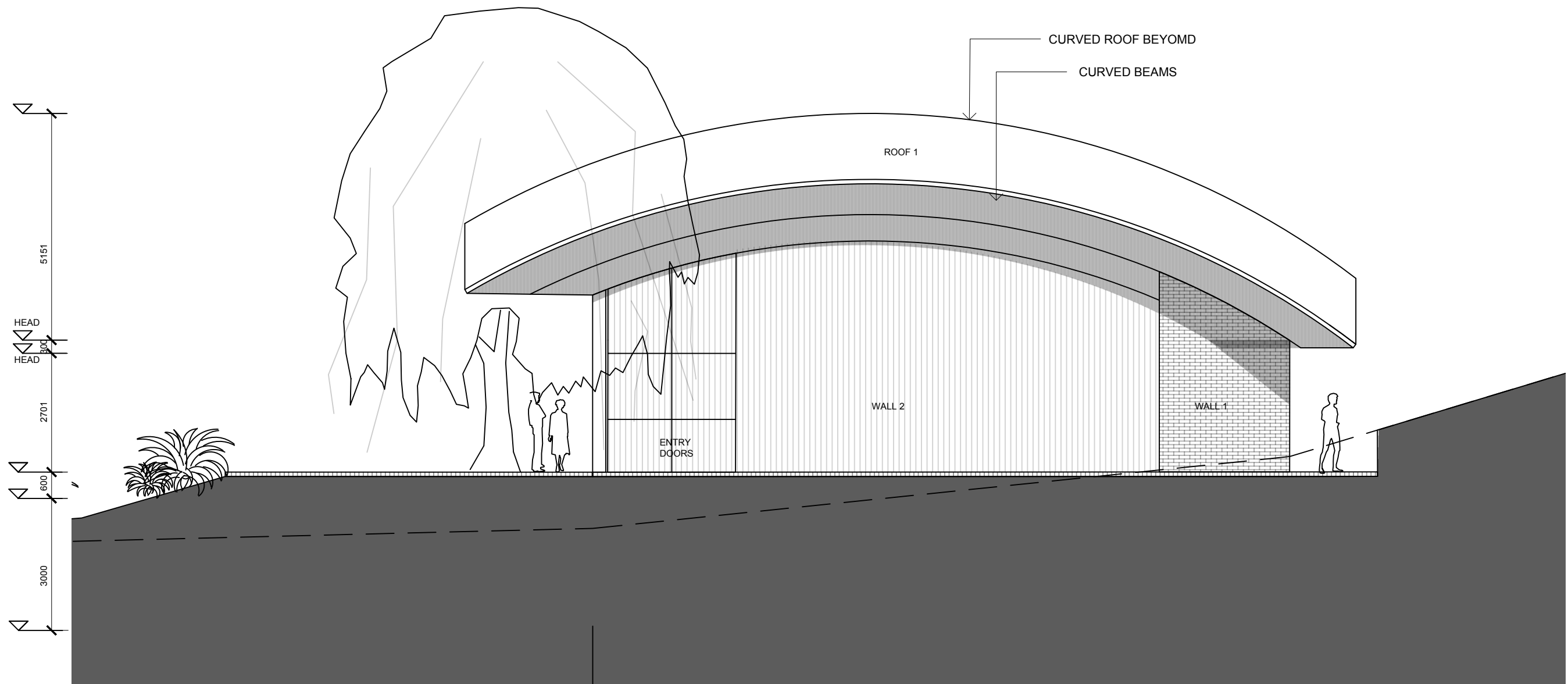
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15.07.2021 PLANNING REV. 2



anatoly patrick  
architect  
0401 387 789

PROPOSED  
FUNCTION CENTRE  
382 SWAMP RD  
OAKBANK  
FOR  
COBBS HILL ESTATE

START DATE 2020  
JB NO 2014  
**FIRST FLOOR  
PLAN**  
A/05 A  
1:100 @ A3



EAST ELEVATION

FINISHES SCHEDULE -  
REFER A/06

04.03.2021 PLANNING ISSUE  
15.07.2021 PLANNING REV 2

anatoly patrick  
architect

0401 387 789

PROPOSED  
FUNCTION CENTRE

382 SWAMP RD  
OAKBANK

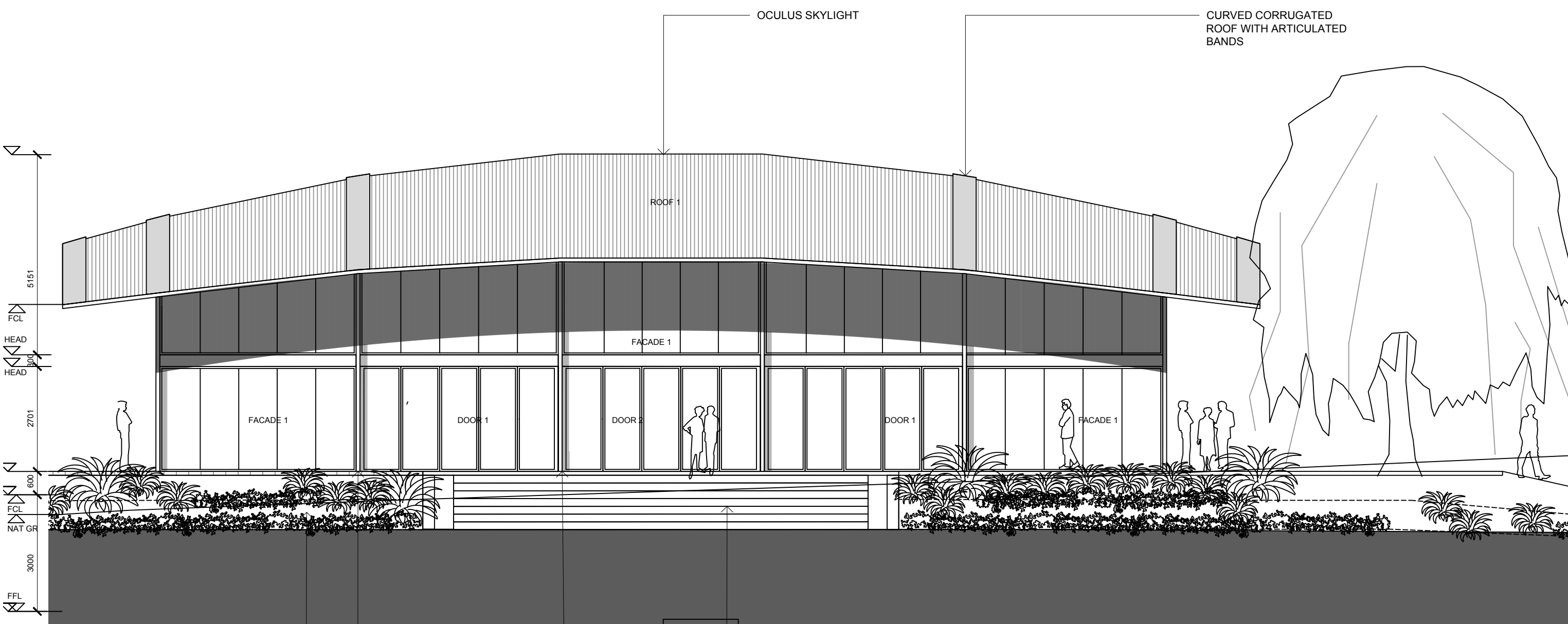
FOR  
COBBS HILL ESTATE

START DATE 2020  
JB NO 2014

**ELEVATION 02**

A/07 A

1:100 @ A3



NORTH ELEVATION

FINISHES		
WALL 1	PAINTED BRICK	OFF WHITE
WALL 2	TIMBER OAK	CLEAR COAT
FACADE 1	P/COAT ALUMINIUM FRAME FIXED	MATT BLACK
DOORS 1	P/COAT ALUMINIUM FRAME STACKING	MATT BLACK
DOORS 2	FRAMELESS CAFE STACKING	
ROOF	CORRUGATED IRON	ARKAROO LA
ROOF STRUCTURE	CURVED GLUE LAMINATED BEAMS	CLEAR COAT

04.03.2021 PLANNING ISSUE  
03.09.2021 PLANNING REV 2

anatoly patrick  
architect

0401 387 789

PROPOSED  
FUNCTION CENTRE

382 SWAMP RD  
OAKBANK

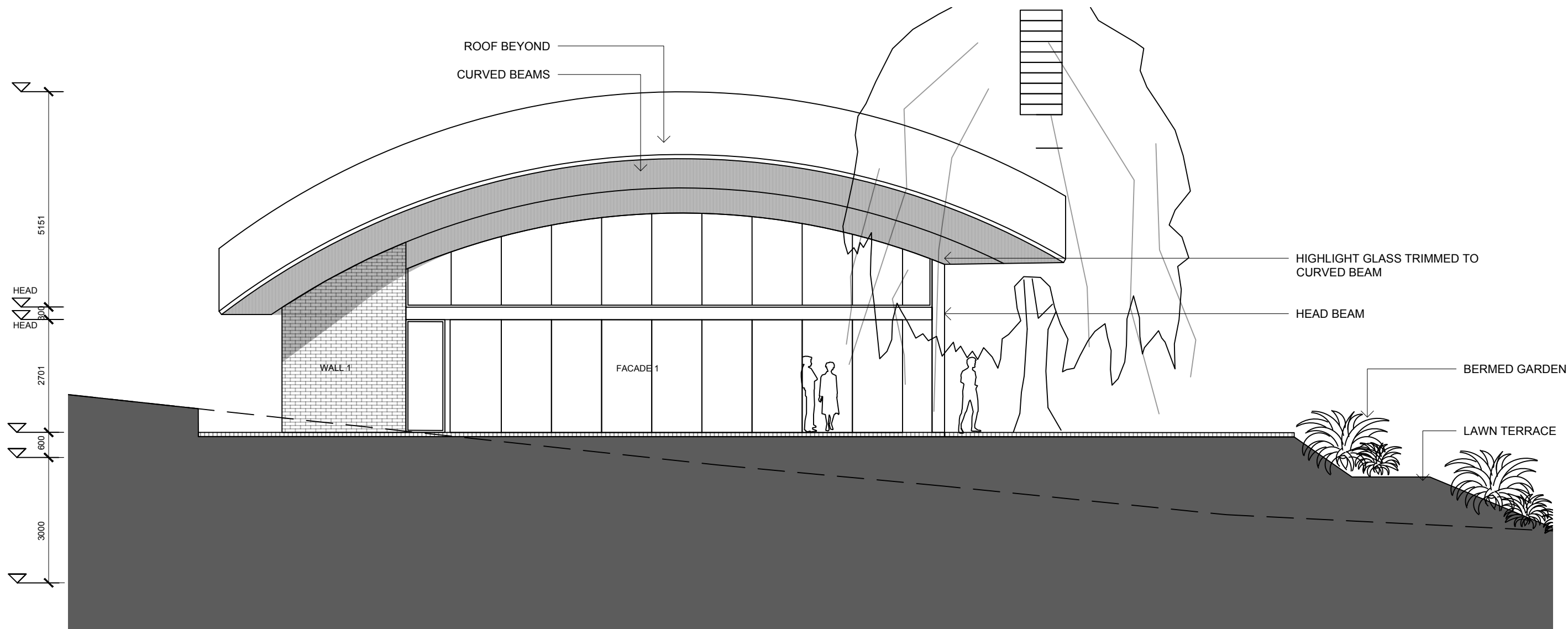
FOR  
COBBS HILL ESTATE

START DATE 2020  
JB NO 2014

ELEVATION 01

A/06 B

1:100 @ A3



WEST ELEVATION

FINISHES SCHEDULE -  
REFER A/06

04.03.2021 PLANNING ISSUE  
15.07.2021 PLANNING REV 2

anatoly patrick  
architect

0401 387 789

PROPOSED  
FUNCTION CENTRE

382 SWAMP RD  
OAKBANK

FOR  
COBBS HILL ESTATE

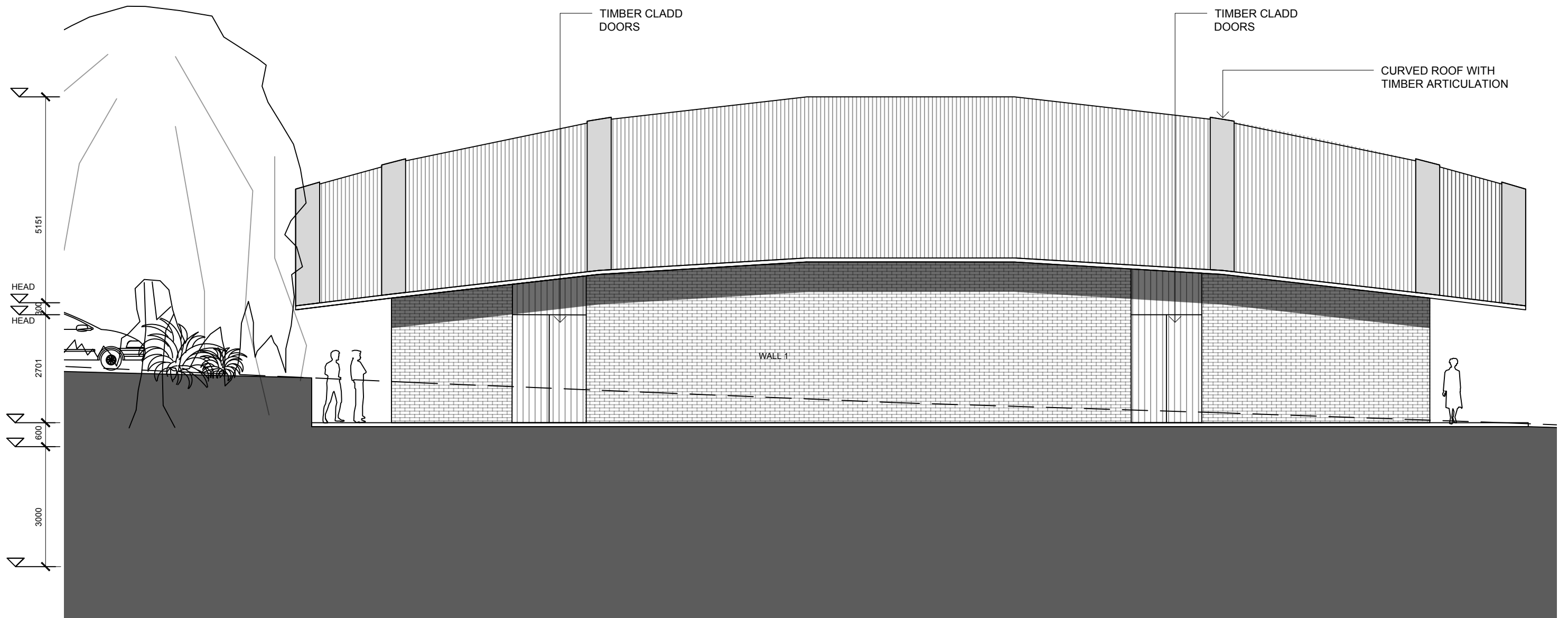
START DATE 2020  
JB NO 2014

**ELEVATION 03**

A/08 A

1:100 @ A3





SOUTH ELEVATION

FINISHES SCHEDULE -  
REFER A/06

04.03.2021 PLANNING ISSUE  
15.07.2021 PLANNING REV 2

anatoly patrick  
architect

0401 387 789

PROPOSED  
FUNCTION CENTRE

382 SWAMP RD  
OAKBANK

FOR  
COBBS HILL ESTATE

START DATE 2020  
JB NO 2014

**ELEVATION 04**

A/09 A

1:100 @ A3



28 July 2022

Environment Protection Authority  
ATT: Robert de Zeeuw

T 08 8271 7944  
Suite 15, 198 Greenhill Road  
EASTWOOD SA 5063

ABN 54 159 265 022  
ACN 159 265 022

**By Upload**

Dear Robert

**RE: 21017786 – 382B SWAMP ROAD, OAKBANK**

Further to the EPA's follow up request for information I provide:

- (a) Location Plan, prepared by Anatoly Patrick Architect, Rev. A/02c; and
- (b) External Works Stormwater Drainage, prepared by Clive Steele Partners Pty Ltd, drawings 20126 – SK1, Rev. P2.

Additionally, I provide the following response from the applicant in relation to EPA points 6, 8 and 9.

*6. Provide details demonstrating how runoff would be managed during the construction of the function centre. If a shallow groundwater table is present on site, explain how any dewatering would be managed in accordance with EPA's guideline Environmental management of dewatering during construction activities*  
([https://www.epa.sa.gov.au/files/12275\\_guide\\_dewatering.pdf](https://www.epa.sa.gov.au/files/12275_guide_dewatering.pdf)).

“Stormwater Runoff

The largest environmental risk from construction on this site will be sediment making its way into the waterway during high rainfall events. The following strategies will be taken to minimise this risk:

- Provide diversion banks above the site to divert water away from the site on any uphill slopes to the South of the building and wastewater areas
- Site to be stabilised and sealed with compacted rubble as soon as practical and before any forecast wet weather events
- Sediment fence constructed of straw bales on the downstream side (north) during construction
- Regular inspection (twice daily), during weather events will take place and immediate sediment reducing activities will be partaken in the event of any sediment movement.

Dewatering

While we feel that this question was more relevant to the build when the underground wine store, there still is a slight risk that groundwater may be encountered during construction. The groundwater from other sites on the property is safe for drinking so water treatment is unlikely to be necessary. If in the event that groundwater seepage is detected, work is to halt and site supervisor is to be advised. Water seepage is to be tested and directed into an appropriately sized soakage pit if deemed necessary.”

*8. Provide further details on how roof runoff from the function centre would be sustainably managed (e.g., re-use of this water in the ablution facilities).*

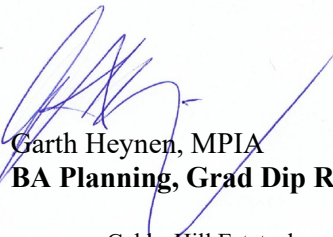
“Runoff from the roof of the function centre will be directed to 150 KL tank and recycled through the ablution facilities and used on gardens.”

*9. Provide further details on how surface stormwater flows would be sustainably managed (for example directed to the proposed landscaped areas on the site, rather than directing all runoff to soakage pits).*

“The proposed car park and driveway is proposed to be a gravel surface which is a permeable surface that will allow water to infiltrate into the soil. During the very heavy rainfall, excess stormwater runoff that will not be able to infiltrate into the soil quickly enough will be directed to the soak pits. The use of the permeable surface is seen as a sustainable design approach.”

The applicant looks forward to the EPA’s favourable consideration of these additional details.

Yours faithfully,



Garth Heynen, MPIA

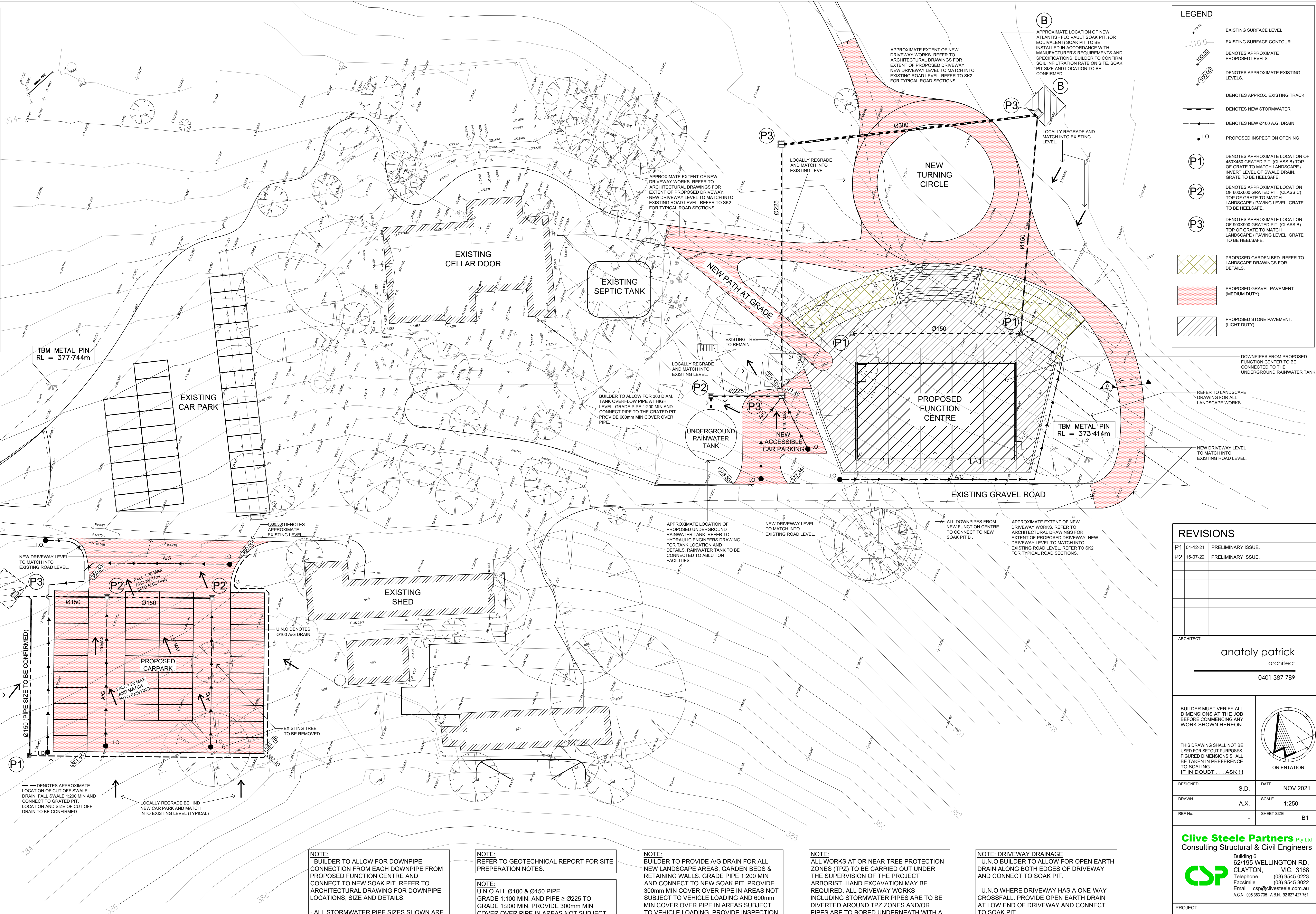
**BA Planning, Grad Dip Regional & Urban Planning, Grad Dip Property**

cc. Cobbs Hill Estate, by email



CIVIL DESIGN NOTES

1. ALL STORMWATER WORKS AND MATERIALS TO BE IN ACCORDANCE WITH AS 3900.3.
2. UNLESS NOTED OTHERWISE, ALL DN100 STORMWATER PIPES TO BE UPVC CLASS SN10, ALL  $\geq$  DN150 STORMWATER PIPES TO BE UPVC CLASS SN8 AND ALL  $\geq$  DN375 STORMWATER PIPES TO BE RUBBER RING JOINTED REINFORCED CONCRETE IN ACCORDANCE WITH AS 1260 AND AS 3725.
3. REFER TO ARCHITECTURAL DRAWINGS FOR ALL ROOF GUTTER, DOWNPIPE, SUMP AND OVERFLOW MATERIAL, SIZE AND LOCATION.
4. REFER TO ARCHITECTURAL DRAWINGS FOR RAINWATER TANK LOCATION AND DETAIL.
5. REFER TO LANDSCAPE DRAWINGS FOR PLANTING DETAILS AND TREE PROTECTION ZONES. ALL WORK AT OR NEAR TREE PROTECTION ZONES TO BE CARRIED OUT UNDER THE SUPERVISION OF THE PROJECT ARBORIST. HAND EXCAVATION MAY BE REQUIRED.
6. BUILDER TO OBTAIN ALL WORK PERMITS REQUIRED FROM AUTHORITIES.
7. BUILDER TO ALLOW FOR TOP OF EXISTING SERVICES PITS TO BE ADJUSTED TO SUIT NEW PAVING AND/OR LANDSCAPE LEVELS.
8. BUILDER TO IDENTIFY ALL EXISTING SERVICES LOCATED WITHIN THE VICINITY OF NEW STORMWATER WORKS AND ENSURE PROPOSED STORMWATER DOES NOT INTERFERE WITH ANY EXISTING SERVICES BEFORE COMMENCING CONSTRUCTION.
9. BUILDER TO CO-ORDINATE ALL SERVICES CROSSING STORMWATER.
10. CARE TO BE TAKEN WHEN EXCAVATING AT OR NEAR EXISTING SERVICES. HAND EXCAVATION MAYBE REQUIRED. LIAISE WITH RELEVANT AUTHORITY.
11. ALL SURFACE LEVELS SHOWN ON CIVIL DRAWINGS ARE TO AUSTRALIAN HEIGHT DATUM (AHD), REFER TO PLAN OF SURVEY PREPARED BY WEBER FRANKIW SURVEYORS. REFERENCE NO.8226.
12. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
13. CIVIL DRAWINGS TO BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS FOR THIS PROJECT.
14. CIVIL DRAWINGS ARE NOT TO BE USED FOR DIMENSIONS OR SETOUT PURPOSES. REFER TO ARCHITECT'S DRAWINGS FOR SETOUT INSTRUCTIONS.



**LEGEND**

EXISTING SURFACE LEVEL  
EXISTING SURFACE CONTOUR  
DENOTES APPROXIMATE PROPOSED LEVELS.  
DENOTES APPROXIMATE EXISTING LEVELS.  
DENOTES APPROX. EXISTING TRACK  
DENOTES NEW STORMWATER  
DENOTES NEW Ø100 A/G DRAIN  
I.O. PROPOSED INSPECTION OPENING  
P1 DENOTES APPROXIMATE LOCATION OF 450X450 GRATED PIT. (CLASS B) TOP OF GRATE TO MATCH LANDSCAPE / INVERT LEVEL OF SWALE DRAIN. GRATE TO BE HEELS SAFE.  
P2 DENOTES APPROXIMATE LOCATION OF 600X600 GRATED PIT. (CLASS C) TOP OF GRATE TO MATCH LANDSCAPE / PAVING LEVEL. GRATE TO BE HEELS SAFE.  
P3 DENOTES APPROXIMATE LOCATION OF 800X900 GRATED PIT. (CLASS B) TOP OF GRATE TO MATCH LANDSCAPE / PAVING LEVEL. GRATE TO BE HEELS SAFE.  
PROPOSED GARDEN BED. REFER TO LANDSCAPE DRAWINGS FOR DETAILS.  
PROPOSED GRAVEL PAVEMENT. (MEDIUM DUTY)  
PROPOSED STONE PAVEMENT. (LIGHT DUTY)  
DOWNPIPES FROM PROPOSED FUNCTION CENTRE TO BE CONNECTED TO THE UNDERGROUND RAINWATER TANK.  
REFER TO LANDSCAPE DRAWING FOR ALL LANDSCAPE WORKS.  
NEW DRIVEWAY LEVEL TO MATCH INTO EXISTING ROAD LEVEL.

REVISIONS		
P1	01-12-21	PRELIMINARY ISSUE
P2	15-07-22	PRELIMINARY ISSUE

ARCHITECT  
**anatomy patrick**  
architect  
0401 387 789

BUILDER MUST VERIFY ALL DIMENSIONS AT THE JOB BEFORE COMMENCING ANY WORK SHOWN HEREON.

THIS DRAWING SHALL NOT BE USED FOR SETOUT PURPOSES. FIGURED DIMENSIONS SHALL BE TAKEN IN PREFERENCE TO SCALING. IF IN DOUBT... ASK !!

ORIENTATION

DESIGNED	S.D.	DATE	NOV 2021
DRAWN	A.X.	SCALE	1:250
REF No.	-	SHEET SIZE	B1

**Clive Steele Partners Pty Ltd**  
Consulting Structural & Civil Engineers

Building 6  
62/195 WELLINGTON RD,  
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Facsimile (03) 9545 3022  
Email csp@clivesteele.com.au  
A.C.N. 005 363 753 A.B.N. 92 627 427 761

PROJECT  
**PROPOSED FUNCTION CENTRE**  
382 SWAMP RD OAKBANK

DRAWING  
**EXTERNAL WORKS**  
**STORMWATER DRAINAGE**

DRAWING No.	20126 - SK1	REV	P2
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**NOTE:**  
- BUILDER TO ALLOW FOR DOWNPIPE CONNECTION FROM EACH DOWNPIPE FROM PROPOSED FUNCTION CENTRE AND CONNECT TO NEW SOAK PIT. REFER TO ARCHITECTURAL DRAWING FOR DOWNPIPE LOCATIONS, SIZE AND DETAILS.  
- ALL STORMWATER PIPE SIZES SHOWN ARE TO BE CONFIRMED.

**NOTE:**  
ALL CAR PARKS TO GRADE 1:100 MIN AND/OR 1:40 MAX FOR ACCESSIBLE PARKING. GRADE 1:20 MAX FOR ALL OTHER PARKING.

**NOTE:**  
REFER TO GEOTECHNICAL REPORT FOR SITE PREPARATION NOTES.

**NOTE:**  
U.N.O ALL Ø100 & Ø150 PIPE GRADE 1:100 MIN. AND PIPE  $\geq$  Ø225 TO GRADE 1:200 MIN. PROVIDE 300mm MIN COVER OVER PIPE IN AREAS NOT SUBJECT TO VEHICLE LOADING AND 600mm MIN COVER OVER PIPE IN AREAS SUBJECT TO VEHICLE LOADING.

**NOTE:**  
LONGITUDINAL DRIVEWAY GRADE TO COMPLY WITH CFS ACCESS REQUIREMENTS.

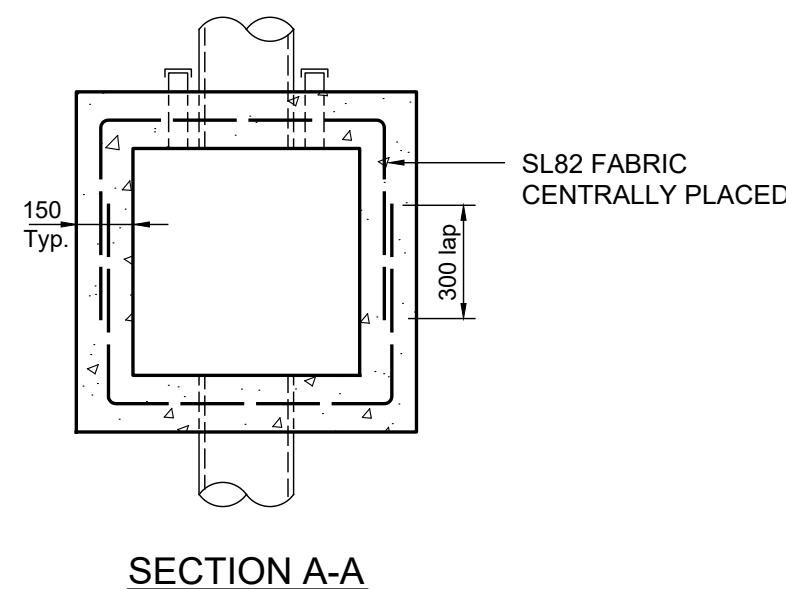
**NOTE:**  
BUILDER TO PROVIDE A/G DRAIN FOR ALL NEW LANDSCAPE AREAS, GARDEN BEDS & RETAINING WALLS. GRADE PIPE 1:200 MIN AND CONNECT TO NEW SOAK PIT. PROVIDE 300mm MIN COVER OVER PIPE IN AREAS NOT SUBJECT TO VEHICLE LOADING AND 600mm MIN COVER OVER PIPE IN AREAS SUBJECT TO VEHICLE LOADING. PROVIDE INSPECTION OPENING (I.O.) AT ALL UPSTREAM END OF PIPES AND AT 90.0m MAX INTERVAL. A/G DRAIN BEHIND ALL RETAINING WALLS TO BE WRAPPED IN GEOTEXTILE FABRIC.

**NOTE:**  
ALL WORKS AT OR NEAR TREE PROTECTION ZONES (TPZ) TO BE CARRIED OUT UNDER THE SUPERVISION OF THE PROJECT ARBORIST. HAND EXCAVATION MAY BE REQUIRED. ALL DRIVEWAY WORKS INCLUDING STORMWATER PIPES ARE TO BE DIVERTED AROUND TPZ ZONES AND/OR PIPES ARE TO BORED UNDERNEATH WITH A MINIMUM COVER OF 600mm TO TOP OF PIPE FROM NATURAL GROUND LEVEL TO THE SATISFACTION OF THE PROJECT ARBORIST.

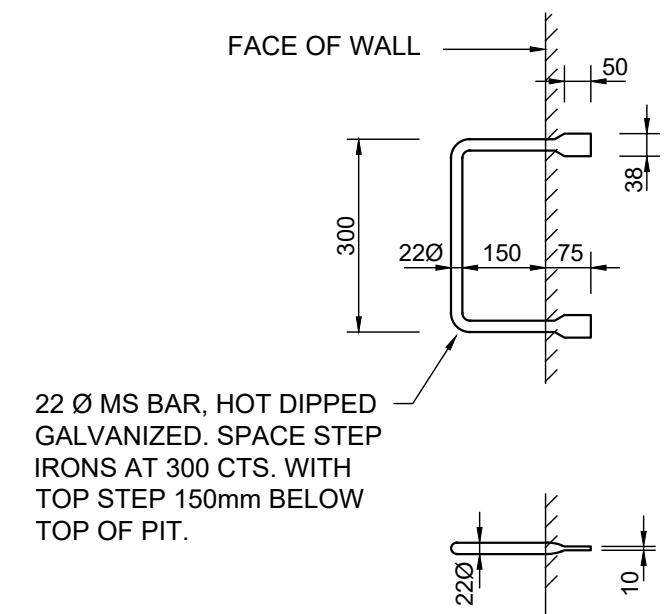
**NOTE: DRIVEWAY DRAINAGE**  
- U.N.O BUILDER TO ALLOW FOR OPEN EARTH DRAIN ALONG BOTH EDGES OF DRIVEWAY AND CONNECT TO SOAK PIT.  
- U.N.O WHERE DRIVEWAY HAS A ONE-WAY CROSSFALL. PROVIDE OPEN EARTH DRAIN AT LOW END OF DRIVEWAY AND CONNECT TO SOAK PIT.

PRELIMINARY



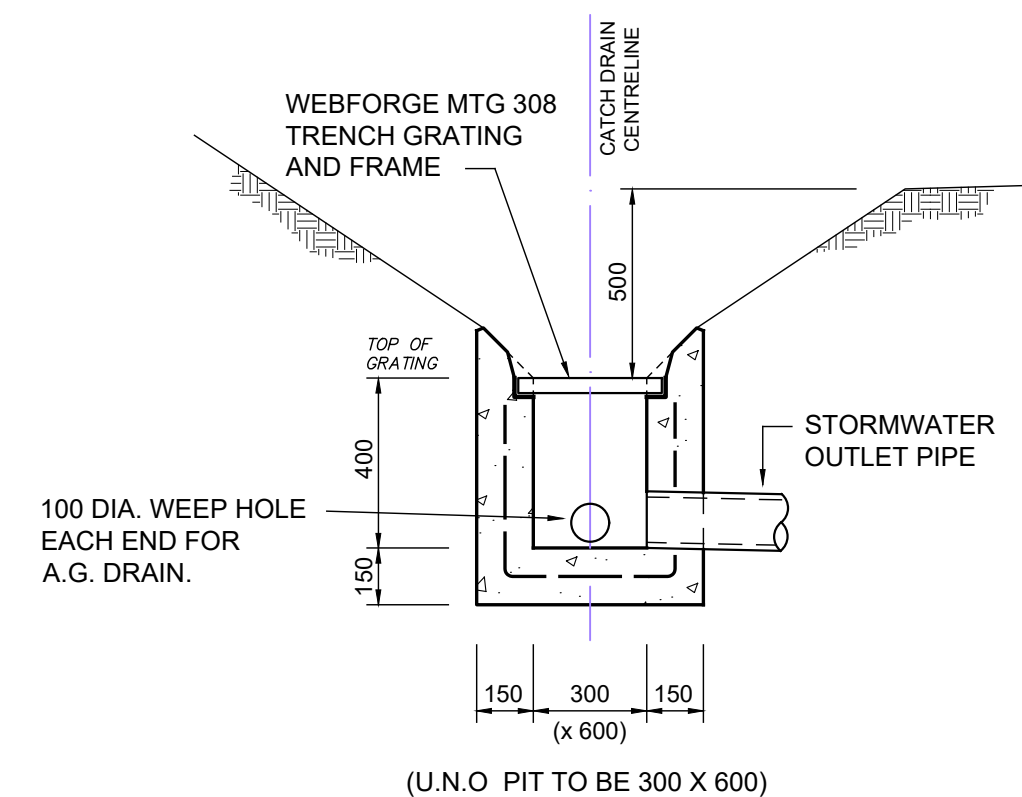


NOTE:  
STEP IRONS REQUIRED WHERE PIT  
DEPTH EXCEEDS 1200mm. (TYPICAL)

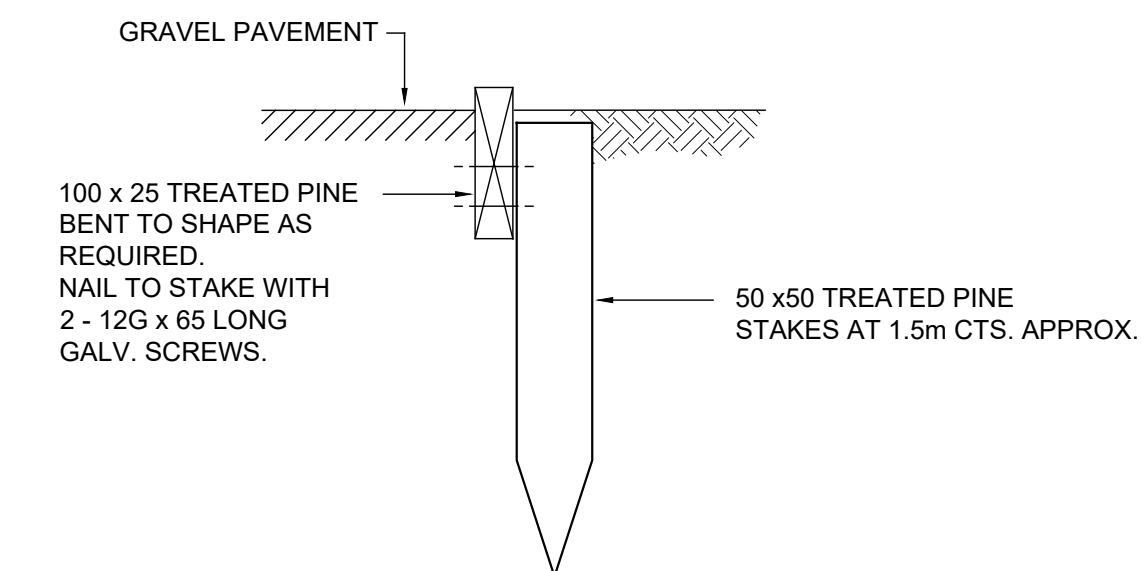


**NOTE:**

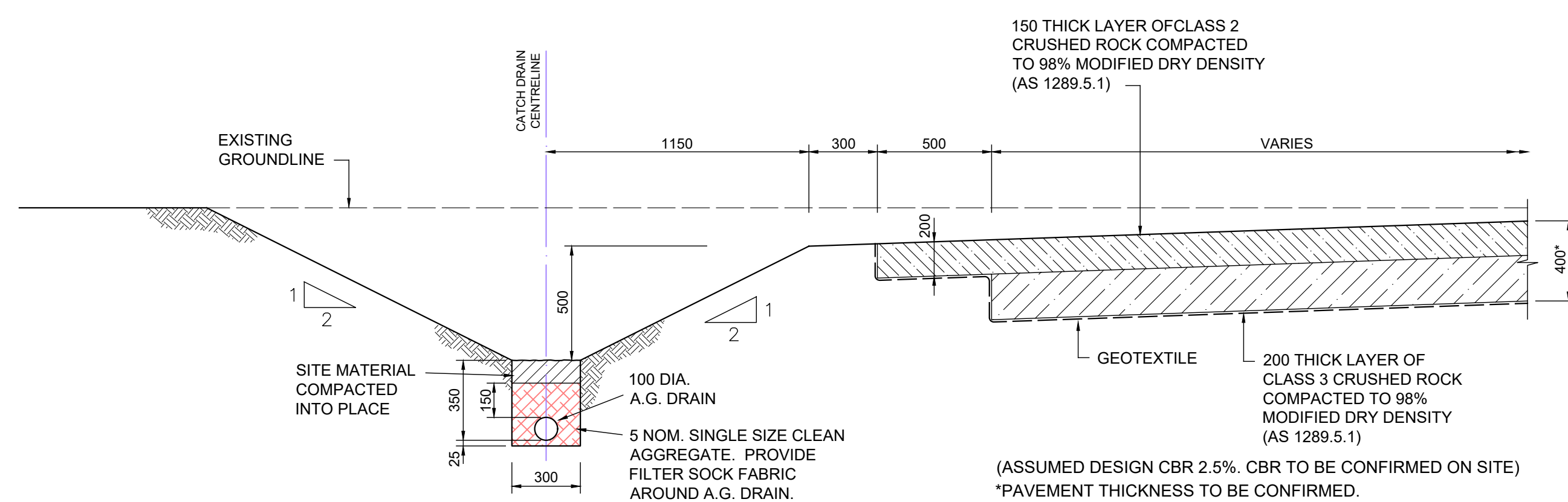
1. PITS DEEPER THAN 1200 TO BE FITTED WITH STEP IRONS.
2. PLACE STEP IRONS IN WALL WHICH IS CLEAR OF OPENINGS.



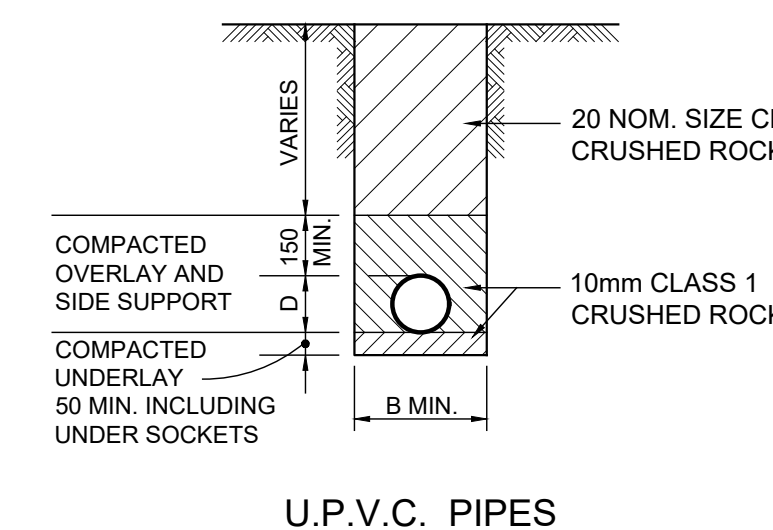
### CATCH PIT DETAIL



TIMBER EDGE DETAIL  
1:5

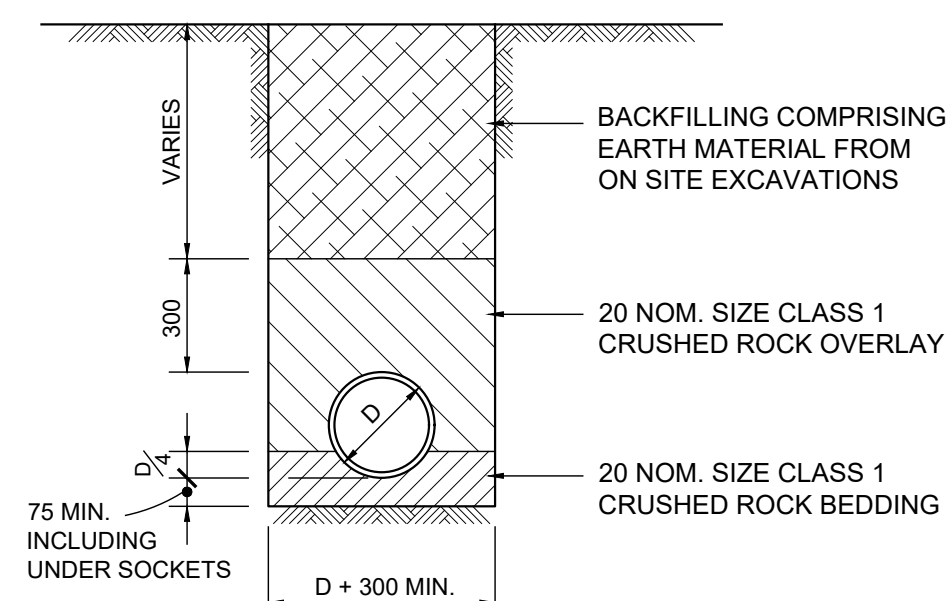


TYPICAL CATCH DRAIN DETAIL  
1:20

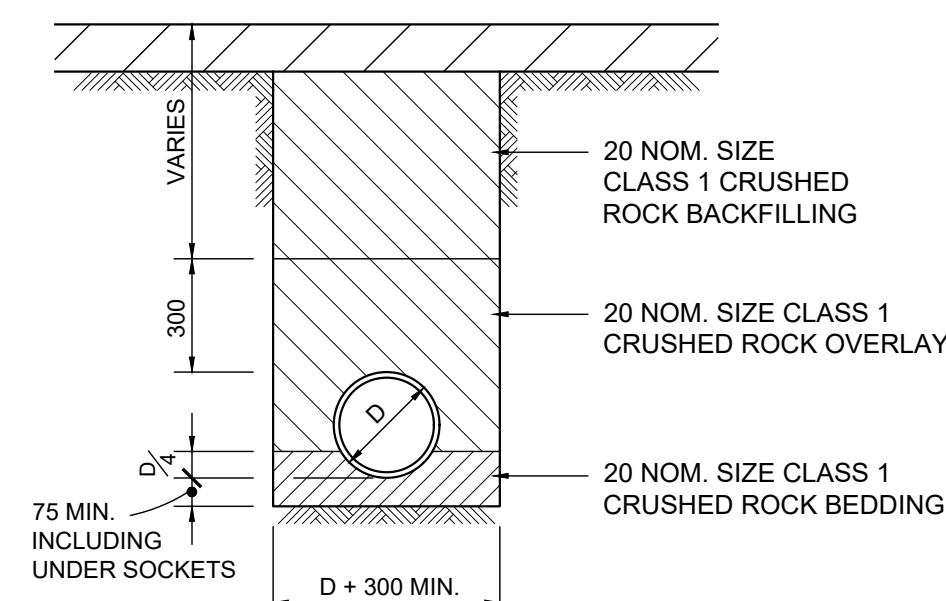


### U.P.V.C. PIPES

- NOTE:**
1. B MIN. = D + 200mm FOR 100mm  
NOMINAL SIZE AND ABOVE OR  
2D FOR SMALLER THAN 100mm.
  2. BEDDING OVERLAY AND BACKFILL OF TRENCH  
TO BE PLACED IN LAYERS NOT EXCEEDING  
150mm LOOSE THICKNESS AND COMPACTED  
TO NOT LESS THAN 98% OF THE MAXIMUM  
DRY DENSITY. (AS 1289 5.1.1.0)



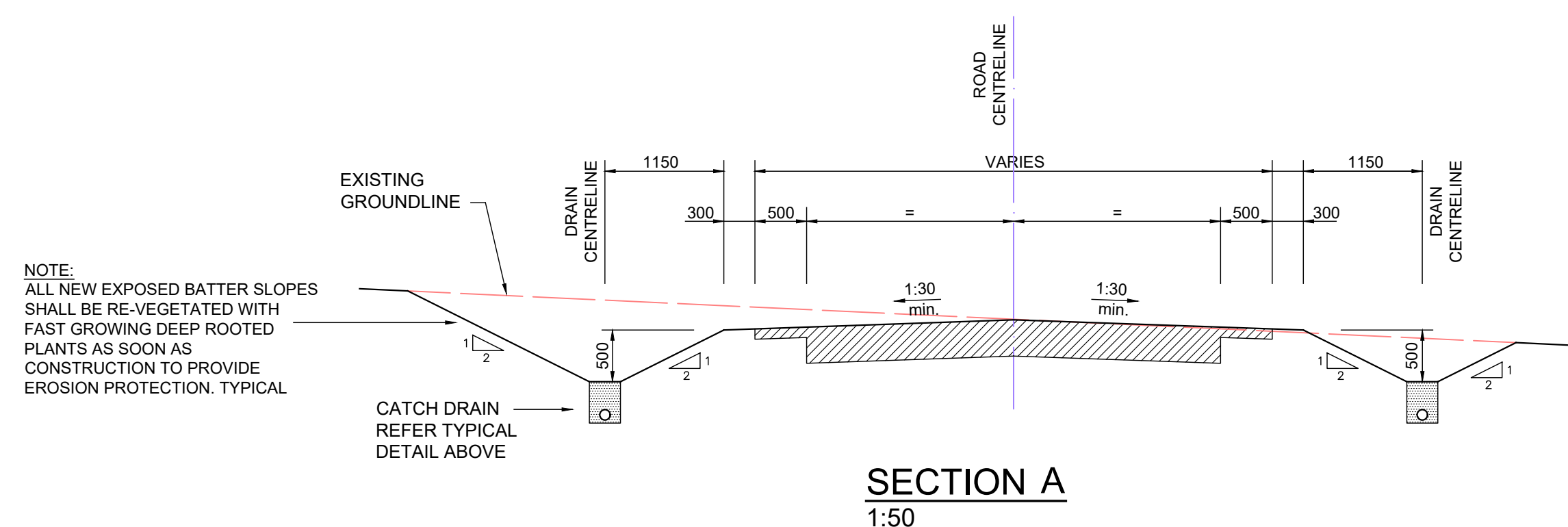
## REINFORCED CONCRETE PIPES

TRENCHES OTHER THAN BELOW  
 BEACHES OF ELEMENTS

## REINFORCED CONCRETE PIPES

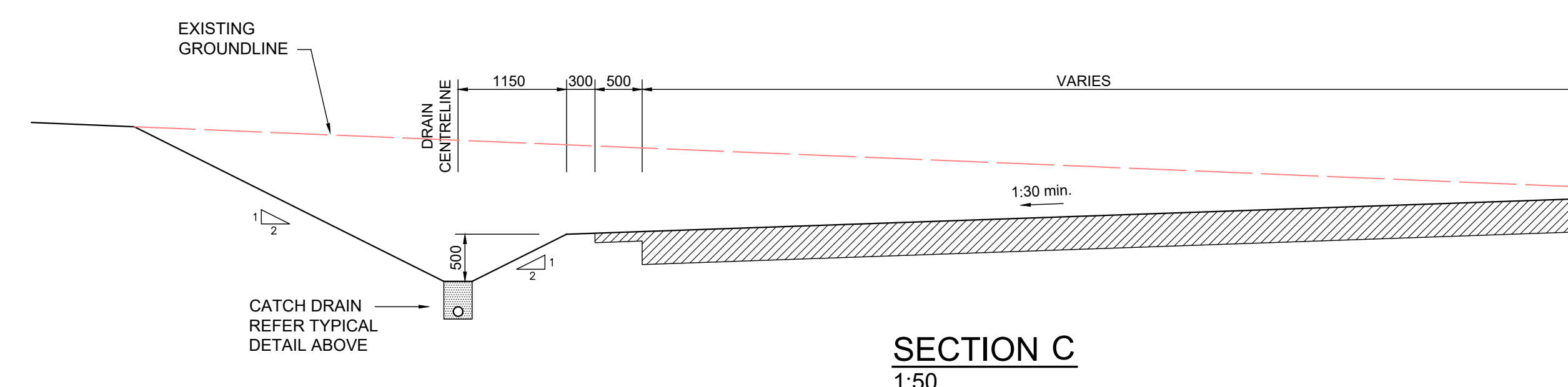
TRENCHES LOCATED WITHIN 300mm  
OF THE FOUNDATION SUPPORT ZONE  
FOR STRUCTURES OR PAVEMENTS

## TYPICAL PIPE TRENCH DETAILS



SECTION A  
1:50

TYPICAL ROAD SECTION - TWO WAY CROSSFALL

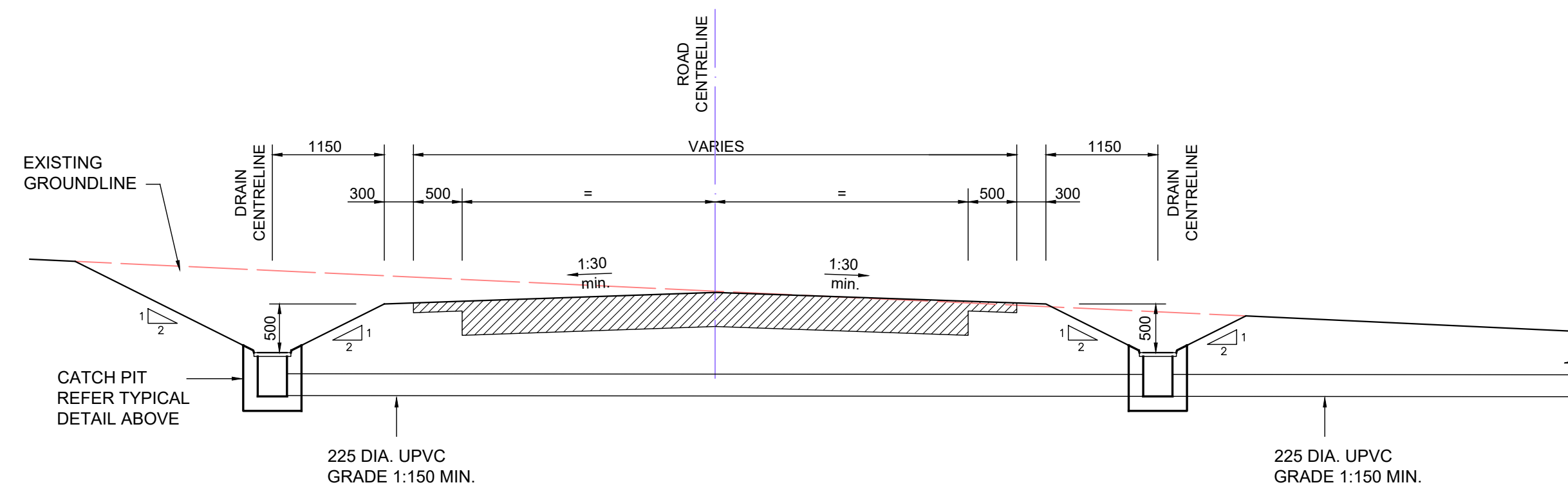


SECTION C

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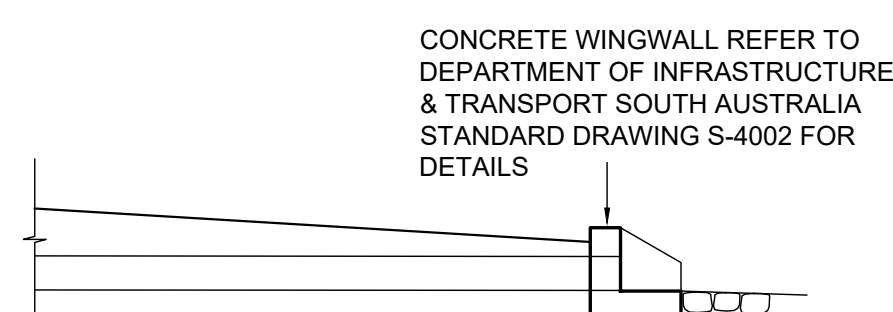
1:50

TYPICAL ROAD SECTION - ONE WAY CROSSEALL ALONG BUILDING



**SECTION B**  
1:50

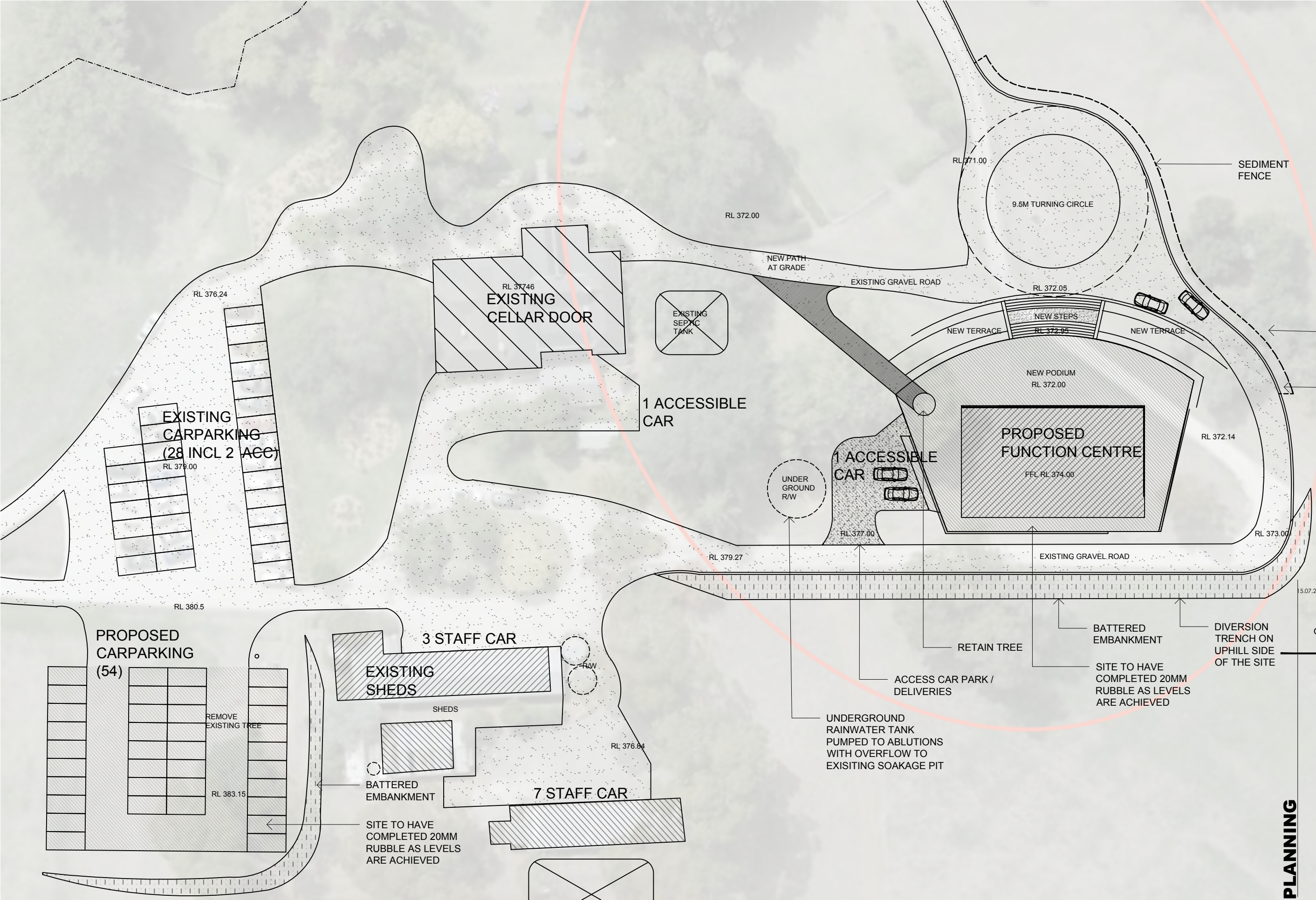
TYPICAL ROAD SECTION - TWO WAY CROSSFALL



<h1>REVISIONS</h1>	
P1	01-12-19 PRELIMINARY ISSUE
<div>ARCHITECT</div> <div>anatology patrick</div> <div>architect</div> <div>0401 387 789</div>	
<p>BUILDER MUST VERIFY ALL DIMENSIONS AT THE JOB BEFORE COMMENCING ANY WORK SHOWN HEREON.</p> <p>THIS DRAWING SHALL NOT BE USED FOR SETOUT PURPOSES. FIGURED DIMENSIONS SHALL BE TAKEN IN PREFERENCE TO SCALING . . . . . IF IN DOUBT . . . ASK !!</p>	
DESIGNED	S.D. DATE NOV 2021
DRAWN	A.X. SCALE
REF No.	- SHEET SIZE B1
<div> <div>Clive Steele Partners <small> Pty Ltd</small></div> <div>Consulting Structural &amp; Civil Engineers</div> <div> <div> Building 6  62/195 WELLINGTON RD.  CLAYTON, VIC. 3168  Telephone (03) 9545 0223  Facsimile (03) 9545 3022  Email <a href="mailto:cs@clivesteele.com.au">cs@clivesteele.com.au</a>  A.C.N. 005 363 735 A.B.N. 92 627 427 761 </div> </div> </div>	
PROJECT	
<div>PROPOSED FUNCTION CENTRE</div> <div>382 SWAMP RD OAKBANK</div>	
DRAWING	
<div>EXTERNAL WORKS</div> <div>DETAILS - Sheet 1</div> <div>-</div>	
DRAWING No.	REV
20126 - SK2	P1

PRELIMINARY





REMOVE  
TREE  
(OLIVE)

REDIRECT  
GRAVEL  
ROAD

5.07.2022 ISSUE

anatomy patrick  
architect

0401 387 789

PROPOSED  
FUNCTION CENTRE

382 SWAMP RD  
OAKBANK

FOR  
COBBS HILL ESTATE

START DATE 2020  
JB NO 2014

LOCATION  
PLAN

A/02 c

1:500 @ A3

PLANNING





# BESTEC<sup>®</sup>

BRINGING BUILDINGS TO LIFE

COBB'S HILL ESTATE EXPANSION

ENVIRONMENTAL NOISE ASSESSMENT

ACOUSTIC SERVICES

IVD:IVD  
56706/6/1  
10 February 2022

Cobbs Hill Estate  
382 Swamp Road  
OAKBANK SA 5063

Attention: Mr J Hicks

Dear Sir,

**COBB'S HILL ESTATE EXPANSION  
ENVIRONMENTAL NOISE ASSESSMENT  
ACOUSTIC SERVICES**

As requested, we enclose a copy of our updated environmental noise assessment report for the above project.

We trust that the report provides sufficient information for your immediate purpose and we would be most pleased to further discuss any aspect upon your request.

Yours faithfully  
**BESTEC PTY LTD**



**IVAILO DIMITROV  
ASSOCIATE / PRINCIPAL ACOUSTIC CONSULTANT**



**DOCUMENT CONTROL**

REVISION	DATE	REVISION DESCRIPTION
00	30.01.22	Initial Issue
01	04.02.22	Revised Issue
02	10.02.22	Revised Issue

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## Introduction

BESTEC Pty Ltd has been engaged to reassess the environmental noise impact to the nearest noise sensitive receivers resulting from the proposed function centre of Cobb's Hill Estate located at 382 Swamp Road, Oakbank.

This document presents a review of the proposed acoustic design criteria, results of the continuous environmental survey conducted at Cobb's Hill Estate, predicted noise levels associated with operation of the proposed expansion and the results of our assessment.

## Executive Summary

In summary:

- The SA Planning and Design Code has been reviewed to determine the relevant planning conditions and requirements applicable to the proposed development.
- A continuous noise survey was conducted over 7-day period at the boundary with the nearest noise sensitive property. The survey results are presented in Appendix A.
- Appropriate environmental noise criteria have been derived in accordance with the SA Environment Protection (Noise) Policy 2007.
- The architectural drawings and the location of the proposed function centre was reviewed and a 3D acoustic model representing Cobbs Hill estate and the nearest noise sensitive receivers was developed (refer Appendices B and C).
- The noise levels at the nearest noise sensitive receivers were predicted (refer Appendices B and C) and the following acoustic design recommendations were provided to ensure the selected criteria are achieved:
  - Music noise - our assessment revealed that the music night time noise criterion will be achieved at the nearest noise sensitive receivers. However, we recommend the sound pressure level from the sound system (we assumed that the sound system will comprise four speakers) be limited to not more than 85dBA ( $L_{Aeq}$ ) measured approximately in the middle of the function centre. In order to ensure the criterion is achieved at all times, we recommend:
    - No speakers are to be installed externally to the proposed function centre.
    - Before each function, the Operator or Duty Manager measures the reverberant sound pressure level (approximately in the middle of the function centre) and ensures it does not exceed 85dBA<sup>1</sup> ( $L_{Aeq}$ ) during the function. We recommend an automatic sound limiter be used to monitor the sound pressure levels during performance. The sound limiter should be connected to the main amplifier power and set to cut the power if the maximum sound pressure level is exceeded. To facilitate this, the following is required:
      - Any external performers should use only the sound system and amplifier provided by the venue;
      - The sound system should be tuned and commissioned by an acoustic engineer once the speakers are in place and the sound limiter is installed.
      - The doors and any operable glazing be fitted with compressible acoustic seals (Raven or Schlegel ranges) and be kept closed when a function is taking place in the centre.
  - Patron noise – our assessment revealed that the selected continuous noise criterion will be achieved and therefore, no further acoustic treatment is required.
  - Noise associated with rubbish collection and carpark – our assessment revealed that the selected continuous noise criterion will be achieved and therefore, no further acoustic treatment is required.
- The noise levels at the nearest noise sensitive receivers resulting from the combined operational noise emissions from the proposed development have been calculated and assessed against the selected environmental noise criteria derived in accordance with the Environment Protection (Noise) Policy 2007. The assessment revealed that the selected criteria will be achieved at all locations and therefore, performance outcomes PO 1.2, PO 2.1, PO 4.1, PO 4.2, PO 4.5 and PO 4.6 of the SA Planning and Design Code will be achieved.

<sup>1</sup> A reverberation time of 1.2 seconds was assumed within the function space, based on its volume. Please note that additional acoustic treatment will be required to reduce the reverberation in the space and achieve this reverberation time.

---

Based on the above, we conclude that the desired outcome stipulated in the SA Planning and Design Code Assessment Provisions (Section Interface between Land Uses of the), *DO 1: The development to be located and designed to mitigate adverse effects on or from neighbouring and proximate uses* will be achieved.



## References

The following documents have been referenced within the preparation of this report:

- [1] SA Planning and Design Code, 2021.
- [2] SA Environment Protection (Noise) Policy 2007.
- [3] World Health Organisation (1999) "Guidelines for Community Noise".
- [4] Music Noise from Indoor Venues and the South Australian Planning System, EPA Guideline, July 2015.
- [5] Pearsons, Bennett and Fidel "Speech levels in various noise environments" Report EPA-600/1-77-025, Washington, D.C.: U.S. Environmental Protection Agency, May 1977.
- [6] Anatoly Patric Architects architectural drawings dated July 2021 provided by Cobb's Hill estate.

## Existing Development

Cobb's Hill Estate is located on land zoned Productive Rural Landscape (PRuL) in the SA Planning and Design Code [1] and currently includes a cellar door with maximum capacity of 75 guests, motel with maximum capacity of 6 guests and the associated carpark. In addition to the cellar door and short-term accommodation, the allotment is used as gardens, grazing land and vines.

The existing development has a hardstand parking area for 14 vehicles and mini bus drop off area.

The currently approved operation times are 10:00 to 18:00 (Monday to Sunday).

The nearest noise sensitive receivers are residential properties to the southwest (approximately 320m from the cellar door building).

## Proposed Development and Conditions

The proposed expansion includes a function centre with maximum capacity of 100 patrons at any one time on the premises (in any combination of the cellar door, gardens and the function/restaurant building) except up to two times per week where a maximum of 400 patrons are onsite (in any combination of the cellar door, gardens and the function/restaurant building).

The envisaged functions and special events frequency will be as follows:

- During the period of 1 May to 30 September:
  - Functions – once per month on either Friday, Saturday, or Sunday, excluding the month when a festival weekend is held.
  - Special events – none to be held.
  - Festival weekend – once during the reduced activity months. Following a festival weekend, 7 days need to clear prior to a function being undertaken.
- During the period of 1 November to 30 April:
  - Functions – twice per month on either Friday, Saturday or Sunday, excluding the month when a festival weekend is held.
  - Special events – once per month.
  - Festival weekend – once during the reduced activity months. Following a festival weekend, 7 days need to clear prior to a function being undertaken.

The functions, special events and the festival weekends will take place at the new function centre building (indicated as L2 in Figure 1).

The function centre's building envelope construction is indicated on the architectural drawings as follows:

- Solid façade – combination
  - 70mm brickwork.
  - Timber Oak cladding (we assumed 20mm thickness) with 10mm plasterboard and R2.0 thermal insulation in the wall cavity (90mm deep).
- Glazed façade – 10.38mm laminated glass.
- Roof – corrugated iron roof with 13mm plasterboard fixed to underside of 125mm deep purlins with R2.5 thermal insulation in the cavity.

To accommodate the increased number of patrons, additional 36 carpark spaces are proposed.

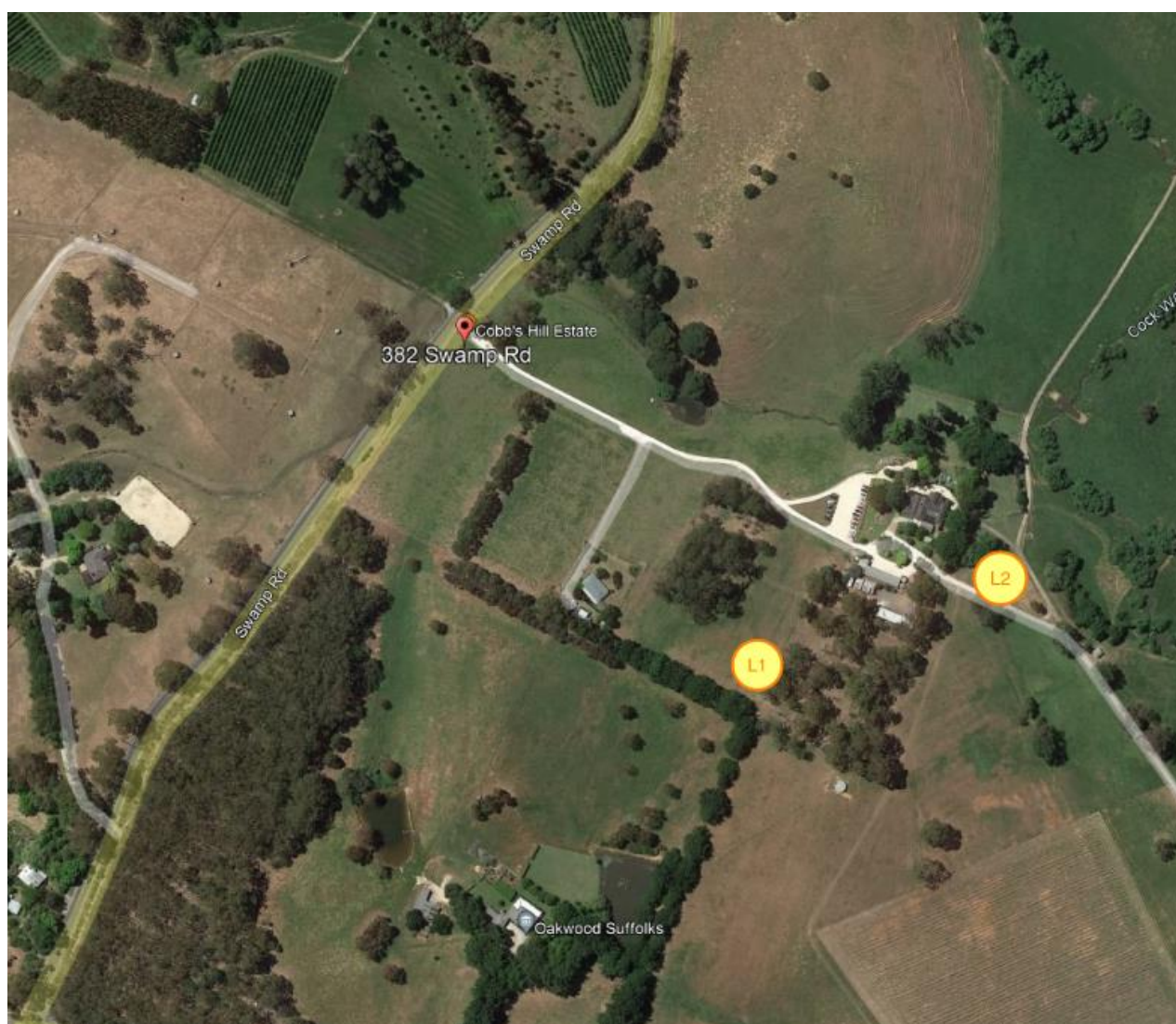
The proposed extended hours of operation are 10:00 – Midnight (Monday to Sunday).

The Noise Management Plan also outlines the Duty Manager responsibilities to noise management as follows:

- Assess, prior to a function or an event, the suitability (i.e. type, style, amplification) of the proposed entertainment or amusement;
- Notify in writing the organiser of a function or an event if the entertainment or amusement is deemed inappropriate.
- Monitor noise levels from entertainment or amusement and if deemed to be too high will warn the performers and/or DJ no more three times and thereafter (if not complied with) will switch off power to the amplifier.
- Call "last drinks" 30 minutes before the close of the function or event.
- Operate amplified music in accordance with any conditions of consent as may be required by a Development Approval issued by the relevant Council planning authority.

### **Existing Acoustic Environment**

An unattended noise survey was conducted in the south-western boundary of the estate (adjoining the nearest noise sensitive receiver) between 14 and 21 August 2020 in order to establish the existing ambient and background noise levels. The survey was conducted using an automatic noise logger SVAN 953, SN8951 (due for calibration on 16 April 2021).



**Figure 1:** Location of the environmental logger during the survey

The logger was set to continuously measure and average A-weighted equivalent continuous noise levels ( $L_{Aeq,15min}$ ), A-weighted maximum noise levels ( $L_{Amax}$ ) and statistical noise descriptors ( $L_{A01}$ ,  $L_{A10}$ ,  $L_{A90}$ ) using 1/3-octave bands (31.5Hz – 10,000Hz) over 15-minute intervals using Fast time weighting and audio recording set to record the ambient sound continuously. The calibration of the unit was checked before and after the survey and no drift was detected. Copy of the calibration certificate is available on request.

The detailed survey data are presented in Appendix A. The highlighted portions of the graphs represent the proposed hours of operation of the extension.

The analysis of the collected data revealed:

- The measured background noise levels ( $L_{A90}$ ) hours during the proposed of operation were:
  - Night time - the measured minimum background noise level was 30dBA.
  - Day time – the measured minimum background noise levels was 32dBA.
- The ambient noise levels ( $L_{Aeq}$ ) measured during the proposed of operation were:
  - Night time - the measured minimum ambient noise level was 34dBA.
  - Day time - the measured minimum ambient noise level was 39dBA.

## Conditions

The SA Planning and Design Code [1] sets the Desired Outcome (DO) for developments, which might affect sensitive receivers in adjacent areas as follows:

*DO 1 Development is located and designed to mitigate adverse effects on or from neighbouring and proximate uses.*

As the estate is a non-residential development, the SA Planning and Design Code [1] requirements (performance outcomes) relevant to Section Interface Between Land Uses) apply:

*PO 1.2 Development adjacent to a site containing a sensitive receiver (or lawfully approved sensitive receiver) or primarily intended to accommodate sensitive receivers is designed to minimise adverse impacts*

*PO 2.1 Non-residential development does not unreasonably impact on the amenity of sensitive receivers (or lawfully approved sensitive receivers), or an adjacent zone primarily for sensitive receivers through its hours of operation having regard to:*

- (a) The nature of the development;*
- (b) Measures to mitigate off-site impacts;*
- (c) The extent to which the development is desired in the zone;*
- (d) Measures that might be taken in an adjacent zone primarily for sensitive receivers that mitigate adverse impacts without unreasonably compromising the intended use of land.*

A non-residential development is deemed to satisfy the above requirement if the noise emissions that affect the noise sensitive receivers achieves the relevant Environment Protection (Noise) Policy criteria (DTS/DPF 4.1).

*PO 4.1 Development that emits noise (other than music) does not unreasonably impact the amenity of sensitive receivers (or lawfully approved) sensitive receivers.*

*PO 4.2 Areas for the on-site manoeuvring of service and delivery vehicles, plant and equipment, outdoor work spaces (and the like) are designed and sited to not unreasonably impact the amenity of adjacent sensitive receivers (or lawfully approved sensitive receivers) and zones primarily intended to accommodate sensitive receivers due to noise and vibration by adopting techniques including:*

- (a) Locating openings of buildings and associated services away from the interface with the adjacent sensitive receivers and zones primarily intended to accommodate sensitive receivers.*
- (b) When sited outdoors, locating such areas as far as practicable from adjacent sensitive receivers and zones primarily intended to accommodate sensitive receivers.*
- (c) Housing plant and equipment within an enclosed structure or acoustic enclosure.*

- (d) *Providing a suitable acoustic barrier between the plant and / or equipment and the adjacent sensitive receiver boundary or zone.*

*PO 4.5 Outdoor areas associated with licensed premises (such as beer gardens or dining areas) are designed and/or sited to not cause unreasonable noise impact on existing adjacent sensitive receivers (or lawfully approved sensitive receivers).*

*PO 4.6 Development incorporating music achieves suitable acoustic amenity when measured at the boundary of an adjacent sensitive receiver (or lawfully approved sensitive receiver) or zone primarily intended to accommodate sensitive receivers.*

A development incorporating music should include noise attenuation measures that will achieve less than 8dB above the level of background noise ( $L_{90,15min}$ ) in any octave band of the sound spectrum ( $L_{OCT10,15min} < L_{OCT90,15min} + 8dB$ ) externally at the nearest existing or envisaged noise sensitive location (DTS/DPF 4.6).

## Design Criteria

### Environmental Noise

As the Deemed-to-Satisfy/Designed Performance Feature (DTS/DPF 4.1) refers to compliance with relevant Environment Protection (Noise) Policy criteria, the environmental noise assessment has been conducted against the criteria set by the Environment Protection (Noise) Policy 2007 [2].

The EPP 2007 [2], sets out the maximum allowable continuous noise in terms of A-weighted Equivalent Continuous Noise Level ( $L_{Aeq}$ ) based on the time of day and zoning / use of land in which the noise source and receiver are located. With reference to the SA Planning and Design Code 0, we note that both Cobbs Hill estate and the nearest noise sensitive receiver are located on land zoned Productive Rural Landscape (PRuL), which is essentially a rural living zone. Table 1 details the indicative noise factors based on time of day and land-use as stipulated in Table 2 of the EPP 2007 [1]. As the EPP 2007 does not stipulate indicative noise levels for land zoned Deferred Urban, the indicative noise levels for Residential zone have been used.

Land Use Category	Day Time (07:00 to 22:00)	Night Time (22:00 to 07:00)
Rural Living	47	40

**Table 1:** Indicative noise factors based on time of day and land use

In accordance with the Policy, the predicted continuous noise level due to the proposed development (for application for development authorisation) should not exceed the indicative noise level, minus 5dBA.

Based on the average of the relevant land use categories, minus 5dBA for planning purposes, the applicable day and night time continuous noise criteria become:

- Day-time (07:00 to 22:00): 42dBA
- Night time (22:00 to 07:00): 35dBA

Note that if noise emitted by the proposed development contains any tones, modulation, impulsive or low frequency characteristics, the continuous noise level of the noise source must be adjusted as follows:

- Noise containing 1 characteristic - 5dBA penalty added to source continuous noise level.
- Noise containing 2 characteristics - 8dBA penalty added to source continuous noise level.
- Noise containing 3 or 4 characteristics - 10dBA penalty added to source continuous noise level.

### Intermittent Noise

The criteria provided in the above section relate to continuous noise sources, and do not cater for intermittent noise events. We recommend the use of the World Health Organisation (WHO) Guidelines [3], which recommends a maximum A-weighted noise level  $L_{Amax}$ , of 45dBA in a bedroom in order to avoid sleep disturbance, which is equivalent to approximately 55dBA to 60dBA at the façade of the residential building with windows partially open.

### Music Noise

The assessment of music noise emissions is to be conducted against the criteria set by the EPA Guidelines for Development Proposal Assessment for venues where music may be played [3] and the principles of development control in the Adelaide Hills Council Development Plan [1].

The EPA Guidelines [3] state that:

*"The music noise ( $L_{10,15min}$ ) from an entertainment venue when assessed at the nearest noise sensitive locations should be:*

- *Less than 8dB above the level of background noise ( $L_{90,15min}$ ) in any octave band of the sound spectrum, and*



- *Less than 5dB(A) above the level of background noise ( $L_{A90, 15min}$ ) for the overall (sum of octave bands) A-weighted level."*

Based on the above EPA SA Guideline and DTS/DPF 4.6, to control music noise emissions from the proposed function venue, we derived the music noise criteria based on the lowest background noise levels ( $L_{90}$ ) measured during our continuous noise survey. Therefore, the calculated music noise criteria relevant to the neighbouring noise sensitive receivers will be as detailed in Table 2 below.

	Octave band sound pressure level dB re 20µPa at Octave Band Centre Frequency, Hz								Overall level, dBA
	63	125	250	500	1000	2000	4000	8000	
Lowest background noise level $L_{90, 15min}$ (night time)	31	30	30	24	26	20	18	16	30
Maximum allowable exceedance	8	8	8	8	8	8	8	8	5
Maximum allowable music noise level, $L_{10, 15min}$ at the nearest noise sensitive boundary	<b>39</b>	<b>38</b>	<b>38</b>	<b>32</b>	<b>34</b>	<b>30</b>	<b>26</b>	<b>24</b>	<b>35</b>

**Table 2:** Proposed music noise criteria

## SoundPlan Models

We developed 3D acoustic model based on the site topography using SoundPlan 8.2 software package and predicted the noise levels at nearest noise sensitive receivers taking into account the following:

- Location and ground elevation of the proposed function area relative to the noise sensitive receivers.
- The building envelope as defined above.
- Distances to the noise sensitive receivers and ground elevations.
- The topography of the area where the noise source and noise sensitive receivers are located.
- Ground sound reflectivity – we assumed ground reflectivity of 50% (50% of the sound incident to the ground will be reflected and 50% will be absorbed).
- Meteorological conditions – CONCAWE Category 6.
- Distances as measured from the site plan and Google Earth.

We calculated two scenarios:

- Recorded music played in the function centre from 4 speakers located inside function room resulting in reverberant sound pressure level of 90dBA ( $L_{A10}$ ) – the predicted noise levels were assessed against the music noise criterion as detailed in Table 2.
- Operation of the function centre at full capacity (400 patrons), assuming 200 patrons inside the centre and 200 patrons on the podium and the lawn outside with 100 patrons outside speaking at raised voice level of 65dBA at 1m [5] – the predicted noise levels were assessed against the night time continuous noise criterion as detailed in Section Environmental Noise.

Graphic representation of the calculation results is provided in Appendices B and C.

## Assessment and Recommendations

### Music Noise

We calculated the music noise levels at the nearest noise sensitive receiver resulting from typical function taking place in the proposed function centre under the conditions described above and taking into account the distances from the function centre to the noise sensitive receiver, the construction of the building envelope elements and their area based on the architectural plans.

Based on above, our assessment revealed that the music nighttime noise criterion will be achieved at the nearest noise sensitive receiver.

To ensure the criterion is achieved at all times, we recommend:

- No speakers are to be installed externally to the proposed function centre.
- Before each function, the Operator or Duty Manager measures the reverberant sound pressure level (approximately in the middle of the function centre) and ensures it does not exceed 85dBA<sup>2</sup> ( $L_{Aeq}$ ) during the function. We recommend an automatic sound limiter be used to monitor the sound pressure

<sup>2</sup> A reverberation time of 1.2 seconds was assumed within the function space, based on its volume. Please note that additional acoustic treatment will be required to reduce the reverberation in the space and achieve this reverberation time.

levels during performance. The sound limiter should be connected to the main amplifier power and set to cut the power if the maximum sound pressure level is exceeded. To facilitate this, the following is required:

- Any external performers should use only the sound system and amplifier provided by the venue;
  - The sound system should be tuned and commissioned by an acoustic engineer once the speakers are in place and the sound limiter is installed.
- The doors and any operable glazing be fitted with compressible acoustic seals (Raven or Schlegel ranges) and be kept closed when a function is taking place in the centre.

### **Patron Noise**

Our assessment revealed that the selected environmental noise criterion will be achieved and therefore, no further acoustic treatment is required.

### **Noise Associated with Delivery Vehicles**

We note that there is no specified loading area currently indicated on the provided preliminary drawings. Therefore, for the purpose of this assessment we have assumed that the loading and unloading activities will occur in the existing carpark adjacent the southern façade of the existing shed.

We calculated the A-weighted Equivalent Continuous Noise Level over a typical 15-minute interval ( $L_{Aeq,15min}$ ) assuming the following activity durations and measured noise levels from similar activities on a previous project:

- Delivery vehicle accessing the loading dock (including reverse alarm) – 90 seconds, 73dB(A) at 5m.
- Loading/unloading activities including noise from refrigeration unit on the delivery vehicle – 8 minutes, 76dB(A) at 5m.
- Delivery vehicle departing – 90 seconds, 70dB(A) at 5m.
- The balance of a 15-minute interval – 4 minutes, 54dB(A) (ambient noise level).

The calculated A-weighted Equivalent Continuous Noise Level over a typical 15-minute interval ( $L_{Aeq, 15min}$ ) resulting from delivery vehicle activities, which we used in the assessment was 74dB(A) at 5m.

Based on the above and taking into account the distance to the nearest residences across Pipeline Rd (approximately 450m from the delivery zone), we predicted incident noise levels of 35dB(A) at the nearest residence, which achieves both daytime environmental noise criteria and night-time environmental noise criteria. However, we recommend deliveries be scheduled between 10:00am and 6:00pm in order to further reduce the noise impact associated with the proposed development.

### **Noise Associated with Rubbish Collection**

We note that there is no specified rubbish collection area currently indicated on the provided preliminary drawings. Therefore, for the purpose of this assessment we have assumed that the rubbish collection will occur in the existing carpark to the west of the existing cellar door building. We assessed the noise impact on the nearest residential property resulting from noise emissions from typical rubbish collection vehicle including the following activities:

- Rubbish collection vehicle accessing the waste loading zone (including reverse alarm).
- Rubbish collection.
- Rubbish collection vehicle departing.

We calculated the A-weighted Equivalent Continuous Noise Level over a typical 15-minute interval ( $L_{Aeq,15min}$ ) assuming the following activity durations and measured noise levels from similar activities on a previous project:

- Rubbish collection vehicle accessing the waste loading zone (including reverse alarm) – 90 seconds, 73dB(A) at 5m.
- Rubbish collection – 7 minutes, 65dB(A) at 5m.
- Rubbish collection vehicle departing – 90 seconds, 70dB(A) at 5m.
- The balance of a 15-minute interval – 5 minutes, 54dBA (ambient noise level).

The calculated A-weighted Equivalent Continuous Noise Level over a typical 15-minute interval ( $L_{Aeq,15min}$ ) resulting from rubbish collection activities, which we used in the assessment was 66dBA at 5m. Taking into account the distance to the nearest residence to the south-west (approximately 350m from the waste

collection zone), we calculated the A-weighted Equivalent Continuous Noise Level over a typical 15-minute interval ( $L_{Aeq,15min}$ ) at the façade of the nearest residence as 34dBA, which achieves both day time environmental noise criterion (we note that the rubbish collection will occur during day time only – between 7:00 and 17:00, Monday to Friday).

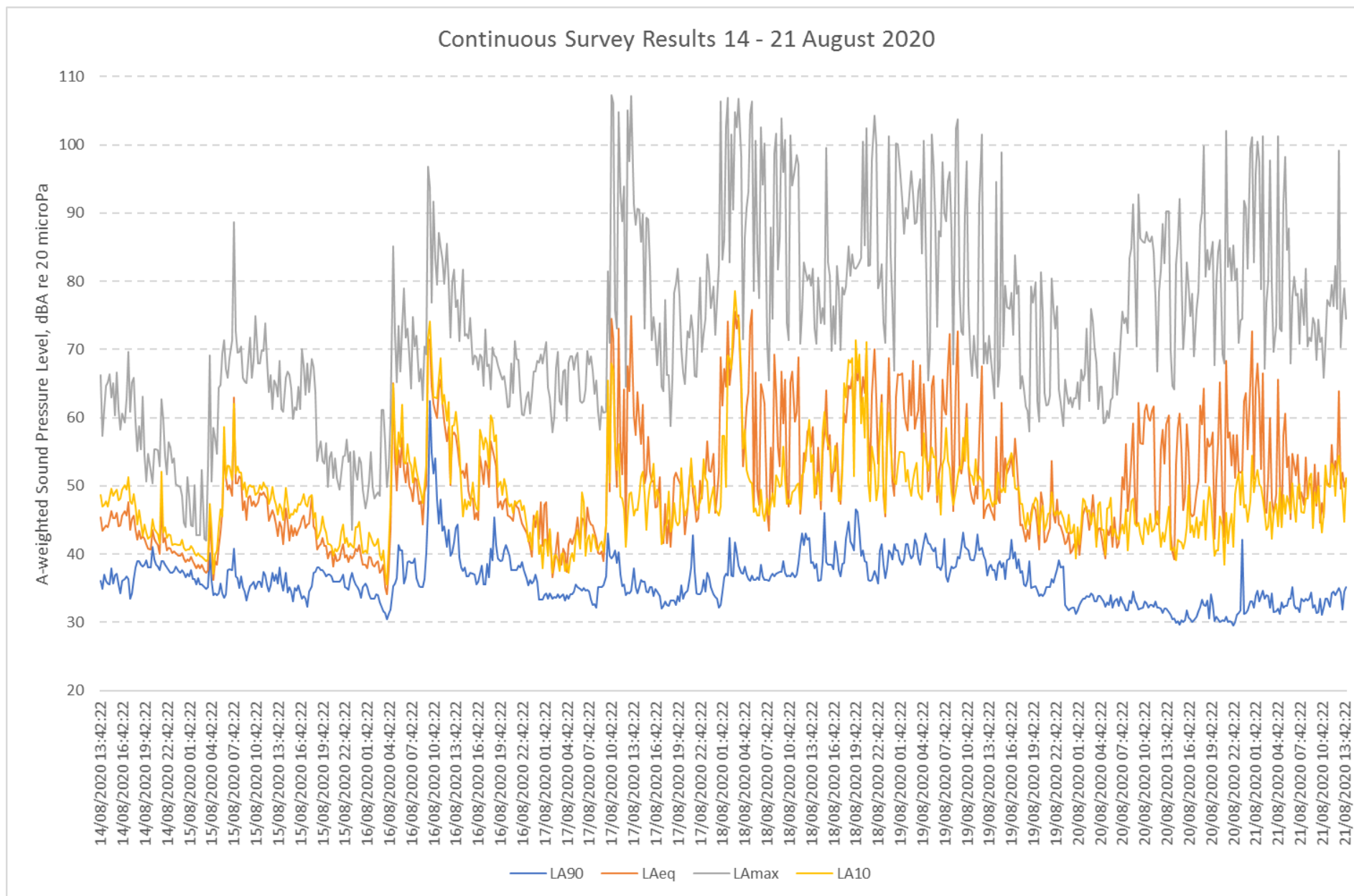
#### **Noise Associated with Car Park**

We assessed noise from the car park entrance lane (off Swamp Rd) using a time weighted average approach to generate an average noise level of 55dB(A) ( $L_{Aeq, 15min}$ ), based on 8 car exits/entries and egress per 15 min period down the laneway. Therefore, the predicted noise level at the nearest noise sensitive residence (approximately 350m away) would be 24dB(A), which complies with the selected criteria for environmental noise.

## **APPENDIX A**

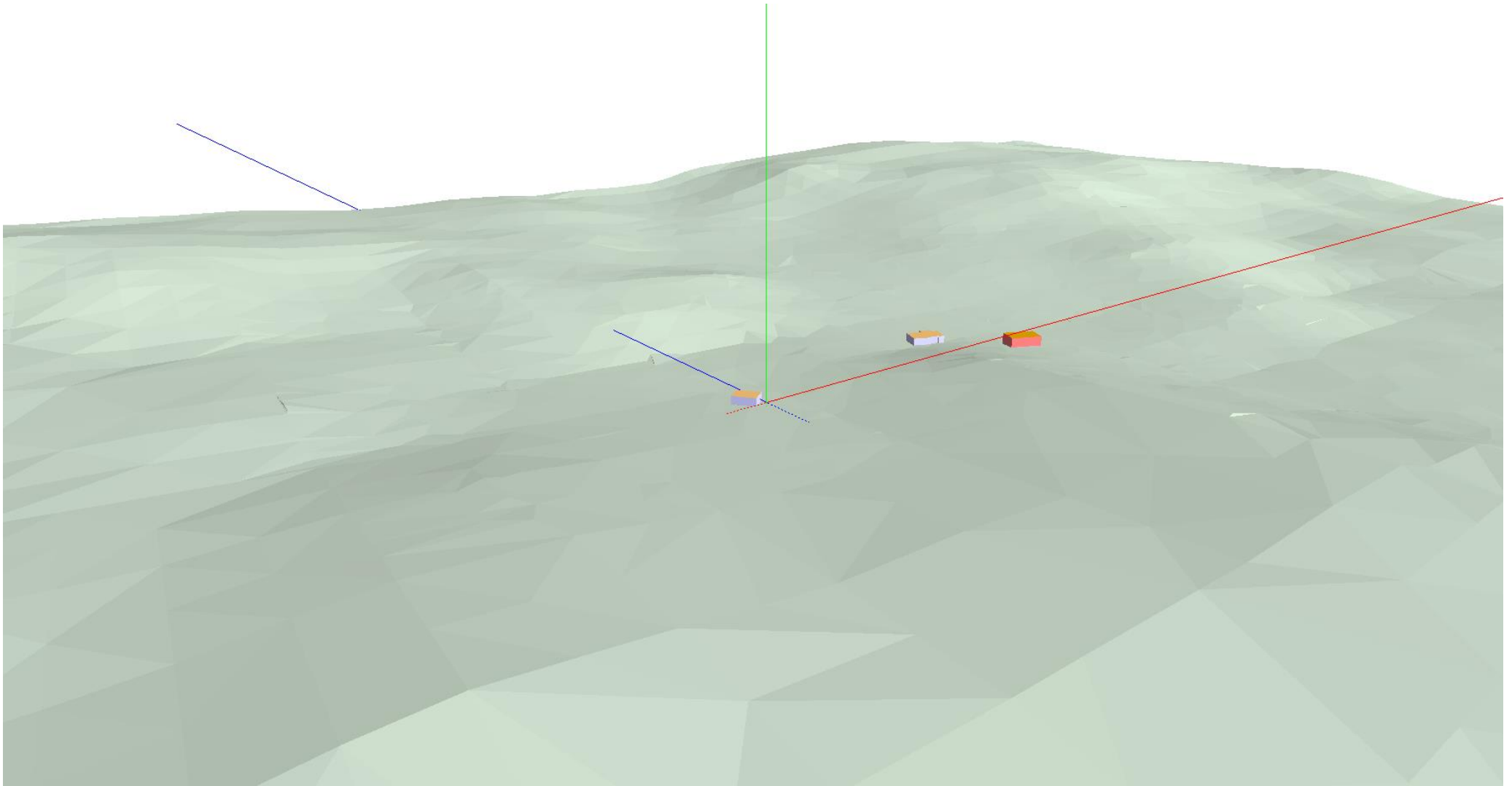
### Continuous Noise Survey Results



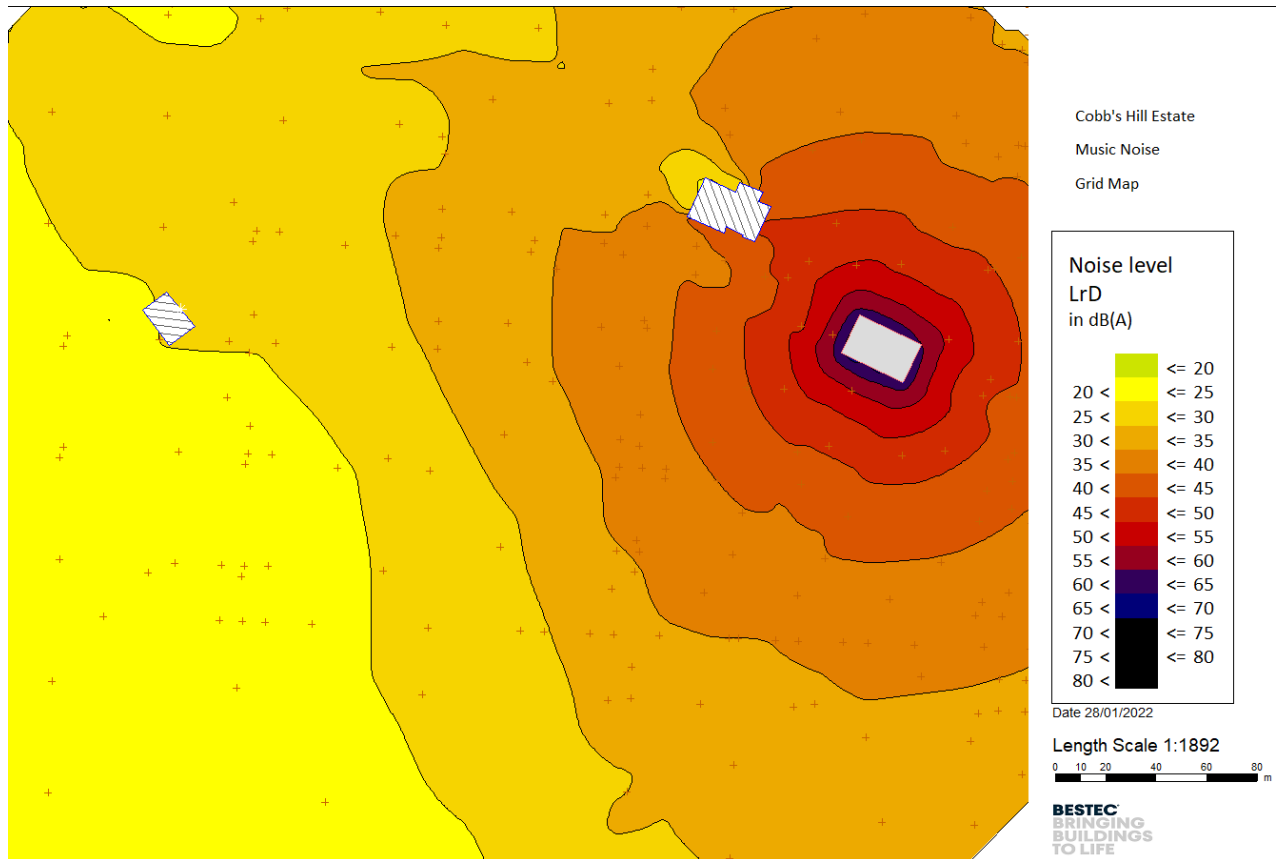


## **APPENDIX B**

### SoundPlan Results – Music Noise



**Figure B1:** SoundPlan 3D model - Music Noise

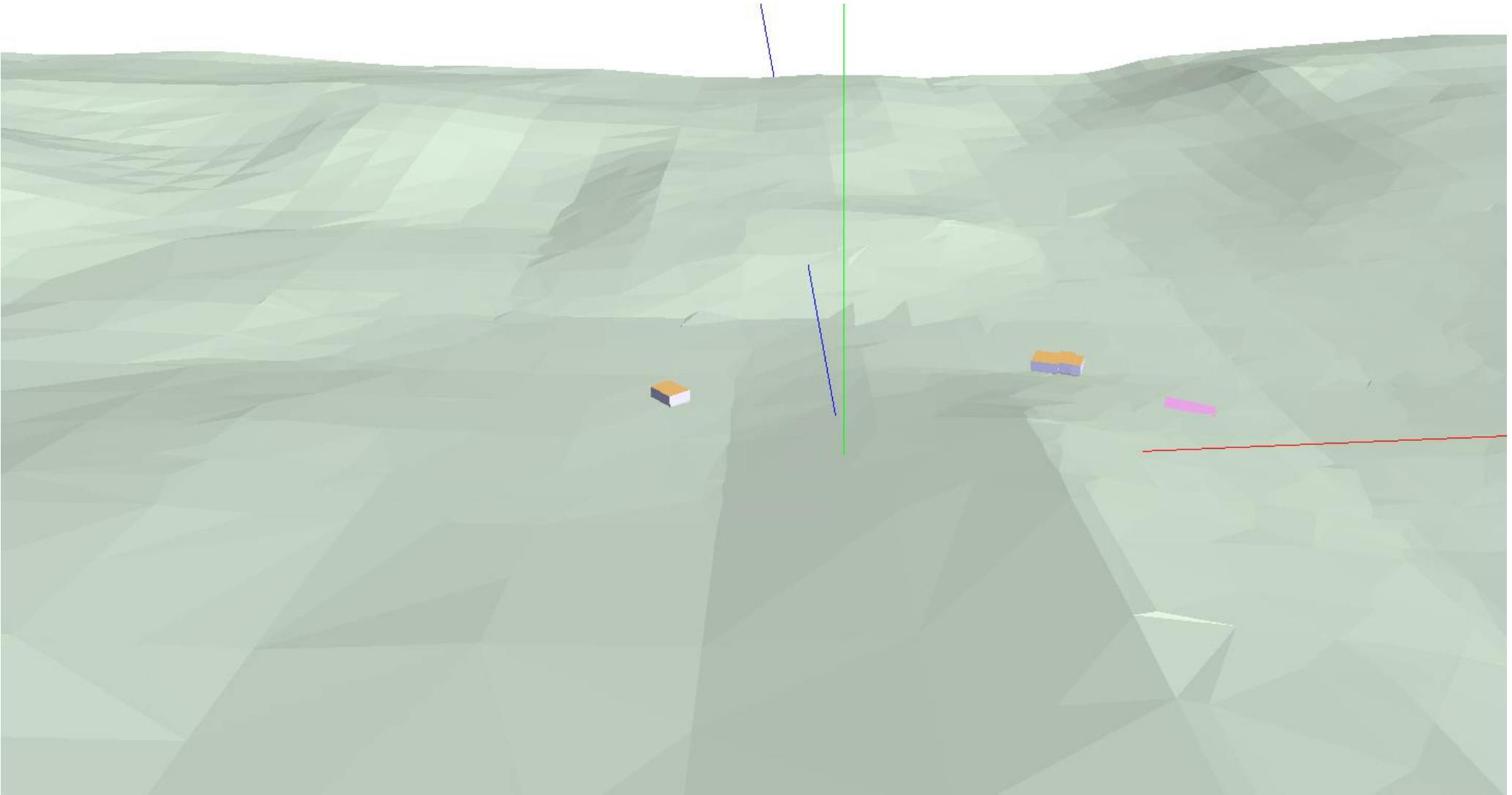


**Figure B2:** Predicted noise levels during nighttime - SPL 90dBAat 1m from each speaker

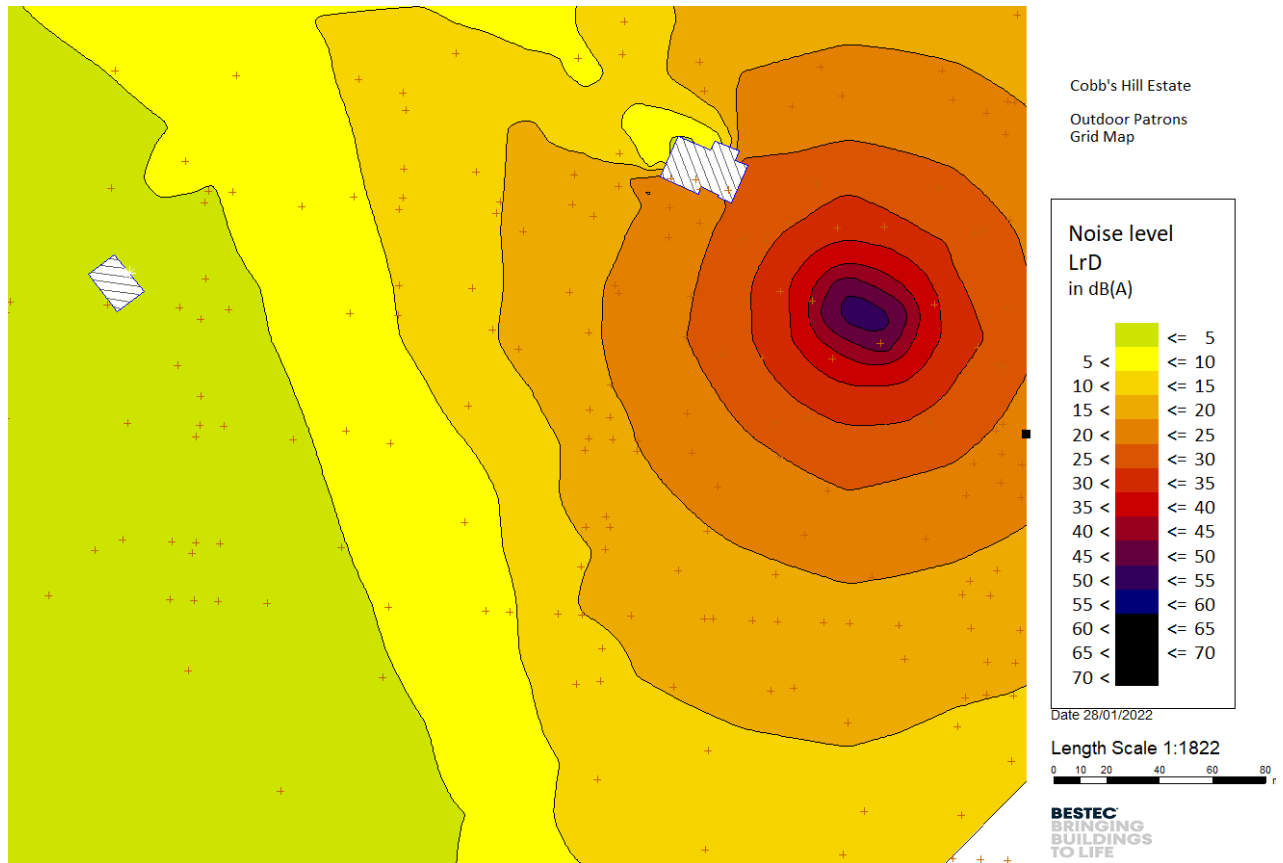


## **APPENDIX C**

### SoundPlan Results – Patron Noise



**Figure C1:** SoundPlan 3D model - Patron Noise



**Figure C2:** Predicted noise levels during nighttime – patron noise

## **APPENDIX D**

### Glossary of Acoustic Terminology



**dB(A)**

Also referred to as dBA. A unit of measurement, decibels(A), of sound pressure level which has its frequency characteristics modified by a filter ("A-weighted") so as to more closely approximate human ear response at a loudness level of 40 phons. The table below outlines the subjective rating of different sound pressure levels.

Noise Level (dBA)	Subjective Rating
25-30	Barely audible and very unobtrusive.
30-35	Audible but very unobtrusive.
35-40	Audible but unobtrusive.
40-45	Moderate but unobtrusive.
45-50	Unobtrusive with low levels of surrounding activity.
50-55	Unobtrusive with high levels of surrounding activity.

**L<sub>1</sub>**

The noise level which is equalled or exceeded for 1% of the measurement period. L<sub>1</sub> is an indicator of the impulse noise level, and is used in Australia as the descriptor for intrusive noise (usually in dBA).

**L<sub>10</sub>**

The noise level which is equalled or exceeded for 10% of the measurement period. L<sub>10</sub> is an indicator of the mean maximum noise level, and is used in Australia as the descriptor for intrusive noise (usually in dBA).

**L<sub>90</sub>, L<sub>95</sub>**

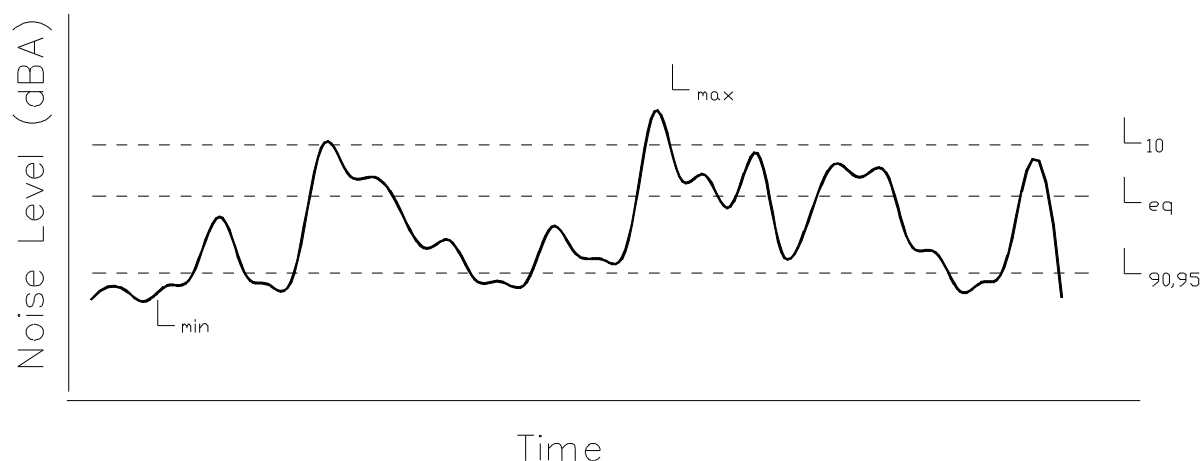
The noise level which is equalled or exceeded for 90% of the measurement period. L<sub>90</sub> or L<sub>95</sub> is an indicator of the mean minimum noise level, and is used in Australia as the descriptor for background or ambient noise (usually in dBA).

**L<sub>eq</sub>**

The equivalent continuous noise level for the measurement period. L<sub>eq</sub> is an indicator of the average noise level (usually in dBA).

**L<sub>max</sub>**

The maximum noise level for the measurement period (usually in dBA).



**Note:** The subjective reaction or response to changes in noise levels can be summarised as follows: A 3dBA increase in sound pressure level is required for the average human ear to notice a change; a 5dBA increase is quite noticeable and a 10dBA increase is typically perceived as a doubling in loudness.

**STC/R<sub>w</sub>**

Sound Transmission Class or Weighted Sound Reduction Index. Provides a single number rating (from the sound transmission loss or sound reduction index for each frequency band) of the sound insulation performance of a partition. The higher the value, the better the performance of the partition. The subjective impression of different ratings is shown in the table below.

Type of noise source	STC/R <sub>w</sub> Rating				
	40	45	50	55	60
Normal Speech	Audible	Just Audible	Not Audible		
Raised speech	Clearly Audible	Audible	Just Audible	Not Audible	
Shouting	Clearly Audible	Clearly Audible	Audible	Just Audible	Not Audible
Small television/small entertainment system	Clearly Audible	Clearly Audible	Audible	Just Audible	Not Audible
Large television/large hi-fi music system	Clearly Audible	Clearly Audible	Clearly Audible	Audible	Just Audible
DVD with surround sound	Clearly Audible	Clearly Audible	Clearly Audible	Audible	Audible
Digital television with surround sound	Clearly Audible	Clearly Audible	Clearly Audible	Audible	Audible

**FSTC/R<sub>w</sub>'**

The equivalent of STC/R<sub>w</sub>, unit for sound insulation performance of a building element measured in the field.

**C<sub>i</sub>, C<sub>tr</sub>**

The ratings (R<sub>w</sub>, D<sub>nTw</sub>, L<sub>nTw</sub>) are weighted in accordance to a spectrum suited to speech. This term modifies the overall rating to account for noise with different spectra, such as traffic (C<sub>tr</sub>) or footfalls (C<sub>i</sub>). The ratings may be written as R<sub>w</sub>+C<sub>tr</sub>, or D<sub>nTw</sub>/L<sub>nTw</sub>+C<sub>i</sub>.

**NNIC/D<sub>nTw</sub>**

Normalised Noise Isolation Class, or Weighted Standardised Sound Level Difference. Provides a single number rating of the sound level difference between two spaces, and incorporates the effects of flanking noise between two spaces. This rating is generally accepted to be about 5 points less than the STC/R<sub>w</sub> rating.

**IIC/L<sub>nw</sub>**

Impact Insulation Class, or Weighted Normalised Impact Sound Level. L<sub>nw</sub>=110-IIC. The higher the IIC rating, or the lower the L<sub>nw</sub> rating the better the performance of the building element at insulating impact noise. The table below gives the subjective impression of different ratings:

IIC	L <sub>nw</sub>	Subjective Rating
40	70	Clearly Audible
45	65	Clearly Audible
50	60	Audible
55	55	Audible
60	50	Just Audible
65	45	Inaudible

**FIIC/L<sub>nTw</sub>'**

The equivalent of IIC/L<sub>nw</sub>, but the performance is for the building element measured in the field.

# Details of Representations

## Application Summary

Application ID	21017786
Proposal	Construction of a function centre and restaurant building with associated car parking and landscaping and variations to Development Authorisations 16/973/473 to increase the overall capacity, the number of functions and special events and operating hours and 16/882/473 to increase the capacity and operating hours of the existing cellar door
Location	382B SWAMP RD OAKBANK SA 5243, 382B SWAMP RD OAKBANK SA 5243

## Representations

### Representor 1 - Henry Young

Name	Henry Young
Address	Po Box 1171 BALHANNAH SA, 5242 Australia
Submission Date	23/08/2022 04:14 PM
Submission Source	Online
Late Submission	No
Would you like to talk to your representation at the decision-making hearing for this development?	Yes
My position is	I oppose the development

#### Reasons

I object to the development. Since Cobbs Hill has come under new ownership, new vines have been planted, and bores have run dry within the localised area. This new development will increase already out-of-character noise levels for the surrounding residents and increase traffic and drunk road users. The development is next to Cock Wash creek, an already significantly degraded riparian corridor. How will the proposed soakage pit be monitored? We have personally received long degrading silting of our dams from previous unconsulted expansion projects, their track record for environmental concern is quite lacking. The hours of operation and days of operation are far to generous. To have an event space open seven days a week is relentless. I like the design and appreciate the jobs, but there has to be a balance between commercial venture and turning our neighbourhood into a theme park.

## Attached Documents

## Representations

### Representor 2 - Anne Young

Name	Anne Young
Address	PO BOX 1171 BALHANNAH SA, 5242 Australia
Submission Date	24/08/2022 01:36 PM
Submission Source	Online
Late Submission	No
Would you like to talk to your representation at the decision-making hearing for this development?	No
My position is	I oppose the development
<b>Reasons</b> Too large a development in a rural area. Worried about noise and traffic as we are next door. Surely 400 people is not necessary!!!! Far too large!!!	

### Attached Documents



## Representations

### Representor 3 - Darryl Parker

Name	Darryl Parker
Address	PO BOX 191 BALHANNAH SA, 5242 Australia
Submission Date	05/09/2022 06:44 PM
Submission Source	Online
Late Submission	No
Would you like to talk to your representation at the decision-making hearing for this development?	No
My position is	I oppose the development

#### Reasons

We live in a Beautiful & Quiet part of Oakbank, If the Proposed Planned Expansion for the Cobbs Hill Estate goes ahead, that Beautiful Quiet we have will be LOST FOREVER!!! The Proposed Cobbs Hill Estate Expansion is grossly out of scale to anything else in Oakbank or any other part of the Adelaide Hills apart from Hahndorf. It is out of step with our rural character & identity. Winter Reds was held at Cobbs Hill Estate on the 29th of July, I was planting trees in our paddock & I could quite clearly hear the music throughout the day. Outdoor music & patron noise travels with the wind & are funnelled through the valley along Peacock Road South, destroying our beautiful background soundscape. During the warmer months of the year, we, like our neighbours enjoy sitting outside; if the Cobbs Hill Expansion goes ahead, that enjoyment will be significantly diminished. The responsibility for managing & controlling music & patron noise falls on the Duty Manager, who also must manage other facets of the event; I fear this task will be taken less seriously. Patrons invariably become louder with alcohol & music and having a good time; the Duty Manager & Cobbs Hill staff are less likely to want to be "Party Poopers"; therefore, the event noise will more often go unchecked. If the Proposed expansion were to go ahead, besides the unwanted increase in music & patron noise, there would be a greater increase in traffic & traffic noise to Oakwood Road & Swamp Road. Both roads are dark & winding & pose a danger to drivers unfamiliar with Adelaide Hills Roads, there also maybe an issue with tired or intoxicated drivers. Our Peace & Quiet is why we all live here; it offers a rare quality of life too valuable to lose; if the Cobbs Hill Expansion were to go ahead, it would significantly detract from our part of the Adelaide Hills.

### Attached Documents

## Representations

### Representor 4 - Katherine Parker

Name	Katherine Parker
Address	Box 191 BALHANNAH SA, 5242 Australia
Submission Date	06/09/2022 08:58 AM
Submission Source	Email
Late Submission	No
Would you like to talk to your representation at the decision-making hearing for this development?	Yes
My position is	I oppose the development
<b>Reasons</b> See attached	

### Attached Documents

Representation21017786-KatherineParker-3745076.pdf

## Vanessa Inkster

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**From:** Kate Parker <kateshepo@hotmail.com>  
**Sent:** Tuesday, 6 September 2022 7:36 AM  
**To:** Development Admin  
**Subject:** Cobb Hill Expansion  
**Attachments:** Representation\_on\_Application\_-\_Performance\_Assessed\_Development (2).docx

[EXTERNAL]

Hi Adelaide Hills council,

Please find my representation on the application for Cobbs Hill,

Thanks

Katherine Parker

0408784288

# REPRESENTATION ON APPLICATION – PERFORMANCE ASSESSED DEVELOPMENT

*Planning, Development and Infrastructure Act 2016*

<b>Applicant:</b>	Katherine Parker <i>[applicant name]</i>
<b>Development Number:</b>	21017786 <i>[development application number]</i>
<b>Nature of Development:</b>	Function Centre <i>[development description of performance assessed elements]</i>
<b>Zone/Sub-zone/Overlay:</b>	D79870QP2 <i>[zone/sub-zone/overlay of subject land]</i>
<b>Subject Land:</b>	382B Swamp Rd Oakbank <i>[street number, street name, suburb, postcode]</i> <i>[lot number, plan number, certificate of title number, volume &amp; folio]</i>
<b>Contact Officer:</b>	Doug Samaradzija <i>[relevant authority name]</i>
<b>Phone Number:</b>	8408 0596 <i>[authority phone]</i>
<b>Close Date:</b>	12/09/2022 <i>[closing date for submissions]</i>

My name*: Katherine Parker	My phone number: 0408784288
My postal address*: Box 191 Balhannah 5242	My email: kateshepo@hotmail.com

*\* Indicates mandatory information*

My position is:	<input type="checkbox"/> I support the development
	<input type="checkbox"/> I support the development with some concerns (detail below)
	<input checked="" type="checkbox"/> I oppose the development

The specific reasons I believe that planning consent should be granted/refused are:

*I oppose this development; the reason we bought in the area that we did was for peace and quiet.*

*This development will increase traffic on Oakwood rd, we will have a increase of cars driving past midnight when the function finishes, as well as the noise from the cars.*

*The increase of trading hours I object too, as well as the noise level, we recently had Winter reds festival and I could hear every note and singing coming from Cobb Hill and I do not want a function centre as the noise will be from both music as well as a large amount of patrons.*

*We do not want our quiet sanctuary taking away from us, and object to this entire application.*

*[attach additional pages as needed]*



**Government of South Australia**  
Department for Trade  
and Investment



Note: In order for this submission to be valid, it must:

- be in writing; and
- include the name and address of the person (or persons) who are making the representation; and
- set out the particular reasons why planning consent should be granted or refused; and
- comment only on the performance-based elements of the proposal, which does not include the:
  - [Click here to enter text.](#) *[list any accepted or deemed-to-satisfy elements of the development]*.

I:	<input checked="" type="checkbox"/> wish to be heard in support of my submission*
	<input type="checkbox"/> do not wish to be heard in support of my submission
By:	<input type="checkbox"/> appearing personally
	<input checked="" type="checkbox"/> being represented by the following person: Darryl Parker and Jill Brodie -Tyrrell

*\*You may be contacted if you indicate that you wish to be heard by the relevant authority in support of your submission*

Signature: K J Parker

Date: 06/09/2022

Return Address: [Click here to enter text.](#) *[relevant authority postal address]* or

Email: [Click here to enter text.](#) *[relevant authority email address]* or

Complete online submission: [planninganddesigncode.plan.sa.gov.au/haveyoursay/](http://planninganddesigncode.plan.sa.gov.au/haveyoursay/)

## Representations

### Representor 5 - Natalija and Silvio Apponyi

Name	Natalija and Silvio Apponyi
Address	157 SWAMP ROAD BALHANNAH SA, 5242 Australia
Submission Date	08/09/2022 04:42 PM
Submission Source	Email
Late Submission	No
Would you like to talk to your representation at the decision-making hearing for this development?	No
My position is	I oppose the development

#### Reasons

Good Afternoon, I have just found out about Cobb Hill's proposed plans for their property on Swamp Road, Balhannah so have read the application submitted. We are somewhat horrified at the number of people they want to have there, ie 208 persons 7 days a week and a further 208 on three days a week, which is a HUGE increase on the numbers currently visiting the winery. Our main concern is about the increase in traffic on Swamp Road which is bound to occur. Bearing in mind we live very close to the road, when we moved here 20 years ago traffic noise was hardly noticeable, apart from the fruit trucks, because Swamp Road was somewhat of a "country lane", but during the last 10 years it has become much worse, sometimes unbearable, to the point that we had to install double-glazed windows on the south side of our house which we have to close at night so we aren't woken so easily in the mornings by the relentless stream of cars which can start at 6.00am and go on till after 9.00am...then from 4.00pm onwards it starts again. Our only consolation has been that the evenings are quiet apart from the occasional "hoon" driver, but if Cobb's Hill is going to have regular functions and presumably some at night, we are going to have to put up with more noise. I assure you we would never have bought here had we known how bad the traffic would become in such a short time. We are to this day puzzled as to where all the extra vehicles are travelling from because being in the water-shed, we understood there could be no further housing development between here and Lobethal unless there was an existing title that could be sold off and that surely doesn't account for 100s and 100s of extra journeys past our gate. The resurfacing of the road some years ago didn't help either, in that the spray over gravel adds considerably to the noise levels and the widening of the road has turned it into a race track. It also breaks up readily so the council workers are constantly having to patch it where there are springs under the surface. If you drive further north from our place, just before you get to Oakwood Road, there are some corners with thick bitumen on them and the noise as you travel over these sections is much reduced. However, we can't see that the council (and I have complained in the past) would remedy the situation without spending millions. Therefore we do object to the size of the proposal on the grounds that it is a major change and will negatively affect all of us between Cobb's Hill and Greenhill Road. Sincerely Natalija Apponyi

### Attached Documents

## Representations

### Representor 6 - Duncan Young

Name	Duncan Young
Address	PO Box 1171 BALHANNAH SA, 5242 Australia
Submission Date	09/09/2022 11:42 AM
Submission Source	Online
Late Submission	No
Would you like to talk to your representation at the decision-making hearing for this development?	Yes
My position is	I oppose the development
<b>Reasons</b>	

### Attached Documents

Representation\_Swamp\_Rd-1105336.pdf

**PETER MELINE & ASSOCIATES**  
**TOWN & COUNTRY PLANNERS**  
**PO BOX 1508, Mt. BARKER, SA, 5251.**  
**[petermeline@bigpond.com](mailto:petermeline@bigpond.com)**  
**0448 395 299**

08/09/2022

Ms. D. Samardzija,  
Adelaide Hills Council.  
PO Box 141,  
Woodside SA 5244

Dear Doug,

**21017786**  
**382B Swamp Rd Oakbank SA 5243**  
**Representation**  
**Pursuant to Section 107(3)(b)**  
**Planning, Development and Infrastructure Act 2016**

I act for Duncan and Annie Young and Brenton and Gai Adcock in this matter and I have to bring the following issues to your attention;

**EXHIBITION**

The documents on exhibition have raised the following concerns for Neighbouring Residents at 339-357 Oakwood Rd Balhannah and 426 Oakwood Rd Oakbank, who are the immediate residents in location to the proposed Development at 382B Swamp Rd Oakbank:

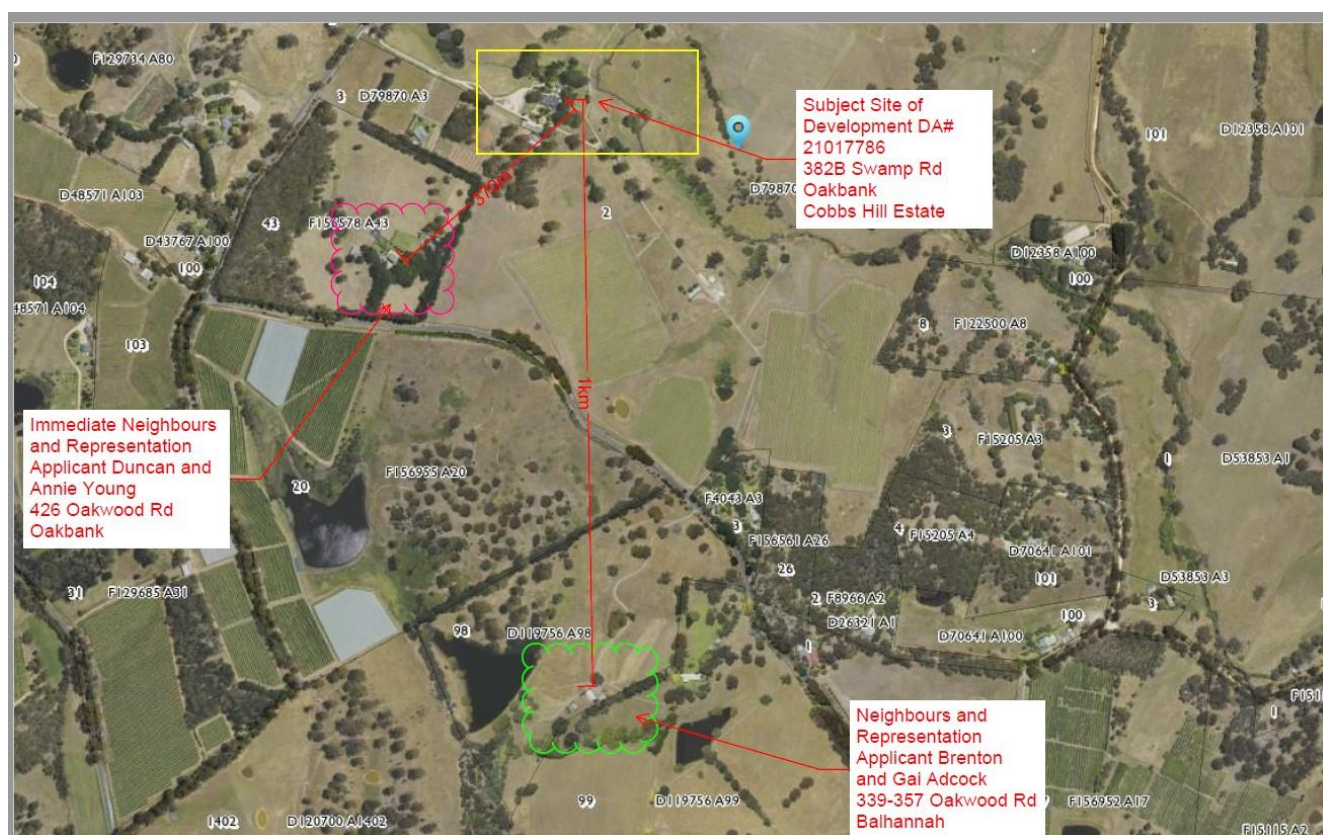
- Substantial Increase in Patron Numbers and Frequency of proposed events will result in the increase of sound emission Deep b noise travelling over distance in the late hours of the evening and will result in a profound effect on the Rural Amenity
- Substantial Increase in Hospitality Industry activities resulting in increasing demands on the land to accommodate Waste Management and potential water and land quality issues that may impact the sensitive natural environment and biodiversity of the Region.
- Substantial Increase in frequency and number of vehicles accessing the Site (Increased Staff and Patron numbers)
- Travel and Safety concerns regarding road conditions and increased traffic volume in relation to the location; notorious Blind Corner (Corner of Swamp Rd and Greenhill Rd), the immediate Crest of Hill located above the access point to the Subject Land Site on Swamp Road



Oakbank, and the allocated 80km speed limit zone along Swamp Road  
Oakbank which provides the point of access to the Subject Site

- No traffic report or road safety analysis has been publically exhibited despite the fact that the development will generate considerable traffic movements
- The access road and car parking areas are unsealed and will result in substantial dust emission in the drier seasons – a nuisance for local residents

The below image shows the location of the proponents dwellings in relationship to the subject site of the proposed Development.



### Location - Aerial Image

**THE PROPOSAL OFFENDS SEVERAL DESIRED OUTCOMES AND POLICY OBJECTIVES FOR THE ZONE AS OUTLINED IN THE PDI CODE 2016 (see the relevant extract of the PDI Code below):**

### *Productive Rural Landscape Zone*

## DO 1

*A diverse range of land uses at an appropriate scale and intensity that capitalize on the region's proximity to the metropolitan area and the tourist and lifestyle opportunities this presents while also conserving the natural and rural character, identity, biodiversity and sensitive environmental areas and scenic qualities of the landscape.*

***It is submitted that the proposal offends DO1:***

***The over amplification of scale for the proposed Development will place increasing demands on the natural environment and associated health and diversity of the existing biodiversity to the immediate locale, as the land will need to accommodate waste management produced by the substantial increase in patron numbers and proposed hospitality enterprises; such as escalation of food and wine production, human waste controls, and increased trade and pedestrian vehicular movements both in preparation for events and events themselves on the Subject Land.***

*The proposal intends to increase the number of Patrons from the existing development approval:*

- ***130 persons 18 times a year with 208 persons on 7 occasions a year for special functions***

*To*

- ***100 Patrons at any one time per Day, as well as, 400 Patrons (200 in restaurant and garden and 200 in function center) twice a week or 104 times per year.***

***The proposal intends to increase the scale of development by four times its current limit.***

***This representation argues that the scale is not appropriate for the Subject Land Site.***

***The current mixed land usage of the Subject Land includes; residential, agriculture (Cattle Grazing and Viticulture Production), Cellar Door and a smaller Function Center. The extent of current activities and land use as approved are considered proportional to the Subject 220 Acre land holding.***

**DO 3**

Create local conditions that support new and continuing investment while seeking to promote co-existence with adjoining activities and mitigate land use conflicts.

***The proposal shows no evidence of promoting co-existence through consultation with neighbouring Land Holders to mitigate land use conflicts associated with this large scale development.***

***All parties requesting representation in this objection to this development have advised that the current activities on the Subject Land are tenable. Late night noise emissions, and periods of intense traffic movements resulting from the current hours and frequency of operation to the Subject Land have been assuaged and integrated into their rural residential lifestyles. However, all parties to this***

***representation are unanimous, the proposed scale of development will result in too many disturbances for local residents, and the potential for damage to the local environment, biodiversity and water quality from large scale functions is completely undesirable to the intentions and land practices that Rural Residential land holders have invested in.***

***Both representation parties; Duncan and Annie Young and Brenton and Gai Adcock declare a conflict with the proposed land use as they consider the scale of the proposed development will results in decreased quality of Rural Residential Lifestyle and Land Care to which they have both taken residence for the previous decades (20 years and 40 years respectively for mentioned parties).***

#### PO 1.1

The productive value of rural land for a range of primary production and horticultural activities and associated value adding of primary produce (such as beverage production), retailing and tourism is supported, protected and maintained. The proliferation of land uses that may be sensitive to those activities is avoided.

***As identified under DTF/DPF 1.1; proliferation of existing activities to the Subject Land shall be avoided within the Productive Rural Landscape Zone. The proposed development which will prolifically increase all activities in association with the proposed development shall on recommendation of the PDI Code, be avoided.***

***This proposal is of a scale that patently flies in the face of PO 1.1 above.***

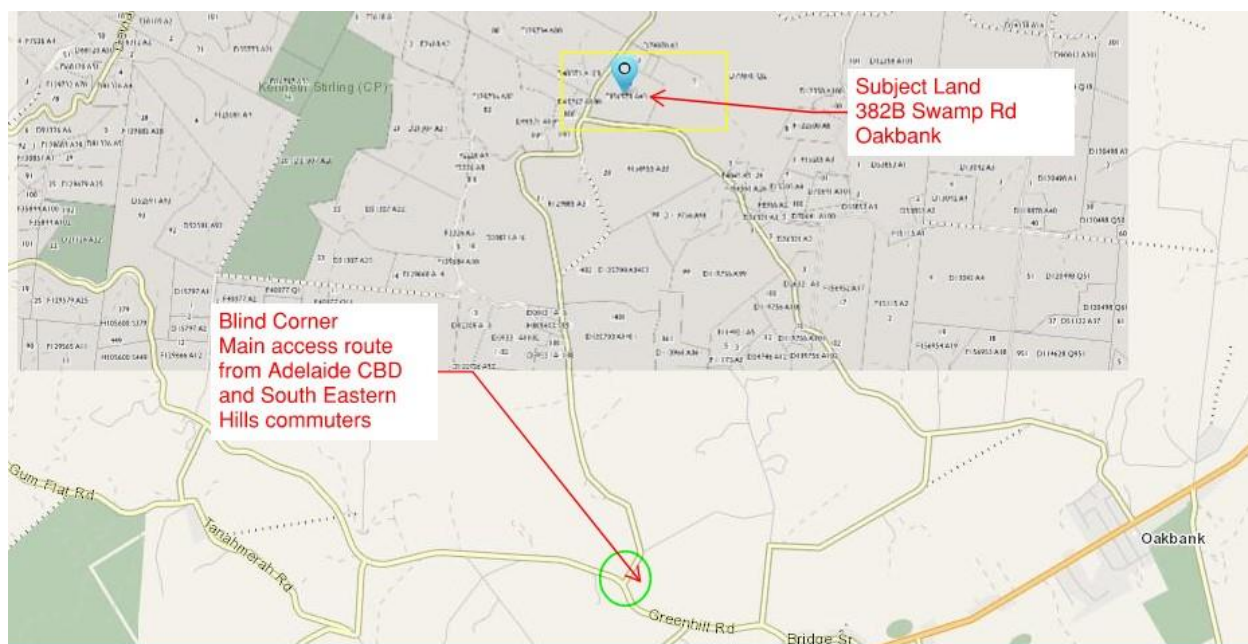
#### PO 2.1

Development is provided with suitable vehicle access.

***It is submitted that DTS/DPF 2.1 is offended:***

***The access point to the Subject Land Site has been constructed to accommodate all types of vehicles. However, the natural topography of the surrounding Land Forms results in an access point at the bottom of a blind crest of hill (Northern decent when travelling in a Southerly direction along Swamp Rd) which is also an 80km travel zone. Vehicles commuting to the site in a Northerly direction will need to navigate the notorious Blind corner located at the interface between Swamp Rd and Greenhill Rd in Balhannah (See Road Site Map for location below).***

***It is submitted that no road safety report has been exhibited.***



### Location Swamp Rd and Greenhill Rd Blind Corner Intersection

***The proposal intends to increase patron number by 100% with an increased frequency of events at a minimum of four times the current frequency. This will result in substantial increase in vehicles to the site that will be subject to the conditions of other vehicles transitioning through the area at precarious hours of the evening as the hours of operation for events and the restaurant are proposed to commencing at 10.00am and cease at midnight every day of the week. Access to the Site will be unsuitable and result in increasing the potential for serious safety issues in association with the development for local residents and visitors to the Site and immediate region.***

***Furthermore, the proliferation of traffic to the subject land will result in increased noise, and dust emissions in the drier seasons and the access track for the subject land is not a sealed access track.***

***It is noted that no Traffic and Parking Report has been exhibited.***

***Adelaide Hills Council Planner responsible for this Development Application has advised that no Traffic and Parking Report has been submitted.***

### CONCLUSION

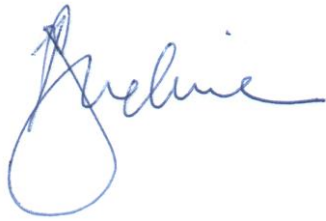
It is patent that this proposal goes well beyond the Objectives of the Code. This proposal is at odds with the recommended development for the Productive Rural Landscape Zone which seeks to promote development of an appropriate scale and intensity.

Serious safety issues have been identified in associated with the development and transportation routes to the Subject Land Site.



Given the bowl shaped topography of the Land in the immediate vicinity, Neighbouring Residents will be adversely affected by the proposed development. The proposed development will result in unacceptable noise disturbance for the neighbours on a daily basis and later into the evening than what they currently ameliorate.

It is requested that I be permitted to address the AHC CAP in this regard when it considers this Development Application.



*Peter Meline  
RPIA, MAIBS,JP  
Planner*

## Representations

### Representor 7 - Jill and Greg Brodie-Tyrrell

Name	Jill and Greg Brodie-Tyrrell
Address	PO Box 332 BALHANNAH SA, 5242 Australia
Submission Date	09/09/2022 11:59 AM
Submission Source	Online
Late Submission	No
Would you like to talk to your representation at the decision-making hearing for this development?	Yes
My position is	I oppose the development

#### Reasons

Thank you for the opportunity to respond to the proposal of development at Cobbs Hill Estate. We strongly object to the proposed development on the grounds of noise and safety issues. We and most residents in the vicinity of Cobbs Hill Estate have invested in and moved to this area because of the peaceful and quiet environment which is rare and becoming more rare in the Adelaide Hills. Should the proposed development go ahead, the noise emanating from Cobbs Hill Estate will destroy the precious ambience for present and future residents, significantly affecting our lives, living conditions and property values. From experiencing the events held at the Oakbank race course 2 kilometres from us we are aware of how well amplified and unamplified sound carries and have already experienced the intrusive noise during the recent Winter Reds event at Cobbs Hill Estate. The noise of helicopters bringing tourists to the Estate is already distressing and invasive. Other concerns are the increased volume of traffic on local roads which will be a safety risk, especially for drivers unused to driving on hills' roads particularly at night and probably after consuming alcohol. Cobbs Hill Estate is in a Productive Rural Landscape Zone According to PlanSA, This zone promotes agriculture, horticulture, value adding opportunities, farm gate businesses, the sale and consumption of agricultural based products, tourist development and accommodation that expands the economic base and promotes its regional identity. Where it applies: Throughout the Adelaide Hills, at the interface with urban and rural areas The Cobbs Hill Estate proposal meets these guidelines except that it is certainly not located "at the interface with an urban and rural area". While the cellar door and a small motel might be acceptable under these regulations, a function centre of the capacity proposed would be totally unacceptable. For good reasons there are strict regulations that limit housing development outside township boundaries and this proposed development absolutely flies in the face of the purpose of these regulations which protect the rural zone from over population and maintain the unique character of the Hills. We and other local land owners are endeavouring to rehabilitate the natural bush, in order to attract native birds and wildlife. While the recent regulations for controlling cats are laudable, they will be laughable compared to the effect on any wildlife that the increased noise will have. We sincerely hope that these concerns are taken seriously.

### Attached Documents

## Representations

### Representor 8 - Timothy Wright

Name	Timothy Wright
Address	423B Swamp Rd LENSWOOD SA, 5240 Australia
Submission Date	11/09/2022 12:00 PM
Submission Source	Online
Late Submission	No
Would you like to talk to your representation at the decision-making hearing for this development?	No
My position is	I oppose the development

#### Reasons

I do not believe that consent for this build should be granted due to the increase of noise at night, currently the loud bass music is very audible and interferes with my sleep, an increase in capacity would only increase the number of times the loud bass would be heard. In addition to that, the helicopters that they have going overhead are incredibly intrusive, they fly low over head as they come in to land, and I'm afraid an increase in capacity from this build will increase this. Finally, all the drunks that leave the property, driving slowly out into an 80kmph main thoroughfare for quarry trucks and other trucks for the local primary production and horticulture make this very dangerous, there are already near misses with people not knowing what they are doing when they arrive or leave from this winery. The winery should never have been given approval in the first place, and this expansion is an abhorrent decision by people that do not come from this area and don't understand the area. This is the current situation with an 80 guest capacity, an increase of over 400% on this is just asking for disaster.

### Attached Documents

## Representations

### Representor 9 - Michael Gallagher

Name	Michael Gallagher
Address	61b Peacocks Rd South, PO Box 88 OAKBANK SA, 5243 Australia
Submission Date	11/09/2022 10:02 PM
Submission Source	Online
Late Submission	No
Would you like to talk to your representation at the decision-making hearing for this development?	Yes
My position is	I oppose the development

#### Reasons

Re: Cobbs Hill Development Application As both a local Oakbank resident and sharing a boundary with the Cobbs Hill property we oppose the development request. Whilst we invite progress and raising the profile of The Adelaide Hills and all it has to offer, unfortunately the proposed build will in many ways impact numerous surrounding residential properties; and from our point of view, non more significant than noise pollution. We have resided at our current Oakbank address for close to 10yrs and understand that from time to time winery events (eg: Crush and Winter Reds) are well attended and a big calender event throughout the hills - this includes at Cobbs Hill. The noise that emanates from these (and other) events is significant, even under current circumstances/capacity and hours of operation. Further to these concerns, we are currently well underway with a new house build, which puts us even closer (Northern aspect overlooking Cobbs Hill Vineyards) to the shared boundary than is current, further increasing the impact of the noise pollution we will experience. Again, we are all for building great facilities for locals and visitors to visit and enjoy in the Hills, however not to the detriment of the lifestyle and environment we came here for. Thankyou for the opportunity to comment.

### Attached Documents



## Representations

### Representor 10 - Peter Salu

Name	Peter Salu
Address	48 Carrington Street ADELAIDE SA, 5000 Australia
Submission Date	12/09/2022 08:43 AM
Submission Source	Online
Late Submission	No
Would you like to talk to your representation at the decision-making hearing for this development?	Yes
My position is	I support the development with some concerns

#### Reasons

I am a local resident (address suppressed). The change in use from 208 persons x 7 times a year and 130 persons 18 occasions a year to 100 at the cellar door daily and 400 two days a week (essentially every weekend) is too great. The impact of a function centre operating effectively every weekend will strain relationships with the neighbours and impact on evening amenity. Having the cellar door open every day is fine- 26 functions / year would appear appropriate.

### Attached Documents

Cobbs\_Hill-1105987.pdf

## /REPRESENTATION ON APPLICATION – PERFORMANCE ASSESSED DEVELOPMENT

*Planning, Development and Infrastructure Act 2016*

<b>Applicant:</b>	Cobbs Hill Estate <i>[applicant name]</i>
<b>Development Number:</b>	21017786 <i>[development application number]</i>
<b>Nature of Development:</b>	Expansion / function center <i>[development description of performance assessed elements]</i>
<b>Zone/Sub-zone/Overlay:</b>	Productive rural landscape / watershed <i>[zone/sub-zone/overlay of subject land]</i>
<b>Subject Land:</b>	382B Swamp Rd, Oakbank <i>[street number, street name, suburb, postcode]</i> <i>[lot number, plan number, certificate of title number, volume &amp; folio]</i>
<b>Contact Officer:</b>	Doug Samardzija <i>[relevant authority name]</i>
<b>Phone Number:</b>	<a href="#">Click here to enter text.</a> <i>[authority phone]</i>
<b>Close Date:</b>	12/9/22 <i>[closing date for submissions]</i>

/

My name*: Peter Salu	My phone number: 0418828109
My postal address*: 48 Carrington Street, Adelaide	My email: p.salu@carringtonchambers.com.au

*\* Indicates mandatory information*

My position is:	<input type="checkbox"/> I support the development
	<input checked="" type="checkbox"/> I support the development with some concerns (detail below)
	<input type="checkbox"/> I oppose the development

The specific reasons I believe that planning consent should be granted/refused are:

*I am a local resident (address suppressed).*

*The change in use from 208 persons x 7 times a year and 130 persons 18 occasions a year to 100 at the cellar door daily and 400 two days a week (essentially every weekend) is too great.*

*The impact of a function centre operating effectively every weekend will strain relationships with the neighbours and impact on evening amenity.*

*Having the cellar door open every day is fine- 26 functions / year would appear appropriate.*



**Government of South Australia**

Department for Trade  
and Investment

*[attach additional pages as needed]*

Note: In order for this submission to be valid, it must:

- be in writing; and
- include the name and address of the person (or persons) who are making the representation; and
- set out the particular reasons why planning consent should be granted or refused; and
- comment only on the performance-based elements of the proposal, which does not include the:
  - [Click here to enter text.](#) *[list any accepted or deemed-to-satisfy elements of the development]*.

I:	<input checked="" type="checkbox"/> wish to be heard in support of my submission*
	<input type="checkbox"/> do not wish to be heard in support of my submission
By:	<input checked="" type="checkbox"/> appearing personally
	<input type="checkbox"/> being represented by the following person: <a href="#">Click here to enter text.</a>

*\*You may be contacted if you indicate that you wish to be heard by the relevant authority in support of your submission*

Signature: (signed) P. . Salu

Date: 12/9/22

Return Address: 48 Carrington Street, Adelaide SA 5000 *[relevant authority postal address]* or

Email: or

Complete online submission: [planninganddesigncode.plan.sa.gov.au/haveyoursay/](http://planninganddesigncode.plan.sa.gov.au/haveyoursay/)

## Representations

### Representor 11 - William Marryat

Name	William Marryat
Address	PO Box 347 BALHANNAH SA, 5242 Australia
Submission Date	12/09/2022 11:44 AM
Submission Source	Online
Late Submission	No
Would you like to talk to your representation at the decision-making hearing for this development?	No
My position is	I oppose the development
<b>Reasons</b> See attached submission	

### Attached Documents

Objection\_-\_Council\_Application-1106165.pdf



**Application ID 2107786**  
**382B Swamp Road, Oakbank**  
**('Application')**

My wife Amanda McInerney, and I have resided at 29 Swamp Road, Balhannah for the last 20 years.

We have become aware of the Application reported recently in the local Courier newspaper. Other local residents may not be aware of the Application.

We have examined the documents in relation to the Application and find the Application devoid of merit.

We have previously raised our concerns with Council and our state parliamentary member about the ever increasing traffic problems on Swamp Road. We have not detected any action to address any of our concerns.

Our area is a rural area. It is a farming area. Livestock (predominately cattle), orchards and vineyards provide for the livelihood of many people in our area.

The area is zoned as a productive rural landscape zone.

It is obvious that the Application is inconsistent with the purpose of the zone. The Application is not compatible with the conservation of the rural character, identity, biodiversity and sensitive environmental area and as well as the scenic qualities of the landscape. It is our view that the Application seriously diminishes those characteristics.

The proposed enormous increase in patronage is in direct conflict with the zone.

The development proposed in the Application is not designed to co-exist with the rural undertakings of others in the area. The Application is of such magnitude that no reasonable person could possibly think that it complimented existing land uses in the area.

The Application presents no view as to the affect it will have on Swamp Road traffic.

During our 20 years on Swamp Road it has gone from a very quiet country road into a major traffic thoroughfare between Balhannah and Lenswood. Since that road was resurfaced and widened some years ago we have seen an enormous increase in traffic.

The blind corner at Greenhill and Swamp Roads has become extremely perilous. The bend on Swamp Road at Pye Road has seen many single car crashes. I have personally attended a number of these crashes and rendered assistance. Our local CFS volunteers have had to attend at all hours to assist. An increase in traffic will simply increase the problem. Inevitably there will be accidents involving more than one vehicle with, no doubt, tragic consequences.

Traffic has increased due to a number of factors including the development of wineries/restaurants in Lenswood (for example, Pike & Joyce; Mt Lofty Vineyards), accommodation units at Lenswood – with further units currently under construction and the improvements at the Fox Creek mountain bike track. The existence of these facilities, together with the existing development at Cobb Hills, are more than adequate for the area.

Although not directly affecting our farm the increased traffic entering and exiting Cobbs Hill will become perilous. This is already causing problems. I can attest that some existing patrons leaving Cobbs Hill have little or no regard for the road users on Swamp Road. This will, no doubt, increase.

The Application has no regard to traffic and safety.

Overall, the Application offends the zone and is without objective merit. We urge Council not to approve the Application.

A handwritten signature in blue ink, appearing to read 'W. A. Marryat'.

W. A. Marryat

for and on behalf of

W. A. Marryat and A. McInerney

12/9/22.

## Representations

### Representor 12 - James Burnett

Name	James Burnett
Address	P.O.Box 106 VERDUN SA, 5245 Australia
Submission Date	12/09/2022 01:22 PM
Submission Source	Online
Late Submission	No
Would you like to talk to your representation at the decision-making hearing for this development?	No
My position is	I oppose the development

#### Reasons

The increased number proposed is far too many people to what is meant to be a rural setting. Neighbours are already struggling with noise and traffic issues. Roads are not coping with current use and plagued with need for frequent repairs. I have serious concern regarding road safety with very significant increase of road use and likely intoxicated drivers. Overall this proposal goes way beyond acceptable activity for other rural residents to tolerate. Please consider your other rate payers! We came here for peace and quiet. The current situation is barely acceptable as it is.

### Attached Documents

## Representations

**Representor 13** - peter meline

Name	peter meline
Address	PO Box 1508 MT BARKER SA, 5251 Australia
Submission Date	12/09/2022 05:05 PM
Submission Source	Online
Late Submission	No
Would you like to talk to your representation at the decision-making hearing for this development?	Yes
My position is	I oppose the development
<b>Reasons</b>	

## Attached Documents

Representation\_Swamp\_Rd-1106552.pdf

**PETER MELINE & ASSOCIATES**  
**TOWN & COUNTRY PLANNERS**  
**PO BOX 1508, Mt. BARKER, SA, 5251.**  
**[petermeline@bigpond.com](mailto:petermeline@bigpond.com)**  
**0448 395 299**

08/09/2022

Ms. D. Samardzija,  
Adelaide Hills Council.  
PO Box 141,  
Woodside SA 5244

Dear Doug,

**21017786**  
**382B Swamp Rd Oakbank SA 5243**  
**Representation**  
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**Planning, Development and Infrastructure Act 2016**

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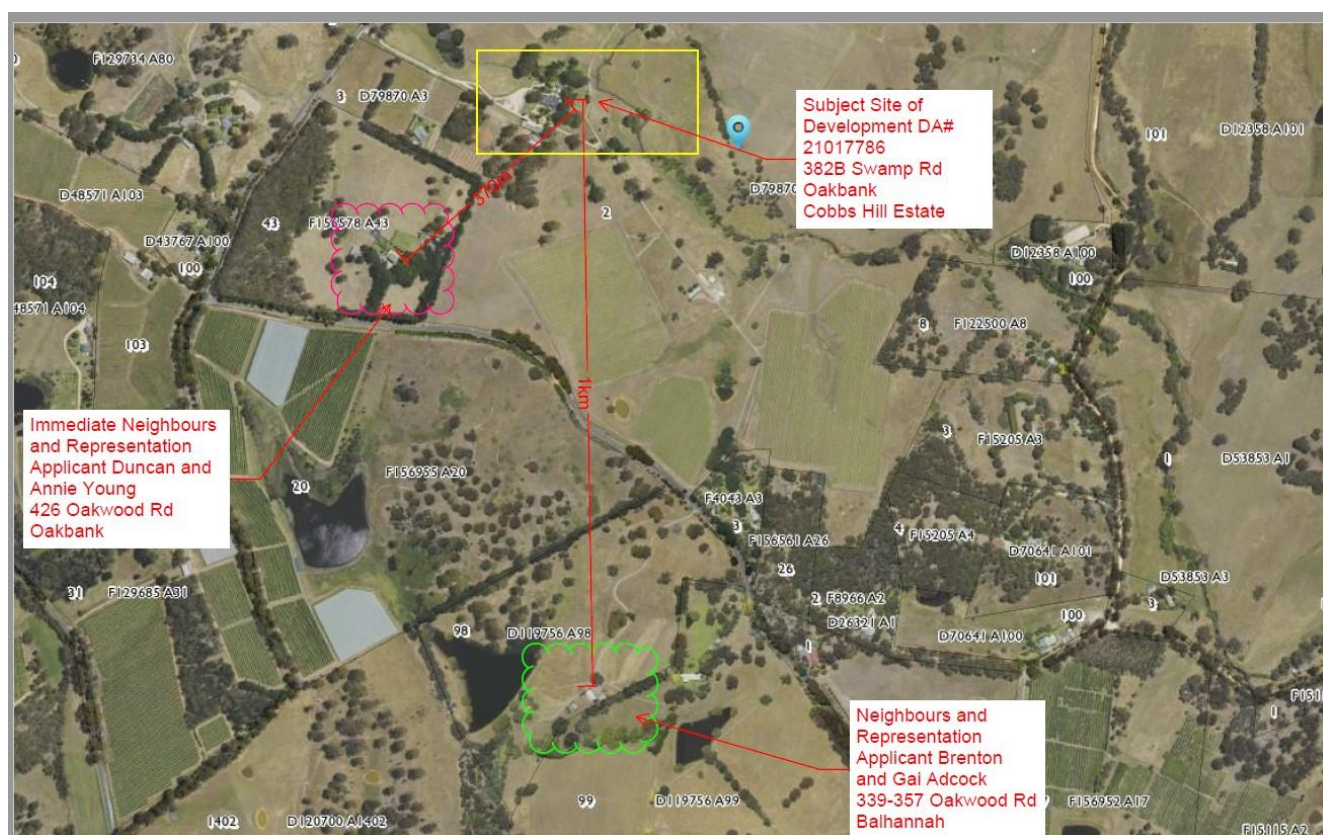
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Oakbank, and the allocated 80km speed limit zone along Swamp Road Oakbank which provides the point of access to the Subject Site

- No traffic report or road safety analysis has been publically exhibited despite the fact that the development will generate considerable traffic movements
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### Location - Aerial Image

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*The proposal intends to increase the number of Patrons from the existing development approval:*

- ***130 persons 18 times a year with 208 persons on 7 occasions a year for special functions***

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- ***100 Patrons at any one time per Day, as well as, 400 Patrons (200 in restaurant and garden and 200 in function center) twice a week or 104 times per year.***

***The proposal intends to increase the scale of development by twenty times its current limit.***

***This representation argues that the scale is not appropriate for the Subject Land Site.***

***The current mixed land usage of the Subject Land includes; residential, agriculture (Cattle Grazing and Viticulture Production), Cellar Door and a smaller Function Center. The extent of current activities and land use as approved are considered proportional to the Subject 220 Acre land holding.***

**DO 3**

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#### PO 1.1

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***As identified under DTF/DPF 1.1; proliferation of existing activities to the Subject Land shall be avoided within the Productive Rural Landscape Zone. The proposed development which will prolifically increase all activities in association with the proposed development shall on recommendation of the PDI Code, be avoided.***

***This proposal is of a scale that patently flies in the face of PO 1.1 above.***

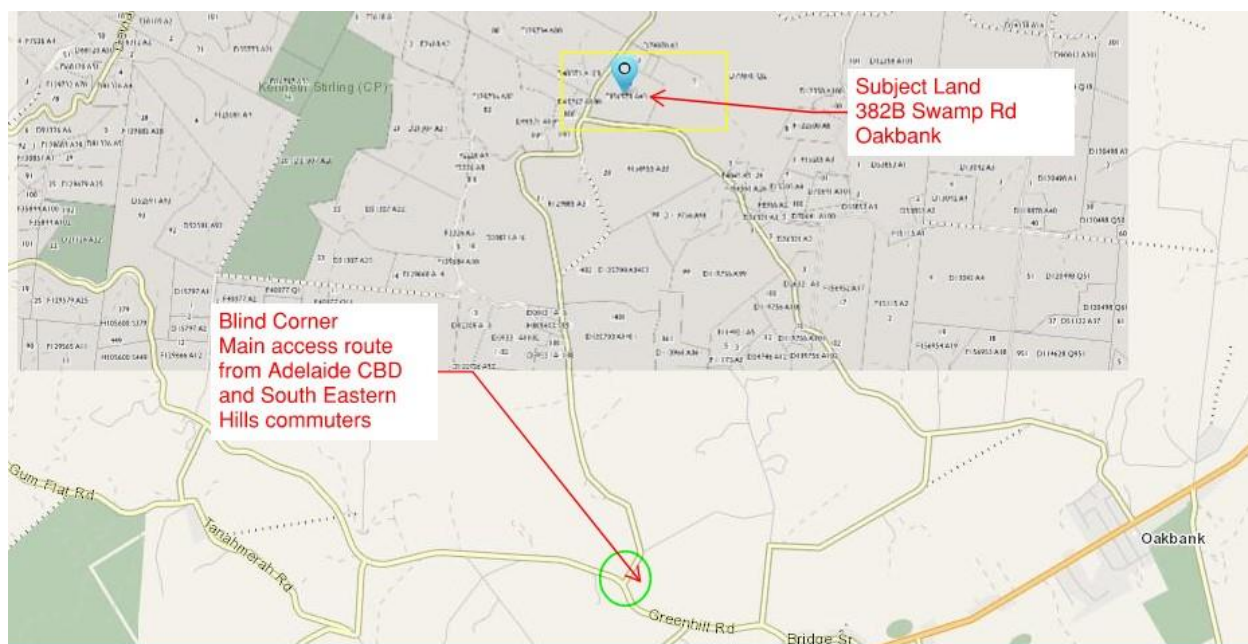
#### PO 2.1

Development is provided with suitable vehicle access.

***It is submitted that DTS/DPF 2.1 is offended:***

***The access point to the Subject Land Site has been constructed to accommodate all types of vehicles. However, the natural topography of the surrounding Land Forms results in an access point at the bottom of a blind crest of hill (Northern decent when travelling in a Southerly direction along Swamp Rd) which is also an 80km travel zone. Vehicles commuting to the site in a Northerly direction will need to navigate the notorious Blind corner located at the interface between Swamp Rd and Greenhill Rd in Balhannah (See Road Site Map for location below).***

***It is submitted that no road safety report has been exhibited.***



### Location Swamp Rd and Greenhill Rd Blind Corner Intersection

***The proposal intends to increase patron number by 100% with an increased frequency of events at a minimum of four times the current frequency. This will result in substantial increase in vehicles to the site that will be subject to the conditions of other vehicles transitioning through the area at precarious hours of the evening as the hours of operation for events and the restaurant are proposed to commencing at 10.00am and cease at midnight every day of the week. Access to the Site will be unsuitable and result in increasing the potential for serious safety issues in association with the development for local residents and visitors to the Site and immediate region.***

***Furthermore, the proliferation of traffic to the subject land will result in increased noise, and dust emissions in the drier seasons and the access track for the subject land is not a sealed access track.***

***It is noted that no Traffic and Parking Report has been exhibited.***

***Adelaide Hills Council Planner responsible for this Development Application has advised that no Traffic and Parking Report has been submitted.***

### CONCLUSION

It is patent that this proposal goes well beyond the Objectives of the Code. This proposal is at odds with the recommended development for the Productive Rural Landscape Zone which seeks to promote development of an appropriate scale and intensity.

Serious safety issues have been identified in associated with the development and transportation routes to the Subject Land Site.

Given the bowl shaped topography of the Land in the immediate vicinity, Neighbouring Residents will be adversely affected by the proposed development. The proposed development will result in unacceptable noise disturbance for the neighbours on a daily basis and later into the evening than what they currently ameliorate.

It is requested that I be permitted to address the AHC CAP in this regard when it considers this Development Application.

A handwritten signature in blue ink, appearing to read 'Peter Meline', with a large, stylized loop at the beginning.

*Peter Meline  
RPIA, MAIBS,JP  
Planner*



## Representations

### Representor 14 - Margaret Wilson

Name	Margaret Wilson
Address	432B Swamp Road LENSWOOD SA, 5240 Australia
Submission Date	13/09/2022 10:10 AM
Submission Source	Email
Late Submission	No
Would you like to talk to your representation at the decision-making hearing for this development?	Yes
My position is	I oppose the development
<b>Reasons</b> See Attached	

### Attached Documents

EmailedRepresentation21017786-MargaretWilson-3801745.pdf

## Vanessa Inkster

---

**From:** Margaret Wilson <margwlsn@gmail.com>  
**Sent:** Monday, 12 September 2022 10:27 PM  
**To:** Development Admin  
**Subject:** No to Cobb's Hill Estate proposed development.  
**Attachments:** Submission Against The Proposed Development Of Cobb's Hill Estate.docx

[EXTERNAL]

To whom it concerns,

I have had trouble submitting via the online form as the verification 'I am not a robot' keeps expiring and not moving through the final submission process.

So I have turned to email. Please accept my response here as an attached file.

I am available to speak, if necessary.

Regards,  
Margaret Wilson (previously Wright as on my land title) 423B Swamp Rd Lenswood SA 5240  
0416971898  
margwlsn@gmail.com

## Submission Against The Proposed Development Of Cobb's Hill Estate.

I have numerous concerns about the proposed expansion of Cobb's Hill Estate based on what we already experience.

I live on a hill up and across from Cobb's Hill Estate entrance/exit on Swamp Road, which is visible from my property. My property has a narrow approach to Swamp Road but expands across the hill, overlooking Swamp Road and a view across Cobb's Hill land.

### . Noise

Noise travels readily up to us from the cellar door, grounds and carparks. Especially on clear days and nights. Measurements taken at ground level on Swamp Rd would not accurately reflect this.

The most recent occasion was Friday 9<sup>th</sup> September when music with Bass 'thumping' was still going at 11.15 at night and was readily heard on our verandah. As we have single glazed windows it can interrupt sleep, but especially does so in summer when events are more frequent and our windows are open. I have elderly and unwell members in my household, as do other close residents, so this has been upsetting and stressful. The capacity to enjoy our outdoors is compromised. Midnight closing is not acceptable.

We have had the added noise of amplified voice and the excited revelry from outdoor customers' voices day and night. Extra carparking would add to this.

(The expansion of the vineyards which has already happened is problematic to me as overnight machinery working the vineyards sets up an uncomfortable hum in my bedroom and keeps me awake.)

### . Helicopters

We have periods of frequent low helicopter flights over our home on their way to and from the winery. This is very loud and intrusive. Enough for a tradesperson to ask: 'What's with the helicopters? I couldn't put up with that!' (19/20<sup>th</sup> May)

Whether this air traffic is from winery tours or delivering patrons to and from events, organised or personal gatherings, or to accommodation, it is likely to increase, especially with the diversity of proposed use and the capacity increase requested.

There is no mention of helicopter traffic in the proposed plan.

### . Safety

Swamp Road is a busy connector road from Lobethal area through to Balhannah and Hahndorf areas, Stirling area and the freeway. There is a lot of commuter traffic and heavy transport from local agribusiness and from industry, including the Neudorf Road quarry at Lobethal. It is a busy road.

The Cobb's Hill Estate entry/exit on Swamp Road is at the bottom of a steep hill after a corner. Often cars enter the roadway from Cobb's Hill, hesitate, stop, or drive very slowly. They can be seen to be distracted by the alpacas, ducks or the farm gate sales directly opposite the exit of Cobb's Hill. Drivers at times seem to be relaxed from the winery experience and not properly prepared to enter the roadway.

From Lenswood/Lobethal end, heavily loaded quarry trucks travel around a corner and downhill towards the Cobb's Hill entry/exit. It is not uncommon to hear horns and

emergency braking on this hill from a heavily loaded truck as they find a slow or stationary vehicle in their path. I have been driving from the other direction and experienced the desperate braking of a truck avoiding collision with an exited car, and with me. The problem is compounded when a queue of cars is waiting to enter Cobb's Hill. At other times I have witnessed this problem from our property where Swamp Road and the Cobb's Hill gateway are clearly visible.

Drivers unfamiliar with winding Hills' roads and not used to travelling at 80 kph are causing significant hazard to existing road users. Frequently we follow cars from Balhannah end on their way to Cobb's Hill Estate, who are nervous drivers unsure of where Cobb's Hill is. I followed one recently who stopped dead in front of me on the crest of the rise at Oakwood Rd and Swamp Rd T-junction, (where the unpredictable need to veer to the left occurs on the rise), they then progressed slowly on to Cobb's Hill. It is a common occurrence which is commented on by locals - being caught behind one or a group of hesitant 30 kph drivers, who turn into Cobb's Hill Estate.

The intersection of Oakwood Road and Swamp Rd and the T-junction of Swamp Road with Greenhill Rd are particularly difficult intersections due to not being able to see cars approach until they are close. Slow driving can be dangerous particularly when entering Swamp Rd from Greenhill Rd.

At times of public emergency the ability to clear the road for rapid transit of ambulances, or other emergency service vehicles, could be hindered by slow or congested traffic.

Of particular concern is the reliability of being able to cancel events as suggested, on Catastrophic Fire Days and on days when fires are present. Weddings are emotional events hard to cancel. Fires are unpredictable. The risk is that events are already underway, with many patrons on the property, when a fire breaks out. Cudlee Creek fire victims were only made aware and evacuating ten minutes before the fire arrived. Should a catastrophic fire break out between Cobb's Hill and Greenhill Rd the results could be unimaginable.

The routes of Swamp Rd and Oakwood Rd could become clogged with 200 – 400 patrons trying to enter the roadway at a time when the road is a major evacuation route for the district and needs to be flowing smoothly and efficiently. The experience of the Cudlee Creek fire was that the routes became clogged with slow moving horse floats. There is considerable risk in inviting large numbers of people into a bushfire zone. The proposed expanded complex is not appropriate for this area for that reason alone.

#### Other Concerns

The extended hours with associated noise, lights, and activity would be an intrusion to wildlife. Stock on adjacent property could be disturbed, eg alpaca stillbirths, jeopardising existing livestock owners' income.

Wedge Tailed Eagles, fully protected under The Act, nest in the range behind us. They glide down over us and circle up over the land between us and Cobb's Hill. Helicopter flights are at right angles to their flight path; they cross the hunting flight paths of the remaining pair(s) of Wedge Tailed Eagles that live on the back range. These birds regularly fly higher than the minimum helicopter range of 500 feet.

Planning permission has been refused for single dwellings in this district. The reason given was that this would contribute to extra pollution in the watershed. How is it possible that the equivalent of one hundred houses worth of pollution can be approved

so close to a watercourse? The only treatment method available is septic tank or a mini sewerage treatment works. The size of either would have to accommodate the shockload of 400, plus staff, using either facility in a short period of time. Malfunctions of either system would deposit raw sewerage on clay soils that are saturated for many months of the year.

#### .Conclusion

The effects of the commercial activity at Cobb's Hill, which **cannot be** contained to the premises, have presently decreased our capacity to enjoy our home environment and had a deficit effect on our liveability. Development on the scale proposed, the extra noise and road risk involved and the extended hours to midnight, seven days a week, are a greatly increased burden that we should not be asked to bear.

Margaret Wilson (previously Wright)  
423B Swamp Rd Lenswood





17 January 2023

Adelaide Hills Council  
ATT: Doug Samardzija

**By Upload**

Dear Doug

**RE: 21017786 – 382B SWAMP ROAD OAKBANK SA 5243**  
**VERSION 2: UPDATED NUMBERS**

I understand that Council has undertaken public notification in relation to the proposed “Construction of a function centre and restaurant building with associated car parking and landscaping and variations to Development Authorisations 16/973/473 to increase the overall capacity, the number of functions and special events and operating hours and 16/882/473 to increase the capacity and operating hours of the existing cellar door” at 382B Swamp Road Oakbank.

The applicant has engaged Heynen Planning Consultants to prepare a formal response to the representations and I can confirm that I have visited the site and locality, considered the representation submitted, reviewed the Planning and Design Code, considered the “notified” plans and considered the amended days and times of operation.

The applicant has engaged a traffic engineer Mr Phil Weaver of Phil Weaver & Associates to consider the planning matters raised regarding traffic and an acoustic engineer, Mr Ivailo Dimitrov of Bestec to address the concerns raised pertaining to acoustic impact.

For clarity, I also note that a staged consent is sought to enable the efficient progress of the development while an updated car park design has been confirmed by Phil Weaver & Associates and will be provided on updated civil engineering plans when complete.

My client has advised that they seek to address the fundamental concerns raised by the representors by way of providing amended hours of operation and frequency of events as follows:

**As Notified:**

*Increase Cellar Door from 75 to 100 persons 5 times per week 200 persons 2 times per week (Saturday or Sunday)*  
*Remove current functions and special events and replace with Function – maximum capacity 200 persons 1 time per week (Friday, Saturday or Sunday) Restaurant – maximum capacity 200 persons 1 time per week (Friday, Saturday or Sunday) Inclusive of the above (not in addition to) a maximum of 400 persons on site at any one time only on a Friday, Saturday or Sunday*

## As Per Response

*STAGE 1 - Vary Cellar Door numbers from 75 persons 7 days per week to 75 persons Monday to Friday and 200 persons on Saturday and Sunday. Hours to remain at 10:00 am until 6:00 pm*

*Vary Functions from 130 persons 18 times per year and Special Events for 208 persons 7 times per year to Functions for 130 persons 32 times per year 3:00 pm until midnight on Fridays, Saturdays and Sundays (delete the special events for 208 persons)*

*STAGE 2 - Construction of a Restaurant and Function Building for 130 persons 2 days per week from 11:00 am until 10:00 pm.*

The applicant also offers up the following suggested conditions of consent:

### *Conditions*

- 1. Stage 1 requires the construction of the approved wastewater system*
- 2. The restaurant and a function can operate concurrently*
- 3. The cellar door and a function can operate concurrently*
- 4. Two functions cannot occur concurrently on the site*

The planning matters raised in the representation are distilled and addressed hereafter (where relevant):

### *Impact on Rural Residential Lifestyle*

In addressing the representors concerns regarding an adverse impact on “rural residential lifestyle”, this fails to consider the clear policy intent of the Productive Rural Landscape Zone.

Simply put, the site is not located within a “residential” or “rural residential” type zone where a “rural residential lifestyle” is sought by way of the planning policies. It is also noted that the locality comprises productive primary production and in this regard the intent of the zone is upheld.

For clarity, the following provision guides the suitability of a dwelling within the Productive Rural Landscape Zone: (my underlining)

### **Productive Rural Landscape Zone**

#### **PO 5.1**

Dwellings provide a convenient base for landowners to conduct and manage commercial scale primary production and related value adding activities without compromising the use of the allotment, adjacent land or long term purpose of the zone for primary production or related tourism values due to a proliferation of dwellings.

In no way does the zone seek to stifle commercial scale primary production and related value adding activities in preference of a “rural residential lifestyle”.

Furthermore DO 1 and DO 2 do not seek for rural residential living to be provided in the zone at the expense of a “diverse range of land uses at an appropriate scale and intensity that capitalise on the region's proximity to the metropolitan area” or “agriculture, horticulture, value adding opportunities”.

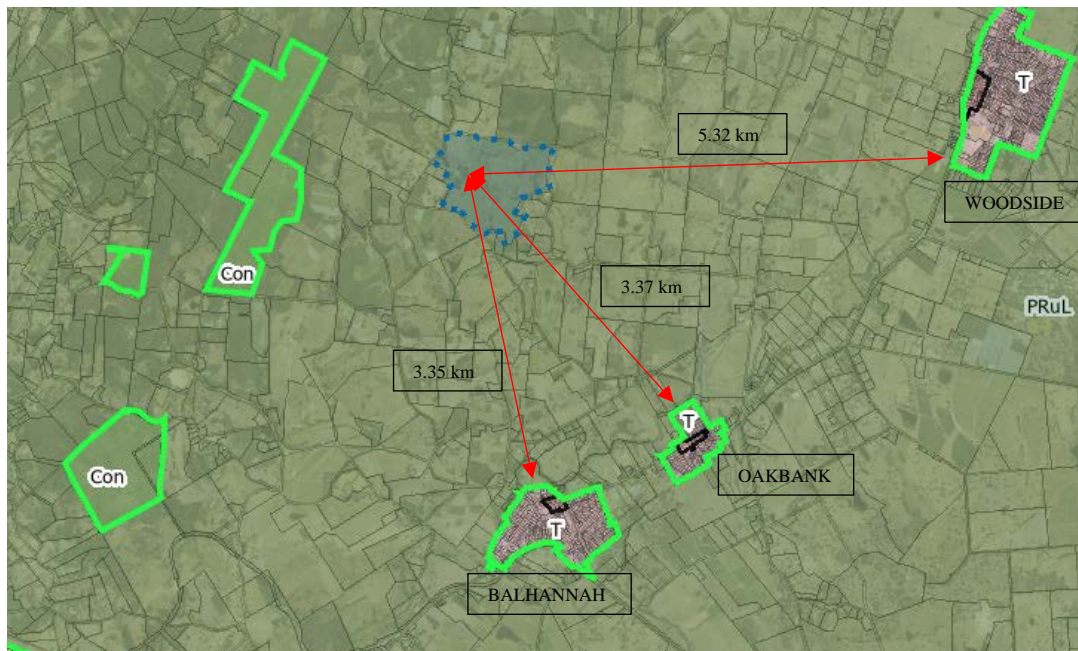
In summary, the Code is implicit that the productive value of rural land for a range of primary production and horticultural activities and associated value adding of primary produce (such as beverage production), retailing and tourism is supported, protected and maintained as per PO 1.1 below (my underlining)

#### **Productive Rural Landscape Zone**

##### **PO 1.1**

The productive value of rural land for a range of primary production and horticultural activities and associated value adding of primary produce (such as beverage production), retailing and tourism is supported, protected and maintained. The proliferation of land uses that may be sensitive to those activities is avoided.

Finally, it is also noteworthy that the nearest zone where a dwelling that is not linked to commercial scale primary production is within the Township Zones of Balhannah, Oakbank and Woodside which are all greater than 3.3 km away from the proposed development, refer Figure 1 below.



**Figure 1:** Subject Site (shaded blue) and Township Zone

In summary these concerns are not supported by the Code when considered with regard to the clear intent of the Zone.

#### *Proposal Not Supported by the Zone*

The suitability of the proposed expansion of an existing use and construction of a building to facilitate tourism and a winery displays clear planning merit against the Code and more specifically to respond to the representation, within the subject zone.

This consistency is underlined below with the intensity resolved by way of the above consideration on impact on rural residential lifestyle and the traffic and acoustic engineers response:

#### **Productive Rural Landscape Zone**

##### **DO 1**

A diverse range of land uses at an appropriate scale and intensity that capitalise on the region's proximity to the metropolitan area and the tourist and lifestyle opportunities this presents

while also conserving the natural and rural character, identity, biodiversity and sensitive environmental areas and scenic qualities of the landscape.

DO 2

A zone that promotes agriculture, horticulture, value adding opportunities, farm gate businesses, the sale and consumption of agricultural based products, tourist development and accommodation that expands the economic base and promotes its regional identity.

DO 3

Create local conditions that support new and continuing investment while seeking to promote co-existence with adjoining activities and mitigate land use conflicts.

DTS/DPF 1.1

Development comprises one or more of the following:

- (j) Function centre;
- (l) Horticulture; and
- (v) Winery

Accordingly, the expansion of the existing use and construction of a building for functions and a restaurant is highly appropriate and will assist in promoting regional identity by way of enabling functions, the production of beverages and value adding by way of sales of winery and beef and lamb products.

The proposed expansion is therefore highly appropriate and displays consistency with the Planning and Design Code.

*Increase in Food and Wine Production*

The comments pertaining to the proposal leading to an “Increase in Food and Wine Production” are poorly founded and not supported by the Code.

Having established that the Productive Rural Landscape Zone seeks to promote agriculture, horticulture, value adding opportunities, any increase in food and wine production will result in achievement of the clear policy intent.

Consequently, the proposed expansion is therefore highly appropriate and displays consistency with the Planning and Design Code with these concerns poorly founded.

*Environmental Impact*

The proposed development has been referred to the Environment Protection Authority (EPA) pursuant to Schedule 9 (3)(9) for direction as part of the assessment process.

The EPA has the power to direct Council to refuse an application if required. In this instance, the EPA have sought for two conditions to be placed on Council's decision and the applicant is aware of this requirement.

I have no reason to not concur with the expert response and it is noteworthy that no expert evidence or opinion has been provided by a representor.

Accordingly, the proposed development will achieve the following outcomes sought by the Code:

**Mount Lofty Ranges Water Supply Catchment (Area 2) Overlay**  
PO 1.1

Development results in a neutral or beneficial effect on the quality of water draining from the site to maintain and enhance the role of the catchment as a water supply.

#### PO 2.4

Wastewater management systems result in a neutral or beneficial effect on the quality of water draining from the site.

#### Noise

The applicant has engaged Mr Ivailo Dimitrov of Bestec to address the concerns raised pertaining to the acoustic impact by way of undertaking an Environmental Noise Assessment.

While I note the comments raised by representors, no expert or additional information has been provided that gives me reason to not concur with the expert opinion provided by Bestec.

The following which is extracted from the *Executive Summary* of the Bestec Environmental Noise Assessment provides clarity on the matter:

*The noise levels at the nearest noise sensitive receivers resulting from the combined operational noise emissions from the proposed development have been calculated and assessed against the selected environmental noise criteria derived in accordance with the Environment Protection (Noise) Policy 2007. The assessment revealed that the selected criteria will be achieved at all locations and therefore, performance outcomes PO 1.2, PO 2.1, PO 4.1, PO 4.2, PO 4.5 and PO 4.6 of the SA Planning and Design Code will be achieved.*

*Based on the above, we conclude that the desired outcome stipulated in the SA Planning and Design Code Assessment Provisions (Section Interface between Land Uses of the), DO 1: The development to be located and designed to mitigate adverse effects on or from neighbouring and proximate uses will be achieved.*

Having reviewed the Environmental Noise Assessment, consistency with the pertinent policies within the Planning and Design Code and the SA Environment Protection (Noise) Policy 2007 is observed with the applicant willing to accede to the conditions as proposed within the Environmental Noise Assessment.

#### Traffic

The applicant has engaged Phil Weaver & Associates to review the representations pertaining to traffic and accordingly, a Traffic and Parking Assessment has been provided to Council in response to the concerns raised.

For brevity I will not repeat the content of the report, rather I reiterate the following extracted from the *Summary and Conclusions* of the report:

*In summary, I note that the proposed development will:*

- *Provide a total of approximately 110 formalised car parking spaces on site. The proposed car parking areas will include provision for parking by the disabled with such spaces incorporating appropriately designed shared areas;*
- *Continue to provide accommodation for two mini-buses within the set down area which is located to the east of the cellar door facility;*
- *Be able to provide a design standard for the proposed car parking areas and associated driveways that would meet the requirement of the relevant Australian*



*Standards for off-street car parking areas, subject to minor recommended alterations identified within this report;*

- *Not generate excessive increases in traffic, noting that capacity of the subject development would increase by only approximately 37 persons from the current maximum capacity of 283 persons to the proposed 330 person capacity, and given the tidal nature of these anticipated traffic movements. On this basis, there should be minimal change in the traffic generation during peak events associated with the subject development; and*
- *Primarily generate traffic movements by cars entering and exiting the site. There should be only infrequent traffic movements by larger vehicles entering and exiting the site albeit the current design accommodates access by trucks and buses.*

*In summary, I conclude that there should not be adverse traffic or impacts associated with the subject development and that there will be adequate car parking provided on the site to meet the anticipated peak parking demands of the subject development.*

Accordingly, the proposed development will ensure that all vehicle manoeuvring and parking is in accordance with the relevant provisions of the Code and the Australian Standards.

#### *New House Build Impacted*

While I note one representor raises concerns regarding the impact of the proposed development on a “new house build”, the acoustic and traffic matters have been addressed by suitable qualified professionals while the suitability of a dwelling in the zone was previously addressed.

#### *Bores Running Dry*

While not relevant to the proposed development as the proposal does not seek to alter water allocations, the applicant has advised of the following usage as provided by DEW:

#### **Water License 112198**

<b>Water Year</b>	<b>Allocation (kL)</b>	<b>Usage (kL)</b>
2022	16,100	3,012
2021	16,100	3,874
2020	16,100	4,497
2019	16,100	3,689
2018	16,111	3,056
2017	16,100	1,782
2016	14,000	1,420
2015	14,000	260

#### **Water License 114508**

<b>Water Year</b>	<b>Allocation (kL)</b>	<b>Usage (kL)</b>
2022	89,677	18,836
2021	89,677	22,116
2020	86,823	19,507
2019	89,677	19,024
2018	89,709	26,581
2017	89,677	11,581
2016	77,980	32,698
2015	77,980	18,834

Notwithstanding that while the usage is well under that allocated, any concerns pertaining to water allocation is not relevant to the subject development.

As previously established, DO 2 of the Productive Rural Landscape Zone seeks to promote agriculture, horticulture, value adding opportunities, farm gate businesses, the sale and consumption of agricultural based products, tourist development and accommodation that expands the economic base and promotes its regional identity.

The above noted water usage is well within that allocated.

### *Ongoing Management*

Several representors raise concerns regarding the potential for inappropriate behaviour, unruly behaviour, and drunk drivers.

Of relevance (my underlining added) the instructive comment of the Court in the matter of *Whittington & Ors v City of Burnside & Domain Project Devt P/L* [2003] SAERDC 13 which stated:

*21 It was argued on behalf of the appellants that the proposed development was too heavily reliant upon the skills of Mr Salleh as the manager of student accommodation, and that less expert management than Mr Salleh could offer may well bring about a situation where the student accommodation had an adverse effect on its neighbours. Beer v South Australian Planning Commission & Others (1988) 142 LSJS 20 was referred to. We agree that it is inappropriate to tie provisional development plan consent to a particular individual. A land use is either acceptable, or it is not – the skills of an individual should not be relied upon to make it so. However, particularly in complex land uses, such as hospitals, supermarkets and many other forms of enterprise, a degree of competent management is assumed, as any complex land use (and many simple ones) can become a nuisance to its neighbours if people behave badly*

Consistent with the *Whittington* extract I confirm that a site manager resides within the adjacent dwelling on Lot 3 (200 m from the function building) and is involved on the day-to-day management of the property.

It is also noteworthy that the venue must be personally supervised and managed by an approved responsible person (RP) at all times when open to the public.

In my opinion, the concern of the representor is not well founded.

### *Helicopters*

Finally, I note a representor has raised concerns pertaining to helicopter flights within the vicinity of the proposed site. This matter has no relevance to the subject development application and the proposed development does not seek for a helicopter landing area.

### *Summary*

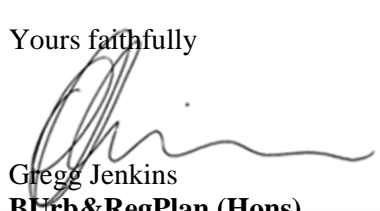
Having considered the representation I am of the view that the amended proposal displays substantial planning merit noting:

- a reduction in numbers (from that notified);
- concerns pertaining to traffic have been addressed by a suitably qualified traffic engineer;
- concerns pertaining to noise have been addressed by a suitably qualified acoustic engineer;
- the architectural built form displays planning merit;
- the proposed expansion of an existing use is appropriate;
- the use will expand the economic base and promote the regional identity of the area as sought by the Zone and the Code more generally; and
- the use will assist in the achievement of the clear intent of the Zone.

I understand that this application will be considered by the Council Assessment Panel.

Should the opportunity arise to speak before the CAP, the applicant (or representatives) have expressed a desire to do so.

Yours faithfully



Gregg Jenkins  
**BURB&RegPlan (Hons)**  
Heynen Planning Consultants  
M 0475 933 823  
T 8272 1433  
E [gregg@heynenplanning.com.au](mailto:gregg@heynenplanning.com.au)



**Environment Protection Authority**  
GPO Box 2607 Adelaide SA 5001  
211 Victoria Square Adelaide SA 5000  
T (08) 8204 2004  
Country areas 1800 623 445

**OFFICIAL**

EPA Reference: PDI 330

17 August 2022

Doug Samardzija  
Adelaide Hills Council  
PO BOX 44 WOODSIDE

[dsamardzija@ahc.sa.gov.au](mailto:dsamardzija@ahc.sa.gov.au)

Dear Doug

#### **EPA Development Application Referral Response**

<b>Development Application Number</b>	<b>2107786</b>
<b>Applicant</b>	<b>Cobbs Hill Estate</b>
<b>Location</b>	<b>382b Swamp Road Oakbank</b>
<b>Proposal</b>	<b>Variation to DA 16/973/473 to increase the capacity and the number of functions per year, variation to DA 16/882/473 to increase the capacity of the cellar door, construction of a function centre/restaurant building with associated car parking and landscaping</b>

This application was referred to the Environment Protection Authority (EPA) by the Assessment Panel at Adelaide Hills Council in accordance with section 122 of the *Planning, Development and Infrastructure Act 2016*. The following response is provided in accordance with section 122(5)(b)(ii) of the Planning, Development and Infrastructure Act.

The EPA assessment criteria are outlined in section 57 of the *Environment Protection Act 1993* (EP Act) and include the objects of the Environment Protection Act, the general environmental duty, relevant environment protection policies and the waste strategy for the State.

Advice in this letter includes consideration of the location with respect to existing land uses and is aimed at protecting the environment and avoiding potential adverse impacts upon the locality.

## OFFICIAL

### BACKGROUND

The EPA provided advice to Adelaide Hills Council for a *Development Act 1993* development application referral (EPA reference 34390) on 29 July 2020 for a proposal to vary conditions of approval for Development Application (DA) 473/973/2016 - Changes to existing cellar door (75 persons plus three staff up to seven days per week) and Motel (maximum guests six persons) - to include up to 18 'Functions', seven 'Special Events', four 'Festivals' per year and increase to car parking area.

### THE PROPOSAL

The subject application proposes to increase the capacity of the existing cellar door and proposes the construction of a function centre/restaurant building with associated car parking and landscaping.

More specifically, the proposal seeks an additional 100 persons (maximum) on site on any day, except twice a week where an extra 400 persons (200 in function centre and 200 at cellar door/gardens) would possibly occur. As such, a new on-site wastewater system is being proposed, with an existing on-site wastewater system to be decommissioned.

### SITE DESCRIPTION

The site of the proposed development is located at 362 Oakwood Road, Oakbank in Certificate of Title Volume 6035 Folio 473.

The subject site is also located within:

- the Mount Lofty Ranges Water Protection Area, as proclaimed under section 61A of the EP Act
- Mount Lofty Ranges Water Supply Catchment (Area 2)
- the Onkaparinga River catchment area
- the Productive Rural Landscape Zone.

Existing development on site includes an existing 'homestead' building which currently accommodates the cellar door and tourist accommodation, together with associated car parking, sheds and farm buildings. Several watercourses traverse the subject land.

Nearby and surrounding development comprises vineyards, agricultural and rural living properties.

The site has been inspected during the EPA's consideration of this development application and has also been viewed using mapping information available to the EPA, including recent aerial imagery, and considered according to existing knowledge of the site and the locality.

### CONSIDERATION

The EPA assessment criteria are outlined in section 57 of the *Environment Protection Act 1993* (the EP Act) and include the objects of the Environment Protection Act, the general environmental duty, relevant environment protection policies and the waste strategy for the State.



## OFFICIAL

Advice in this letter includes consideration of the location with respect to existing land uses and is aimed at protecting the environment and avoiding potential adverse impacts upon the locality.

The trigger for referral of this development application to the EPA was for the *Mount Lofty Ranges Water Supply Catchment (Area 2) Overlay-*

*(b) function centre with more than 75 seats for customer dining purposes*

*(c) restaurant with more than 40 seats for customer dining purposes*

*(d) restaurant with more than 30 seats for customer dining purposes in association with a cellar door*

*(h) any other development that generates human wastewater from a peak loading capacity of more than 40 persons (or more than 6,000 litres/day).*

The referral requires the EPA to provide assessment and direction on whether the proposed development would have a neutral or beneficial effect on water quality. Therefore, the EPA has sought to ensure that this has been demonstrated in the assessment.

## ENVIRONMENTAL ISSUES

### Water Quality

Water quality in South Australia is protected by the *Environment Protection (Water Quality) Policy 2015* and the EP Act. Section 25 of the EP Act imposes a general environmental duty on anyone who undertakes an activity that pollutes, or has the potential to pollute, to take all reasonable and practicable measures to prevent or minimise environmental harm.

### Wastewater

In water quality terms, unsewered residential development is considered one of the highest risk activities in a public water supply catchment due to historically poor management of on-site wastewater treatment systems. Potential pollutants from such activities include nutrients, microorganisms and pathogens from human effluent.

This proposal seeks an additional 100 persons (maximum) on site on any day, except twice a week where an extra 400 persons (200 in function center and 200 at cellar door/gardens) would possibly occur. As such a new on-site wastewater system is being proposed. The response to the EPA's Request for Information dated 21 June 2022 and associated report titled 'Wastewater Engineers Report Cobb's Hill Estate Wastewater System Upgrade for Function Centre & Cellar Door' by Ametqua, dated 21 June 2022 outlines the system proposed for the site.

The number of persons on site during a week includes both staff and guests and it has been calculated that 24,600L of wastewater is the maximum that would be produced in a week. The proposed system is designed to cater for a daily peak of 14,800L.

## OFFICIAL

The wastewater system proposed is a Biocycle EP200. The required irrigation area has been calculated to be 3,290m<sup>2</sup>, which would include the 600m<sup>2</sup> already established on site in recent years. The irrigation area would be planted with shrubs and blue gums, with the foliage regularly pruned for use in floral bouquets for events on site.

There is an existing on-site wastewater system and disposal area on site. This system is to be decommissioned with the two existing Ozzi-Kleen units to be repurposed for pump sumps, to supply wastewater to the new system. The existing disposal area would continue to be used and expanded to cater for the increase in guest numbers. The disposal area is:

- located beyond the 10% AEP flood zone
- >50m from the nearest watercourse or bore
- >1.2m from groundwater and bedrock.

The irrigation area is proposed to be terraced to ensure the slope is <20%. The slope of the terraced steps would be <5%. Surface water would be directed away from the irrigation area and a retention bund would be constructed on the down-gradient boundary to each terraced row to prevent any runoff from the irrigation area flowing to the nearby watercourse. This is acceptable to the EPA and a condition is directed below that the wastewater treatment system as detailed above must be established in accordance with the Ametqua report.

### *Stormwater and construction runoff*

Roof runoff from the new function center would be directed to a 150kL tank, with water to be used in ablution facilities and on gardens. An increase in the number of carparks on the site has been proposed to coincide with the increase in visitors to the premises. Furthermore, some new access roads and vehicle turning areas are also proposed. These carparks would be constructed with compacted rubble and soakage pits are proposed to capture runoff. This is acceptable to the EPA.

During construction works, diversion banks would be used uphill from the site to divert runoff around the construction area and straw bales would be used on the downhill side. The site would be stabilised as soon as possible with compacted rubble. Regular inspections are proposed with immediate corrective actions to occur when necessary. Battered embankments would be constructed around the carpark areas. This is acceptable to the EPA.

As demonstrated by the proponent, the improvement proposed to the wastewater management system including a renewed and expanded irrigation area, new and existing vegetation and associated harvesting and grass slashing and lack of shallow groundwater is considered to achieve a 'neutral or beneficial' impact to water quality for the surrounding environment, as required for development in Mount Lofty Ranges Water Supply Catchment (Area 2).

## CONCLUSION

Given the nature of the proposed development, and provided that the development is constructed in accordance with the plans, specifications report recommendations provided with the application, the EPA is satisfied that the proposal would have a beneficial or neutral impact on water quality.

**OFFICIAL**

**DIRECTION**

**The planning authority is directed to attach the following conditions to any approval:**

1. The existing on-site wastewater system (as detailed in the 'Wastewater Engineers Report Cobb's Hill Estate Wastewater System Upgrade for Function Centre & Cellar Door' by Ametqua, dated 21 June 2022) must be decommissioned and the existing irrigation area incorporated into the new irrigation area prior to occupation of the new function centre.
2. The wastewater treatment system must be established in accordance with the report 'Wastewater Engineers Report Cobb's Hill Estate Wastewater System Upgrade for Function Centre & Cellar Door' by Ametqua, dated 21 June 2022" prior to occupation of the new function centre.

**The following notes provide important information in relation to the development and are requested to be included in any approval:**

- The applicant is reminded of its general environmental duty, as required by section 25 of the *Environment Protection Act 1993*, to take all reasonable and practicable measures to ensure that the activities on the whole site, including during construction, do not pollute the environment in a way which causes or may cause environmental harm. This includes taking all reasonable and practicable measures to minimise the potential for pollution from sediment and waste generated on-site during construction. Further guidance can be sought from the EPA's *Stormwater Pollution Prevention Code of Practice for the Building and Construction Industry* and the EPA's *Handbook for Pollution Avoidance on Commercial and Residential Building Sites* ([http://www.epa.sa.gov.au/files/47790\\_bccop1.pdf](http://www.epa.sa.gov.au/files/47790_bccop1.pdf)).
- The applicant is reminded of the relevant provisions of the *Environment Protection (Water Quality) Policy 2015* including the requirement to take all reasonable and practicable measures to prevent or minimise environmental harm and the pollution of waters. The Environment Protection (Water Quality) Policy can be found at: [https://www.epa.sa.gov.au/environmental\\_info/water\\_quality](https://www.epa.sa.gov.au/environmental_info/water_quality).
- More information about the Environment Protection Authority and the Environment Protection Act and policies can be found at: [www.epa.sa.gov.au](http://www.epa.sa.gov.au).

If you have any questions about this response, please contact Robert de Zeeuw, Senior Environmental Planner on 8204 1112 or email [robert.dezeeuw@sa.gov.au](mailto:robert.dezeeuw@sa.gov.au).

Yours faithfully

Hayley Riggs  
Delegate

**ENVIRONMENT PROTECTION AUTHORITY**



**Environment Protection Authority**  
GPO Box 2607 Adelaide SA 5001  
211 Victoria Square Adelaide SA 5000  
T (08) 8204 2004  
Country areas 1800 623 445

**OFFICIAL**

EPA Reference: PDI 511

15 February 2023

Mr Doug Samardzija  
Adelaide Hills Council  
PO Box 44  
Woodside

Email: [dsamardzija@ahc.sa.gov.au](mailto:dsamardzija@ahc.sa.gov.au)

Dear Mr Samardzija

### **EPA Development Application Referral Response**

<b>Development Application Number</b>	<b>21017786</b>
<b>Applicant</b>	<b>Cobbs Hill Estate</b>
<b>Location</b>	<b>382B Swamp Road, Oakbank</b>
<b>Proposal</b>	<b>Construction of a function centre and restaurant building with associated car parking and landscaping and variations to Development Authorisations 16/973/472 to increase the overall capacity, the number of functions and special events and operating hours and 16/882/473 to increase the capacity and operating hours of the existing cellar door.</b>

This application was referred to the Environment Protection Authority (EPA) by the Assessment Panel at Adelaide Hills Council in accordance with section 122 of the *Planning, Development and Infrastructure Act 2016* (PDI Act). The following response is provided in accordance with section 122(5)(b)(ii) of the PDI Act.

The EPA assessment criteria are outlined in section 57 of the *Environment Protection Act 1993* and include the objects of the Environment Protection Act, the general environmental duty, relevant

environment protection policies and the waste strategy for the State.

Advice contained herein includes consideration of the location with respect to existing land uses and is aimed at protecting the environment and avoiding potential adverse impacts upon the locality.

## PROPOSAL

The EPA notes that the EPA have previously received a referral for the subject development application and provided its response on 17 August.

The original proposal included an application to:

- increase the cellar door from 75 to 100 persons five times per week and facilitating 200 persons two times per week (Saturday and Sunday)
- remove current functions and special events and replace with
  - Function - maximum capacity 200 persons one time per week (Friday, Saturday or Sunday)
  - Restaurant - maximum capacity 200 persons one time per week (Friday, Saturday or Sunday)
- inclusive of the above (not in addition to), restrict a maximum of 400 persons on site at any time only on a Friday, Saturday, or Sunday.

The amended proposal includes use of the restaurant at a capacity of 130 persons thereby reducing the maximum number of persons onsite to 330 at one time.

These changes resulted in a re-referral to the EPA.

## SITE

The site of the proposed development is located at 362 Oakwood Road, Oakbank in Certificate of Title Volume 6035 Folio 473.

The subject site is also located within:

- the Mount Lofty Ranges Water Protection Area, as proclaimed under section 61A of the EP Act
- Mount Lofty Ranges Water Supply Catchment (Area 2)
- the Onkaparinga River catchment area
- the Productive Rural Landscape Zone.

Existing development on site includes an existing 'homestead' building which currently accommodates the cellar door and tourist accommodation, together with associated car parking, sheds and farm buildings. Several watercourses traverse the subject land.

Nearby and surrounding development comprises vineyards, agricultural and rural living properties.

The site has been inspected during the EPA's consideration of this development application and has also been viewed using mapping information available to the EPA, including recent aerial imagery, and considered according to existing knowledge of the site and the locality.



## ENVIRONMENTAL ASSESSMENT

The wastewater report dated 21 June 2022 proposed a system that was approved for a larger number of persons and therefore higher weekly and daily peak flows. The EPA notes that correspondence between the applicant and SA Health indicated that the original approved system would be installed and SA Health have indicated that 'no amendment to your approval required, unless you wanted to downsize the selected treatment system', i.e. this is based on the premise that the applicant is presenting a system that is over capacity for their needs.

The amended proposal represents a reduction in overall numbers (maximum 330, two times per week) utilising the same wastewater system previously assessed and approved for a greater capacity. No other changes to stormwater management have been indicated and hence no change to stormwater flows as assessed.

## CONCLUSION

The EPA is satisfied that the proposed is considered to have a beneficial or neutral impact on water quality and the conditions directed in the EPA response of 17 August 2022 still apply as below.

## DIRECTION

**The relevant authority is directed to attach the following conditions to any approval:**

1. The existing on-site wastewater system (as detailed in the 'Wastewater Engineers Report Cobb's Hill Estate Wastewater System Upgrade for Function Centre & Cellar Door' by Ametqua, dated 21 June 2022) must be decommissioned and the existing irrigation area incorporated into the new irrigation area prior to occupation of the new function centre.
2. The wastewater treatment system must be established in accordance with the report 'Wastewater Engineers Report Cobb's Hill Estate Wastewater System Upgrade for Function Centre & Cellar Door' by Ametqua, dated 21 June 2022" prior to occupation of the new function centre.

**The following notes provide important information in relation to the development and are requested to be included in any approval:**

- The applicant is reminded of its general environmental duty, as required by section 25 of the *Environment Protection Act 1993*, to take all reasonable and practicable measures to ensure that the activities on the whole site, including during construction, do not pollute the environment in a way which causes or may cause environmental harm. This includes taking all reasonable and practicable measures to minimise the potential for pollution from sediment and waste generated on-site during construction. Further guidance can be sought from the EPA's *Stormwater Pollution Prevention Code of Practice for the Building and Construction Industry* and the EPA's *Handbook for Pollution Avoidance on Commercial and Residential Building Sites* ([http://www.epa.sa.gov.au/files/47790\\_bccop1.pdf](http://www.epa.sa.gov.au/files/47790_bccop1.pdf)).
- The applicant is reminded of the relevant provisions of the *Environment Protection (Water Quality) Policy 2015* including the requirement to take all reasonable and practicable measures to prevent or minimise environmental harm and the pollution of waters. The Environment Protection (Water

Quality) Policy can be found at: [https://www.epa.sa.gov.au/environmental\\_info/water\\_quality](https://www.epa.sa.gov.au/environmental_info/water_quality).

- More information about the Environment Protection Authority and the Environment Protection Act and policies can be found at: [www.epa.sa.gov.au](http://www.epa.sa.gov.au).

If you have any questions about this response, please contact Sophie Gordon on 08 8204 2078 or email [Sophie.Gordon@sa.gov.au](mailto:Sophie.Gordon@sa.gov.au).

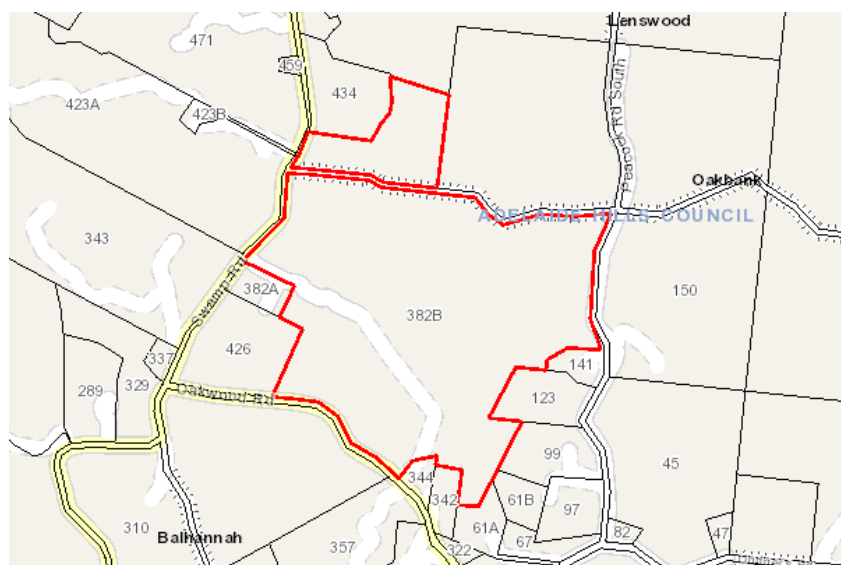
Yours faithfully

Hayley Riggs  
Delegate

**ENVIRONMENT PROTECTION AUTHORITY**

**382B SWAMP RD OAKBANK SA 5243****Address:**Click to view a detailed interactive [SAILIS](#) in [SAILIS](#)

To view a detailed interactive property map in SAPPA click on the map below

**Property Zoning Details****Overlay**

Environment and Food Production Area  
 Hazards (Bushfire - High Risk)  
 Hazards (Flooding - Evidence Required)  
 Limited Land Division  
 Mount Lofty Ranges Water Supply Catchment (Area 2)  
 Native Vegetation  
 Prescribed Water Resources Area  
 Water Resources

**Zone**

Productive Rural Landscape

**Development Pathways**

## ■ Productive Rural Landscape

## 1. Accepted Development

Means that the development type does not require planning consent (planning approval). Please ensure compliance with relevant land use and development controls in the Code.

- None

## 2. Code Assessed - Deemed to Satisfy

Means that the development type requires consent (planning approval). Please ensure compliance with relevant land use and development controls in the Code.

- Advertisement
- Agricultural building
- Horticulture

## 3. Code Assessed - Performance Assessed

Performance Assessed development types listed below are those for which the Code identifies relevant policies. Additional development types that are not listed as Accepted, Deemed to Satisfy or Restricted default to a Performance

assessed Pathway. Please contact your local council for more information.

- None

#### 4. Impact Assessed - Restricted

Means that the development type requires approval. Classes of development that are classified as Restricted are listed in Table 4 of the relevant Zones.

Property Policy Information for above selection

## Part 2 - Zones and Sub Zones

### Productive Rural Landscape Zone

#### Assessment Provisions (AP)

Desired Outcome	
DO 1	A diverse range of land uses at an appropriate scale and intensity that capitalise on the region's proximity to the metropolitan area and the tourist and lifestyle opportunities this presents while also conserving the natural and rural character, identity, biodiversity and sensitive environmental areas and scenic qualities of the landscape.
DO 2	A zone that promotes agriculture, horticulture, value adding opportunities, farm gate businesses, the sale and consumption of agricultural based products, tourist development and accommodation that expands the economic base and promotes its regional identity.
DO 3	Create local conditions that support new and continuing investment while seeking to promote co-existence with adjoining activities and mitigate land use conflicts.

Performance Outcomes (PO) and Deemed to Satisfy (DTS) / Designated Performance Feature (DPF) Criteria

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Land Use and Intensity	
PO 1.1  The productive value of rural land for a range of primary production and horticultural activities and associated value adding of primary produce (such as beverage production), retailing and tourism is supported, protected and maintained. The proliferation of land uses that may be sensitive to those activities is avoided.	DTS/DPF 1.1  Development comprises one or more of the following:  (a) Advertisement (b) Agricultural building (c) Brewery (d) Carport (e) Cidery (f) Distillery (g) Dwelling (h) Dwelling addition (i) Farming

	<ul style="list-style-type: none"> <li>(j) Function centre</li> <li>(k) Horse keeping</li> <li>(l) Horticulture</li> <li>(m) Industry</li> <li>(n) Low intensity animal husbandry</li> <li>(o) Outbuilding</li> <li>(p) Shop</li> <li>(q) Small-scale ground mounted solar power facility</li> <li>(r) Tourist accommodation</li> <li>(s) Transport distribution</li> <li>(t) Verandah</li> <li>(u) Warehouse</li> <li>(v) Winery</li> <li>(w) Workers' accommodation</li> </ul>
Siting and Design	
PO 2.1 Development is provided with suitable vehicle access.	DTS/DPF 2.1 Development is serviced by an all-weather trafficable public road.
PO 2.2 Buildings are generally located on flat land to minimise cut and fill and the associated visual impacts.	DTS/DPF 2.2 Buildings: <ul style="list-style-type: none"> <li>(a) are located on a site with a slope not greater than 10% (1-in-10)</li> <li>(b) do not result excavation and/or filling of land that is greater than 1.5m from natural ground level.</li> </ul>
Horticulture	
PO 3.1 Horticulture is located and conducted on land that has the physical capability of supporting the activity and in a manner that: <ul style="list-style-type: none"> <li>(a) enhances the productivity of the land for the growing of food and produce in a sustainable manner</li> <li>(b) avoids adverse interface conflicts with other land uses</li> <li>(c) utilises sound environmental practices to mitigate negative impacts on natural resources and water quality</li> <li>(d) is sympathetic to surrounding rural landscape character and amenity, where horticulture is proposed to be carried out in an enclosed building such as such as a greenhouse.</li> </ul>	DTS/DPF 3.1 Horticultural activities: <ul style="list-style-type: none"> <li>(a) are conducted on an allotment with an area of at least 1ha</li> <li>(b) are sited on land with a slope not greater than 10% (1-in-10)</li> <li>(c) are not conducted within 50m of a watercourse or native vegetation</li> <li>(d) are not conducted within 100m of a sensitive receiver in other ownership</li> <li>(e) provide for a headland area between plantings and property boundaries of at least 10m in width</li> <li>(f) where carried out in an enclosed building such as a greenhouse, the building has a total floor area not greater than 250m<sup>2</sup></li> <li>(g) in the form of olive growing, is not located within 500m of a conservation or national park.</li> </ul>
Rural Industry	
PO 4.1 Small-scale industry (including beverage production and washing, processing, bottling and packaging activities), storage, warehousing, produce grading and packing, transport distribution or similar activities provide opportunities for diversification and value adding to locally sourced primary	DTS/DPF 4.1 Industries, storage, warehousing, produce grading and packing and transport distribution activities and similar activities (or any combination thereof): <ul style="list-style-type: none"> <li>(a) are directly related and ancillary to a primary production</li> </ul>



production activities.	<p>use on the same or adjoining allotment</p> <p>(b) are located on an allotment not less than 2ha in area</p> <p>(c) have a total floor area not exceeding 350m<sup>2</sup>.</p>
<p>PO 4.2</p> <p>Expansion of established small-scale or new large scale industry (including beverage production and washing, processing, bottling and packaging activities), storage, warehousing, produce grading and packing, transport distribution or similar activities:</p> <p>(a) are commensurate with the allotment on which it is situated to mitigate adverse impacts on the amenity of land in other ownership and the character of locality</p> <p>(b) realise efficiencies in primary production related storage, sorting, packaging, manufacturing and the like</p> <p>(c) primarily involve primary production commodities sourced from the same allotment and/or surrounding rural areas.</p>	<p>DTS/DPF 4.2</p> <p>None are applicable.</p>
<p>PO 4.3</p> <p>Industry, storage, warehousing, transport distribution or similar activities are sited, designed and of a scale that maintains rural function and character in a manner that respects landscape amenity.</p>	<p>DTS/DPF 4.3</p> <p>Buildings and associated activities:</p> <p>(a) are setback at least 50m from all road and allotment boundaries</p> <p>(b) are not sited within 100m of a sensitive receiver in other ownership</p> <p>(c) have a building height not greater than 10m above natural ground level</p> <p>(d) incorporate the loading and unloading of vehicles within the confines of the allotment.</p>
Dwellings	
<p>PO 5.1</p> <p>Dwellings provide a convenient base for landowners to conduct and manage commercial scale primary production and related value adding activities without compromising the use of the allotment, adjacent land or long term purpose of the zone for primary production or related tourism values due to a proliferation of dwellings.</p>	<p>DTS/DPF 5.1</p> <p>Dwellings:</p> <p>(a) are located on an allotment with an area not less than:</p> <p>(b) are located on an allotment used for and is ancillary to primary production and/or primary production related value-adding activities</p> <p>(c) will not result in more than one dwelling on an allotment.</p> <p>In relation to DTS/DPF 5.1, in instances where:</p> <p>(d) more than one value is returned, refer to the <i>Minimum Dwelling Allotment Size Technical and Numeric Variation</i> layer in the SA planning database to determine the applicable value relevant to the site of the proposed development</p> <p>(e) no value is returned for DTS/DPF 5.1(a) (ie there is a blank field), then there is no minimum dwelling allotment size applicable and DTS/DPF 5.1(a) is met.</p>
<p>PO 5.2</p> <p>Dwelling are sited, designed and of a scale that maintains a pleasant natural and rural character and amenity.</p>	<p>DTS/DPF 5.2</p> <p>Dwellings:</p> <p>(a) are setback from all allotment boundaries by at least 40m</p>

	<ul style="list-style-type: none"> <li>(b) do not exceed 2 building levels and 9m measured from the top of the footings</li> <li>(c) have a wall height no greater than 6m.</li> </ul>
<p>PO 5.3</p> <p>Development resulting in more than one dwelling on an allotment supports ageing in place for the owner of the allotment or multi-generational management of farms in a manner that minimises the potential loss of land available for primary production.</p>	<p>DTS/DPF 5.3</p> <p>Dwelling that will result in more than one dwelling on an allotment where all the following are satisfied:</p> <ul style="list-style-type: none"> <li>(a) it is located within 20m of an existing dwelling</li> <li>(b) share the same utilities of the existing dwelling</li> <li>(c) will use the same access point from a public road as the existing dwelling</li> <li>(d) it is located on an allotment not less than 40ha in area</li> <li>(e) will not result in more than two dwellings on an allotment.</li> </ul>
<p>PO 5.4</p> <p>Dwelling additions are sited, designed and of a scale that maintains a pleasant rural character and amenity.</p>	<p>DTS/DPF 5.4</p> <p>Additions or alterations to an existing dwelling:</p> <ul style="list-style-type: none"> <li>(a) are setback behind the main façade of the existing dwelling</li> <li>(b) do not exceed 2 building levels and 9m measured from the top of the footings</li> <li>(c) have a wall height that is no greater than 6m from the top of the footings.</li> </ul>
Shops, Tourism and Function Centres	
<p>PO 6.1</p> <p>Shops are associated with an existing primary production or primary production related value adding industry to support diversification of employment, provide services to visitors and showcase local and regional products.</p>	<p>DTS/DPF 6.1</p> <p>Shops, other than where located in The Cedars Subzone:</p> <ul style="list-style-type: none"> <li>(a) are ancillary to and located on the same allotment or adjoining allotment used for primary production or primary production related value adding industries</li> <li>(b) offer for sale or consumption produce or goods that are primarily sourced, produced or manufactured on the same allotment or adjoining allotments</li> <li>(c) have a gross leasable floor area not exceeding 100m<sup>2</sup> or 250m<sup>2</sup> in the case of a cellar door</li> <li>(d) have an area for the display of produce or goods external to a building not exceeding 25m<sup>2</sup></li> <li>(e) do not result in more than 75 seats for customer dining purposes in a restaurant.</li> </ul>
<p>PO 6.2</p> <p>Shops that are proposed in new buildings are sited, designed and of a scale that maintains a pleasant rural character and amenity.</p>	<p>DTS/DPF 6.2</p> <p>Shops in new buildings:</p> <ul style="list-style-type: none"> <li>(a) are setback from all property boundaries by at least 20m</li> <li>(b) are not sited within 100m of a sensitive receiver in other ownership</li> <li>(c) have a building height that does not exceed 9m above</li> </ul>

	natural ground level.
<p>PO 6.3</p> <p>Tourist accommodation is associated with the primary use of the land for primary production or primary production related value adding industry to enhance and provide authentic visitor experiences.</p>	<p>DTS/DPF 6.3</p> <p>Tourist accommodation, other than where located in The Cedars Subzone:</p> <ul style="list-style-type: none"> <li>(a) is ancillary to and located on the same allotment or an adjoining allotment used for primary production or primary production related value adding industry</li> <li>(b) in relation to the area used for accommodation: <ul style="list-style-type: none"> <li>(i) where in a new building, does not exceed a total floor area of 100m<sup>2</sup></li> <li>(ii) where in an existing building, does not exceed 150m<sup>2</sup></li> </ul> </li> <li>(c) does not result in more than one facility being located on the same allotment.</li> </ul>
<p>PO 6.4</p> <p>Tourist accommodation proposed in a new building or buildings are sited, designed and of a scale that maintains a pleasant rural character and amenity.</p>	<p>DTS/DPF 6.4</p> <p>Tourist accommodation in new buildings:</p> <ul style="list-style-type: none"> <li>(a) is setback from all property boundaries by at least 40m</li> <li>(b) has a building height that does not exceed 7m above natural ground level.</li> </ul>
<p>PO 6.5</p> <p>Function centres are associated with the primary use of the land for primary production or primary production related value adding industry.</p>	<p>DTS/DPF 6.5</p> <p>Function centres, other than where located in The Cedars Subzone:</p> <ul style="list-style-type: none"> <li>(a) are ancillary to and located on the same allotment or an adjoining allotment used for primary production or primary production related value adding industry</li> <li>(b) do not exceed a capacity of 75 persons for customer dining purposes.</li> </ul>
<p>PO 6.6</p> <p>Function centres are sited, designed and of a scale that maintains a pleasant natural and rural character and amenity.</p>	<p>DTS/DPF 6.6</p> <p>Function centres:</p> <ul style="list-style-type: none"> <li>(a) are located on an allotment having an area of at least 5ha</li> <li>(b) are setback from all property boundaries by at least 40m</li> <li>(c) are not sited within 100m of a sensitive receiver in other ownership</li> <li>(d) have a building height that does not exceed 9m above natural ground level.</li> </ul>
Offices	
<p>PO 7.1</p> <p>Offices are directly related to and associated with the primary use of the land for primary production or primary production related value adding industry.</p>	<p>DTS/DPF 7.1</p> <p>Offices, other than where located in The Cedars Subzone:</p> <ul style="list-style-type: none"> <li>(a) are ancillary to and located on the same allotment or an adjoining allotment used for primary production or primary production related value adding industry</li> <li>(b) have a gross leasable floor area not exceeding 100m<sup>2</sup>.</li> </ul>

Adaptive Reuse of Existing Buildings	
PO 8.1  Adaptive reuse of existing buildings for small-scale shops, offices, tourist accommodation or ancillary rural activities.	DTS/DPF 8.1  Development within an existing building is for any of the following:  (a) a shop (b) office (c) tourist accommodation.
Workers' accommodation	
PO 9.1  Workers' accommodation provides short-term accommodation for persons temporarily engaged in the production, management or processing of primary produce.	DTS/DPF 9.1  Workers' accommodation:  (a) is developed on a site at least 2ha in area (b) has a total floor area not exceeding 250m <sup>2</sup> (c) is in the form of a single building or part of a cluster of buildings that are physically connected (d) amenities accommodate not more than 20 persons at any one time (e) is setback at least 50m from a road boundary (f) is setback at least 40m from a side or rear allotment boundary (g) is located within 20m of an existing dwelling on the same allotment (h) does not result in more than one facility being located on the same allotment.
Renewable Energy Facilities	
PO 10.1  Renewable energy facilities and ancillary development minimises significant fragmentation or displacement of existing primary production.	DTS/DPF 10.1  None are applicable.
PO 10.2  Small-scale ground mounted solar power facilities support rural production or value-adding industries.	DTS/DPF 10.2  None are applicable.
Built Form and Character	
PO 11.1  Large buildings designed and sited to reduce impacts on scenic and rural vistas by:  (a) having substantial setbacks from boundaries and adjacent public roads (b) using low reflective materials and finishes that blend with the surrounding landscape (c) being located below ridgelines.	DTS/DPF 11.1  None are applicable.
Land Division	
PO 12.1  Land division creating additional allotments is not supported other than where located in The Cedars Subzone to support tourist development.	DTS/DPF 12.1  Except where the land division is proposed in The Cedars Subzone, no additional allotments are created.

<p>PO 12.2</p> <p>Allotment boundaries, including by realignment, are positioned to incorporate sufficient space around existing residential, tourist accommodation and other habitable buildings (including boarding houses, hostels, dormitory style accommodation, student accommodation and workers' accommodation) to:</p> <ul style="list-style-type: none"> <li>(a) maintain a pleasant rural character and amenity for occupants</li> <li>(b) manage vegetation within the same allotment to mitigate bushfire hazard.</li> </ul>	<p>DTS/DPF 12.2</p> <p>Allotment boundaries are located no closer to an existing residential, tourist accommodation or other habitable building than the greater of the following:</p> <ul style="list-style-type: none"> <li>(a) 40m</li> <li>(b) the distance required to accommodate an asset protection zone wholly within the relevant allotment.</li> </ul>
Agricultural Buildings	
<p>PO 13.1</p> <p>Agricultural buildings and associated activities are sited, designed and of a scale that maintains a pleasant rural character and function.</p>	<p>DTS/DPF 13.1</p> <p>Agricultural buildings:</p> <ul style="list-style-type: none"> <li>(a) are located on an allotment having an area of at least 2ha</li> <li>(b) are setback at least 40m from an allotment boundary</li> <li>(c) have a building height not exceeding 10m above natural ground level</li> <li>(d) do not exceed 350m<sup>2</sup> in total floor area</li> <li>(e) incorporate the loading and unloading of vehicles within the confines of the allotment.</li> </ul>
Outbuildings, Carports and Verandahs	
<p>PO 14.1</p> <p>Outbuildings are sited, designed and of a scale that maintain a pleasant natural and rural character and amenity.</p>	<p>DTS/DPF 14.1</p> <p>Outbuildings:</p> <ul style="list-style-type: none"> <li>(a) have a primary street setback that is at least as far back as the building to which it is ancillary</li> <li>(b) have a combined total floor area that does not exceed 100m<sup>2</sup></li> <li>(c) have walls that do not exceed 5m in height measured from natural ground level not including a gable end</li> <li>(d) have a total roof height that does not exceed 6m measured from natural ground level</li> <li>(e) if clad in sheet metal, it is pre-colour treated or painted in a non-reflective colour</li> <li>(f) will not result in more than 2 outbuildings on the same allotment.</li> </ul>
<p>PO 14.2</p> <p>Carports and verandahs are sited, designed and of a scale to maintain a pleasant natural and rural character and amenity.</p>	<p>DTS/DPF 14.2</p> <p>Carports and verandahs:</p> <ul style="list-style-type: none"> <li>(a) are set back from the primary street at least as far back as the building to which it is ancillary</li> <li>(b) have a total floor area that does not exceed 80m<sup>2</sup></li> <li>(c) have a post height that does not exceed 3m measured from natural ground level (not including a gable end)</li> <li>(d) have a total roof height that does not exceed 5m measured from natural ground level</li> <li>(e) if clad in sheet metal, the cladding is pre-colour treated or painted in a non-reflective colour.</li> </ul>



Concept Plans	
<p>PO 15.1</p> <p>Development is compatible with the outcomes sought by any relevant Concept Plan contained within Part 12 - Concept Plans of the Planning and Design Code to support the orderly development of land through staging of development and provision of infrastructure.</p>	<p>DTS/DPF 15.1</p> <p>The site of the development is wholly located outside any relevant Concept Plan boundary. The following Concept Plans are relevant:</p> <p>In relation to DTS/DPF 15.1, in instances where:</p> <ul style="list-style-type: none"> <li>(a) one or more Concept Plan is returned, refer to Part 12 - Concept Plans in the Planning and Design Code to determine if a Concept Plan is relevant to the site of the proposed development. Note: multiple concept plans may be relevant.</li> <li>(b) in instances where 'no value' is returned, there is no relevant concept plan and DTS/DPF 15.1 is met.</li> </ul>
Advertisements	
<p>PO 16.1</p> <p>Freestanding advertisements that identify the associated business without creating a visually dominant element within the locality.</p>	<p>DTS/DPF 16.1</p> <p>Freestanding advertisements:</p> <ul style="list-style-type: none"> <li>(a) do not exceed 2m in height</li> <li>(b) do not have a sign face that exceeds 2m<sup>2</sup> per side.</li> </ul>

### Table 5 - Procedural Matters (PM) - Notification

The following table identifies, pursuant to section 107(6) of the *Planning, Development and Infrastructure Act 2016*, classes of performance assessed development that are excluded from notification. The table also identifies any exemptions to the placement of notices when notification is required.

#### Interpretation

A class of development listed in Column A is excluded from notification provided that it does not fall within a corresponding exclusion prescribed in Column B. In instances where development falls within multiple classes within Column A, each clause is to be read independently such that if a development is excluded from notification by any clause, it is, for the purposes of notification excluded irrespective of any other clause.

Class of Development (Column A)	Exceptions (Column B)
1. A kind of development which, in the opinion of the relevant authority, is of a minor nature only and will not unreasonably impact on the owners or occupiers of land in the locality of the site of the development.	None specified.
2. Any development involving any of the following (or of any combination of any of the following): <ul style="list-style-type: none"> <li>(a) advertisement</li> <li>(b) agricultural building</li> <li>(c) air handling unit, air conditioning system or exhaust fan</li> <li>(d) ancillary accommodation</li> <li>(e) building work on railway land</li> <li>(f) carport</li> <li>(g) demolition</li> </ul>	None specified.

<ul style="list-style-type: none"> <li>(h) dwelling</li> <li>(i) dwelling addition</li> <li>(j) farming</li> <li>(k) horse keeping</li> <li>(l) internal building work</li> <li>(m) land division</li> <li>(n) outbuilding</li> <li>(o) private bushfire shelter</li> <li>(p) protective tree netting structure</li> <li>(q) replacement building</li> <li>(r) retaining wall</li> <li>(s) solar photovoltaic panels (roof mounted)</li> <li>(t) shade sail</li> <li>(u) swimming pool or spa pool</li> <li>(v) temporary accommodation in an area affected by bushfire</li> <li>(w) tree damaging activity</li> <li>(x) verandah</li> <li>(y) water tank.</li> </ul>	
<p>3. Any development involving any of the following (or of any combination of any of the following):</p> <ul style="list-style-type: none"> <li>(a) industry</li> <li>(b) store</li> <li>(c) warehouse.</li> </ul>	<p>Except development that does not satisfy any of the following:</p> <ul style="list-style-type: none"> <li>1. Productive Rural Landscape Zone DTS/DPF 4.1</li> <li>2. Productive Rural Landscape Zone DTS/DPF 4.3.</li> </ul>
<p>4. Demolition.</p>	<p>Except any of the following:</p> <ul style="list-style-type: none"> <li>1. the demolition of a State or Local Heritage Place</li> <li>2. the demolition of a building (except an ancillary building) in a Historic Area Overlay.</li> </ul>
<p>5. Function centre within The Cedars Subzone.</p>	<p>None specified.</p>
<p>6. Function centre.</p>	<p>Except function centre that does not satisfy Productive Rural Landscape Zone DTS/DPF 6.6.</p>
<p>7. Horticulture.</p>	<p>Except horticulture that does not satisfy any of the following:</p> <ul style="list-style-type: none"> <li>1. Productive Rural Landscape Zone DTS/DPF 3.1(d)</li> <li>2. Productive Rural Landscape Zone DTS/DPF 3.1(e).</li> </ul>
<p>8. Shop within The Cedars Subzone.</p>	<p>None specified.</p>
<p>9. Shop.</p>	<p>Except shop that does not satisfy any of the following:</p> <ul style="list-style-type: none"> <li>1. Productive Rural Landscape Zone DTS/DPF 6.1</li> <li>2. Productive Rural Landscape Zone DTS/DPF 6.2.</li> </ul>
<p>10. Tourist accommodation within The Cedars Subzone.</p>	<p>None specified.</p>

11. Tourist accommodation.	<p>Except tourist accommodation that does not to satisfy any of the following:</p> <ol style="list-style-type: none"> <li>1. Productive Rural Landscape Zone DTS/DPF 6.3</li> <li>2. Productive Rural Landscape Zone DTS/DPF 6.4.</li> </ol>
<b>Placement of Notices - Exemptions for Performance Assessed Development</b>	
None specified.	
<b>Placement of Notices - Exemptions for Restricted Development</b>	
None specified.	

## Part 3 - Overlays

### Environment and Food Production Areas Overlay

#### Assessment Provisions (AP)

Desired Outcome	
DO 1	Protection of valuable rural, landscape, environmental and food production areas from urban encroachment.

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
PO 1.1 Land division undertaken in accordance with Section 7 of the <i>Planning, Development and Infrastructure Act 2016</i> .	DTS/DPF 1.1 None are applicable.

#### Procedural Matters (PM)

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
None	None	None	None

### Hazards (Bushfire - High Risk) Overlay

**Assessment Provisions (AP)**

<b>Desired Outcome</b>	
DO 1	<p>Development, including land division is sited and designed to minimise the threat and impact of bushfires on life and property with regard to the following risks:</p> <ul style="list-style-type: none"> <li>(a) potential for uncontrolled bushfire events taking into account the increased frequency and intensity of bushfires as a result of climate change</li> <li>(b) high levels and exposure to ember attack</li> <li>(c) impact from burning debris</li> <li>(d) radiant heat</li> <li>(e) likelihood and direct exposure to flames from a fire front.</li> </ul>
DO 2	Activities that increase the number of people living and working in the area or where evacuation would be difficult is sited away from areas of unacceptable bushfire risk.
DO 3	To facilitate access for emergency service vehicles to aid the protection of lives and assets from bushfire danger.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

<b>Performance Outcome</b>	<b>Deemed-to-Satisfy Criteria / Designated Performance Feature</b>
Land Use	
PO 1.1  Development that significantly increases the potential for fire outbreak as a result of the spontaneous combustion of materials, spark generation or through the magnification and reflection of light is not located in areas of unacceptable bushfire risk.	DTS/DPF 1.1  None are applicable.
PO 1.2  Pre-schools, educational establishments, hospitals, retirement and supported accommodation are sited away from areas of unacceptable bushfire risk and locations that: <ul style="list-style-type: none"> <li>(a) are remote from or require extended periods of travel to reach safer locations</li> <li>(b) don't have a safe path of travel to safer locations.</li> </ul>	DTS/DPF 1.2  None are applicable.
Siting	
PO 2.1  Buildings and structures are located away from areas that pose an unacceptable bushfire risk as a result of vegetation cover and type, and terrain.	DTS/DPF 2.1  None are applicable.

Built Form	
PO 3.1 Buildings and structures are designed and configured to reduce the impact of bushfire through using designs that reduce the potential for trapping burning debris against or underneath the building or structure, or between the ground and building floor level in the case of transportable buildings and buildings on stilts.	DTS/DPF 3.1 None are applicable.
PO 3.2 Extensions to buildings, outbuildings and other ancillary structures are sited and constructed using materials to minimise the threat of fire spread to residential and tourist accommodation (including boarding houses, hostels, dormitory style accommodation, student accommodation and Workers' accommodation) in the event of bushfire.	DTS/DPF 3.2 Outbuildings and other ancillary structures are sited no closer than 6m from the habitable building.
Habitable Buildings	
PO 4.1 To minimise the threat, impact and potential exposure to bushfires on life and property, residential and tourist accommodation and habitable buildings for vulnerable communities (including boarding houses, hostels, dormitory style accommodation, student accommodation and workers' accommodation) is sited on the flatter portion of allotments away from steep slopes.	DTS/DPF 4.1 None are applicable.
PO 4.2 Residential and tourist accommodation and habitable buildings for vulnerable communities (including boarding houses, hostels, dormitory style accommodation, student accommodation and workers' accommodation) is sited away from vegetated areas that pose an unacceptable bushfire risk.	DTS/DPF 4.2 Residential and tourist accommodation and habitable buildings for vulnerable communities are provided with asset protection zone(s) in accordance with (a) and (b):  (a) the asset protection zone has a minimum width of at least: (i) 50 metres to unmanaged grasslands (ii) 100 metres to hazardous bushland vegetation  (b) the asset protection zone is contained wholly within the allotment of the development.
PO 4.3 Residential and tourist accommodation and habitable buildings for vulnerable communities (including boarding houses, hostels, dormitory style accommodation, student accommodation and workers' accommodation) has a dedicated area available that:  (a) is capable of accommodating a bushfire protection system comprising firefighting equipment and water supply in accordance with <i>Ministerial Building Standard MBS 008 - Designated bushfire prone areas - additional requirements</i>  (b) includes the provision of an all-weather hardstand area in a location that: (i) allows fire-fighting vehicles to safely access the dedicated water supply and exit the site in a forward direction	DTS/DPF 4.3 None are applicable.



(ii) is no further than 6 metres from the dedicated water supply outlet(s) where required.	
Land Division	
<p>PO 5.1</p> <p>Land division for residential and tourist accommodation and habitable buildings for vulnerable communities (including boarding houses, hostels, dormitory style accommodation, student accommodation and workers' accommodation) is limited to those areas specifically set aside for these uses.</p>	<p>DTS/DPF 5.1</p> <p>None are applicable.</p>
<p>PO 5.2</p> <p>Land division is designed and incorporates measures to minimise the danger of fire hazard to residents and occupants of buildings, and to protect buildings and property from physical damage in the event of a bushfire.</p>	<p>DTS/DPF 5.2</p> <p>None are applicable.</p>
<p>PO 5.3</p> <p>Land division is designed to provide a continuous street pattern (avoiding the use of dead end roads/cul-de-sac road design) to facilitate the safe movement and evacuation of emergency vehicles, residents, occupants and visitors. Where cul-de-sac / dead end roads are proposed, an alternative emergency evacuation route is provided.</p>	<p>DTS/DPF 5.3</p> <p>None are applicable.</p>
<p>PO 5.4</p> <p>Where 10 or more new allotments are proposed, land division includes at least two separate and safe exit points to enable multiple avenues of evacuation in the event of a bushfire.</p>	<p>DTS/DPF 5.4</p> <p>None are applicable.</p>
<p>PO 5.5</p> <p>Land division provides sufficient space for future asset protection zones and incorporates perimeter roads of adequate design in conjunction with bushfire buffer zones to achieve adequate separation between residential allotments and areas of unacceptable bushfire risk and to support safe access for the purposes of fire-fighting.</p>	<p>DTS/DPF 5.5</p> <p>None are applicable.</p>
Vehicle Access – Roads, Driveways and Fire Tracks	
<p>PO 6.1</p> <p>Roads are designed and constructed to facilitate the safe and effective:</p> <ul style="list-style-type: none"> <li>(a) access, operation and evacuation of fire-fighting vehicles and emergency personnel</li> <li>(b) evacuation of residents, occupants and visitors.</li> </ul>	<p>DTS/DPF 6.1</p> <p>Roads:</p> <ul style="list-style-type: none"> <li>(a) are constructed with a formed, all-weather surface</li> <li>(b) have a gradient of not more than 16 degrees (1-in-3.5) at any point along the road</li> <li>(c) have a cross fall of not more than 6 degrees (1-in-9.5) at any point along the road</li> <li>(d) have a minimum formed road width of 6m</li> <li>(e) provide overhead clearance of not less than 4.0m between the road surface and overhanging branches or other obstructions including buildings and/or structures (Figure 1)</li> <li>(f) allow fire-fighting services (personnel and vehicles) to travel in a continuous forward movement around road</li> </ul>

	<p>curves by constructing the curves with a minimum external radius of 12.5m (Figure 2)</p> <p>(g) incorporating cul-de-sac endings or dead end roads are provided within an alternative evacuation route and do not exceed 200m in length and the end of the road has either:</p> <ul style="list-style-type: none"> <li>(i) a turning area with a minimum formed surface radius of 12.5m (Figure 3) or</li> <li>(ii) a 'T' or 'Y' shaped turning area with a minimum formed surface length of 11m and minimum internal radii of 9.5m (Figure 4)</li> </ul> <p>(h) incorporate solid, all-weather crossings over any watercourse that support fire-fighting vehicles with a gross vehicle mass (GVM) of 21 tonnes.</p>
<p>PO 6.2</p> <p>Access to habitable buildings is designed and constructed to facilitate the safe and effective:</p> <ul style="list-style-type: none"> <li>(a) use, operation and evacuation of fire-fighting and emergency personnel</li> <li>(b) evacuation of residents, occupants and visitors.</li> </ul>	<p>DTS/DPF 6.2</p> <p>Access is in accordance with (a) or (b):</p> <ul style="list-style-type: none"> <li>(a) a clear and unobstructed vehicle or pedestrian pathway of not greater than 60 metres in length is available between the most distant part of the habitable building and the nearest part of a formed public access road</li> <li>(b) driveways: <ul style="list-style-type: none"> <li>(i) do not exceed 600m in length</li> <li>(ii) are constructed with a formed, all-weather surface</li> <li>(iii) are connected to a formed, all-weather public road with the transition area between the road and driveway having a gradient of not more than 7 degrees (1-in-8)</li> <li>(iv) have a gradient of not more than 16 degrees (1-in-3.5) at any point along the driveway</li> <li>(v) have a crossfall of not more than 6 degrees (1-in-9.5) at any point along the driveway</li> <li>(vi) have a minimum formed width of 3m (4m where the gradient of the driveway is steeper than 12 degrees (1-in-4.5)) plus 0.5 metres clearance either side of the driveway from overhanging branches or other obstructions, including buildings and/or structures (Figure 1)</li> <li>(vii) incorporate passing bays with a minimum width of 6m and length of 17m every 200m (Figure 5)</li> <li>(viii) provide overhead clearance of not less than 4.0m between the driveway surface and overhanging branches or other obstructions, including buildings and/or structures (Figure 1)</li> <li>(ix) allow fire-fighting services (personnel and vehicles) to travel in a continuous forward movement around driveway curves by constructing the curves with a minimum external radius of 12.5m (Figure 2)</li> <li>(x) allow fire-fighting vehicles to safely enter and exit an allotment in a forward direction by using a 'U' shaped drive through design or by incorporating at the end of the driveway either: <ul style="list-style-type: none"> <li>A. a loop road around the building or</li> <li>B. a turning area with a minimum radius of 12.5m (Figure 3)</li> </ul> </li> </ul> </li> </ul>

	<p>or</p> <p>C. a 'T' or 'Y' shaped turning area with a minimum formed length of 11m and minimum internal radii of 9.5m (Figure 4)</p> <p>(xi) incorporate solid, all-weather crossings over any watercourse that support fire-fighting vehicles with a gross vehicle mass (GVM) of 21 tonnes.</p>
<p>PO 6.3</p> <p>Development does not rely on fire tracks as means of evacuation or access for fire-fighting purposes unless there are no safe alternatives available.</p>	<p>DTS/DPF 6.3</p> <p>None are applicable.</p>

### Procedural Matters (PM) - Referrals

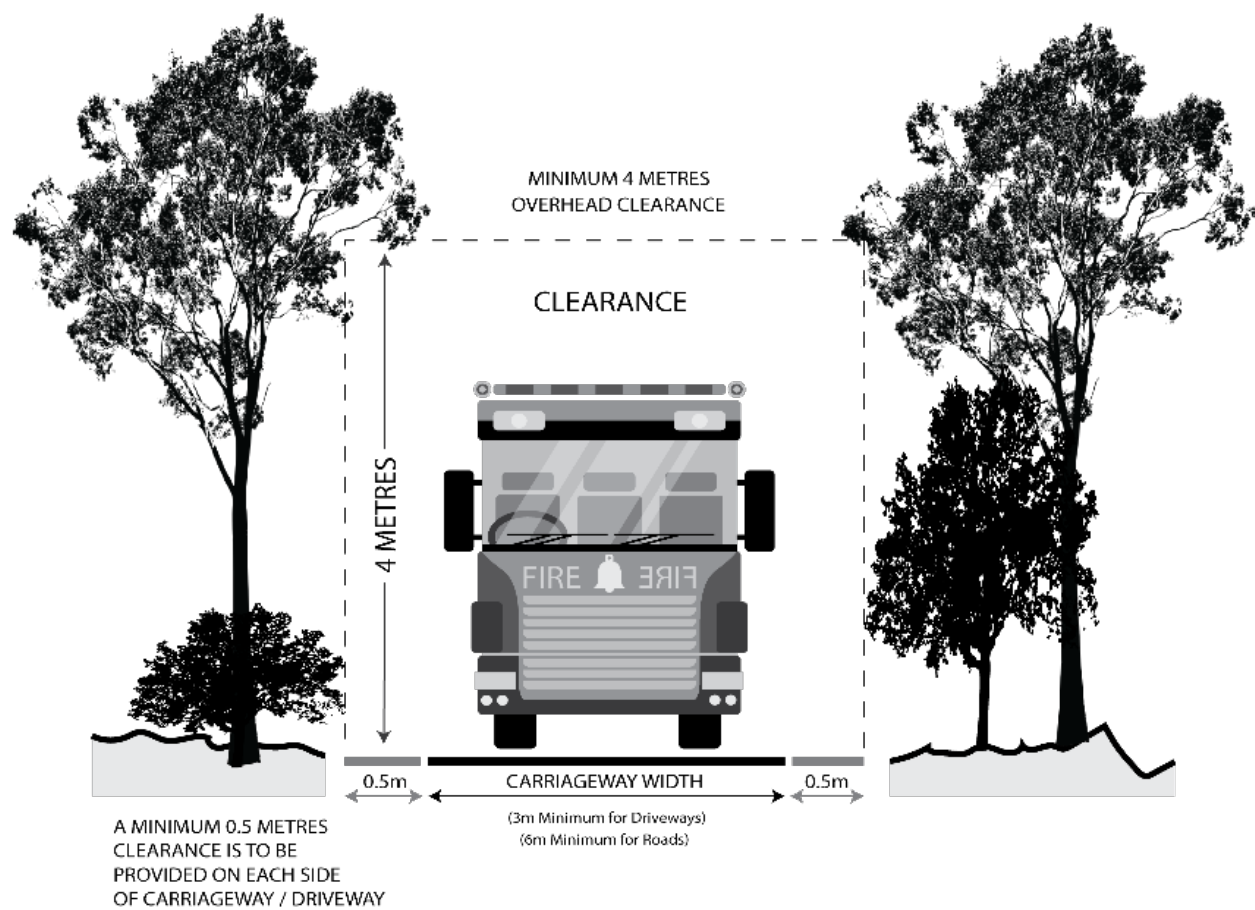
The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
<p>Except if a <b>relevant certificate</b> accompanies the application for planning consent in respect of the development, any of the following classes of development (including alterations and additions which increase the floor area of such buildings by 10% or more):</p> <ul style="list-style-type: none"> <li>(a) land division creating one or more additional allotments</li> <li>(b) dwelling</li> <li>(c) ancillary accommodation</li> <li>(d) residential flat building</li> <li>(e) tourist accommodation</li> <li>(f) boarding home</li> <li>(g) dormitory style accommodation</li> <li>(h) workers' accommodation</li> <li>(i) student accommodation</li> <li>(j) pre-school</li> <li>(k) educational establishment</li> <li>(l) retirement village</li> <li>(m) supported accommodation</li> <li>(n) residential park</li> <li>(o) hospital</li> <li>(p) camp ground.</li> </ul>	South Australian Country Fire Service.	To provide expert assessment and direction to the relevant authority on the potential impacts of bushfire on the development.	Development of a class to which Schedule 9 clause 3 item 2 of the Planning, Development and Infrastructure (General) Regulations 2017 applies.

### Figures and Diagrams

#### Fire Appliance Clearances

Figure 1 - Overhead and Side Clearances



Roads and Driveway Design

Figure 2 - Road and Driveway Curves

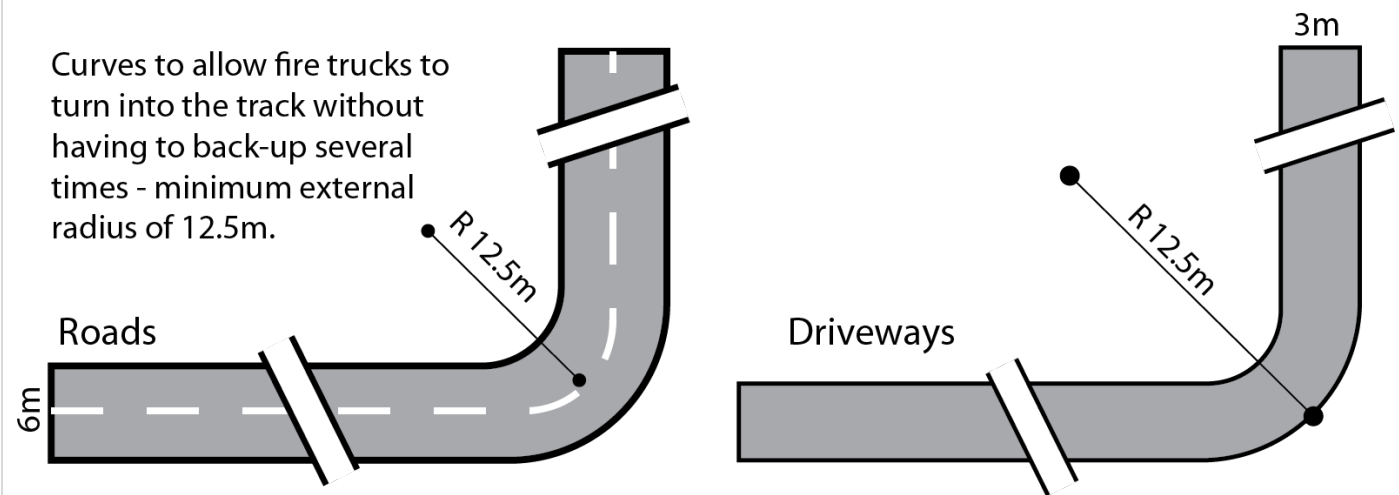


Figure 3 - Full Circle Turning Area

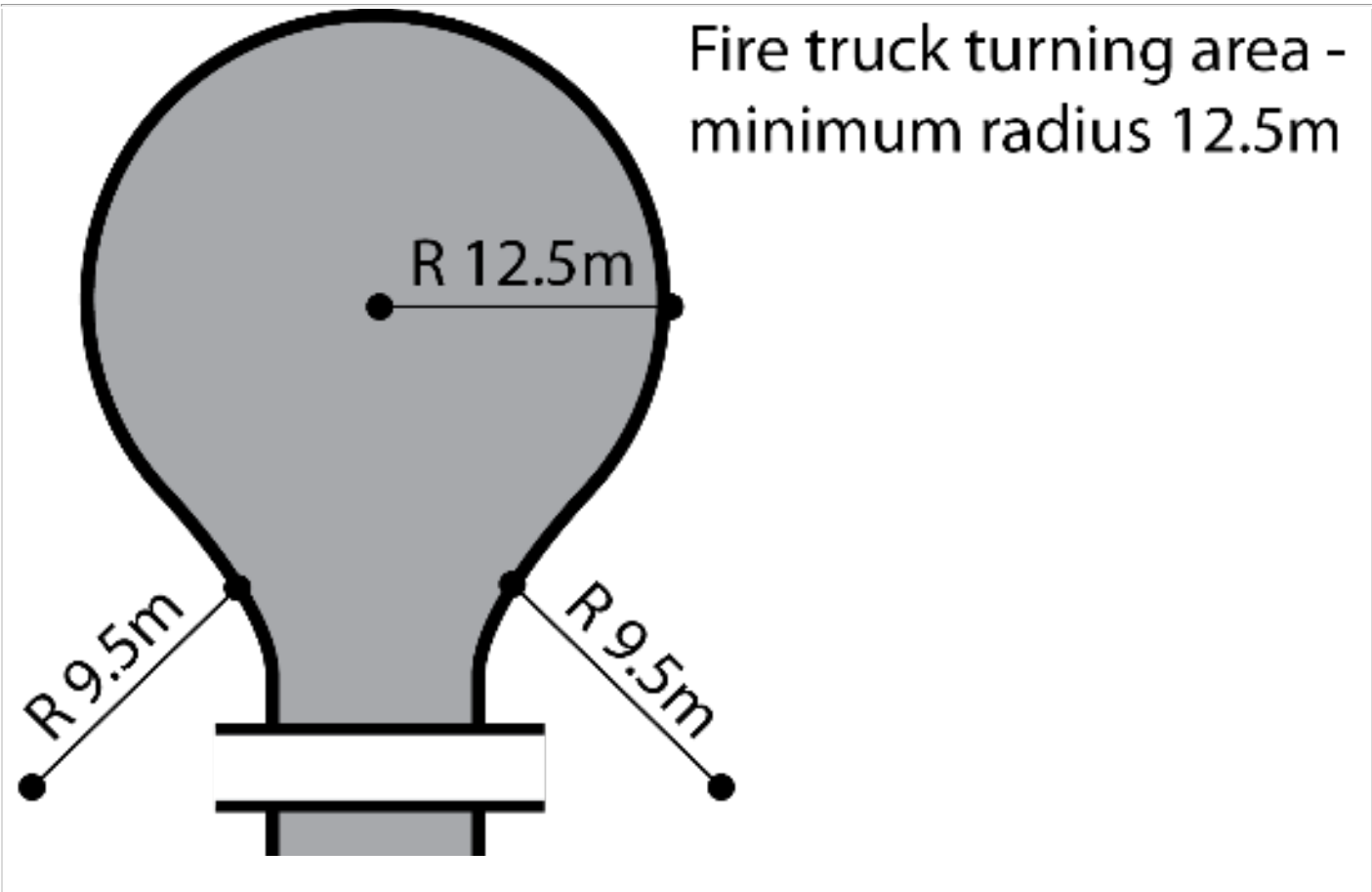
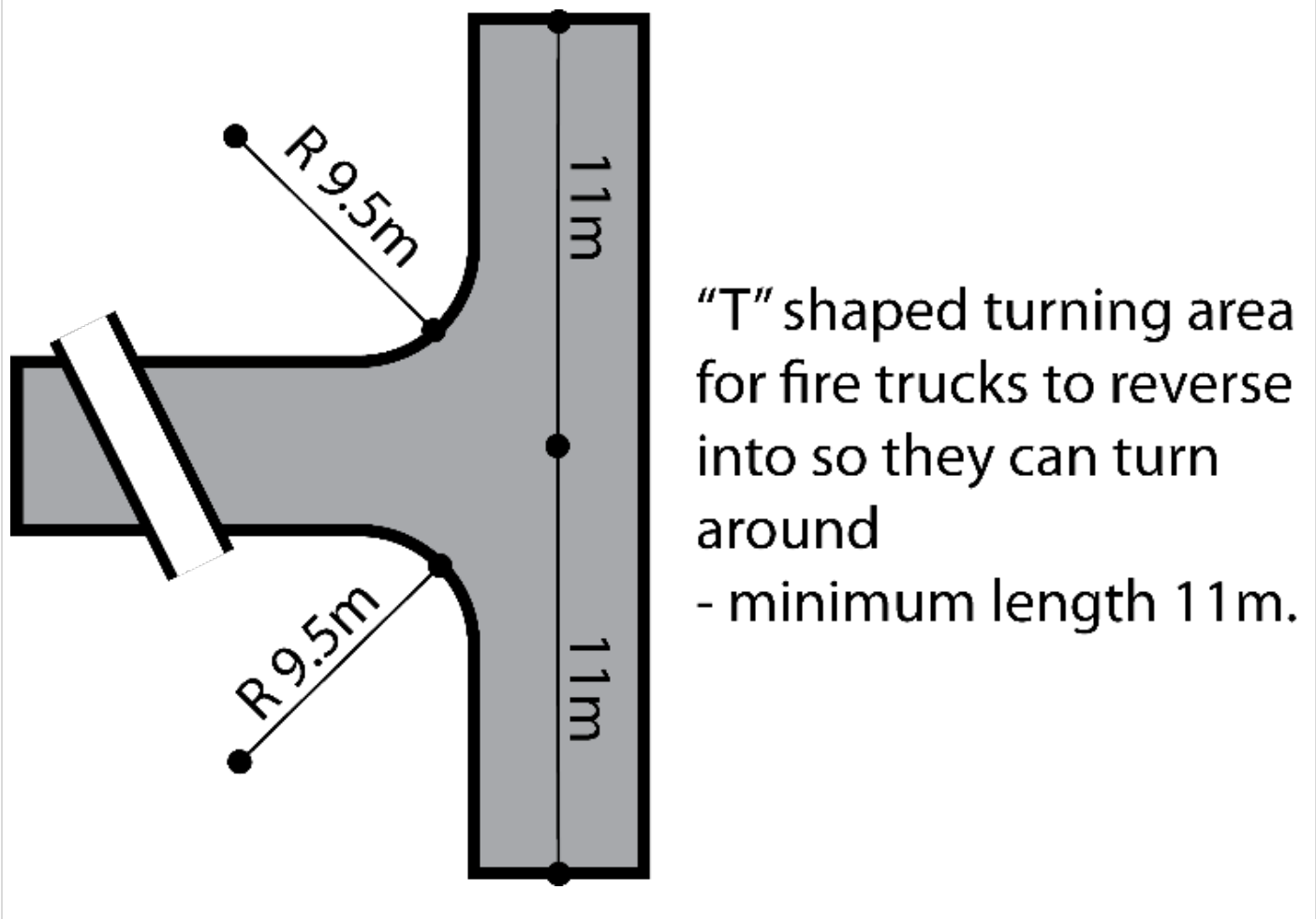


Figure 4 - 'T' or 'Y' Shaped Turning Head





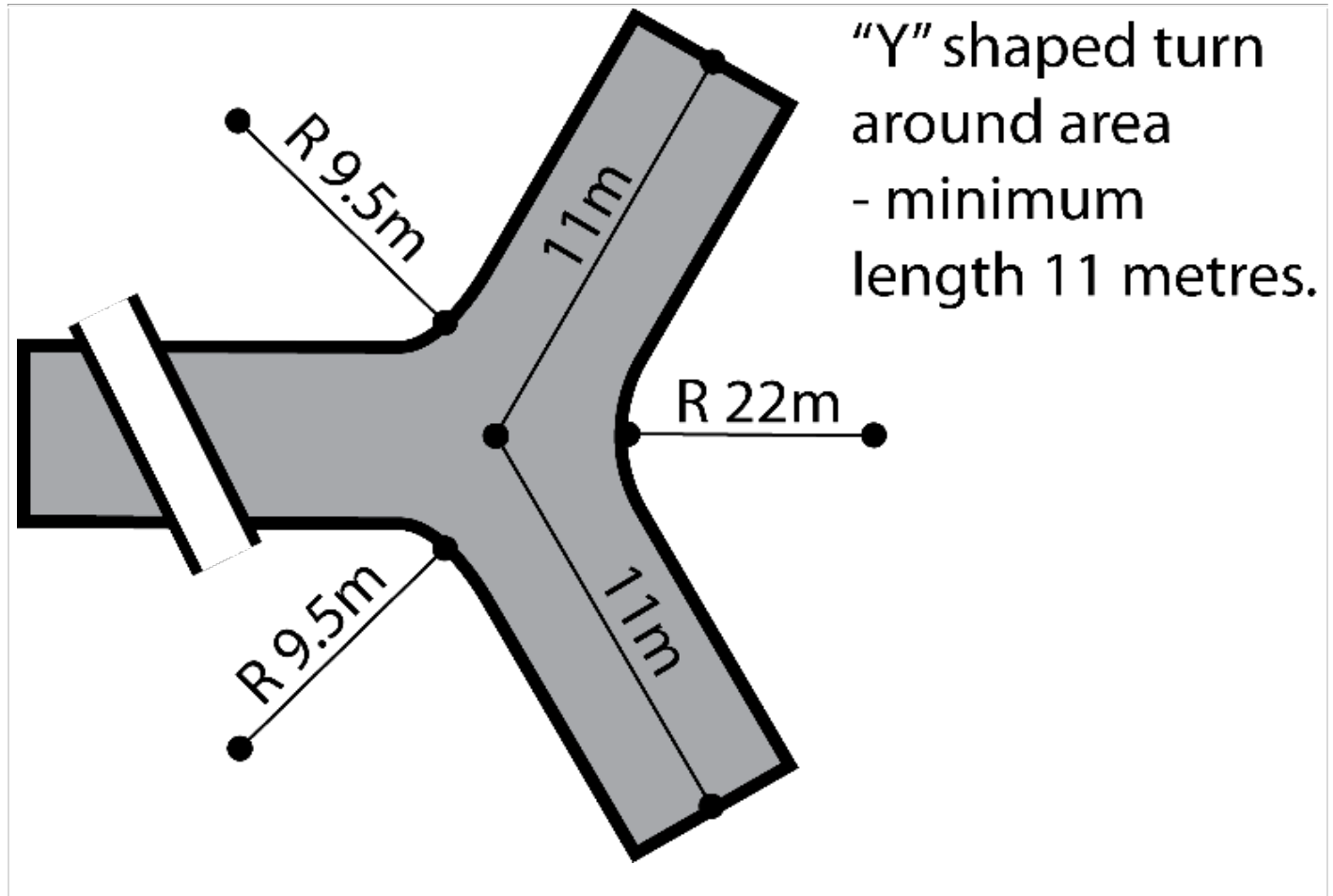
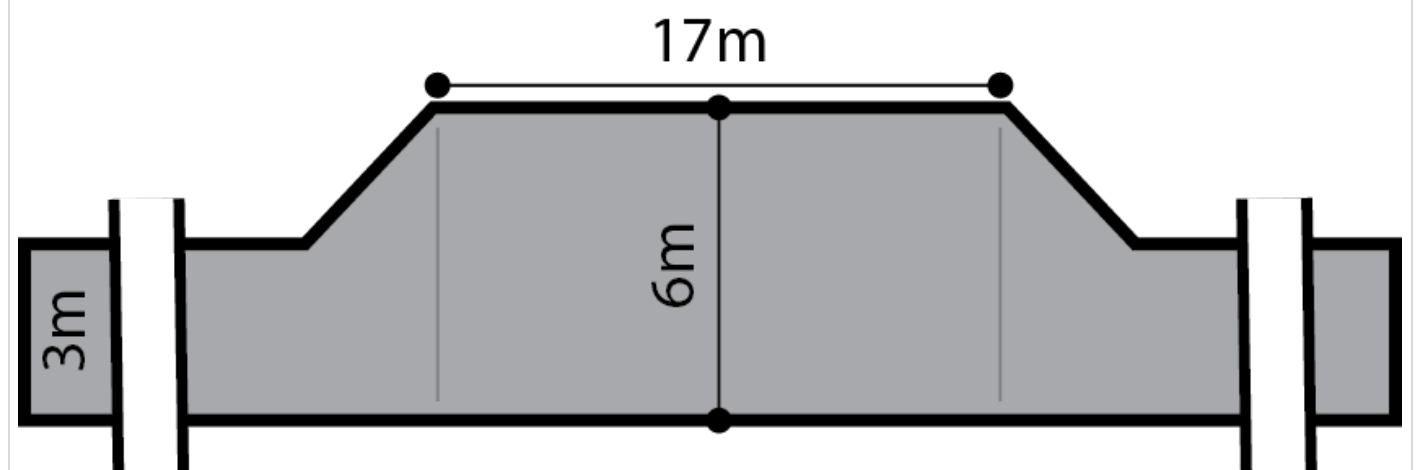


Figure 5 - Driveway Passing Bays

Passing bay for fire trucks - minimum width 6 metres, minimum length 17 metres.



Hazards (Flooding - Evidence Required) Overlay

Assessment Provisions (AP)

**Desired Outcome**

DO 1	Development adopts a precautionary approach to mitigate potential impacts on people, property, infrastructure and the environment from potential flood risk through the appropriate siting and design of development.
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Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Flood Resilience	
PO 1.1 Development is sited, designed and constructed to minimise the risk of entry of potential floodwaters where the entry of flood waters is likely to result in undue damage to or compromise ongoing activities within buildings.	DTS/DPF 1.1 Habitable buildings, commercial and industrial buildings, and buildings used for animal keeping incorporate a finished floor level at least 300mm above: <ul style="list-style-type: none"> <li>(a) the highest point of top of kerb of the primary street or</li> <li>(b) the highest point of natural ground level at the primary street boundary where there is no kerb</li> </ul>
Environmental Protection	
PO 2.1 Buildings and structures used either partly or wholly to contain or store hazardous materials are designed to prevent spills or leaks leaving the confines of the building.	DTS/DPF 2.1 Development does not involve the storage of hazardous materials.

### Procedural Matters (PM) - Referrals

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
None	None	None	None

### Limited Land Division Overlay

### Assessment Provisions (AP)

Desired Outcome	
DO 1	The long term use of land for primary production is maintained by minimising fragmentation through division of land.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria /
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Designated Performance Feature	
General	
PO 1.1 Land division does not result in the creation of an additional allotment.	DTS/DPF 1.1 No additional allotments are created.
PO 1.2 Land division involving boundary realignments occurs only where the number of resulting allotments with a site area less than that specified in the relevant Zone is not greater than the number that existed prior to the realignment.	DTS/DPF 1.2 None are applicable.

### Procedural Matters (PM) - Referrals

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
None	None	None	None

## Mount Lofty Ranges Water Supply Catchment (Area 1) Overlay

### Assessment Provisions (AP)

Performance Outcomes (PO) and Deemed to Satisfy (DTS) / Designated Performance Feature (DPF) Criteria

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Wastewater	
DTS/DPF 2.4 All components of an effluent disposal area are:  (a) set back 50 metres or more from a watercourse (b) set back 100 metres or more from a public water supply reservoir (c) located on land with a slope no greater than 1-in-5 (20%) (d) located on land with 1.2m or more depth to bedrock or a seasonal or permanent water table (e) above the 10% AEP flood level.	Stormwater
DTS/DPF 3.4 Development includes:  (a) rainwater tanks with a minimum capacity of 1,000L connected to carports, verandahs and	DTS/DPF 3.5 Dwelling additions are connected to a rainwater tank with a minimum capacity of 1,000L.

(b) outbuildings or rainwater tanks with a minimum capacity of 4,500L connected to agricultural buildings exceeding 100m <sup>2</sup> .	
<p>DTS/DPF 3.6</p> <p>Shops and tourist accommodation satisfy all the following:</p> <ul style="list-style-type: none"> <li>(a) are located 50m or more from watercourses, wetlands, land prone to waterlogging and bores</li> <li>(b) are located 100m or more from public water supply reservoirs and diversion weirs</li> <li>(c) are located on land with a slope not exceeding 20%</li> <li>(d) includes buildings connected to rainwater tanks with a minimum capacity of 1,000L</li> <li>(e) includes swales that divert clean stormwater away from areas where it could be polluted.</li> </ul>	<p>DTS/DPF 3.9</p> <p>Excavation and/or filling satisfy all the following:</p> <ul style="list-style-type: none"> <li>(a) is located 50m or more from watercourses</li> <li>(b) is located 100m or more from public water supply reservoirs and diversion weirs</li> <li>(c) does not involve excavation exceeding a vertical height of 0.75m</li> <li>(d) does not involve filling exceeding a vertical height of 0.75m</li> <li>(e) does not involve a total combined excavation and filling vertical height of 1.5m.</li> </ul>

## Mount Lofty Ranges Water Supply Catchment (Area 2) Overlay

### Assessment Provisions (AP)

Desired Outcome	
DO 1	Safeguard Greater Adelaide's public water supply by ensuring development has a neutral or beneficial effect on the quality of water harvested from secondary reservoirs or diversion weir catchments from the Mount Lofty Ranges.

Performance Outcomes (PO) and Deemed to Satisfy (DTS) / Designated Performance Feature (DPF) Criteria

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Water Quality	
<p>PO 1.1</p> <p>Development results in a neutral or beneficial effect on the quality of water draining from the site to maintain and enhance the role of the catchment as a water supply.</p>	<p>DTS/DPF 1.1</p> <p>None are applicable.</p>
<p>PO 1.2</p> <p>Development does not include land uses that have the potential to cause adverse impacts on the quality of water draining into secondary public water supply reservoirs and weirs.</p>	<p>DTS/DPF 1.2</p> <p>Development does not involve any one or combination of the following:</p> <ul style="list-style-type: none"> <li>(a) landfill</li> <li>(b) special industry.</li> </ul>
Wastewater	
PO 2.1	DTS/DPF 2.1

<p>Development that generates human wastewater, including alterations and additions, are established at an intensity and in a manner to minimise potential adverse impact on water quality within secondary reservoir and weir catchment areas.</p>	<p>Development including alterations and additions, in combination with existing built form and activities within an allotment:</p> <ul style="list-style-type: none"> <li>(a) do not generate a combined total of more than 1500 litres of wastewater per day and</li> <li>(b) will be connected to the same on-site wastewater system that is compliant with relevant South Australian standards</li> </ul> <p>or is otherwise connected to a sewer or community wastewater management system.</p>
<p>PO 2.2</p> <p>Dairy development is of a scale and design that will avoid adverse water quality impacts.</p>	<p>DTS/DPF 2.2</p> <p>Dairy development satisfies all of the following:</p> <ul style="list-style-type: none"> <li>(a) is located at least 100 metres from any watercourse, dam, bore or well</li> <li>(b) is connected to a wastewater management system that is located 200 metres from any watercourse, dam, bore or well and is designed and constructed to avoid leakage to groundwater or overflow under extreme rainfall conditions</li> <li>(c) treated wastewater irrigation areas: <ul style="list-style-type: none"> <li>(i) have a slope of less than 1-in-5 (20 percent)</li> <li>(ii) are greater than 100 metres from any watercourse, dam, bore or well</li> </ul> </li> </ul> <p>are suitable to provide for seasonal wastewater irrigation without causing pollution of surface or groundwater.</p>
<p>PO 2.3</p> <p>Development that generates trade or industrial wastewater is of a scale and design to ensure wastewater is managed to avoid adverse water quality impacts is of a scale and design that will avoid adverse water quality impacts.</p>	<p>DTS/DPF 2.3</p> <p>Development that generates trade or industrial wastewater with a peak biological oxygen demand (BOD) of greater than 100 milligrams per litre satisfies the following:</p> <ul style="list-style-type: none"> <li>(a) disposes of all wastewater to a sewerage or community wastewater management system,</li> <li>or</li> <li>(b) operates at a scale that generates less than 5 million litres of wastewater per year, and <ul style="list-style-type: none"> <li>(i) is located greater than 300 metres from a watercourse, dam, bore or well, except where a spill retention basin is constructed, in which case, the minimum setback to a watercourse, dam, bore or well is 50 metres, and</li> <li>(ii) a development that incorporates a spill retention basin(s) for the purpose of reducing the setback to a watercourse, dam, bore or well, has basins designed and located: <ul style="list-style-type: none"> <li>A. to minimise the risk of spills entering a downgradient watercourse, dam, bore or well</li> <li>B. in close proximity to wine making, wine storage and wastewater treatment facilities</li> <li>C. to capture 120% of the maximum aggregate volume of liquid raw materials, product and untreated wastewater which can be contained or</li> </ul> </li> </ul> </li> </ul>



	<p>produced at any one time during the peak of operation</p> <p>D. to be impervious; and</p> <p>E. to minimise the interception of any natural or artificial stormwater flow.</p>
<p>PO 2.4</p> <p>Wastewater management systems result in a neutral or beneficial effect on the quality of water draining from the site.</p>	<p>DTS/DPF 2.4</p> <p>Development results in:</p> <p>(a) a building or land use that is currently connected to an existing on-site wastewater system that is non-compliant with relevant South Australian standards being connected to a new or upgraded system that complies with such standards</p> <p>or</p> <p>(b) an existing on-site wastewater system being decommissioned and wastewater being disposed of to a sewer or community wastewater management system that complies with relevant South Australian standards.</p>
<p>PO 2.5</p> <p>Surface and groundwater protected from wastewater discharge pollution.</p>	<p>DTS/DPF 2.5</p> <p>All components of an effluent disposal area are:</p> <p>(a) setback 50 metres or more from a watercourse</p> <p>(b) setback 100 metres or more from a public water supply reservoir</p> <p>(c) located on land with a slope no greater than 1-in-5 (20%)</p> <p>(d) located on land with 1.2m or more depth to bedrock or a seasonal or permanent water table</p> <p>(e) above the 10% AEP flood level.</p>
Stormwater	
<p>PO 3.1</p> <p>Post-development peak stormwater discharge quantities and rates do not exceed pre-development quantities and rates to maintain water quality leaving the site.</p>	<p>DTS/DPF 3.1</p> <p>None are applicable.</p>
<p>PO 3.2</p> <p>Stormwater run-off from areas not likely to be subject to pollution diverted away from areas that could cause pollution.</p>	<p>DTS/DPF 3.2</p> <p>None are applicable.</p>
<p>PO 3.3</p> <p>Polluted stormwater is treated prior to discharge from the site.</p>	<p>DTS/DPF 3.3</p> <p>None are applicable.</p>
<p>PO 3.4</p> <p>Stormwater from carports, verandahs, outbuildings and agricultural buildings captured to protect water quality.</p>	<p>DTS/DPF 3.4</p> <p>Development includes:</p> <p>(a) rainwater tanks with a minimum capacity of 1,000L connected to carports, verandahs and outbuildings</p> <p>or</p> <p>(b) rainwater tanks with a minimum capacity of 4,500L connected to agricultural buildings exceeding 100m<sup>2</sup>.</p>
PO 3.5	DTS/DPF 3.5

Stormwater from dwelling additions captured to protect water quality.	Dwelling additions are connected to a rainwater tank with a minimum capacity of 1,000L.
PO 3.6  Stormwater from shops and tourist accommodation is managed to protect water quality.	DTS/DPF 3.6  Shops and tourist accommodation satisfy all the following: <ul style="list-style-type: none"> <li>(a) are located 50m or more from watercourses, wetlands, land prone to waterlogging and bores</li> <li>(b) are located 100m or more from public water supply reservoirs and diversion weirs</li> <li>(c) are located on land with a slope not exceeding 20%</li> <li>(d) includes buildings connected to rainwater tanks with a minimum capacity of 1,000L</li> <li>(e) includes swales that divert clean stormwater away from areas where it could be polluted.</li> </ul>
PO 3.7  Stormwater from horse keeping and low intensity animal husbandry is managed to protect water quality.	DTS/DPF 3.7  Horse keeping and low intensity animal husbandry satisfy all the following: <ul style="list-style-type: none"> <li>(a) is located 50m or more from watercourses, wetlands, land prone to waterlogging and bores</li> <li>(b) is located on land with a slope not exceeding 10%</li> <li>(c) includes stables, shelters or other roofed structures connected to rainwater tanks with a minimum capacity of 1,000L</li> <li>(d) includes swales that divert clean stormwater away from areas (including yards, manure storage areas, and watering points) within which it could be polluted.</li> </ul>
PO 3.8  Stormwater from horticulture is managed to protect water quality.	DTS/DPF 3.8  Horticulture satisfies all the following: <ul style="list-style-type: none"> <li>(a) is located 50m or more from watercourses, wetlands, land prone to waterlogging and bores</li> <li>(b) is located 100m or more from public water supply reservoirs and diversion weirs</li> <li>(c) is located on land with a slope not exceeding 10%</li> <li>(d) includes swales or other structures that divert clean stormwater away from areas (including plant growing areas, chemical storage areas and plant waste storage areas) within which it could be polluted.</li> </ul>
PO 3.9  Stormwater from excavated and filled areas is managed to protect water quality.	DTS/DPF 3.9  Excavation and/or filling satisfy all the following: <ul style="list-style-type: none"> <li>(a) is located 50m or more from watercourses</li> <li>(b) is located 100m or more from public water supply reservoirs and diversion weirs</li> <li>(c) does not involve excavation exceeding a vertical height of 0.75m</li> <li>(d) does not involve filling exceeding a vertical height of 0.75m</li> <li>(e) does not involve a total combined excavation and filling vertical height of 1.5m.</li> </ul>

Landscapes and Natural Features	
PO 4.1 Development minimises the need to modify landscapes and natural features.	DTS/DPF 4.1 None are applicable.
Land Division	
PO 5.1 Land division does not result in an increased risk of pollution to surface or underground water.	DTS/DPF 5.1 Land division does not create additional allotments and satisfies (a) and/or (b):  (a) is for realignment of allotment boundaries to correct an anomaly in the placement of those boundaries with respect to the location of existing buildings or structures or (b) is for realignment of allotment boundaries in order to improve management of the land for primary production and/or conservation of natural features.
PO 5.2 Realignment of allotment boundaries does not create development potential for a dwelling and associated onsite wastewater management system where no such potential currently exists.	DTS/DPF 5.2 None are applicable.

### Procedural Matters (PM)

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
<p>Any of the following classes of development that are not connected (or not proposed to be connected) to a community wastewater management system or sewerage infrastructure:</p> <ul style="list-style-type: none"> <li>(a) land division creating one or more additional allotments, either partly or wholly within the area of the overlay</li> <li>(b) function centre with more than 75 seats for customer dining purposes</li> <li>(c) restaurant with more than 40 seats for customer dining purposes</li> <li>(d) restaurant with more than 30 seats for customer dining purposes in association with a cellar door</li> <li>(e) dwelling where a habitable dwelling or tourist accommodation already exists on the same allotment (including where a valid planning authorisation exists to erect a dwelling or tourist accommodation on the same allotment)</li> <li>(f) tourist accommodation where a habitable</li> </ul>	Environment Protection Authority.	To provide expert technical assessment and direction to the relevant authority on whether a proposed development will have a neutral or beneficial impact on water quality.	Development of a class to which Schedule 9 clause 3 item 9 of the Planning, Development and Infrastructure (General) Regulations 2017 applies.

<p>dwelling or tourist accommodation already exists on the same allotment (including where a valid planning authorisation exists to erect a habitable dwelling or tourist accommodation on the same allotment)</p> <p>(g) workers' accommodation where a habitable dwelling or tourist accommodation already exists on the same allotment (including where a valid planning authorisation exists to erect a habitable dwelling or tourist accommodation on the same allotment)</p> <p>(h) any other development that generates human wastewater from a peak loading capacity of more than 40 persons (or more than 6,000 litres/day)</p>	
Composting works (excluding a prescribed approved activity) - being a depot, facility or works with the capacity to treat, during a 12 month period more than 200 tonnes of organic waste or matter (EPA Licence)	
Wastewater treatment works - being sewage treatment works, a community wastewater management system, winery wastewater treatment works or any other wastewater treatment works with the capacity to treat, during a 12 month period more than 2.5 ML of wastewater (EPA Licence required at more than 5ML)	
Feedlots - being carrying on an operation for holding in confined yard or area and feeding principally by mechanical means or by hand not less than an average of 200 cattle (EPA Licence) or 1,600 sheep or goats per day over any period of 12 months, but excluding any such operation carried on at an abattoir, slaughterhouse or saleyard or for the purpose only of drought or other emergency feeding	
Piggeries - being the conduct of a piggery (being premises having confined or roofed structures for keeping pigs) with a capacity of 130 or more standard pig units (EPA Licence required at 650 or more standard pig units)	
Dairies - carrying on of a dairy with a total processing capacity exceeding 100 milking animals at any one time.	

## Native Vegetation Overlay

**Assessment Provisions (AP)**

<b>Desired Outcome</b>	
DO 1	Areas of native vegetation are protected, retained and restored in order to sustain biodiversity, threatened species and vegetation communities, fauna habitat, ecosystem services, carbon storage and amenity values.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

<b>Performance Outcome</b>	<b>Deemed-to-Satisfy Criteria / Designated Performance Feature</b>
Environmental Protection	
<p>PO 1.1</p> <p>Development avoids, or where it cannot be practically avoided, minimises the clearance of native vegetation taking into account the siting of buildings, access points, bushfire protection measures and building maintenance.</p>	<p>DTS/DPF 1.1</p> <p>An application is accompanied by:</p> <ul style="list-style-type: none"> <li>(a) a declaration stating that the proposal will not, or would not, involve clearance of native vegetation under the Native Vegetation Act 1991, including any clearance that may occur: <ul style="list-style-type: none"> <li>(i) in connection with a relevant access point and / or driveway</li> <li>(ii) within 10m of a building (other than a residential building or tourist accommodation)</li> <li>(iii) within 20m of a dwelling or addition to an existing dwelling for fire prevention and control</li> <li>(iv) within 50m of residential or tourist accommodation in connection with a requirement under a relevant overlay to establish an asset protection zone in a bushfire prone area</li> </ul> </li> <li>or</li> <li>(b) a report prepared in accordance with Regulation 18(2) (a) of the Native Vegetation Regulations 2017 that establishes that the clearance is categorised as 'Level 1 clearance'.</li> </ul>
<p>PO 1.2</p> <p>Native vegetation clearance in association with development avoids the following:</p> <ul style="list-style-type: none"> <li>(a) significant wildlife habitat and movement corridors</li> <li>(b) rare, vulnerable or endangered plants species</li> <li>(c) native vegetation that is significant because it is located in an area which has been extensively cleared</li> <li>(d) native vegetation that is growing in, or in association with, a wetland environment.</li> </ul>	<p>DTS/DPF 1.2</p> <p>None are applicable.</p>



<p>PO 1.3</p> <p>Intensive animal husbandry and agricultural activities are sited, set back and designed to minimise impacts on native vegetation, including impacts on native vegetation in an adjacent State Significant Native Vegetation Area, from:</p> <ul style="list-style-type: none"> <li>(a) the spread of pest plants and phytophthora</li> <li>(b) the spread of non-indigenous plants species</li> <li>(c) excessive nutrient loading of the soil or loading arising from surface water runoff</li> <li>(d) soil compaction</li> <li>(e) chemical spray drift.</li> </ul>	<p>DTS/DPF 1.3</p> <p>Development within 500 metres of a boundary of a State Significant Native Vegetation Area does not involve any of the following:</p> <ul style="list-style-type: none"> <li>(a) horticulture</li> <li>(b) intensive animal husbandry</li> <li>(c) dairy</li> <li>(d) commercial forestry</li> <li>(e) aquaculture.</li> </ul>
<p>PO 1.4</p> <p>Development restores and enhances biodiversity and habitat values through revegetation using locally indigenous plant species.</p>	<p>DTS/DPF 1.4</p> <p>None are applicable.</p>
Land division	
<p>PO 2.1</p> <p>Land division does not result in the fragmentation of land containing native vegetation, or necessitate the clearance of native vegetation, unless such clearance is considered minor, taking into account the location of allotment boundaries, access ways, fire breaks, boundary fencing and potential building siting or the like.</p>	<p>DTS/DPF 2.1</p> <p>Land division where:</p> <ul style="list-style-type: none"> <li>(a) an application is accompanied by one of the following: <ul style="list-style-type: none"> <li>(i) a declaration stating that none of the allotments in the proposed plan of division contain native vegetation under the <i>Native Vegetation Act 1991</i></li> <li>(ii) a declaration stating that no native vegetation clearance under the <i>Native Vegetation Act 1991</i> will be required as a result of the division of land</li> <li>(iii) a report prepared in accordance with Regulation 18(2)(a) of the Native Vegetation Regulations 2017 that establishes that the vegetation to be cleared is categorised as 'Level 1 clearance'</li> </ul> </li> <li>or</li> <li>(b) an application for land division which is being considered concurrently with a proposal to develop each allotment which will satisfy, or would satisfy, the requirements of DTS/DPF 1.1, including any clearance that may occur</li> <li>or</li> <li>(c) the division is to support a Heritage Agreement under the Native Vegetation Act 1991 or the <i>Heritage Places Act 1993</i>.</li> </ul>

### Procedural Matters (PM) - Referrals

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
Development that is the subject of a report	Native Vegetation Council	To provide expert assessment	Development

prepared in accordance with Regulation 18(2)(a) of the <i>Native Vegetation Regulations 2017</i> that categorises the clearance, or potential clearance, as 'Level 3 clearance' or 'Level 4 clearance'.		and direction to the relevant authority on the potential impacts of development on native vegetation.	of a class to which Schedule 9 clause 3 item 11 of the Planning, Development and Infrastructure (General) Regulations 2017 applies.
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## Prescribed Water Resources Area Overlay

### Assessment Provisions (AP)

Desired Outcome	
DO 1	Sustainable water use in prescribed surface water resources areas maintains the health and natural flow paths of water courses.

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
<p>PO 1.1</p> <p>All development, but in particular development involving any of the following:</p> <ul style="list-style-type: none"> <li>(a) horticulture</li> <li>(b) activities requiring irrigation</li> <li>(c) aquaculture</li> <li>(d) industry</li> <li>(e) intensive animal husbandry</li> <li>(f) commercial forestry</li> </ul> <p>has a lawful, sustainable and reliable water supply that does not place undue strain on water resources in prescribed surface water areas.</p>	<p>DTS/DPF 1.1</p> <p>Development satisfies either of the following:</p> <ul style="list-style-type: none"> <li>(a) the applicant has a current water licence in which sufficient spare capacity exists to accommodate the water needs of the proposed use or</li> <li>(b) the proposal does not involve the taking of water for which a licence would be required under the <i>Landscape South Australia Act 2019</i>.</li> </ul>
<p>PO 1.2</p> <p>Development comprising the erection, construction, modification, enlargement or removal of a dam, wall or other structure that will collect or divert surface water flowing over land is undertaken in a manner that maintains the quality and quantity of flows required to meet the needs of the environment as well as downstream users.</p>	<p>DTS/DPF 1.2</p> <p>None are applicable.</p>

## Procedural Matters (PM) - Referrals

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
Development that comprises the erection, construction, modification, enlargement or removal of a dam, wall or other structure that will collect or divert, or collects or diverts surface water flowing over land.	Relevant authority under the <i>Landscape South Australia Act 2019</i> that would, if it were not for the operation of section 106(1)(e) of that Act, have the authority under that Act to grant or refuse a permit to undertake the subject development.	To provide expert assessment and direction to the relevant authority on potential impacts from development on the health, sustainability and/or natural flow paths of water resources in accordance with the provisions of the relevant water allocation plan or regional landscape plan or equivalent.	Development of a class to which Schedule 9 clause 3 item 12 of the Planning, Development and Infrastructure (General) Regulations 2017 applies.
Any of the following classes of development: (a) horticulture (b) activities requiring irrigation (c) aquaculture (d) industry (e) intensive animal husbandry (f) commercial forestry	The Chief Executive of the Department of the Minister responsible for the administration of the <i>Landscape South Australia Act 2019</i> .	To provide expert technical assessment and direction to the relevant authority on the taking of water to ensure development is undertaken sustainably and maintains the health and natural flow paths of water resources.	Development of a class to which Schedule 9 clause 3 item 13 of the Planning, Development and Infrastructure (General) Regulations 2017 applies.
Commercial forestry that requires a forest water licence under Part 8 Division 6 of the <i>Landscape South Australia Act 2019</i> .			

## Water Resources Overlay

### Assessment Provisions (AP)

Desired Outcome	
DO 1	Protection of the quality of surface waters considering adverse water quality impacts associated with projected reductions in rainfall and warmer air temperatures as a result of climate change.
DO 2	Maintain the conveyance function and natural flow paths of watercourses to assist in the management of flood waters and stormwater runoff.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Water Catchment	
PO 1.1  Watercourses and their beds, banks, wetlands and floodplains (1% AEP flood extent) are not damaged or modified and are retained in their natural state, except where modification is required for essential access or maintenance purposes.	DTS/DPF 1.1  None are applicable.
PO 1.2  Development avoids interfering with the existing hydrology or water regime of swamps and wetlands other than to improve the existing conditions to enhance environmental values.	DTS/DPF 1.2  None are applicable.
PO 1.3  Wetlands and low-lying areas providing habitat for native flora and fauna are not drained, except temporarily for essential management purposes to enhance environmental values.	DTS/DPF 1.3  None are applicable.
PO 1.4  Watercourses, areas of remnant native vegetation, or areas prone to erosion that are capable of natural regeneration are fenced off to limit stock access.	DTS/DPF 1.4  None are applicable.
PO 1.5  Development that increases surface water run-off includes a suitably sized strip of vegetated land on each side of a watercourse to filter runoff to: <ul style="list-style-type: none"> <li>(a) reduce the impacts on native aquatic ecosystems</li> <li>(b) minimise soil loss eroding into the watercourse.</li> </ul>	DTS/DPF 1.5  A strip of land 20m or more wide measured from the top of existing banks on each side of the watercourse is free from development, livestock use and revegetated with locally indigenous vegetation.
PO 1.6  Development resulting in the depositing or placing of an object or solid material in a watercourse or lake occurs only where it involves any of the following: <ul style="list-style-type: none"> <li>(a) the construction of an erosion control structure</li> <li>(b) devices or structures used to extract or regulate water flowing in a watercourse</li> <li>(c) devices used for scientific purposes</li> <li>(d) the rehabilitation of watercourses.</li> </ul>	DTS/DPF 1.6  None are applicable.
PO 1.7  Watercourses, floodplains (1% AEP flood extent) and wetlands protected and enhanced by retaining and protecting existing native vegetation.	DTS/DPF 1.7  None are applicable.
PO 1.8	DTS/DPF 1.8

Watercourses, floodplains (1% AEP flood extent) and wetlands are protected and enhanced by stabilising watercourse banks and reducing sediments and nutrients entering the watercourse.	None are applicable.
PO 1.9  Dams, water tanks and diversion drains are located and constructed to maintain the quality and quantity of flows required to meet environmental and downstream needs.	DTS/DPF 1.9  None are applicable.

### Procedural Matters (PM) - Referrals

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
None	None	None	None

## Part 4 - General Development Policies

### Advertisements

### Assessment Provisions (AP)

Desired Outcome	
DO 1	Advertisements and advertising hoardings are appropriate to context, efficient and effective in communicating with the public, limited in number to avoid clutter, and do not create hazard.

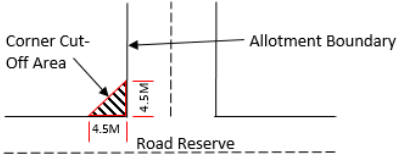
Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Appearance	
PO 1.1  Advertisements are compatible and integrated with the design of the building and/or land they are located on.	DTS/DPF 1.1  Advertisements attached to a building satisfy all of the following:  (a) are not located in a Neighbourhood-type zone (b) where they are flush with a wall: (i) if located at canopy level, are in the form of a



	<p>fascia sign</p> <p>(ii) if located above canopy level:</p> <p>A. do not have any part rising above parapet height</p> <p>B. are not attached to the roof of the building</p> <p>(c) where they are not flush with a wall:</p> <p>(i) if attached to a verandah, no part of the advertisement protrudes beyond the outer limits of the verandah structure</p> <p>(ii) if attached to a two-storey building:</p> <p>A. has no part located above the finished floor level of the second storey of the building</p> <p>B. does not protrude beyond the outer limits of any verandah structure below</p> <p>C. does not have a sign face that exceeds 1m<sup>2</sup> per side.</p> <p>(d) if located below canopy level, are flush with a wall</p> <p>(e) if located at canopy level, are in the form of a fascia sign</p> <p>(f) if located above a canopy:</p> <p>(i) are flush with a wall</p> <p>(ii) do not have any part rising above parapet height</p> <p>(iii) are not attached to the roof of the building.</p> <p>(g) if attached to a verandah, no part of the advertisement protrudes beyond the outer limits of the verandah structure</p> <p>(h) if attached to a two-storey building, have no part located above the finished floor level of the second storey of the building</p> <p>(i) where they are flush with a wall, do not, in combination with any other existing sign, cover more than 15% of the building facade to which they are attached.</p>
<p>PO 1.2</p> <p>Advertising hoardings do not disfigure the appearance of the land upon which they are situated or the character of the locality.</p>	<p>DTS/DPF 1.2</p> <p>Where development comprises an advertising hoarding, the supporting structure is:</p> <p>(a) concealed by the associated advertisement and decorative detailing</p> <p>or</p> <p>(b) not visible from an adjacent public street or thoroughfare, other than a support structure in the form of a single or dual post design.</p>
<p>PO 1.3</p> <p>Advertising does not encroach on public land or the land of an adjacent allotment.</p>	<p>DTS/DPF 1.3</p> <p>Advertisements and/or advertising hoardings are contained within the boundaries of the site.</p>
<p>PO 1.4</p> <p>Where possible, advertisements on public land are integrated with existing structures and infrastructure.</p>	<p>DTS/DPF 1.4</p> <p>Advertisements on public land that meet at least one of the following:</p>

	(a) achieves Advertisements DTS/DPF 1.1 (b) are integrated with a bus shelter.
PO 1.5  Advertisements and/or advertising hoardings are of a scale and size appropriate to the character of the locality.	DTS/DPF 1.5  None are applicable.
Proliferation of Advertisements	
PO 2.1  Proliferation of advertisements is minimised to avoid visual clutter and untidiness.	DTS/DPF 2.1  No more than one freestanding advertisement is displayed per occupancy.
PO 2.2  Multiple business or activity advertisements are co-located and coordinated to avoid visual clutter and untidiness.	DTS/DPF 2.2  Advertising of a multiple business or activity complex is located on a single advertisement fixture or structure.
PO 2.3  Proliferation of advertisements attached to buildings is minimised to avoid visual clutter and untidiness.	DTS/DPF 2.3  Advertisements satisfy all of the following: <ul style="list-style-type: none"> <li>(a) are attached to a building</li> <li>(b) other than in a Neighbourhood-type zone, where they are flush with a wall, cover no more than 15% of the building facade to which they are attached</li> <li>(c) do not result in more than one sign per occupancy that is not flush with a wall.</li> </ul>
Advertising Content	
PO 3.1  Advertisements are limited to information relating to the lawful use of land they are located on to assist in the ready identification of the activity or activities on the land and avoid unrelated content that contributes to visual clutter and untidiness.	DTS/DPF 3.1  Advertisements contain information limited to a lawful existing or proposed activity or activities on the same site as the advertisement.
Amenity Impacts	
PO 4.1  Light spill from advertisement illumination does not unreasonably compromise the amenity of sensitive receivers.	DTS/DPF 4.1  Advertisements do not incorporate any illumination.
Safety	
PO 5.1  Advertisements and/or advertising hoardings erected on a verandah or projecting from a building wall are designed and located to allow for safe and convenient pedestrian access.	DTS/DPF 5.1  Advertisements have a minimum clearance of 2.5m between the top of the footpath and base of the underside of the sign.
PO 5.2  Advertisements and/or advertising hoardings do not distract or create a hazard to drivers through excessive illumination.	DTS/DPF 5.2  No advertisement illumination is proposed.
PO 5.3  Advertisements and/or advertising hoardings do not create a hazard to drivers by:	DTS/DPF 5.3  Advertisements satisfy all of the following:

<p>(a) being liable to interpretation by drivers as an official traffic sign or signal</p> <p>(b) obscuring or impairing drivers' view of official traffic signs or signals</p> <p>(c) obscuring or impairing drivers' view of features of a road that are potentially hazardous (such as junctions, bends, changes in width and traffic control devices) or other road or rail vehicles at/or approaching level crossings.</p>	<p>(a) are not located in a public road or rail reserve</p> <p>(b) are located wholly outside the land shown as 'Corner Cut-Off Area' in the following diagram</p> 
<p>PO 5.4</p> <p>Advertisements and/or advertising hoardings do not create a hazard by distracting drivers from the primary driving task at a location where the demands on driver concentration are high.</p>	<p>DTS/DPF 5.4</p> <p>Advertisements and/or advertising hoardings are not located along or adjacent to a road having a speed limit of 80km/h or more.</p>
<p>PO 5.5</p> <p>Advertisements and/or advertising hoardings provide sufficient clearance from the road carriageway to allow for safe and convenient movement by all road users.</p>	<p>DTS/DPF 5.5</p> <p>Where the advertisement or advertising hoarding is:</p> <p>(a) on a kerbed road with a speed zone of 60km/h or less, the advertisement or advertising hoarding is located at least 0.6m from the roadside edge of the kerb</p> <p>(b) on an unkerbed road with a speed zone of 60km/h or less, the advertisement or advertising hoarding is located at least 5.5m from the edge of the seal</p> <p>(c) on any other kerbed or unkerbed road, the advertisement or advertising hoarding is located a minimum of the following distance from the roadside edge of the kerb or the seal:</p> <p>(a) 110 km/h road - 14m</p> <p>(b) 100 km/h road - 13m</p> <p>(c) 90 km/h road - 10m</p> <p>(d) 70 or 80 km/h road - 8.5m.</p>
<p>PO 5.6</p> <p>Advertising near signalised intersections does not cause unreasonable distraction to road users through illumination, flashing lights, or moving or changing displays or messages.</p>	<p>DTS/DPF 5.6</p> <p>Advertising:</p> <p>(a) is not illuminated</p> <p>(b) does not incorporate a moving or changing display or message</p> <p>(c) does not incorporate a flashing light(s).</p>

## Animal Keeping and Horse Keeping

### Assessment Provisions (AP)

Desired Outcome	
DO 1	Animals are kept at a density that is not beyond the carrying capacity of the land and in a manner that minimises their adverse effects on the environment, local amenity and surrounding development.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Siting and Design	
PO 1.1  Animal keeping, horse keeping and associated activities do not create adverse impacts on the environment or the amenity of the locality.	DTS/DPF 1.1  None are applicable.
PO 1.2  Animal keeping and horse keeping is located and managed to minimise the potential transmission of disease to other operations where animals are kept.	DTS/DPF 1.2  None are applicable.
Horse Keeping	
PO 2.1  Water from stable wash-down areas is directed to appropriate absorption areas and/or drainage pits to minimise pollution of land and water.	DTS/DPF 2.1  None are applicable.
PO 2.2  Stables, horse shelters or associated yards are sited appropriate distances away from sensitive receivers and/or allotments in other ownership to avoid adverse impacts from dust, erosion and odour.	DTS/DPF 2.2  Stables, horse shelters and associated yards are sited in accordance with all of the following: <ul style="list-style-type: none"> <li>(a) 30m or more from any sensitive receivers (existing or approved) on land in other ownership</li> <li>(b) where an adjacent allotment is vacant and in other ownership, 30m or more from the boundary of that allotment.</li> </ul>
PO 2.3  All areas accessible to horses are separated from septic tank effluent disposal areas to protect the integrity of that system. Stable flooring is constructed with an impervious material to facilitate regular cleaning.	DTS/DPF 2.3  Septic tank effluent disposal areas are enclosed with a horse-proof barrier such as a fence to exclude horses from this area.
PO 2.4  To minimise environmental harm and adverse impacts on water resources, stables, horse shelters and associated yards are appropriately set back from a watercourse.	DTS/DPF 2.4  Stables, horse shelters and associated yards are set back 50m or more from a watercourse.
PO 2.5  Stables, horse shelters and associated yards are located on slopes that are stable to minimise the risk of soil erosion and water runoff.	DTS/DPF 2.5  Stables, horse shelters and associated yards are not located on land with a slope greater than 10% (1-in-10).
Kennels	
PO 3.1	DTS/DPF 3.1

Kennel flooring is constructed with an impervious material to facilitate regular cleaning.	The floors of kennels satisfy all of the following:  (a) are constructed of impervious concrete (b) are designed to be self-draining when washed down.
PO 3.2  Kennels and exercise yards are designed and sited to minimise noise nuisance to neighbours through measures such as:  (a) adopting appropriate separation distances (b) orientating openings away from sensitive receivers.	DTS/DPF 3.2  Kennels are sited 500m or more from the nearest sensitive receiver on land in other ownership.
PO 3.3  Dogs are regularly observed and managed to minimise nuisance impact on adjoining sensitive receivers from animal behaviour.	DTS/DPF 3.3  Kennels are sited in association with a permanent dwelling on the land.
Wastes	
PO 4.1  Storage of manure, used litter and other wastes (other than wastewater lagoons) is designed, constructed and managed to minimise attracting and harbouring vermin.	DTS/DPF 4.1  None are applicable.
PO 4.2  Facilities for the storage of manure, used litter and other wastes (other than wastewater lagoons) are located to minimise the potential for polluting water resources.	DTS/DPF 4.2  Waste storage facilities (other than wastewater lagoons) are located outside the 1% AEP flood event areas.

## Aquaculture

### Assessment Provisions (AP)

Desired Outcome	
DO 1	Aquaculture facilities are developed in an ecologically, economically and socially sustainable manner to support an equitable sharing of marine, coastal and inland resources and mitigate conflict with other water-based and land-based uses.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Land-based Aquaculture	
PO 1.1  Land-based aquaculture and associated components are sited and designed to mitigate adverse impacts on nearby sensitive	DTS/DPF 1.1  Land-based aquaculture and associated components are located to satisfy all of the following:



receivers.	<p>(a) 200m or more from a sensitive receiver in other ownership</p> <p>(b) 500m or more from the boundary of a zone primarily intended to accommodate sensitive receivers.</p>
<p>PO 1.2</p> <p>Land-based aquaculture and associated components are sited and designed to prevent surface flows from entering ponds in a 1% AEP sea flood level event.</p>	<p>DTS/DPF 1.2</p> <p>None are applicable.</p>
<p>PO 1.3</p> <p>Land-based aquaculture and associated components are sited and designed to prevent pond leakage that would pollute groundwater.</p>	<p>DTS/DPF 1.3</p> <p>None are applicable.</p>
<p>PO 1.4</p> <p>Land-based aquaculture and associated components are sited and designed to prevent farmed species escaping and entering into any waters.</p>	<p>DTS/DPF 1.4</p> <p>None are applicable.</p>
<p>PO 1.5</p> <p>Land-based aquaculture and associated components, including intake and discharge pipes, are designed to minimise the need to traverse sensitive areas to minimise impact on the natural environment.</p>	<p>DTS/DPF 1.5</p> <p>None are applicable.</p>
<p>PO 1.6</p> <p>Pipe inlets and outlets associated with land-based aquaculture are sited and designed to minimise the risk of disease transmission.</p>	<p>DTS/DPF 1.6</p> <p>None are applicable.</p>
<p>PO 1.7</p> <p>Storage areas associated with aquaculture activity are integrated with the use of the land and sited and designed to minimise their visual impact on the surrounding environment.</p>	<p>DTS/DPF 1.7</p> <p>None are applicable.</p>
Marine Based Aquaculture	
<p>PO 2.1</p> <p>Marine aquaculture is sited and designed to minimise its adverse impacts on sensitive ecological areas including:</p> <p>(a) creeks and estuaries</p> <p>(b) wetlands</p> <p>(c) significant seagrass and mangrove communities</p> <p>(d) marine habitats and ecosystems.</p>	<p>DTS/DPF 2.1</p> <p>None are applicable.</p>
<p>PO 2.2</p> <p>Marine aquaculture is sited in areas with adequate water current to disperse sediments and dissolve particulate wastes to prevent the build-up of waste that may cause environmental harm.</p>	<p>DTS/DPF 2.2</p> <p>None are applicable.</p>
PO 2.3	DTS/DPF 2.3

Marine aquaculture is designed to not involve discharge of human waste on the site, on any adjacent land or into nearby waters.	None are applicable.
PO 2.4 Marine aquaculture (other than inter-tidal aquaculture) is located an appropriate distance seaward of the high water mark.	DTS/DPF 2.4 Marine aquaculture development is located 100m or more seaward of the high water mark.
PO 2.5 Marine aquaculture is sited and designed to not obstruct or interfere with:  (a) areas of high public use (b) areas, including beaches, used for recreational activities such as swimming, fishing, skiing, sailing and other water sports (c) areas of outstanding visual or environmental value (d) areas of high tourism value (e) areas of important regional or state economic activity, including commercial ports, wharfs and jetties (f) the operation of infrastructure facilities including inlet and outlet pipes associated with the desalination of sea water.	DTS/DPF 2.5 None are applicable.
PO 2.6 Marine aquaculture is sited and designed to minimise interference and obstruction to the natural processes of the coastal and marine environment.	DTS/DPF 2.6 None are applicable.
PO 2.7 Marine aquaculture is designed to be as unobtrusive as practicable by incorporating measures such as:  (a) using feed hoppers painted in subdued colours and suspending them as close as possible to the surface of the water (b) positioning structures to protrude the minimum distance practicable above the surface of the water (c) avoiding the use of shelters and structures above cages and platforms unless necessary to exclude predators and protected species from interacting with the farming structures and/or stock inside the cages, or for safety reasons (d) positioning racks, floats and other farm structures in unobtrusive locations landward from the shoreline.	DTS/DPF 2.7 None are applicable.
PO 2.8 Access, launching and maintenance facilities utilise existing established roads, tracks, ramps and paths to or from the sea where possible to minimise environmental and amenity impacts.	DTS/DPF 2.8 None are applicable.
PO 2.9 Access, launching and maintenance facilities are developed as common user facilities and are co-located where practicable to mitigate adverse impacts on coastal areas.	DTS/DPF 2.9 None are applicable.

PO 2.10 Marine aquaculture is sited to minimise potential impacts on, and to protect the integrity of, reserves under the <i>National Parks and Wildlife Act 1972</i> .	DTS/DPF 2.10 Marine aquaculture is located 1000m or more seaward of the boundary of any reserve under the <i>National Parks and Wildlife Act 1972</i> .
PO 2.11 Onshore storage, cooling and processing facilities do not impair the coastline and its visual amenity by:  (a) being sited, designed, landscaped and of a scale to reduce the overall bulk and appearance of buildings and complement the coastal landscape (b) making provision for appropriately sited and designed vehicular access arrangements, including using existing vehicular access arrangements as far as practicable (c) incorporating appropriate waste treatment and disposal.	DTS/DPF 2.11 None are applicable.
Navigation and Safety	
PO 3.1 Marine aquaculture sites are suitably marked to maintain navigational safety.	DTS/DPF 3.1 None are applicable.
PO 3.2 Marine aquaculture is sited to provide adequate separation between farms for safe navigation.	DTS/DPF 3.2 None are applicable.
Environmental Management	
PO 4.1 Marine aquaculture is maintained to prevent hazards to people and wildlife, including breeding grounds and habitats of native marine mammals and terrestrial fauna, especially migratory species.	DTS/DPF 4.1 None are applicable.
PO 4.2 Marine aquaculture is designed to facilitate the relocation or removal of structures in the case of emergency such as oil spills, algal blooms and altered water flows.	DTS/DPF 4.2 None are applicable.
PO 4.3 Marine aquaculture provides for progressive or future reclamation of disturbed areas ahead of, or upon, decommissioning.	DTS/DPF 4.3 None are applicable.
PO 4.4 Aquaculture operations incorporate measures for the removal and disposal of litter, disused material, shells, debris, detritus, dead animals and animal waste to prevent pollution of waters, wetlands, or the nearby coastline.	DTS/DPF 4.4 None are applicable.

## Beverage Production in Rural Areas

**Assessment Provisions (AP)**

<b>Desired Outcome</b>	
DO 1	Mitigation of potential amenity and environmental impacts of value-adding beverage production facilities such as wineries, distilleries, cideries and breweries.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

<b>Performance Outcome</b>	<b>Deemed-to-Satisfy Criteria / Designated Performance Feature</b>
<b>Odour and Noise</b>	
PO 1.1 Beverage production activities are designed and sited to minimise odour impacts on rural amenity.	DTS/DPF 1.1 None are applicable.
PO 1.2 Beverage production activities are designed and sited to minimise noise impacts on sensitive receivers.	DTS/DPF 1.2 None are applicable.
PO 1.3 Fermentation, distillation, manufacturing, storage, packaging and bottling activities occur within enclosed buildings to improve the visual appearance within a locality and manage noise associated with these activities.	DTS/DPF 1.3 None are applicable.
PO 1.4 Breweries are designed to minimise odours emitted during boiling and fermentation stages of production.	DTS/DPF 1.4 Brew kettles are fitted with a vapour condenser.
PO 1.5 Beverage production solid wastes are stored in a manner that minimises odour impacts on sensitive receivers in other ownership.	DTS/DPF 1.5 Solid waste from beverage production is collected and stored in sealed containers and removed from the site within 48 hours.
<b>Water Quality</b>	
PO 2.1 Beverage production wastewater management systems (including wastewater irrigation) are set back from watercourses to minimise adverse impacts on water resources.	DTS/DPF 2.1 Wastewater management systems are set back 50m or more from the banks of watercourses and bores.
PO 2.2 The storage or disposal of chemicals or hazardous substances is undertaken in a manner to prevent pollution of water resources.	DTS/DPF 2.2 None are applicable.

PO 2.3	DTS/DPF 2.3
Stormwater runoff from areas that may cause contamination due to beverage production activities (including vehicle movements and machinery operations) is drained to an onsite stormwater treatment system to manage potential environmental impacts.	None are applicable.
PO 2.4	DTS/DPF 2.4
Stormwater runoff from areas unlikely to cause contamination by beverage production and associated activities (such as roof catchments and clean hard-paved surfaces) is diverted away from beverage production areas and wastewater management systems.	None are applicable.
Wastewater Irrigation	
PO 3.1	DTS/DPF 3.1
Beverage production wastewater irrigation systems are designed and located to not contaminate soil and surface and ground water resources or damage crops.	None are applicable.
PO 3.2	DTS/DPF 3.2
Beverage production wastewater irrigation systems are designed and located to minimise impact on amenity and avoid spray drift onto adjoining land.	Beverage production wastewater is not irrigated within 50m of any dwelling in other ownership.
PO 3.3	DTS/DPF 3.3
Beverage production wastewater is not irrigated onto areas that pose an undue risk to the environment or amenity such as: <ul style="list-style-type: none"> <li>(a) waterlogged areas</li> <li>(b) land within 50m of a creek, swamp or domestic or stock water bore</li> <li>(c) land subject to flooding</li> <li>(d) steeply sloping land</li> <li>(e) rocky or highly permeable soil overlaying an unconfined aquifer.</li> </ul>	None are applicable.

## Bulk Handling and Storage Facilities

### Assessment Provisions (AP)

Desired Outcome	
DO 1	Facilities for the bulk handling and storage of agricultural, mineral, petroleum, rock, ore or other similar commodities are designed to minimise adverse impacts on transport networks, the landscape and surrounding land uses.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)



Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Siting and Design	
<p>PO 1.1</p> <p>Bulk handling and storage facilities are sited and designed to minimise risks of adverse air quality and noise impacts on sensitive receivers.</p>	<p>DTS/DPF 1.1</p> <p>Facilities for the handling, storage and dispatch of commodities in bulk (excluding processing) meet the following minimum separation distances from sensitive receivers:</p> <ul style="list-style-type: none"> <li>(a) bulk handling of agricultural crop products, rock, ores, minerals, petroleum products or chemicals at a wharf or wharf side facility (including sea-port grain terminals), where the handling of these materials into or from vessels does not exceed 100 tonnes per day: 300m or more from residential premises not associated with the facility</li> <li>(b) bulk handling of agricultural crop products, rock, ores, minerals, petroleum products or chemicals to or from any commercial storage facility: 300m or more from residential premises not associated with the facility</li> <li>(c) bulk petroleum storage involving individual containers with a capacity up to 200 litres and a total on-site storage capacity not exceeding 1,000 cubic metres: 500m or more</li> <li>(d) coal handling with: <ul style="list-style-type: none"> <li>a. capacity up to 1 tonne per day or a storage capacity up to 50 tonnes: 500m or more</li> <li>b. capacity exceeding 1 tonne per day but not exceeding 100 tonnes per day or a storage capacity exceeding 50 tonnes but not exceeding 5000 tonnes: 1000m or more.</li> </ul> </li> </ul>
Buffers and Landscaping	
<p>PO 2.1</p> <p>Bulk handling and storage facilities incorporate a buffer area for the establishment of dense landscaping adjacent road frontages to enhance the appearance of land and buildings from public thoroughfares.</p>	<p>DTS/DPF 2.1</p> <p>None are applicable.</p>
<p>PO 2.2</p> <p>Bulk handling and storage facilities incorporate landscaping to assist with screening and dust filtration.</p>	<p>DTS/DPF 2.2</p> <p>None are applicable.</p>
Access and Parking	
<p>PO 3.1</p> <p>Roadways and vehicle parking areas associated with bulk handling and storage facilities are designed and surfaced to control dust emissions and prevent drag out of material from the site.</p>	<p>DTS/DPF 3.1</p> <p>Roadways and vehicle parking areas are sealed with an all-weather surface.</p>
Slipways, Wharves and Pontoons	
<p>PO 4.1</p> <p>Slipways, wharves and pontoons used for the handling of bulk materials (such as fuel, oil, catch, bait and the like) incorporate</p>	<p>DTS/DPF 4.1</p> <p>None are applicable.</p>

catchment devices to avoid the release of materials into adjacent waters.	
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## Clearance from Overhead Powerlines

### Assessment Provisions (AP)

Desired Outcome	
DO 1	Protection of human health and safety when undertaking development in the vicinity of overhead transmission powerlines.

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
PO 1.1  Buildings are adequately separated from aboveground powerlines to minimise potential hazard to people and property.	DTS/DPF 1.1  One of the following is satisfied: <ul style="list-style-type: none"> <li>(a) a declaration is provided by or on behalf of the applicant to the effect that the proposal would not be contrary to the regulations prescribed for the purposes of section 86 of the <i>Electricity Act 1996</i></li> <li>(b) there are no aboveground powerlines adjoining the site that are the subject of the proposed development.</li> </ul>

## Design

### Assessment Provisions (AP)

Desired Outcome	
DO 1	Development is: <ul style="list-style-type: none"> <li>(a) contextual - by considering, recognising and carefully responding to its natural surroundings or built environment and positively contributes to the character of the immediate area</li> <li>(b) durable - fit for purpose, adaptable and long lasting</li> <li>(c) inclusive - by integrating landscape design to optimise pedestrian and cyclist usability, privacy and equitable access, and promoting the provision of quality spaces integrated with the public realm that can be used for access and recreation and help optimise security and safety both internally and within the public realm, for occupants and visitors</li> <li>(d) sustainable - by integrating sustainable techniques into the design and siting of development and landscaping to improve community health, urban heat, water management, environmental performance, biodiversity and local amenity and to minimise energy consumption.</li> </ul>

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
All development	
External Appearance	
PO 1.1 Buildings reinforce corners through changes in setback, articulation, materials, colour and massing (including height, width, bulk, roof form and slope).	DTS/DPF 1.1 None are applicable.
PO 1.2 Where zero or minor setbacks are desirable, development provides shelter over footpaths (in the form of verandahs, awnings, canopies and the like, with adequate lighting) to positively contribute to the walkability, comfort and safety of the public realm.	DTS/DPF 1.2 None are applicable.
PO 1.3 Building elevations facing the primary street (other than ancillary buildings) are designed and detailed to convey purpose, identify main access points and complement the streetscape.	DTS/DPF 1.3 None are applicable.
PO 1.4 Plant, exhaust and intake vents and other technical equipment is integrated into the building design to minimise visibility from the public realm and negative impacts on residential amenity by: <ul style="list-style-type: none"> <li>(a) positioning plant and equipment in unobtrusive locations viewed from public roads and spaces</li> <li>(b) screening rooftop plant and equipment from view</li> <li>(c) when located on the roof of non-residential development, locating the plant and equipment as far as practicable from adjacent sensitive land uses.</li> </ul>	DTS/DPF 1.4 Development does not incorporate any structures that protrude beyond the roofline.
PO 1.5 The negative visual impact of outdoor storage, waste management, loading and service areas is minimised by integrating them into the building design and screening them from public view (such as fencing, landscaping and built form) taking into account the form of development contemplated in the relevant zone.	DTS/DPF 1.5 None are applicable.
Safety	
PO 2.1 Development maximises opportunities for passive surveillance of the public realm by providing clear lines of sight, appropriate lighting and the use of visually permeable screening wherever practicable.	DTS/DPF 2.1 None are applicable.
PO 2.2 Development is designed to differentiate public, communal and	DTS/DPF 2.2 None are applicable.

private areas.	
PO 2.3 Buildings are designed with safe, perceptible and direct access from public street frontages and vehicle parking areas.	DTS/DPF 2.3 None are applicable.
PO 2.4 Development at street level is designed to maximise opportunities for passive surveillance of the adjacent public realm.	DTS/DPF 2.4 None are applicable.
PO 2.5 Common areas and entry points of buildings (such as the foyer areas of residential buildings), and non-residential land uses at street level, maximise passive surveillance from the public realm to the inside of the building at night.	DTS/DPF 2.5 None are applicable.
Landscaping	
PO 3.1 Soft landscaping and tree planting is incorporated to:  (a) minimise heat absorption and reflection (b) maximise shade and shelter (c) maximise stormwater infiltration (d) enhance the appearance of land and streetscapes (e) contribute to biodiversity.	DTS/DPF 3.1 None are applicable.
PO 3.2 Soft landscaping and tree planting maximises the use of locally indigenous plant species, incorporates plant species best suited to current and future climate conditions and avoids pest plant and weed species.	DTS/DPF 3.2 None are applicable.
Environmental Performance	
PO 4.1 Buildings are sited, oriented and designed to maximise natural sunlight access and ventilation to main activity areas, habitable rooms, common areas and open spaces.	DTS/DPF 4.1 None are applicable.
PO 4.2 Buildings are sited and designed to maximise passive environmental performance and minimise energy consumption and reliance on mechanical systems, such as heating and cooling.	DTS/DPF 4.2 None are applicable.
PO 4.3 Buildings incorporate climate-responsive techniques and features such as building and window orientation, use of eaves, verandahs and shading structures, water harvesting, at ground landscaping, green walls, green roofs and photovoltaic cells.	DTS/DPF 4.3 None are applicable.
Water Sensitive Design	

PO 5.1	DTS/DPF 5.1
Development is sited and designed to maintain natural hydrological systems without negatively impacting:	None are applicable.
<ul style="list-style-type: none"> <li>(a) the quantity and quality of surface water and groundwater</li> <li>(b) the depth and directional flow of surface water and groundwater</li> <li>(c) the quality and function of natural springs.</li> </ul>	
On-site Waste Treatment Systems	
PO 6.1	DTS/DPF 6.1
Dedicated on-site effluent disposal areas do not include any areas to be used for, or could be reasonably foreseen to be used for, private open space, driveways or car parking.	Effluent disposal drainage areas do not:
	<ul style="list-style-type: none"> <li>(a) encroach within an area used as private open space or result in less private open space than that specified in Design Table 1 - Private Open Space</li> <li>(b) use an area also used as a driveway</li> <li>(c) encroach within an area used for on-site car parking or result in less on-site car parking than that specified in Transport, Access and Parking Table 1 - General Off-Street Car Parking Requirements or Table 2 - Off-Street Car Parking Requirements in Designated Areas.</li> </ul>
Carparking Appearance	
PO 7.1	DTS/DPF 7.1
Development facing the street is designed to minimise the negative impacts of any semi-basement and undercroft car parking on the streetscapes through techniques such as:	None are applicable.
<ul style="list-style-type: none"> <li>(a) limiting protrusion above finished ground level</li> <li>(b) screening through appropriate planting, fencing and mounding</li> <li>(c) limiting the width of openings and integrating them into the building structure.</li> </ul>	
PO 7.2	DTS/DPF 7.2
Vehicle parking areas are appropriately located, designed and constructed to minimise impacts on adjacent sensitive receivers through measures such as ensuring they are attractively developed and landscaped, screen fenced and the like.	None are applicable.
PO 7.3	DTS/DPF 7.3
Safe, legible, direct and accessible pedestrian connections are provided between parking areas and the development.	None are applicable.
PO 7.4	DTS/DPF 7.4
Street level vehicle parking areas incorporate tree planting to provide shade and reduce solar heat absorption and reflection.	None are applicable.
PO 7.5	DTS/DPF 7.5
Street level parking areas incorporate soft landscaping to improve visual appearance when viewed from within the site and from public places.	None are applicable.



PO 7.6 Vehicle parking areas and associated driveways are landscaped to provide shade and positively contribute to amenity.	DTS/DPF 7.6 None are applicable.
PO 7.7 Vehicle parking areas and access ways incorporate integrated stormwater management techniques such as permeable or porous surfaces, infiltration systems, drainage swales or rain gardens that integrate with soft landscaping.	DTS/DPF 7.7 None are applicable.
Earthworks and sloping land	
PO 8.1 Development, including any associated driveways and access tracks, minimises the need for earthworks to limit disturbance to natural topography.	DTS/DPF 8.1 Development does not involve any of the following:  (a) excavation exceeding a vertical height of 1m  (b) filling exceeding a vertical height of 1m  (c) a total combined excavation and filling vertical height of 2m or more.
PO 8.2 Driveways and access tracks are designed and constructed to allow safe and convenient access on sloping land (with a gradient exceeding 1 in 8).	DTS/DPF 8.2 Driveways and access tracks on sloping land (with a gradient exceeding 1 in 8) satisfy (a) and (b):  (a) do not have a gradient exceeding 25% (1-in-4) at any point along the driveway (b) are constructed with an all-weather trafficable surface.
PO 8.3 Driveways and access tracks on sloping land (with a gradient exceeding 1 in 8):  (a) do not contribute to the instability of embankments and cuttings (b) provide level transition areas for the safe movement of people and goods to and from the development (c) are designed to integrate with the natural topography of the land.	DTS/DPF 8.3 None are applicable.
PO 8.4 Development on sloping land (with a gradient exceeding 1 in 8) avoids the alteration of natural drainage lines and includes on-site drainage systems to minimise erosion.	DTS/DPF 8.4 None are applicable.
PO 8.5 Development does not occur on land at risk of landslide nor increases the potential for landslide or land surface instability.	DTS/DPF 8.5 None are applicable.
Fences and Walls	
PO 9.1 Fences, walls and retaining walls are of sufficient height to maintain privacy and security without unreasonably impacting the visual amenity and adjoining land's access to sunlight or the	DTS/DPF 9.1 None are applicable.

amenity of public places.	
PO 9.2  Landscaping incorporated on the low side of retaining walls is visible from public roads and public open space to minimise visual impacts.	DTS/DPF 9.2  A vegetated landscaped strip 1m wide or more is provided against the low side of a retaining wall.
Overlooking / Visual Privacy (in building 3 storeys or less)	
PO 10.1  Development mitigates direct overlooking from upper level windows to habitable rooms and private open spaces of adjoining residential uses.	DTS/DPF 10.1  Upper level windows facing side or rear boundaries shared with a residential allotment/site satisfy one of the following:  (a) are permanently obscured to a height of 1.5m above finished floor level and are fixed or not capable of being opened more than 200mm  (b) have sill heights greater than or equal to 1.5m above finished floor level  (c) incorporate screening with a maximum of 25% openings, permanently fixed no more than 500mm from the window surface and sited adjacent to any part of the window less than 1.5 m above the finished floor level.
PO 10.2  Development mitigates direct overlooking from balconies, terraces and decks to habitable rooms and private open space of adjoining residential uses.	DTS/DPF 10.2  One of the following is satisfied:  (a) the longest side of the balcony or terrace will face a public road, public road reserve or public reserve that is at least 15m wide in all places faced by the balcony or terrace or (b) all sides of balconies or terraces on upper building levels are permanently obscured by screening with a maximum 25% transparency/openings fixed to a minimum height of: (i) 1.5m above finished floor level where the balcony is located at least 15 metres from the nearest habitable window of a dwelling on adjacent land or (ii) 1.7m above finished floor level in all other cases
All Residential development	
Front elevations and passive surveillance	
PO 11.1  Dwellings incorporate windows along primary street frontages to encourage passive surveillance and make a positive contribution to the streetscape.	DTS/DPF 11.1  Each dwelling with a frontage to a public street:  (a) includes at least one window facing the primary street from a habitable room that has a minimum internal room dimension of 2.4m  (b) has an aggregate window area of at least 2m <sup>2</sup> facing the primary street.
PO 11.2  Dwellings incorporate entry doors within street frontages to	DTS/DPF 11.2  Dwellings with a frontage to a public street have an entry door

address the street and provide a legible entry point for visitors.	visible from the primary street boundary.
Outlook and amenity	
PO 12.1  Living rooms have an external outlook to provide a high standard of amenity for occupants.	DTS/DPF 12.1  A living room of a dwelling incorporates a window with an outlook towards the street frontage or private open space, public open space, or waterfront areas.
PO 12.2  Bedrooms are separated or shielded from active communal recreation areas, common access areas and vehicle parking areas and access ways to mitigate noise and artificial light intrusion.	DTS/DPF 12.2  None are applicable.
Ancillary Development	
PO 13.1  Residential ancillary buildings and structures are sited and designed to not detract from the streetscape or appearance of buildings on the site or neighbouring properties.	DTS/DPF 13.1  Ancillary buildings: <ul style="list-style-type: none"> <li>(a) are ancillary to a dwelling erected on the same site</li> <li>(b) have a floor area not exceeding 60m<sup>2</sup></li> <li>(c) are not constructed, added to or altered so that any part is situated: <ul style="list-style-type: none"> <li>(i) in front of any part of the building line of the dwelling to which it is ancillary</li> <li>or</li> <li>(ii) within 900mm of a boundary of the allotment with a secondary street (if the land has boundaries on two or more roads)</li> </ul> </li> <li>(d) in the case of a garage or carport, the garage or carport: <ul style="list-style-type: none"> <li>(i) is set back at least 5.5m from the boundary of the primary street</li> <li>(ii) when facing a primary street or secondary street, has a total door / opening not exceeding: <ul style="list-style-type: none"> <li>A. for dwellings of single building level - 7m in width or 50% of the site frontage, whichever is the lesser</li> <li>B. for dwellings comprising two or more building levels at the building line fronting the same public street - 7m in width</li> </ul> </li> </ul> </li> <li>(e) if situated on a boundary (not being a boundary with a primary street or secondary street), do not exceed a length of 11.5m unless: <ul style="list-style-type: none"> <li>(i) a longer wall or structure exists on the adjacent site and is situated on the same allotment boundary</li> <li>and</li> <li>(ii) the proposed wall or structure will be built along the same length of boundary as the existing adjacent wall or structure to the same or lesser extent</li> </ul> </li> <li>(f) if situated on a boundary of the allotment (not being a boundary with a primary street or secondary street), all walls or structures on the boundary will not exceed 45% of the length of that boundary</li> </ul>

	<p>(g) will not be located within 3m of any other wall along the same boundary unless on an adjacent site on that boundary there is an existing wall of a building that would be adjacent to or about the proposed wall or structure</p> <p>(h) have a wall height or post height not exceeding 3m above natural ground level</p> <p>(i) have a roof height where no part of the roof is more than 5m above the natural ground level</p> <p>(j) if clad in sheet metal, is pre-colour treated or painted in a non-reflective colour</p> <p>(k) retains a total area of soft landscaping in accordance with (i) or (ii), whichever is less:</p> <p>(i) a total area as determined by the following table:</p> <table border="1"> <thead> <tr> <th>Dwelling site area (or in the case of residential flat building or group dwelling(s), average site area) (m<sup>2</sup>)</th><th>Minimum percentage of site</th></tr> </thead> <tbody> <tr> <td>&lt;150</td><td>10%</td></tr> <tr> <td>150-200</td><td>15%</td></tr> <tr> <td>201-450</td><td>20%</td></tr> <tr> <td>&gt;450</td><td>25%</td></tr> </tbody> </table> <p>(ii) the amount of existing soft landscaping prior to the development occurring.</p>	Dwelling site area (or in the case of residential flat building or group dwelling(s), average site area) (m <sup>2</sup> )	Minimum percentage of site	<150	10%	150-200	15%	201-450	20%	>450	25%
Dwelling site area (or in the case of residential flat building or group dwelling(s), average site area) (m <sup>2</sup> )	Minimum percentage of site										
<150	10%										
150-200	15%										
201-450	20%										
>450	25%										
<p>PO 13.2</p> <p>Ancillary buildings and structures do not impede on-site functional requirements such as private open space provision or car parking requirements and do not result in over-development of the site.</p>	<p>DTS/DPF 13.2</p> <p>Ancillary buildings and structures do not result in:</p> <p>(a) less private open space than specified in Design in Urban Areas Table 1 - Private Open Space</p> <p>(b) less on-site car parking than specified in Transport, Access and Parking Table 1 - General Off-Street Car Parking Requirements or Table 2 - Off-Street Car Parking Requirements in Designated Areas.</p>										
<p>PO 13.3</p> <p>Fixed plant and equipment in the form of pumps and/or filtration systems for a swimming pool or spa is positioned and/or housed to not cause unreasonable noise nuisance to adjacent sensitive receivers.</p>	<p>DTS/DPF 13.3</p> <p>The pump and/or filtration system is ancillary to a dwelling erected on the same site and is:</p> <p>(a) enclosed in a solid acoustic structure that is located at least 5m from the nearest habitable room located on an adjoining allotment or</p> <p>(b) located at least 12m from the nearest habitable room located on an adjoining allotment.</p>										
Garage appearance											
<p>PO 14.1</p> <p>Garaging is designed to not detract from the streetscape or</p>	<p>DTS/DPF 14.1</p> <p>Garages and carports facing a street:</p>										

appearance of a dwelling.	<ul style="list-style-type: none"> <li>(a) are situated so that no part of the garage or carport is in front of any part of the building line of the dwelling</li> <li>(b) are set back at least 5.5m from the boundary of the primary street</li> <li>(c) have a garage door / opening not exceeding 7m in width</li> <li>(d) have a garage door / opening width not exceeding 50% of the site frontage unless the dwelling has two or more building levels at the building line fronting the same public street.</li> </ul>
Massing	
PO 15.1  The visual mass of larger buildings is reduced when viewed from adjoining allotments or public streets.	DTS/DPF 15.1  None are applicable
Dwelling additions	
PO 16.1  Dwelling additions are sited and designed to not detract from the streetscape or amenity of adjoining properties and do not impede on-site functional requirements.	DTS / DPF 16.1  Dwelling additions: <ul style="list-style-type: none"> <li>(a) are not constructed, added to or altered so that any part is situated closer to a public street</li> <li>(b) do not result in: <ul style="list-style-type: none"> <li>(i) excavation exceeding a vertical height of 1m</li> <li>(ii) filling exceeding a vertical height of 1m</li> <li>(iii) a total combined excavation and filling vertical height of 2m or more</li> <li>(iv) less Private Open Space than specified in Design Table 1 - Private Open Space</li> <li>(v) less on-site parking than specified in Transport Access and Parking Table 1 - General Off-Street Car Parking Requirements or Table 2 - Off-Street Car Parking Requirements in Designated Areas</li> <li>(vi) upper level windows facing side or rear boundaries unless: <ul style="list-style-type: none"> <li>A. they are permanently obscured to a height of 1.5m above finished floor level that is fixed or not capable of being opened more than 200mm or</li> <li>B. have sill heights greater than or equal to 1.5m above finished floor level or</li> <li>C. incorporate screening to a height of 1.5m above finished floor level</li> </ul> </li> <li>(vii) all sides of balconies or terraces on upper building levels are permanently obscured by screening with a maximum 25% transparency/openings fixed to a minimum height of: <ul style="list-style-type: none"> <li>A. 1.5m above finished floor level where the balcony is located at least 15 metres from the nearest habitable window of a dwelling on adjacent land</li> <li>B. 1.7m above finished floor level in all other cases.</li> </ul> </li> </ul> </li> </ul>



Private Open Space	
PO 17.1 Dwellings are provided with suitable sized areas of usable private open space to meet the needs of occupants.	DTS/DPF 17.1 Private open space is provided in accordance with Design Table 1 - Private Open Space.
Water Sensitive Design	
PO 18.1 Residential development creating a common driveway / access includes stormwater management systems that minimise the discharge of sediment, suspended solids, organic matter, nutrients, bacteria, litter and other contaminants to the stormwater system, watercourses or other water bodies.	DTS/DPF 18.1 Residential development creating a common driveway / access that services 5 or more dwellings achieves the following stormwater runoff outcomes:  (a) 80 per cent reduction in average annual total suspended solids (b) 60 per cent reduction in average annual total phosphorus (c) 45 per cent reduction in average annual total nitrogen.
PO 18.2 Residential development creating a common driveway / access includes a stormwater management system designed to mitigate peak flows and manage the rate and duration of stormwater discharges from the site to ensure that the development does not increase the peak flows in downstream systems.	DTS/DPF 18.2 Development creating a common driveway / access that services 5 or more dwellings:  (a) maintains the pre-development peak flow rate from the site based upon a 0.35 runoff coefficient for the 18.1% AEP 30-minute storm and the stormwater runoff time to peak is not increased or captures and retains the difference in pre-development runoff volume (based upon a 0.35 runoff coefficient) vs post development runoff volume from the site for an 18.1% AEP 30-minute storm; and (b) manages site generated stormwater runoff up to and including the 1% AEP flood event to avoid flooding of buildings.
Car parking, access and manoeuvrability	
PO 19.1 Enclosed parking spaces are of a size and dimensions to be functional, accessible and convenient.	DTS/DPF 19.1 Residential car parking spaces enclosed by fencing, walls or other structures have the following internal dimensions (separate from any waste storage area):  (a) single width car parking spaces: (i) a minimum length of 5.4m per space (ii) a minimum width of 3.0m (iii) a minimum garage door width of 2.4m  (b) double width car parking spaces (side by side): (i) a minimum length of 5.4m (ii) a minimum width of 5.4m (iii) minimum garage door width of 2.4m per space.
PO 19.2 Uncovered parking spaces are of a size and dimensions to be	DTS/DPF 19.2 Uncovered car parking spaces have:

functional, accessible and convenient.	<ul style="list-style-type: none"> <li>(a) a minimum length of 5.4m</li> <li>(b) a minimum width of 2.4m</li> <li>(c) a minimum width between the centre line of the space and any fence, wall or other obstruction of 1.5m</li> </ul>
<p>PO 19.3</p> <p>Driveways are located and designed to facilitate safe access and egress while maximising land available for street tree planting, landscaped street frontages, domestic waste collection and on-street parking.</p>	<p>DTS/DPF 19.3</p> <p>Driveways and access points on sites with a frontage to a public road of 10m or less have a width between 3.0 and 3.2 metres measured at the property boundary and are the only access point provided on the site.</p>
<p>PO 19.4</p> <p>Vehicle access is safe, convenient, minimises interruption to the operation of public roads and does not interfere with street infrastructure or street trees.</p>	<p>DTS/DPF 19.4</p> <p>Vehicle access to designated car parking spaces satisfy (a) or (b):</p> <ul style="list-style-type: none"> <li>(a) is provided via a lawfully existing or authorised access point or an access point for which consent has been granted as part of an application for the division of land</li> <li>(b) where newly proposed: <ul style="list-style-type: none"> <li>(i) is set back 6m or more from the tangent point of an intersection of 2 or more roads</li> <li>(ii) is set back outside of the marked lines or infrastructure dedicating a pedestrian crossing</li> <li>(iii) does not involve the removal, relocation or damage to of mature street trees, street furniture or utility infrastructure services.</li> </ul> </li> </ul>
<p>PO 19.5</p> <p>Driveways are designed to enable safe and convenient vehicle movements from the public road to on-site parking spaces.</p>	<p>DTS/DPF 19.5</p> <p>Driveways are designed and sited so that:</p> <ul style="list-style-type: none"> <li>(a) the gradient from the place of access on the boundary of the allotment to the finished floor level at the front of the garage or carport is not steeper than 1:4 on average</li> <li>(b) they are aligned relative to the street boundary so that there is no more than a 20 degree deviation from 90 degrees between the centreline of any dedicated car parking space to which it provides access (measured from the front of that space) and the street boundary</li> <li>(c) if located to provide access from an alley, lane or right of way - the alley, land or right of way is at least 6.2m wide along the boundary of the allotment / site</li> </ul>
<p>PO 19.6</p> <p>Driveways and access points are designed and distributed to optimise the provision of on-street visitor parking.</p>	<p>DTS/DPF 19.6</p> <p>Where on-street parking is available abutting the site's street frontage, on-street parking is retained in accordance with the following requirements:</p> <ul style="list-style-type: none"> <li>(a) minimum 0.33 on-street spaces per dwelling on the site (rounded up to the nearest whole number)</li> <li>(b) minimum car park length of 5.4m where a vehicle can enter or exit a space directly</li> <li>(c) minimum carpark length of 6m for an intermediate space located between two other parking spaces or to an end obstruction where the parking is indented.</li> </ul>

Waste storage											
PO 20.1 Provision is made for the adequate and convenient storage of waste bins in a location screened from public view.	DTS/DPF 20.1 None are applicable.										
Design of Transportable Dwellings											
PO 21.1 The sub-floor space beneath transportable buildings is enclosed to give the appearance of a permanent structure.	DTS/DPF 21.1 Buildings satisfy (a) or (b):  (a) are not transportable or (b) the sub-floor space between the building and ground level is clad in a material and finish consistent with the building.										
Group dwelling, residential flat buildings and battle-axe development											
Amenity											
PO 22.1 Dwellings are of a suitable size to accommodate a layout that is well organised and provides a high standard of amenity for occupants.	DTS/DPF 22.1 Dwellings have a minimum internal floor area in accordance with the following table: <table border="1"> <thead> <tr> <th>Number of bedrooms</th><th>Minimum internal floor area</th></tr> </thead> <tbody> <tr> <td>Studio</td><td>35m<sup>2</sup></td></tr> <tr> <td>1 bedroom</td><td>50m<sup>2</sup></td></tr> <tr> <td>2 bedroom</td><td>65m<sup>2</sup></td></tr> <tr> <td>3+ bedrooms</td><td>80m<sup>2</sup> and any dwelling over 3 bedrooms provides an additional 15m<sup>2</sup> for every additional bedroom</td></tr> </tbody> </table>	Number of bedrooms	Minimum internal floor area	Studio	35m <sup>2</sup>	1 bedroom	50m <sup>2</sup>	2 bedroom	65m <sup>2</sup>	3+ bedrooms	80m <sup>2</sup> and any dwelling over 3 bedrooms provides an additional 15m <sup>2</sup> for every additional bedroom
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2 bedroom	65m <sup>2</sup>										
3+ bedrooms	80m <sup>2</sup> and any dwelling over 3 bedrooms provides an additional 15m <sup>2</sup> for every additional bedroom										
PO 22.2 The orientation and siting of buildings minimises impacts on the amenity, outlook and privacy of occupants and neighbours.	DTS/DPF 22.2 None are applicable.										
PO 22.3 Development maximises the number of dwellings that face public open space and public streets and limits dwellings oriented towards adjoining properties.	DTS/DPF 22.3 None are applicable.										
PO 22.4 Battle-axe development is appropriately sited and designed to respond to the existing neighbourhood context.	DTS/DPF 22.4 Dwelling sites/allotments are not in the form of a battle-axe arrangement.										
Communal Open Space											
PO 23.1	DTS/DPF 23.1										

Private open space provision may be substituted for communal open space which is designed and sited to meet the recreation and amenity needs of residents.	None are applicable.
PO 23.2  Communal open space is of sufficient size and dimensions to cater for group recreation.	DTS/DPF 23.2  Communal open space incorporates a minimum dimension of 5 metres.
PO 23.3  Communal open space is designed and sited to:  (a) be conveniently accessed by the dwellings which it services (b) have regard to acoustic, safety, security and wind effects.	DTS/DPF 23.3  None are applicable.
PO 23.4  Communal open space contains landscaping and facilities that are functional, attractive and encourage recreational use.	DTS/DPF 23.4  None are applicable.
PO 23.5  Communal open space is designed and sited to:  (a) in relation to rooftop or elevated gardens, minimise overlooking into habitable room windows or onto the useable private open space of other dwellings (b) in relation to ground floor communal space, be overlooked by habitable rooms to facilitate passive surveillance.	DTS/DPF 23.5  None are applicable.
Carparking, access and manoeuvrability	
PO 24.1  Driveways and access points are designed and distributed to optimise the provision of on-street visitor parking.	DTS/DPF 24.1  Where on-street parking is available directly adjacent the site, on-street parking is retained adjacent the subject site in accordance with the following requirements:  (a) minimum 0.33 on-street car parks per proposed dwellings (rounded up to the nearest whole number) (b) minimum car park length of 5.4m where a vehicle can enter or exit a space directly (c) minimum carpark length of 6m for an intermediate space located between two other parking spaces or to an end obstruction where the parking is indented.
PO 24.2  The number of vehicular access points onto public roads is minimised to reduce interruption of the footpath and positively contribute to public safety and walkability.	DTS/DPF 24.2  Access to group dwellings or dwellings within a residential flat building is provided via a single common driveway.
PO 24.3  Residential driveways that service more than one dwelling are designed to allow safe and convenient movement.	DTS/DPF 24.3  Driveways that service more than 1 dwelling or a dwelling on a battle-axe site:  (a) have a minimum width of 3m (b) for driveways servicing more than 3 dwellings:

	<ul style="list-style-type: none"> <li>(i) have a width of 5.5m or more and a length of 6m or more at the kerb of the primary street</li> <li>(ii) where the driveway length exceeds 30m, incorporate a passing point at least every 30 metres with a minimum width of 5.5m and a minimum length of 6m.</li> </ul>
PO 24.4 Residential driveways in a battle-axe configuration are designed to allow safe and convenient movement.	DTS/DPF 24.4 Where in a battle-axe configuration, a driveway servicing one dwelling has a minimum width of 3m.
PO 24.5 Residential driveways that service more than one dwelling are designed to allow passenger vehicles to enter and exit the site and manoeuvre within the site in a safe and convenient manner.	DTS/DPF 24.5 Driveways providing access to more than one dwelling, or a dwelling on a battle-axe site, allow a B85 passenger vehicle to enter and exit the garages or parking spaces in no more than a three-point turn manoeuvre.
PO 24.6 Dwellings are adequately separated from common driveways and manoeuvring areas.	DTS/DPF 24.6 Dwelling walls with entry doors or ground level habitable room windows are set back at least 1.5m from any driveway or area designated for the movement and manoeuvring of vehicles.
Soft Landscaping	
PO 25.1 Soft landscaping is provided between dwellings and common driveways to improve the outlook for occupants and appearance of common areas.	DTS/DPF 25.1 Other than where located directly in front of a garage or a building entry, soft landscaping with a minimum dimension of 1m is provided between a dwelling and common driveway.
PO 25.2 Soft landscaping is provided that improves the appearance of common driveways.	DTS/DPF 25.2 Where a common driveway is located directly adjacent the side or rear boundary of the site, soft landscaping with a minimum dimension of 1m is provided between the driveway and site boundary (excluding along the perimeter of a passing point).
Site Facilities / Waste Storage	
PO 26.1 Provision is made for suitable mailbox facilities close to the major pedestrian entry to the site or conveniently located considering the nature of accommodation and mobility of occupants.	DTS/DPF 26.1 None are applicable.
PO 26.2 Provision is made for suitable external clothes drying facilities.	DTS/DPF 26.2 None are applicable.
PO 26.3 Provision is made for suitable household waste and recyclable material storage facilities which are: <ul style="list-style-type: none"> <li>(a) located away, or screened, from public view, and</li> <li>(b) conveniently located in proximity to dwellings and the waste collection point.</li> </ul>	DTS/DPF 26.3 None are applicable.
PO 26.4	DTS/DPF 26.4

Waste and recyclable material storage areas are located away from dwellings.	Dedicated waste and recyclable material storage areas are located at least 3m from any habitable room window.
PO 26.5  Where waste bins cannot be conveniently collected from the street, provision is made for on-site waste collection, designed to accommodate the safe and convenient access, egress and movement of waste collection vehicles.	DTS/DPF 26.5  None are applicable.
PO 26.6  Services including gas and water meters are conveniently located and screened from public view.	DTS/DPF 26.6  None are applicable.
Supported accommodation and retirement facilities	
Siting and Configuration	
PO 27.1  Supported accommodation and housing for aged persons and people with disabilities is located where on-site movement of residents is not unduly restricted by the slope of the land.	DTS/DPF 27.1  None are applicable.
Movement and Access	
PO 28.1  Development is designed to support safe and convenient access and movement for residents by providing:  (a) ground-level access or lifted access to all units (b) level entry porches, ramps, paths, driveways, passenger loading areas and areas adjacent to footpaths that allow for the passing of wheelchairs and resting places (c) car parks with gradients no steeper than 1-in-40 and of sufficient area to provide for wheelchair manoeuvrability (d) kerb ramps at pedestrian crossing points.	DTS/DPF 28.1  None are applicable.
Communal Open Space	
PO 29.1  Development is designed to provide attractive, convenient and comfortable indoor and outdoor communal areas to be used by residents and visitors.	DTS/DPF 29.1  None are applicable.
PO 29.2  Private open space provision may be substituted for communal open space which is designed and sited to meet the recreation and amenity needs of residents.	DTS/DPF 29.2  None are applicable.
PO 29.3  Communal open space is of sufficient size and dimensions to cater for group recreation.	DTS/DPF 29.3  Communal open space incorporates a minimum dimension of 5 metres.
PO 29.4  Communal open space is designed and sited to:  (a) be conveniently accessed by the dwellings which it services	DTS/DPF 29.4  None are applicable.



(b) have regard to acoustic, safety, security and wind effects.	
PO 29.5 Communal open space contains landscaping and facilities that are functional, attractive and encourage recreational use.	DTS/DPF 29.5 None are applicable.
PO 29.6 Communal open space is designed and sited to:  (a) in relation to rooftop or elevated gardens, minimise overlooking into habitable room windows or onto the useable private open space of other dwellings (b) in relation to ground floor communal space, be overlooked by habitable rooms to facilitate passive surveillance.	DTS/DPF 29.6 None are applicable.
Site Facilities / Waste Storage	
PO 30.1 Development is designed to provide storage areas for personal items and specialised equipment such as small electric powered vehicles, including facilities for the recharging of small electric powered vehicles.	DTS/DPF 30.1 None are applicable.
PO 30.2 Provision is made for suitable mailbox facilities close to the major pedestrian entry to the site or conveniently located considering the nature of accommodation and mobility of occupants.	DTS/DPF 30.2 None are applicable.
PO 30.3 Provision is made for suitable external clothes drying facilities.	DTS/DPF 28.3 None are applicable.
PO 30.4 Provision is made for suitable household waste and recyclable material storage facilities conveniently located and screened from public view.	DTS/DPF 30.4 None are applicable.
PO 30.5 Waste and recyclable material storage areas are located away from dwellings.	DTS/DPF 30.5 Dedicated waste and recyclable material storage areas are located at least 3m from any habitable room window.
PO 30.6 Provision is made for on-site waste collection where 10 or more bins are to be collected at any one time.	DTS/DPF 30.6 None are applicable.
PO 30.7 Services including gas and water meters are conveniently located and screened from public view.	DTS/DPF 30.7 None are applicable.
All non-residential development	
Water Sensitive Design	

PO 31.1 Development likely to result in significant risk of export of litter, oil or grease includes stormwater management systems designed to minimise pollutants entering stormwater.	DTS/DPF 31.1 None are applicable.
PO 31.2 Water discharged from a development site is of a physical, chemical and biological condition equivalent to or better than its pre-developed state.	DTS/DPF 31.2 None are applicable.
Wash-down and Waste Loading and Unloading	
PO 32.1 Areas for activities including loading and unloading, storage of waste refuse bins in commercial and industrial development or wash-down areas used for the cleaning of vehicles, vessels, plant or equipment are:  (a) designed to contain all wastewater likely to pollute stormwater within a bunded and roofed area to exclude the entry of external surface stormwater run-off (b) paved with an impervious material to facilitate wastewater collection (c) of sufficient size to prevent 'splash-out' or 'over-spray' of wastewater from the wash-down area (d) designed to drain wastewater to either: (i) a treatment device such as a sediment trap and coalescing plate oil separator with subsequent disposal to a sewer, private or Community Wastewater Management Scheme or (ii) a holding tank and its subsequent removal off-site on a regular basis.	DTS/DPF 32.1 None are applicable.

Table 1 - Private Open Space

Dwelling Type	Minimum Rate
Dwelling (at ground level)	<p>Total private open space area:</p> <p>(a) Site area &lt;301m<sup>2</sup>: 24m<sup>2</sup> located behind the building line.</p> <p>(b) Site area ≥ 301m<sup>2</sup>: 60m<sup>2</sup> located behind the building line.</p> <p>Minimum directly accessible from a living room: 16m<sup>2</sup> / with a minimum dimension 3m.</p>
Dwelling (above ground level)	<p>Studio (no separate bedroom): 4m<sup>2</sup> with a minimum dimension 1.8m</p> <p>One bedroom: 8m<sup>2</sup> with a minimum dimension 2.1m</p> <p>Two bedroom dwelling: 11m<sup>2</sup> with a minimum dimension 2.4m</p> <p>Three + bedroom dwelling: 15m<sup>2</sup> with a minimum dimension 2.6m</p>
Cabin or caravan	Total area: 16m <sup>2</sup> , which may be used as second car parking space, provided on

(permanently fixed to the ground) in a residential park or a caravan and tourist park

each site intended for residential occupation.

## Design in Urban Areas

### Assessment Provisions (AP)

Desired Outcome	
DO 1	<p>Development is:</p> <ul style="list-style-type: none"> <li>(a) contextual - by considering, recognising and carefully responding to its natural surroundings or built environment and positively contributing to the character of the locality</li> <li>(b) durable - fit for purpose, adaptable and long lasting</li> <li>(c) inclusive - by integrating landscape design to optimise pedestrian and cyclist usability, privacy and equitable access and promoting the provision of quality spaces integrated with the public realm that can be used for access and recreation and help optimise security and safety both internally and within the public realm, for occupants and visitors</li> <li>(d) sustainable - by integrating sustainable techniques into the design and siting of development and landscaping to improve community health, urban heat, water management, environmental performance, biodiversity and local amenity and to minimise energy consumption.</li> </ul>

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
All Development	
External Appearance	
PO 1.1 Buildings reinforce corners through changes in setback, articulation, materials, colour and massing (including height, width, bulk, roof form and slope).	DTS/DPF 1.1 None are applicable.
PO 1.2 Where zero or minor setbacks are desirable, development provides shelter over footpaths (in the form of verandahs, awnings, canopies and the like, with adequate lighting) to positively contribute to the walkability, comfort and safety of the public realm.	DTS/DPF 1.2 None are applicable.
PO 1.3 Building elevations facing the primary street (other than ancillary buildings) are designed and detailed to convey purpose, identify main access points and complement the streetscape.	DTS/DPF 1.3 None are applicable.
PO 1.4 Plant, exhaust and intake vents and other technical equipment are	DTS/DPF 1.4 Development does not incorporate any structures that protrude

<p>integrated into the building design to minimise visibility from the public realm and negative impacts on residential amenity by:</p> <ul style="list-style-type: none"> <li>(a) positioning plant and equipment discretely, in unobtrusive locations as viewed from public roads and spaces</li> <li>(b) screening rooftop plant and equipment from view</li> <li>(c) when located on the roof of non-residential development, locating the plant and equipment as far as practicable from adjacent sensitive land uses.</li> </ul>	beyond the roofline.
<p>PO 1.5</p> <p>The negative visual impact of outdoor storage, waste management, loading and service areas is minimised by integrating them into the building design and screening them from public view (such as fencing, landscaping and built form), taking into account the form of development contemplated in the relevant zone.</p>	<p>DTS/DPF 1.5</p> <p>None are applicable.</p>
Safety	
<p>PO 2.1</p> <p>Development maximises opportunities for passive surveillance of the public realm by providing clear lines of sight, appropriate lighting and the use of visually permeable screening wherever practicable.</p>	<p>DTS/DPF 2.1</p> <p>None are applicable.</p>
<p>PO 2.2</p> <p>Development is designed to differentiate public, communal and private areas.</p>	<p>DTS/DPF 2.2</p> <p>None are applicable.</p>
<p>PO 2.3</p> <p>Buildings are designed with safe, perceptible and direct access from public street frontages and vehicle parking areas.</p>	<p>DTS/DPF 2.3</p> <p>None are applicable.</p>
<p>PO 2.4</p> <p>Development at street level is designed to maximise opportunities for passive surveillance of the adjacent public realm.</p>	<p>DTS/DPF 2.4</p> <p>None are applicable.</p>
<p>PO 2.5</p> <p>Common areas and entry points of buildings (such as the foyer areas of residential buildings) and non-residential land uses at street level, maximise passive surveillance from the public realm to the inside of the building at night.</p>	<p>DTS/DPF 2.5</p> <p>None are applicable.</p>
Landscaping	
<p>PO 3.1</p> <p>Soft landscaping and tree planting are incorporated to:</p> <ul style="list-style-type: none"> <li>(a) minimise heat absorption and reflection</li> <li>(b) maximise shade and shelter</li> <li>(c) maximise stormwater infiltration</li> <li>(d) enhance the appearance of land and streetscapes.</li> </ul>	<p>DTS/DPF 3.1</p> <p>None are applicable.</p>

Environmental Performance	
PO 4.1 Buildings are sited, oriented and designed to maximise natural sunlight access and ventilation to main activity areas, habitable rooms, common areas and open spaces.	DTS/DPF 4.1 None are applicable.
PO 4.2 Buildings are sited and designed to maximise passive environmental performance and minimise energy consumption and reliance on mechanical systems, such as heating and cooling.	DTS/DPF 4.2 None are applicable.
PO 4.3 Buildings incorporate climate responsive techniques and features such as building and window orientation, use of eaves, verandahs and shading structures, water harvesting, at ground landscaping, green walls, green roofs and photovoltaic cells.	DTS/DPF 4.3 None are applicable.
Water Sensitive Design	
PO 5.1 Development is sited and designed to maintain natural hydrological systems without negatively impacting:  <ul style="list-style-type: none"> <li>(a) the quantity and quality of surface water and groundwater</li> <li>(b) the depth and directional flow of surface water and groundwater</li> <li>(c) the quality and function of natural springs.</li> </ul>	DTS/DPF 5.1 None are applicable.
On-site Waste Treatment Systems	
PO 6.1 Dedicated on-site effluent disposal areas do not include any areas to be used for, or could be reasonably foreseen to be used for, private open space, driveways or car parking.	DTS/DPF 6.1 Effluent disposal drainage areas do not:  <ul style="list-style-type: none"> <li>(a) encroach within an area used as private open space or result in less private open space than that specified in Design in Urban Areas Table 1 - Private Open Space</li> <li>(b) use an area also used as a driveway</li> <li>(c) encroach within an area used for on-site car parking or result in less on-site car parking than that specified in Transport, Access and Parking Table 1 - General Off-Street Car Parking Requirements or Table 2 - Off-Street Car Parking Requirements in Designated Areas.</li> </ul>
Car parking appearance	
PO 7.1 Development facing the street is designed to minimise the negative impacts of any semi-basement and undercroft car parking on streetscapes through techniques such as:  <ul style="list-style-type: none"> <li>(a) limiting protrusion above finished ground level</li> <li>(b) screening through appropriate planting, fencing and mounding</li> <li>(c) limiting the width of openings and integrating them into the building structure.</li> </ul>	DTS/DPF 7.1 None are applicable.
PO 7.2	DTS/DPF 7.2

Vehicle parking areas appropriately located, designed and constructed to minimise impacts on adjacent sensitive receivers through measures such as ensuring they are attractively developed and landscaped, screen fenced and the like.	None are applicable.
PO 7.3 Safe, legible, direct and accessible pedestrian connections are provided between parking areas and the development.	DTS/DPF 7.3 None are applicable.
PO 7.4 Street-level vehicle parking areas incorporate tree planting to provide shade, reduce solar heat absorption and reflection.	DTS/DPF 7.4 Vehicle parking areas that are open to the sky and comprise 10 or more car parking spaces include a shade tree with a mature canopy of 4m diameter spaced for each 10 car parking spaces provided and a landscaped strip on any road frontage of a minimum dimension of 1m.
PO 7.5 Street level parking areas incorporate soft landscaping to improve visual appearance when viewed from within the site and from public places.	DTS/DPF 7.5 Vehicle parking areas comprising 10 or more car parking spaces include soft landscaping with a minimum dimension of:  (a) 1m along all public road frontages and allotment boundaries (b) 1m between double rows of car parking spaces.
PO 7.6 Vehicle parking areas and associated driveways are landscaped to provide shade and positively contribute to amenity.	DTS/DPF 7.6 None are applicable.
PO 7.7 Vehicle parking areas and access ways incorporate integrated stormwater management techniques such as permeable or porous surfaces, infiltration systems, drainage swales or rain gardens that integrate with soft landscaping.	DTS/DPF 7.7 None are applicable.
Earthworks and sloping land	
PO 8.1 Development, including any associated driveways and access tracks, minimises the need for earthworks to limit disturbance to natural topography.	DTS/DPF 8.1 Development does not involve any of the following:  (a) excavation exceeding a vertical height of 1m (b) filling exceeding a vertical height of 1m (c) a total combined excavation and filling vertical height of 2m or more.
PO 8.2 Driveways and access tracks designed and constructed to allow safe and convenient access on sloping land.	DTS/DPF 8.2 Driveways and access tracks on sloping land (with a gradient exceeding 1 in 8) satisfy (a) and (b):  (a) do not have a gradient exceeding 25% (1-in-4) at any point along the driveway (b) are constructed with an all-weather trafficable surface.
PO 8.3 Driveways and access tracks on sloping land (with a gradient	DTS/DPF 8.3 None are applicable.



<p>exceeding 1 in 8):</p> <ul style="list-style-type: none"> <li>(a) do not contribute to the instability of embankments and cuttings</li> <li>(b) provide level transition areas for the safe movement of people and goods to and from the development</li> <li>(c) are designed to integrate with the natural topography of the land.</li> </ul>	
<p>PO 8.4</p> <p>Development on sloping land (with a gradient exceeding 1 in 8) avoids the alteration of natural drainage lines and includes on site drainage systems to minimise erosion.</p>	<p>DTS/DPF 8.4</p> <p>None are applicable.</p>
<p>PO 8.5</p> <p>Development does not occur on land at risk of landslip or increase the potential for landslip or land surface instability.</p>	<p>DTS/DPF 8.5</p> <p>None are applicable.</p>
Fences and walls	
<p>PO 9.1</p> <p>Fences, walls and retaining walls of sufficient height maintain privacy and security without unreasonably impacting visual amenity and adjoining land's access to sunlight or the amenity of public places.</p>	<p>DTS/DPF 9.1</p> <p>None are applicable.</p>
<p>PO 9.2</p> <p>Landscaping is incorporated on the low side of retaining walls that are visible from public roads and public open space to minimise visual impacts.</p>	<p>DTS/DPF 9.2</p> <p>A vegetated landscaped strip 1m wide or more is provided against the low side of a retaining wall.</p>
Overlooking / Visual Privacy (low rise buildings)	
<p>PO 10.1</p> <p>Development mitigates direct overlooking from upper level windows to habitable rooms and private open spaces of adjoining residential uses in neighbourhood-type zones.</p>	<p>DTS/DPF 10.1</p> <p>Upper level windows facing side or rear boundaries shared with a residential use in a neighbourhood-type zone:</p> <ul style="list-style-type: none"> <li>(a) are permanently obscured to a height of 1.5m above finished floor level and are fixed or not capable of being opened more than 125mm</li> <li>(b) have sill heights greater than or equal to 1.5m above finished floor level</li> <li>(c) incorporate screening with a maximum of 25% openings, permanently fixed no more than 500mm from the window surface and sited adjacent to any part of the window less than 1.5 m above the finished floor level.</li> </ul>
<p>PO 10.2</p> <p>Development mitigates direct overlooking from balconies to habitable rooms and private open space of adjoining residential uses in neighbourhood type zones.</p>	<p>DTS/DPF 10.2</p> <p>One of the following is satisfied:</p> <ul style="list-style-type: none"> <li>(a) the longest side of the balcony or terrace will face a public road, public road reserve or public reserve that is at least 15m wide in all places faced by the balcony or terrace</li> <li>or</li> <li>(b) all sides of balconies or terraces on upper building levels are permanently obscured by screening with a maximum 25% transparency/openings fixed to a minimum height of:</li> </ul>

	<p>(i) 1.5m above finished floor level where the balcony is located at least 15 metres from the nearest habitable window of a dwelling on adjacent land</p> <p>or</p> <p>(ii) 1.7m above finished floor level in all other cases</p>
Site Facilities / Waste Storage (excluding low rise residential development)	
<p>PO 11.1</p> <p>Development provides a dedicated area for on-site collection and sorting of recyclable materials and refuse, green organic waste and wash bay facilities for the ongoing maintenance of bins that is adequate in size considering the number and nature of the activities they will serve and the frequency of collection.</p>	<p>DTS/DPF 11.1</p> <p>None are applicable.</p>
<p>PO 11.2</p> <p>Communal waste storage and collection areas are located, enclosed and designed to be screened from view from the public domain, open space and dwellings.</p>	<p>DTS/DPF 11.2</p> <p>None are applicable.</p>
<p>PO 11.3</p> <p>Communal waste storage and collection areas are designed to be well ventilated and located away from habitable rooms.</p>	<p>DTS/DPF 11.3</p> <p>None are applicable.</p>
<p>PO 11.4</p> <p>Communal waste storage and collection areas are designed to allow waste and recycling collection vehicles to enter and leave the site without reversing.</p>	<p>DTS/DPF 11.4</p> <p>None are applicable.</p>
<p>PO 11.5</p> <p>For mixed use developments, non-residential waste and recycling storage areas and access provide opportunities for on-site management of food waste through composting or other waste recovery as appropriate.</p>	<p>DTS/DPF 11.5</p> <p>None are applicable.</p>
All Development - Medium and High Rise	
External Appearance	
<p>PO 12.1</p> <p>Buildings positively contribute to the character of the local area by responding to local context.</p>	<p>DTS/DPF 12.1</p> <p>None are applicable.</p>
<p>PO 12.2</p> <p>Architectural detail at street level and a mixture of materials at lower building levels near the public interface are provided to reinforce a human scale.</p>	<p>DTS/DPF 12.2</p> <p>None are applicable.</p>
<p>PO 12.3</p> <p>Buildings are designed to reduce visual mass by breaking up building elevations into distinct elements.</p>	<p>DTS/DPF 12.3</p> <p>None are applicable.</p>
<p>PO 12.4</p> <p>Boundary walls visible from public land include visually interesting treatments to break up large blank elevations.</p>	<p>DTS/DPF 12.4</p> <p>None are applicable.</p>
<p>PO 12.5</p> <p>External materials and finishes are durable and age well to minimise ongoing maintenance requirements.</p>	<p>DTS/DPF 12.5</p> <p>Buildings utilise a combination of the following external materials and finishes:</p>

	<ul style="list-style-type: none"><li>(a) masonry</li><li>(b) natural stone</li><li>(c) pre-finished materials that minimise staining, discolouring or deterioration.</li></ul>												
<p>PO 12.6</p> <p>Street-facing building elevations are designed to provide attractive, high quality and pedestrian-friendly street frontages.</p>	<p>DTS/DPF 12.6</p> <p>Building street frontages incorporate:</p> <ul style="list-style-type: none"><li>(a) active uses such as shops or offices</li><li>(b) prominent entry areas for multi-storey buildings (where it is a common entry)</li><li>(c) habitable rooms of dwellings</li><li>(d) areas of communal public realm with public art or the like, where consistent with the zone and/or subzone provisions.</li></ul>												
<p>PO 12.7</p> <p>Entrances to multi-storey buildings are safe, attractive, welcoming, functional and contribute to streetscape character.</p>	<p>DTS/DPF 12.7</p> <p>Entrances to multi-storey buildings are:</p> <ul style="list-style-type: none"><li>(a) oriented towards the street</li><li>(b) clearly visible and easily identifiable from the street and vehicle parking areas</li><li>(c) designed to be prominent, accentuated and a welcoming feature if there are no active or occupied ground floor uses</li><li>(d) designed to provide shelter, a sense of personal address and transitional space around the entry</li><li>(e) located as close as practicable to the lift and / or lobby access to minimise the need for long access corridors</li><li>(f) designed to avoid the creation of potential areas of entrapment.</li></ul>												
<p>PO 12.8</p> <p>Building services, plant and mechanical equipment are screened from the public realm.</p>	<p>DTS/DPF 12.8</p> <p>None are applicable.</p>												
Landscaping													
<p>PO 13.1</p> <p>Development facing a street provides a well landscaped area that contains a deep soil space to accommodate a tree of a species and size adequate to provide shade, contribute to tree canopy targets and soften the appearance of buildings.</p>	<p>DTS/DPF 13.1</p> <p>Buildings provide a 4m by 4m deep soil space in front of the building that accommodates a medium to large tree, except where no building setback from front property boundaries is desired.</p>												
<p>PO 13.2</p> <p>Deep soil zones are provided to retain existing vegetation or provide areas that can accommodate new deep root vegetation, including tall trees with large canopies to provide shade and soften the appearance of multi-storey buildings.</p>	<p>DTS/DPF 13.2</p> <p>Multi-storey development provides deep soil zones and incorporates trees at not less than the following rates, except in a location or zone where full site coverage is desired.</p> <table><tr><th>Site area</th><th>Minimum deep soil area</th><th>Minimum dimension</th><th>Tree / deep soil zones</th></tr><tr><td>&lt;300 m<sup>2</sup></td><td>10 m<sup>2</sup></td><td>1.5m</td><td>1 small tree / 10 m<sup>2</sup></td></tr><tr><td></td><td></td><td></td><td></td></tr></table>	Site area	Minimum deep soil area	Minimum dimension	Tree / deep soil zones	<300 m <sup>2</sup>	10 m <sup>2</sup>	1.5m	1 small tree / 10 m <sup>2</sup>				
Site area	Minimum deep soil area	Minimum dimension	Tree / deep soil zones										
<300 m <sup>2</sup>	10 m <sup>2</sup>	1.5m	1 small tree / 10 m <sup>2</sup>										

	300-1500 m <sup>2</sup>	7% site area	3m	1 medium tree / 30 m <sup>2</sup>
	>1500 m <sup>2</sup>	7% site area	6m	1 large or medium tree / 60 m <sup>2</sup>
	Tree size and site area definitions			
	Small tree	4-6m mature height and 2-4m canopy spread		
	Medium tree	6-12m mature height and 4-8m canopy spread		
	Large tree	12m mature height and >8m canopy spread		
	Site area	The total area for development site, not average area per dwelling		
PO 13.3	DTS/DPF 13.3			
Deep soil zones with access to natural light are provided to assist in maintaining vegetation health.	None are applicable.			
PO 13.4	DTS/DPF 13.4			
Unless separated by a public road or reserve, development sites adjacent to any zone that has a primary purpose of accommodating low-rise residential development incorporate a deep soil zone along the common boundary to enable medium to large trees to be retained or established to assist in screening new buildings of 3 or more building levels in height.	Building elements of 3 or more building levels in height are set back at least 6m from a zone boundary in which a deep soil zone area is incorporated.			
Environmental				
PO 14.1	DTS/DPF 14.1			
Development minimises detrimental micro-climatic impacts on adjacent land and buildings.	None are applicable.			
PO 14.2	DTS/DPF 14.2			
Development incorporates sustainable design techniques and features such as window orientation, eaves and shading structures, water harvesting and use, green walls and roof designs that enable the provision of rain water tanks (where they are not provided elsewhere on site), green roofs and photovoltaic cells.	None are applicable.			
PO 14.3	DTS/DPF 14.3			
Development of 5 or more building levels, or 21m or more in height (as measured from natural ground level and excluding roof-mounted mechanical plant and equipment) is designed to minimise the impacts of wind through measures such as:	None are applicable.			
(a)	a podium at the base of a tall tower and aligned with the street to deflect wind away from the street			
(b)	substantial verandahs around a building to deflect			

<p>(c) downward travelling wind flows over pedestrian areas</p> <p>(c) the placement of buildings and use of setbacks to deflect the wind at ground level</p> <p>(d) avoiding tall sheer elevations that create windy conditions at street level.</p>	
Car Parking	
<p>PO 15.1</p> <p>Multi-level vehicle parking structures are designed to contribute to active street frontages and complement neighbouring buildings.</p>	<p>DTS/DPF 15.1</p> <p>Multi-level vehicle parking structures within buildings:</p> <ul style="list-style-type: none"> <li>(a) provide land uses such as commercial, retail or other non-car parking uses along ground floor street frontages</li> <li>(b) incorporate facade treatments in building elevations facing along major street frontages that are sufficiently enclosed and detailed to complement adjacent buildings.</li> </ul>
<p>PO 15.2</p> <p>Multi-level vehicle parking structures within buildings complement the surrounding built form in terms of height, massing and scale.</p>	<p>DTS/DPF 15.2</p> <p>None are applicable.</p>
Overlooking/Visual Privacy	
<p>PO 16.1</p> <p>Development mitigates direct overlooking of habitable rooms and private open spaces of adjacent residential uses in neighbourhood-type zones through measures such as:</p> <ul style="list-style-type: none"> <li>(a) appropriate site layout and building orientation</li> <li>(b) off-setting the location of balconies and windows of habitable rooms or areas with those of other buildings so that views are oblique rather than direct to avoid direct line of sight</li> <li>(c) building setbacks from boundaries (including building boundary to boundary where appropriate) that interrupt views or that provide a spatial separation between balconies or windows of habitable rooms</li> <li>(d) screening devices that are integrated into the building design and have minimal negative effect on residents' or neighbours' amenity.</li> </ul>	<p>DTS/DPF 16.1</p> <p>None are applicable.</p>
All residential development	
Front elevations and passive surveillance	
<p>PO 17.1</p> <p>Dwellings incorporate windows facing primary street frontages to encourage passive surveillance and make a positive contribution to the streetscape.</p>	<p>DTS/DPF 17.1</p> <p>Each dwelling with a frontage to a public street:</p> <ul style="list-style-type: none"> <li>(a) includes at least one window facing the primary street from a habitable room that has a minimum internal room dimension of 2.4m</li> <li>(b) has an aggregate window area of at least 2m<sup>2</sup> facing the primary street.</li> </ul>
<p>PO 17.2</p> <p>Dwellings incorporate entry doors within street frontages to</p>	<p>DTS/DPF 17.2</p> <p>Dwellings with a frontage to a public street have an entry door</p>

address the street and provide a legible entry point for visitors.	visible from the primary street boundary.
Outlook and Amenity	
PO 18.1  Living rooms have an external outlook to provide a high standard of amenity for occupants.	DTS/DPF 18.1  A living room of a dwelling incorporates a window with an external outlook of the street frontage, private open space, public open space, or waterfront areas.
PO 18.2  Bedrooms are separated or shielded from active communal recreation areas, common access areas and vehicle parking areas and access ways to mitigate noise and artificial light intrusion.	DTS/DPF 18.2  None are applicable.
Ancillary Development	
PO 19.1  Residential ancillary buildings are sited and designed to not detract from the streetscape or appearance of primary residential buildings on the site or neighbouring properties.	DTS/DPF 19.1  Ancillary buildings: <ul style="list-style-type: none"> <li>(a) are ancillary to a dwelling erected on the same site</li> <li>(b) have a floor area not exceeding 60m<sup>2</sup></li> <li>(c) are not constructed, added to or altered so that any part is situated: <ul style="list-style-type: none"> <li>(i) in front of any part of the building line of the dwelling to which it is ancillary</li> <li>or</li> <li>(ii) within 900mm of a boundary of the allotment with a secondary street (if the land has boundaries on two or more roads)</li> </ul> </li> <li>(d) in the case of a garage or carport, the garage or carport: <ul style="list-style-type: none"> <li>(i) is set back at least 5.5m from the boundary of the primary street</li> <li>(ii) when facing a primary street or secondary street, has a total door / opening not exceeding: <ul style="list-style-type: none"> <li>A. for dwellings of single building level - 7m in width or 50% of the site frontage, whichever is the lesser</li> <li>B. for dwellings comprising two or more building levels at the building line fronting the same public street - 7m in width</li> </ul> </li> </ul> </li> <li>(e) if situated on a boundary (not being a boundary with a primary street or secondary street), do not exceed a length of 11.5m unless: <ul style="list-style-type: none"> <li>(i) a longer wall or structure exists on the adjacent site and is situated on the same allotment boundary</li> <li>and</li> <li>(ii) the proposed wall or structure will be built along the same length of boundary as the existing adjacent wall or structure to the same or lesser extent</li> </ul> </li> <li>(f) if situated on a boundary of the allotment (not being a boundary with a primary street or secondary street), all walls or structures on the boundary will not exceed 45% of the length of that boundary</li> </ul>



	<p>(g) will not be located within 3m of any other wall along the same boundary unless on an adjacent site on that boundary there is an existing wall of a building that would be adjacent to or about the proposed wall or structure</p> <p>(h) have a wall height or post height not exceeding 3m above natural ground level</p> <p>(i) have a roof height where no part of the roof is more than 5m above the natural ground level</p> <p>(j) if clad in sheet metal, is pre-colour treated or painted in a non-reflective colour</p> <p>(k) retains a total area of soft landscaping in accordance with (i) or (ii), whichever is less:</p> <p>(i) a total area as determined by the following table:</p> <table border="1"> <thead> <tr> <th>Dwelling site area (or in the case of residential flat building or group dwelling(s), average site area) (m<sup>2</sup>)</th><th>Minimum percentage of site</th></tr> </thead> <tbody> <tr> <td>&lt;150</td><td>10%</td></tr> <tr> <td>150-200</td><td>15%</td></tr> <tr> <td>201-450</td><td>20%</td></tr> <tr> <td>&gt;450</td><td>25%</td></tr> </tbody> </table> <p>(ii) the amount of existing soft landscaping prior to the development occurring.</p>	Dwelling site area (or in the case of residential flat building or group dwelling(s), average site area) (m <sup>2</sup> )	Minimum percentage of site	<150	10%	150-200	15%	201-450	20%	>450	25%
Dwelling site area (or in the case of residential flat building or group dwelling(s), average site area) (m <sup>2</sup> )	Minimum percentage of site										
<150	10%										
150-200	15%										
201-450	20%										
>450	25%										
<p>PO 19.2</p> <p>Ancillary buildings and structures do not impede on-site functional requirements such as private open space provision, car parking requirements or result in over-development of the site.</p>	<p>DTS/DPF 19.2</p> <p>Ancillary buildings and structures do not result in:</p> <p>(a) less private open space than specified in Design in Urban Areas Table 1 - Private Open Space</p> <p>(b) less on-site car parking than specified in Transport, Access and Parking Table 1 - General Off-Street Car Parking Requirements or Table 2 - Off-Street Car Parking Requirements in Designated Areas.</p>										
<p>PO 19.3</p> <p>Fixed plant and equipment in the form of pumps and/or filtration systems for a swimming pool or spa positioned and/or housed to not cause unreasonable noise nuisance to adjacent sensitive receivers.</p>	<p>DTS/DPF 19.3</p> <p>The pump and/or filtration system is ancillary to a dwelling erected on the same site and is:</p> <p>(a) enclosed in a solid acoustic structure that is located at least 5m from the nearest habitable room located on an adjoining allotment</p> <p>or</p> <p>(b) located at least 12m from the nearest habitable room located on an adjoining allotment.</p>										
Residential Development - Low Rise											
External appearance											

PO 20.1  Garaging is designed to not detract from the streetscape or appearance of a dwelling.	DTS/DPF 20.1  Garages and carports facing a street:  (a) are situated so that no part of the garage or carport will be in front of any part of the building line of the dwelling (b) are set back at least 5.5m from the boundary of the primary street (c) have a garage door / opening width not exceeding 7m (d) have a garage door / opening width not exceeding 50% of the site frontage unless the dwelling has two or more building levels at the building line fronting the same public street.
PO 20.2  Dwelling elevations facing public streets and common driveways make a positive contribution to the streetscape and the appearance of common driveway areas.	DTS/DPF 20.2  Each dwelling includes at least 3 of the following design features within the building elevation facing a primary street, and at least 2 of the following design features within the building elevation facing any other public road (other than a laneway) or a common driveway:  (a) a minimum of 30% of the building wall is set back an additional 300mm from the building line (b) a porch or portico projects at least 1m from the building wall (c) a balcony projects from the building wall (d) a verandah projects at least 1m from the building wall (e) eaves of a minimum 400mm width extend along the width of the front elevation (f) a minimum 30% of the width of the upper level projects forward from the lower level primary building line by at least 300mm (g) a minimum of two different materials or finishes are incorporated on the walls of the front building elevation, with a maximum of 80% of the building elevation in a single material or finish.
PO 20.3  The visual mass of larger buildings is reduced when viewed from adjoining allotments or public streets.	DTS/DPF 20.3  None are applicable
Private Open Space	
PO 21.1  Dwellings are provided with suitable sized areas of usable private open space to meet the needs of occupants.	DTS/DPF 21.1  Private open space is provided in accordance with Design in Urban Areas Table 1 - Private Open Space.
PO 21.2  Private open space is positioned to provide convenient access from internal living areas.	DTS/DPF 21.2  Private open space is directly accessible from a habitable room.

Landscaping											
<p>PO 22.1</p> <p>Soft landscaping is incorporated into development to:</p> <ul style="list-style-type: none"> <li>(a) minimise heat absorption and reflection</li> <li>(b) contribute shade and shelter</li> <li>(c) provide for stormwater infiltration and biodiversity</li> <li>(d) enhance the appearance of land and streetscapes.</li> </ul>	<p>DTS/DPF 22.1</p> <p>Residential development incorporates soft landscaping with a minimum dimension of 700mm provided in accordance with (a) and (b):</p> <ul style="list-style-type: none"> <li>(a) a total area as determined by the following table: <table border="1"> <thead> <tr> <th>Dwelling site area (or in the case of residential flat building or group dwelling(s), average site area) (m<sup>2</sup>)</th><th>Minimum percentage of site</th></tr> </thead> <tbody> <tr> <td>&lt;150</td><td>10%</td></tr> <tr> <td>150-200</td><td>15%</td></tr> <tr> <td>&gt;200-450</td><td>20%</td></tr> <tr> <td>&gt;450</td><td>25%</td></tr> </tbody> </table> </li> <li>(b) at least 30% of any land between the primary street boundary and the primary building line.</li> </ul>	Dwelling site area (or in the case of residential flat building or group dwelling(s), average site area) (m <sup>2</sup> )	Minimum percentage of site	<150	10%	150-200	15%	>200-450	20%	>450	25%
Dwelling site area (or in the case of residential flat building or group dwelling(s), average site area) (m <sup>2</sup> )	Minimum percentage of site										
<150	10%										
150-200	15%										
>200-450	20%										
>450	25%										
Car parking, access and manoeuvrability											
<p>PO 23.1</p> <p>Enclosed car parking spaces are of dimensions to be functional, accessible and convenient.</p>	<p>DTS/DPF 23.1</p> <p>Residential car parking spaces enclosed by fencing, walls or other structures have the following internal dimensions (separate from any waste storage area):</p> <ul style="list-style-type: none"> <li>(a) single width car parking spaces: <ul style="list-style-type: none"> <li>(i) a minimum length of 5.4m per space</li> <li>(ii) a minimum width of 3.0m</li> <li>(iii) a minimum garage door width of 2.4m</li> </ul> </li> <li>(b) double width car parking spaces (side by side): <ul style="list-style-type: none"> <li>(i) a minimum length of 5.4m</li> <li>(ii) a minimum width of 5.4m</li> <li>(iii) minimum garage door width of 2.4m per space.</li> </ul> </li> </ul>										
<p>PO 23.2</p> <p>Uncovered car parking space are of dimensions to be functional, accessible and convenient.</p>	<p>DTS/DPF 23.2</p> <p>Uncovered car parking spaces have:</p> <ul style="list-style-type: none"> <li>(a) a minimum length of 5.4m</li> <li>(b) a minimum width of 2.4m</li> <li>(c) a minimum width between the centre line of the space and any fence, wall or other obstruction of 1.5m.</li> </ul>										
<p>PO 23.3</p> <p>Driveways and access points are located and designed to facilitate safe access and egress while maximising land available for street tree planting, domestic waste collection, landscaped street frontages and on-street parking.</p>	<p>DTS/DPF 23.3</p> <p>Driveways and access points satisfy (a) or (b):</p> <ul style="list-style-type: none"> <li>(a) sites with a frontage to a public road of 10m or less, have a width between 3.0 and 3.2 metres measured at the property boundary and are the only access point provided on the site</li> </ul>										

	<ul style="list-style-type: none"> <li>(b) sites with a frontage to a public road greater than 10m: <ul style="list-style-type: none"> <li>(i) have a maximum width of 5m measured at the property boundary and are the only access point provided on the site;</li> <li>(ii) have a width between 3.0 metres and 3.2 metres measured at the property boundary and no more than two access points are provided on site, separated by no less than 1m.</li> </ul> </li> </ul>
<p>PO 23.4</p> <p>Vehicle access is safe, convenient, minimises interruption to the operation of public roads and does not interfere with street infrastructure or street trees.</p>	<p>DTS/DPF 23.4</p> <p>Vehicle access to designated car parking spaces satisfy (a) or (b):</p> <ul style="list-style-type: none"> <li>(a) is provided via a lawfully existing or authorised access point or an access point for which consent has been granted as part of an application for the division of land</li> <li>(b) where newly proposed, is set back: <ul style="list-style-type: none"> <li>(i) 0.5m or more from any street furniture, street pole, infrastructure services pit, or other stormwater or utility infrastructure unless consent is provided from the asset owner</li> <li>(ii) 2m or more from the base of the trunk of a street tree unless consent is provided from the tree owner for a lesser distance</li> <li>(iii) 6m or more from the tangent point of an intersection of 2 or more roads</li> <li>(iv) outside of the marked lines or infrastructure dedicating a pedestrian crossing.</li> </ul> </li> </ul>
<p>PO 23.5</p> <p>Driveways are designed to enable safe and convenient vehicle movements from the public road to on-site parking spaces.</p>	<p>DTS/DPF 23.5</p> <p>Driveways are designed and sited so that:</p> <ul style="list-style-type: none"> <li>(a) the gradient from the place of access on the boundary of the allotment to the finished floor level at the front of the garage or carport is not steeper than 1-in-4 on average</li> <li>(b) they are aligned relative to the street so that there is no more than a 20 degree deviation from 90 degrees between the centreline of any dedicated car parking space to which it provides access (measured from the front of that space) and the road boundary.</li> <li>(c) if located so as to provide access from an alley, lane or right of way - the alley, lane or right of way is at least 6.2m wide along the boundary of the allotment / site</li> </ul>
<p>PO 23.6</p> <p>Driveways and access points are designed and distributed to optimise the provision of on-street visitor parking.</p>	<p>DTS/DPF 23.6</p> <p>Where on-street parking is available abutting the site's street frontage, on-street parking is retained in accordance with the following requirements:</p> <ul style="list-style-type: none"> <li>(a) minimum 0.33 on-street spaces per dwelling on the site (rounded up to the nearest whole number)</li> <li>(b) minimum car park length of 5.4m where a vehicle can enter or exit a space directly</li> <li>(c) minimum carpark length of 6m for an intermediate space located between two other parking spaces or to an end obstruction where the parking is indented.</li> </ul>

Waste storage	
PO 24.1  Provision is made for the convenient storage of waste bins in a location screened from public view.	DTS/DPF 24.1  Where dwellings abut both side boundaries a waste bin storage area is provided behind the building line of each dwelling that:  (a) has a minimum area of 2m <sup>2</sup> with a minimum dimension of 900mm (separate from any designated car parking spaces or private open space); and  (b) has a continuous unobstructed path of travel (excluding moveable objects like gates, vehicles and roller doors) with a minimum width of 800mm between the waste bin storage area and the street.
Design of Transportable Buildings	
PO 25.1  The sub-floor space beneath transportable buildings is enclosed to give the appearance of a permanent structure.	DTS/DPF 25.1  Buildings satisfy (a) or (b):  (a) are not transportable  (b) the sub-floor space between the building and ground level is clad in a material and finish consistent with the building.
Residential Development - Medium and High Rise (including serviced apartments)	
Outlook and Visual Privacy	
PO 26.1  Ground level dwellings have a satisfactory short range visual outlook to public, communal or private open space.	DTS/DPF 26.1  Buildings:  (a) provide a habitable room at ground or first level with a window facing toward the street  (b) limit the height / extent of solid walls or fences facing the street to 1.2m high above the footpath level or, where higher, to 50% of the site frontage.
PO 26.2  The visual privacy of ground level dwellings within multi-level buildings is protected.	DTS/DPF 26.2  The finished floor level of ground level dwellings in multi-storey developments is raised by up to 1.2m.
Private Open Space	
PO 27.1  Dwellings are provided with suitable sized areas of usable private open space to meet the needs of occupants.	DTS/DPF 27.1  Private open space provided in accordance with Design in Urban Areas Table 1 - Private Open Space.
Residential amenity in multi-level buildings	
PO 28.1  Residential accommodation within multi-level buildings have habitable rooms, windows and balconies designed and positioned to be separated from those of other dwellings and accommodation to provide visual and acoustic privacy and allow for natural ventilation and the infiltration of daylight into interior and outdoor spaces.	DTS/DPF 28.1  Habitable rooms and balconies of independent dwellings and accommodation are separated by at least 6m from one another where there is a direct line of sight between them and 3m or more from a side or rear property boundary.
PO 28.2	DTS/DPF 28.2

<p>Balconies are designed, positioned and integrated into the overall architectural form and detail of the development to:</p> <ul style="list-style-type: none"> <li>(a) respond to daylight, wind, and acoustic conditions to maximise comfort and provide visual privacy</li> <li>(b) allow views and casual surveillance of the street while providing for safety and visual privacy of nearby living spaces and private outdoor areas.</li> </ul>	<p>Balconies utilise one or a combination of the following design elements:</p> <ul style="list-style-type: none"> <li>(a) sun screens</li> <li>(b) pergolas</li> <li>(c) louvres</li> <li>(d) green facades</li> <li>(e) openable walls.</li> </ul>
<p>PO 28.3</p> <p>Balconies are of sufficient size and depth to accommodate outdoor seating and promote indoor / outdoor living.</p>	<p>DTS/DPF 28.3</p> <p>Balconies open directly from a habitable room and incorporate a minimum dimension of 2m.</p>
<p>PO 28.4</p> <p>Dwellings are provided with sufficient space for storage to meet likely occupant needs.</p>	<p>DTS/DPF 28.4</p> <p>Dwellings (not including student accommodation or serviced apartments) are provided with storage at the following rates with at least 50% or more of the storage volume to be provided within the dwelling:</p> <ul style="list-style-type: none"> <li>(a) studio: not less than 6m<sup>3</sup></li> <li>(b) 1 bedroom dwelling / apartment: not less than 8m<sup>3</sup></li> <li>(c) 2 bedroom dwelling / apartment: not less than 10m<sup>3</sup></li> <li>(d) 3+ bedroom dwelling / apartment: not less than 12m<sup>3</sup>.</li> </ul>
<p>PO 28.5</p> <p>Dwellings that use light wells for access to daylight, outlook and ventilation for habitable rooms, are designed to ensure a reasonable living amenity is provided.</p>	<p>DTS/DPF 28.5</p> <p>Light wells:</p> <ul style="list-style-type: none"> <li>(a) are not used as the primary source of outlook for living rooms</li> <li>(b) up to 18m in height have a minimum horizontal dimension of 3m, or 6m if overlooked by bedrooms</li> <li>(c) above 18m in height have a minimum horizontal dimension of 6m, or 9m if overlooked by bedrooms.</li> </ul>
<p>PO 28.6</p> <p>Attached or abutting dwellings are designed to minimise the transmission of sound between dwellings and, in particular, to protect bedrooms from possible noise intrusions.</p>	<p>DTS/DPF 28.6</p> <p>None are applicable.</p>
<p>PO 28.7</p> <p>Dwellings are designed so that internal structural columns correspond with the position of internal walls to ensure that the space within the dwelling/apartment is useable.</p>	<p>DTS/DPF 28.7</p> <p>None are applicable.</p>
Dwelling Configuration	
<p>PO 29.1</p> <p>Buildings containing in excess of 10 dwellings provide a variety of dwelling sizes and a range in the number of bedrooms per dwelling to contribute to housing diversity.</p>	<p>DTS/DPF 29.1</p> <p>Buildings containing in excess of 10 dwellings provide at least one of each of the following:</p> <ul style="list-style-type: none"> <li>(a) studio (where there is no separate bedroom)</li> <li>(b) 1 bedroom dwelling / apartment with a floor area of at least 50m<sup>2</sup></li> <li>(c) 2 bedroom dwelling / apartment with a floor area of at least 65m<sup>2</sup></li> <li>(d) 3+ bedroom dwelling / apartment with a floor area of at</li> </ul>



	least 80m <sup>2</sup> , and any dwelling over 3 bedrooms provides an additional 15m <sup>2</sup> for every additional bedroom.	
PO 29.2  Dwellings located on the ground floor of multi-level buildings with 3 or more bedrooms have the windows of their habitable rooms overlooking internal courtyard space or other public space, where possible.	DTS/DPF 29.2  None are applicable.	
Common Areas		
PO 30.1  The size of lifts, lobbies and corridors is sufficient to accommodate movement of bicycles, strollers, mobility aids and visitor waiting areas.	DTS/DPF 30.1  Common corridor or circulation areas:  (a) have a minimum ceiling height of 2.7m (b) provide access to no more than 8 dwellings (c) incorporate a wider section at apartment entries where the corridors exceed 12m in length from a core.	
Group Dwellings, Residential Flat Buildings and Battle axe Development		
Amenity		
PO 31.1  Dwellings are of a suitable size to provide a high standard of amenity for occupants.	DTS/DPF 31.1  Dwellings have a minimum internal floor area in accordance with the following table:	
	Number of bedrooms	Minimum internal floor area
	Studio	35m <sup>2</sup>
	1 bedroom	50m <sup>2</sup>
	2 bedroom	65m <sup>2</sup>
	3+ bedrooms	80m <sup>2</sup> and any dwelling over 3 bedrooms provides an additional 15m <sup>2</sup> for every additional bedroom
PO 31.2  The orientation and siting of buildings minimises impacts on the amenity, outlook and privacy of occupants and neighbours.	DTS/DPF 31.2  None are applicable.	
PO 31.3  Development maximises the number of dwellings that face public open space and public streets and limits dwellings oriented towards adjoining properties.	DTS/DPF 31.3  None are applicable.	
PO 31.4  Battle-axe development is appropriately sited and designed to respond to the existing neighbourhood context.	DTS/DPF 31.4  Dwelling sites/allotments are not in the form of a battle-axe arrangement.	
Communal Open Space		

PO 32.1 Private open space provision may be substituted for communal open space which is designed and sited to meet the recreation and amenity needs of residents.	DTS/DPF 32.1 None are applicable.
PO 32.2 Communal open space is of sufficient size and dimensions to cater for group recreation.	DTS/DPF 32.2 Communal open space incorporates a minimum dimension of 5 metres.
PO 32.3 Communal open space is designed and sited to:  (a) be conveniently accessed by the dwellings which it services (b) have regard to acoustic, safety, security and wind effects.	DTS/DPF 32.3 None are applicable.
PO 32.4 Communal open space contains landscaping and facilities that are functional, attractive and encourage recreational use.	DTS/DPF 32.4 None are applicable.
PO 32.5 Communal open space is designed and sited to:  (a) in relation to rooftop or elevated gardens, minimise overlooking into habitable room windows or onto the useable private open space of other dwellings (b) in relation to ground floor communal space, be overlooked by habitable rooms to facilitate passive surveillance.	DTS/DPF 32.5 None are applicable.
Car parking, access and manoeuvrability	
PO 33.1 Driveways and access points are designed and distributed to optimise the provision of on-street visitor parking.	DTS/DPF 33.1 Where on-street parking is available directly adjacent the site, on-street parking is retained adjacent the subject site in accordance with the following requirements:  (a) minimum 0.33 on-street car parks per proposed dwelling (rounded up to the nearest whole number) (b) minimum car park length of 5.4m where a vehicle can enter or exit a space directly (c) minimum carpark length of 6m for an intermediate space located between two other parking spaces or to an end obstruction where the parking is indented.
PO 33.2 The number of vehicular access points onto public roads is minimised to reduce interruption of the footpath and positively contribute to public safety and walkability.	DTS/DPF 33.2 Access to group dwellings or dwellings within a residential flat building is provided via a single common driveway.
PO 33.3 Residential driveways that service more than one dwelling are designed to allow safe and convenient movement.	DTS/DPF 33.3 Driveways that service more than 1 dwelling or a dwelling on a battle-axe site:  (a) have a minimum width of 3m (b) for driveways servicing more than 3 dwellings: (i) have a width of 5.5m or more and a length of

	(ii) 6m or more at the kerb of the primary street where the driveway length exceeds 30m, incorporate a passing point at least every 30 metres with a minimum width of 5.5m and a minimum length of 6m.
PO 33.4 Residential driveways that service more than one dwelling or a dwelling on a battle-axe site are designed to allow passenger vehicles to enter and exit and manoeuvre within the site in a safe and convenient manner.	DTS/DPF 33.4 Driveways providing access to more than one dwelling, or a dwelling on a battle-axe site, allow a B85 passenger vehicle to enter and exit the garages or parking spaces in no more than a three-point turn manoeuvre.
PO 33.5 Dwellings are adequately separated from common driveways and manoeuvring areas.	DTS/DPF 33.5 Dwelling walls with entry doors or ground level habitable room windows are set back at least 1.5m from any driveway or area designated for the movement and manoeuvring of vehicles.
Soft landscaping	
PO 34.1 Soft landscaping is provided between dwellings and common driveways to improve the outlook for occupants and appearance of common areas.	DTS/DPF 34.1 Other than where located directly in front of a garage or building entry, soft landscaping with a minimum dimension of 1m is provided between a dwelling and common driveway.
PO 34.2 Battle-axe or common driveways incorporate landscaping and permeability to improve appearance and assist in stormwater management.	DTS/DPF 34.2 Battle-axe or common driveways satisfy (a) and (b):  (a) are constructed of a minimum of 50% permeable or porous material (b) where the driveway is located directly adjacent the side or rear boundary of the site, soft landscaping with a minimum dimension of 1m is provided between the driveway and site boundary (excluding along the perimeter of a passing point).
Site Facilities / Waste Storage	
PO 35.1 Provision is made for suitable mailbox facilities close to the major pedestrian entry to the site or conveniently located considering the nature of accommodation and mobility of occupants.	DTS/DPF 35.1 None are applicable.
PO 35.2 Provision is made for suitable external clothes drying facilities.	DTS/DPF 35.2 None are applicable.
PO 35.3 Provision is made for suitable household waste and recyclable material storage facilities which are:  (a) located away, or screened, from public view, and (b) conveniently located in proximity to dwellings and the waste collection point.	DTS/DPF 35.3 None are applicable.
PO 35.4	DTS/DPF 35.4

Waste and recyclable material storage areas are located away from dwellings.	Dedicated waste and recyclable material storage areas are located at least 3m from any habitable room window.
PO 35.5  Where waste bins cannot be conveniently collected from the street, provision is made for on-site waste collection, designed to accommodate the safe and convenient access, egress and movement of waste collection vehicles.	DTS/DPF 35.5  None are applicable.
PO 35.6  Services including gas and water meters are conveniently located and screened from public view.	DTS/DPF 35.6  None are applicable.
Water sensitive urban design	
PO 36.1  Residential development creating a common driveway / access includes stormwater management systems that minimise the discharge of sediment, suspended solids, organic matter, nutrients, bacteria, litter and other contaminants to the stormwater system, watercourses or other water bodies.	DTS/DPF 36.1  None are applicable.
PO 36.2  Residential development creating a common driveway / access includes a stormwater management system designed to mitigate peak flows and manage the rate and duration of stormwater discharges from the site to ensure that the development does not increase the peak flows in downstream systems.	DTS/DPF 36.2  None are applicable.
Supported Accommodation and retirement facilities	
Siting, Configuration and Design	
PO 37.1  Supported accommodation and housing for aged persons and people with disabilities is located where on-site movement of residents is not unduly restricted by the slope of the land.	DTS/DPF 37.1  None are applicable.
PO 37.2  Universal design features are incorporated to provide options for people living with disabilities or limited mobility and / or to facilitate ageing in place.	DTS/DPF 37.2  None are applicable.
Movement and Access	
PO 38.1  Development is designed to support safe and convenient access and movement for residents by providing:  (a) ground-level access or lifted access to all units (b) level entry porches, ramps, paths, driveways, passenger loading areas and areas adjacent to footpaths that allow for the passing of wheelchairs and resting places (c) car parks with gradients no steeper than 1-in-40, and of sufficient area to provide for wheelchair manoeuvrability (d) kerb ramps at pedestrian crossing points.	DTS/DPF 38.1  None are applicable.

Communal Open Space	
<p>PO 39.1</p> <p>Development is designed to provide attractive, convenient and comfortable indoor and outdoor communal areas to be used by residents and visitors.</p>	<p>DTS/DPF 39.1</p> <p>None are applicable.</p>
<p>PO 39.2</p> <p>Private open space provision may be substituted for communal open space which is designed and sited to meet the recreation and amenity needs of residents.</p>	<p>DTS/DPF 39.2</p> <p>None are applicable.</p>
<p>PO 39.3</p> <p>Communal open space is of sufficient size and dimensions to cater for group recreation.</p>	<p>DTS/DPF 39.3</p> <p>Communal open space incorporates a minimum dimension of 5 metres.</p>
<p>PO 39.4</p> <p>Communal open space is designed and sited to:</p> <ul style="list-style-type: none"> <li>(a) be conveniently accessed by the dwellings which it services</li> <li>(b) have regard to acoustic, safety, security and wind effects.</li> </ul>	<p>DTS/DPF 39.4</p> <p>None are applicable.</p>
<p>PO 39.5</p> <p>Communal open space contains landscaping and facilities that are functional, attractive and encourage recreational use.</p>	<p>DTS/DPF 39.5</p> <p>None are applicable.</p>
<p>PO 39.6</p> <p>Communal open space is designed and sited to:</p> <ul style="list-style-type: none"> <li>(a) in relation to rooftop or elevated gardens, minimise overlooking into habitable room windows or onto the useable private open space of other dwellings</li> <li>(b) in relation to ground floor communal space, be overlooked by habitable rooms to facilitate passive surveillance.</li> </ul>	<p>DTS/DPF 39.6</p> <p>None are applicable.</p>
Site Facilities / Waste Storage	
<p>PO 40.1</p> <p>Development is designed to provide storage areas for personal items and specialised equipment such as small electric powered vehicles, including facilities for the recharging of small electric-powered vehicles.</p>	<p>DTS/DPF 40.1</p> <p>None are applicable.</p>
<p>PO 40.2</p> <p>Provision is made for suitable mailbox facilities close to the major pedestrian entry to the site or conveniently located considering the nature of accommodation and mobility of occupants.</p>	<p>DTS/DPF 40.2</p> <p>None are applicable.</p>
<p>PO 40.3</p> <p>Provision is made for suitable external clothes drying facilities.</p>	<p>DTS/DPF 40.3</p> <p>None are applicable.</p>

PO 40.4	DTS/DPF 40.4
Provision is made for suitable household waste and recyclable material storage facilities conveniently located away, or screened, from view.	None are applicable.
PO 40.5	DTS/DPF 40.5
Waste and recyclable material storage areas are located away from dwellings.	Dedicated waste and recyclable material storage areas are located at least 3m from any habitable room window.
PO 40.6	DTS/DPF 40.6
Provision is made for on-site waste collection where 10 or more bins are to be collected at any one time.	None are applicable.
PO 40.7	DTS/DPF 40.7
Services, including gas and water meters, are conveniently located and screened from public view.	None are applicable.
Student Accommodation	
PO 41.1	DTS/DPF 41.1
Student accommodation is designed to provide safe, secure, attractive, convenient and comfortable living conditions for residents, including an internal layout and facilities that are designed to provide sufficient space and amenity for the requirements of student life and promote social interaction.	<p>Student accommodation provides:</p> <ul style="list-style-type: none"> <li>(a) a range of living options to meet a variety of accommodation needs, such as one-bedroom, two-bedroom and disability access units</li> <li>(b) common or shared facilities to enable a more efficient use of space, including: <ul style="list-style-type: none"> <li>(i) shared cooking, laundry and external drying facilities</li> <li>(ii) internal and external communal and private open space provided in accordance with Design in Urban Areas Table 1 - Private Open Space</li> <li>(iii) common storage facilities at the rate of 8m<sup>3</sup> for every 2 dwellings or students</li> <li>(iv) common on-site parking in accordance with Transport, Access and Parking Table 1 - General Off-Street Car Parking Requirements or Table 2 - Off-Street Car Parking Requirements in Designated Areas</li> <li>(v) bicycle parking at the rate of one space for every 2 students.</li> </ul> </li> </ul>
PO 41.2	DTS/DPF 41.2
Student accommodation is designed to provide easy adaptation of the building to accommodate an alternative use of the building in the event it is no longer required for student housing.	None are applicable.
All non-residential development	
Water Sensitive Design	
PO 42.1	DTS/DPF 42.1
Development likely to result in risk of export of sediment, suspended solids, organic matter, nutrients, oil and grease include stormwater management systems designed to minimise pollutants entering stormwater.	None are applicable.



PO 42.2	DTS/DPF 42.2
Water discharged from a development site is of a physical, chemical and biological condition equivalent to or better than its pre-developed state.	None are applicable.
PO 42.3	DTS/DPF 42.3
Development includes stormwater management systems to mitigate peak flows and manage the rate and duration of stormwater discharges from the site to ensure that development does not increase peak flows in downstream systems.	None are applicable.
Wash-down and Waste Loading and Unloading	
PO 43.1	DTS/DPF 43.1
<p>Areas for activities including loading and unloading, storage of waste refuse bins in commercial and industrial development or wash-down areas used for the cleaning of vehicles, plant or equipment are:</p> <ul style="list-style-type: none"> <li>(a) designed to contain all wastewater likely to pollute stormwater within a bunded and roofed area to exclude the entry of external surface stormwater run-off</li> <li>(b) paved with an impervious material to facilitate wastewater collection</li> <li>(c) of sufficient size to prevent 'splash-out' or 'over-spray' of wastewater from the wash-down area</li> <li>(d) are designed to drain wastewater to either: <ul style="list-style-type: none"> <li>(i) a treatment device such as a sediment trap and coalescing plate oil separator with subsequent disposal to a sewer, private or Community Wastewater Management Scheme or</li> <li>(ii) a holding tank and its subsequent removal off-site on a regular basis.</li> </ul> </li> </ul>	None are applicable.
Laneway Development	
Infrastructure and Access	
PO 44.1	DTS/DPF 44.1
<p>Development with a primary street comprising a laneway, alley, lane, right of way or similar minor thoroughfare only occurs where:</p> <ul style="list-style-type: none"> <li>(a) existing utility infrastructure and services are capable of accommodating the development</li> <li>(b) the primary street can support access by emergency and regular service vehicles (such as waste collection)</li> <li>(c) it does not require the provision or upgrading of infrastructure on public land (such as footpaths and stormwater management systems)</li> <li>(d) safety of pedestrians or vehicle movement is maintained</li> <li>(e) any necessary grade transition is accommodated within the site of the development to support an appropriate development intensity and orderly development of land fronting minor thoroughfares.</li> </ul>	Development with a primary street frontage that is not an alley, lane, right of way or similar public thoroughfare.

**Table 1 - Private Open Space**

Dwelling Type	Dwelling / Site Configuration	Minimum Rate
Dwelling (at ground level, other than a residential flat building that includes above ground dwellings)		<p>Total private open space area:</p> <p>(a) Site area &lt;301m<sup>2</sup>: 24m<sup>2</sup> located behind the building line.</p> <p>(b) Site area ≥ 301m<sup>2</sup>: 60m<sup>2</sup> located behind the building line.</p> <p>Minimum directly accessible from a living room: 16m<sup>2</sup> / with a minimum dimension 3m.</p>
Cabin or caravan (permanently fixed to the ground) in a residential park or caravan and tourist park		Total area: 16m <sup>2</sup> , which may be used as second car parking space, provided on each site intended for residential occupation.
Dwelling in a residential flat building or mixed use building which incorporate above ground level dwellings	Dwellings at ground level:	15m <sup>2</sup> / minimum dimension 3m
	Dwellings above ground level:	
	Studio (no separate bedroom)	4m <sup>2</sup> / minimum dimension 1.8m
	One bedroom dwelling	8m <sup>2</sup> / minimum dimension 2.1m
	Two bedroom dwelling	11m <sup>2</sup> / minimum dimension 2.4m
	Three + bedroom dwelling	15 m <sup>2</sup> / minimum dimension 2.6m

## Forestry

### Assessment Provisions (AP)

Desired Outcome	
DO 1	Commercial forestry is designed and sited to maximise economic benefits whilst managing potential negative impacts on the environment, transport networks, surrounding land uses and landscapes.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance
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Feature	
Siting	
PO 1.1 Commercial forestry plantations are established where there is no detrimental effect on the physical environment or scenic quality of the rural landscape.	DTS/DPF 1.1 None are applicable.
PO 1.2 Commercial forestry plantations are established on slopes that are stable to minimise the risk of soil erosion.	DTS/DPF 1.2 Commercial forestry plantations are not located on land with a slope exceeding 20% (1-in-5).
PO 1.3 Commercial forestry plantations and operations associated with their establishment, management and harvesting are appropriately set back from any sensitive receiver to minimise fire risk and noise disturbance.	DTS/DPF 1.3 Commercial forestry plantations and operations associated with their establishment, management and harvesting are set back 50m or more from any sensitive receiver.
PO 1.4 Commercial forestry plantations are separated from reserves gazetted under the <i>National Parks and Wildlife Act 1972</i> and/or <i>Wilderness Protection Act 1992</i> to minimise fire risk and potential for weed infestation.	DTS/DPF 1.4 Commercial forestry plantations and operations associated with their establishment, management and harvesting are set back 50m or more from a reserve gazetted under the <i>National Parks and Wildlife Act 1972</i> and/or <i>Wilderness Protection Act 1992</i> .
Water Protection	
PO 2.1 Commercial forestry plantations incorporate artificial drainage lines (i.e. culverts, runoffs and constructed drains) integrated with natural drainage lines to minimise concentrated water flows onto or from plantation areas.	DTS/DPF 2.1 None are applicable.
PO 2.2 Appropriate siting, layout and design measures are adopted to minimise the impact of commercial forestry plantations on surface water resources.	DTS/DPF 2.2 Commercial forestry plantations: <ul style="list-style-type: none"> <li>(a) do not involve cultivation (excluding spot cultivation) in drainage lines</li> <li>(b) are set back 20m or more from the banks of any major watercourse (a third order or higher watercourse), lake, reservoir, wetland or sinkhole (with direct connection to an aquifer)</li> <li>(c) are set back 10m or more from the banks of any first or second order watercourse or sinkhole ( with no direct connection to an aquifer).</li> </ul>
Fire Management	
PO 3.1 Commercial forestry plantations incorporate appropriate firebreaks and fire management design elements.	DTS/DPF 3.1 Commercial forestry plantations provide: <ul style="list-style-type: none"> <li>(a) 7m or more wide external boundary firebreaks for plantations of 40ha or less</li> <li>(b) 10m or more wide external boundary firebreaks for plantations of between 40ha and 100ha</li> <li>(c) 20m or more wide external boundary firebreaks, or 10m with an additional 10m or more of fuel-reduced</li> </ul>

	plantation, for plantations of 100ha or greater.																					
<p>PO 3.2</p> <p>Commercial forestry plantations incorporate appropriate fire management access tracks.</p>	<p>DTS/DPF 3.2</p> <p>Commercial forestry plantation fire management access tracks:</p> <ul style="list-style-type: none"><li>(a) are incorporated within all firebreaks</li><li>(b) are 7m or more wide with a vertical clearance of 4m or more</li><li>(c) are aligned to provide straight through access at junctions, or if they are a no through access track are appropriately signposted and provide suitable turnaround areas for fire-fighting vehicles</li><li>(d) partition the plantation into units of 40ha or less in area.</li></ul>																					
Power-line Clearances																						
<p>PO 4.1</p> <p>Commercial forestry plantations achieve and maintain appropriate clearances from aboveground powerlines.</p>	<p>DTS/DPF 4.1</p> <p>Commercial forestry plantations incorporating trees with an expected mature height of greater than 6m meet the clearance requirements listed in the following table:</p> <table><tr><td>Voltage of transmission line</td><td>Tower or Pole</td><td>Minimum horizontal clearance distance between plantings and transmission lines</td></tr><tr><td>500 kV</td><td>Tower</td><td>38m</td></tr><tr><td>275 kV</td><td>Tower</td><td>25m</td></tr><tr><td>132 kV</td><td>Tower</td><td>30m</td></tr><tr><td>132 kV</td><td>Pole</td><td>20m</td></tr><tr><td>66 kV</td><td>Pole</td><td>20m</td></tr><tr><td>Less than 66 kV</td><td>Pole</td><td>20m</td></tr></table>	Voltage of transmission line	Tower or Pole	Minimum horizontal clearance distance between plantings and transmission lines	500 kV	Tower	38m	275 kV	Tower	25m	132 kV	Tower	30m	132 kV	Pole	20m	66 kV	Pole	20m	Less than 66 kV	Pole	20m
Voltage of transmission line	Tower or Pole	Minimum horizontal clearance distance between plantings and transmission lines																				
500 kV	Tower	38m																				
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132 kV	Tower	30m																				
132 kV	Pole	20m																				
66 kV	Pole	20m																				
Less than 66 kV	Pole	20m																				

## Housing Renewal

### Assessment Provisions (AP)

Desired Outcome	
DO 1	Renewed residential environments replace older social housing and provide new social housing infrastructure and other housing options and tenures to enhance the residential amenity of the local area.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Land Use and Intensity	
PO 1.1 Residential development provides a range of housing choices.	DTS/DPF 1.1 Development comprises one or more of the following:  (a) detached dwellings (b) semi-detached dwellings (c) row dwellings (d) group dwellings (e) residential flat buildings.
PO 1.2 Medium-density housing options or higher are located in close proximity to public transit, open space and/or activity centres.	DTS/DPF 1.2 None are applicable.
Building Height	
PO 2.1 Buildings generally do not exceed 3 building levels unless in locations close to public transport, centres and/or open space.	DTS/DPF 2.1 Building height (excluding garages, carports and outbuildings) does not exceed 3 building levels and 12m and wall height does not exceed 9m (not including a gable end).
PO 2.2 Medium or high rise residential flat buildings located within or at the interface with zones which restrict heights to a maximum of 2 building levels transition down in scale and height towards the boundary of that zone, other than where it is a street boundary.	DTS/DPF 2.2 None are applicable.
Primary Street Setback	
PO 3.1 Buildings are set back from the primary street boundary to contribute to an attractive streetscape character.	DTS/DPF 3.1 Buildings are no closer to the primary street (excluding any balcony, verandah, porch, awning or similar structure) than 3m.
Secondary Street Setback	
PO 4.1 Buildings are set back from secondary street boundaries to maintain separation between building walls and public streets and contribute to a suburban streetscape character.	DTS/DPF 4.1 Buildings are set back at least 900mm from the boundary of the allotment with a secondary street frontage.
Boundary Walls	
PO 5.1 Boundary walls are limited in height and length to manage visual impacts and access to natural light and ventilation.	DTS/DPF 5.1 Except where the dwelling is located on a central site within a row dwelling or terrace arrangement, dwellings with side boundary walls are sited on only one side boundary and satisfy (a) or (b):

	<ul style="list-style-type: none"> <li>(a) adjoin or abut a boundary wall of a building on adjoining land for the same length and height</li> <li>(b) do not: <ul style="list-style-type: none"> <li>(i) exceed 3.2m in height from the lower of the natural or finished ground level</li> <li>(ii) exceed 11.5m in length</li> <li>(iii) when combined with other walls on the boundary of the subject development site, a maximum 45% of the length of the boundary</li> <li>(iv) encroach within 3 metres of any other existing or proposed boundary walls on the subject land.</li> </ul> </li> </ul>
<p>PO 5.2</p> <p>Dwellings in a semi-detached, row or terrace arrangement maintain space between buildings consistent with a suburban streetscape character.</p>	<p>DTS/DPF 5.2</p> <p>Dwellings in a semi-detached or row arrangement are set back 900mm or more from side boundaries shared with allotments outside the development site, except for a carport or garage.</p>
Side Boundary Setback	
<p>PO 6.1</p> <p>Buildings are set back from side boundaries to provide:</p> <ul style="list-style-type: none"> <li>(a) separation between dwellings in a way that contributes to a suburban character</li> <li>(b) access to natural light and ventilation for neighbours.</li> </ul>	<p>DTS/DPF 6.1</p> <p>Other than walls located on a side boundary, buildings are set back from side boundaries:</p> <ul style="list-style-type: none"> <li>(a) at least 900mm where the wall height is up to 3m</li> <li>(b) other than for a wall facing a southern side boundary, at least 900mm plus 1/3 of the wall height above 3m</li> <li>(c) at least 1.9m plus 1/3 of the wall height above 3m for walls facing a southern side boundary.</li> </ul>
Rear Boundary Setback	
<p>PO 7.1</p> <p>Buildings are set back from rear boundaries to provide:</p> <ul style="list-style-type: none"> <li>(a) separation between dwellings in a way that contributes to a suburban character</li> <li>(b) access to natural light and ventilation for neighbours</li> <li>(c) private open space</li> <li>(d) space for landscaping and vegetation.</li> </ul>	<p>DTS/DPF 7.1</p> <p>Dwellings are set back from the rear boundary:</p> <ul style="list-style-type: none"> <li>(a) 3m or more for the first building level</li> <li>(b) 5m or more for any subsequent building level.</li> </ul>
Buildings elevation design	
<p>PO 8.1</p> <p>Dwelling elevations facing public streets and common driveways make a positive contribution to the streetscape and common driveway areas.</p>	<p>DTS/DPF 8.1</p> <p>Each dwelling includes at least 3 of the following design features within the building elevation facing a primary street, and at least 2 of the following design features within the building elevation facing any other public road (other than a laneway) or a common driveway:</p> <ul style="list-style-type: none"> <li>(a) a minimum of 30% of the building elevation is set back an additional 300mm from the building line</li> <li>(b) a porch or portico projects at least 1m from the building elevation</li> <li>(c) a balcony projects from the building elevation</li> <li>(d) a verandah projects at least 1m from the building elevation</li> <li>(e) eaves of a minimum 400mm width extend along the</li> </ul>



	<div>width of the front elevation</div> <div>(f)<div>a minimum 30% of the width of the upper level projects forward from the lower level primary building line by at least 300mm.</div></div> <div>(g)<div>a minimum of two different materials or finishes are incorporated on the walls of the building elevation, with a maximum of 80% of the building elevation in a single material or finish.</div></div>						
<div>PO 8.2</div> <div>Dwellings incorporate windows along primary street frontages to encourage passive surveillance and make a positive contribution to the streetscape.</div>	<div>DTS/DPF 8.2</div> <div>Each dwelling with a frontage to a public street:</div> <div>(a)<div>includes at least one window facing the primary street from a habitable room that has a minimum internal room dimension of 2.4m</div></div> <div>(b)<div>has an aggregate window area of at least 2m<sup>2</sup> facing the primary street</div></div>						
<div>PO 8.3</div> <div>The visual mass of larger buildings is reduced when viewed from adjoining allotments or public streets.</div>	<div>DTS/DPF 8.3</div> <div>None are applicable.</div>						
<div>PO 8.4</div> <div>Built form considers local context and provides a quality design response through scale, massing, materials, colours and architectural expression.</div>	<div>DTS/DPF 8.4</div> <div>None are applicable.</div>						
<div>PO 8.5</div> <div>Entrances to multi-storey buildings are:</div> <div>(a)<div>oriented towards the street</div></div> <div>(b)<div>visible and easily identifiable from the street</div></div> <div>(c)<div>designed to include a common mail box structure.</div></div>	<div>DTS/DPF 8.5</div> <div>None are applicable.</div>						
Outlook and amenity							
<div>PO 9.1</div> <div>Living rooms have an external outlook to provide a high standard of amenity for occupants.</div>	<div>DTS/DPF 9.1</div> <div>A living room of a dwelling incorporates a window with an external outlook towards the street frontage or private open space.</div>						
<div>PO 9.2</div> <div>Bedrooms are separated or shielded from active communal recreation areas, common access areas and vehicle parking areas and access ways to mitigate noise and artificial light intrusion.</div>	<div>DTS/DPF 9.2</div> <div>None are applicable.</div>						
Private Open Space							
<div>PO 10.1</div> <div>Dwellings are provided with suitable sized areas of usable private open space to meet the needs of occupants.</div>	<div>DTS/DPF 10.1</div> <div>Private open space is provided in accordance with the following table:</div> <table><tr><th>Dwelling Type</th><th>Dwelling / Site Configuration</th><th>Minimum Rate</th></tr><tr><td></td><td></td><td></td></tr></table>	Dwelling Type	Dwelling / Site Configuration	Minimum Rate			
Dwelling Type	Dwelling / Site Configuration	Minimum Rate					

	Dwelling (at ground level)		Total area: 24m <sup>2</sup> located behind the building line  Minimum adjacent to a living room: 16m <sup>2</sup> with a minimum dimension 3m
	Dwelling (above ground level)	Studio	4m <sup>2</sup> / minimum dimension 1.8m
		One bedroom dwelling	8m <sup>2</sup> / minimum dimension 2.1m
		Two bedroom dwelling	11m <sup>2</sup> / minimum dimension 2.4m
		Three + bedroom dwelling	15 m <sup>2</sup> / minimum dimension 2.6m
PO 10.2  Private open space positioned to provide convenient access from internal living areas.	DTS/DPF 10.2  At least 50% of the required area of private open space is accessible from a habitable room.		
PO 10.3  Private open space is positioned and designed to:  (a) provide useable outdoor space that suits the needs of occupants; (b) take advantage of desirable orientation and vistas; and (c) adequately define public and private space.	DTS/DPF 10.3  None are applicable.		
Visual privacy			
PO 11.1  Development mitigates direct overlooking from upper level windows to habitable rooms and private open spaces of adjoining residential uses.	DTS/DPF 11.1  Upper level windows facing side or rear boundaries shared with another residential allotment/site satisfy one of the following:  (a) are permanently obscured to a height of 1.5m above finished floor level and are fixed or not capable of being opened more than 200mm (b) have sill heights greater than or equal to 1.5m above finished floor level (c) incorporate screening with a maximum of 25% openings, permanently fixed no more than 500mm from the window surface and sited adjacent to any part of the window less than 1.5m above the finished floor.		
PO 11.2  Development mitigates direct overlooking from upper level balconies and terraces to habitable rooms and private open space of adjoining residential uses.	DTS/DPF 11.2  One of the following is satisfied:  (a) the longest side of the balcony or terrace will face a public road, public road reserve or public reserve that is		

	<p>at least 15m wide in all places faced by the balcony or terrace</p> <p>or</p> <p>(b) all sides of balconies or terraces on upper building levels are permanently obscured by screening with a maximum 25% transparency/openings fixed to a minimum height of:</p> <p>(i) 1.5m above finished floor level where the balcony is located at least 15 metres from the nearest habitable window of a dwelling on adjacent land</p> <p>or</p> <p>(ii) 1.7m above finished floor level in all other cases</p>										
Landscaping											
<p>PO 12.1</p> <p>Soft landscaping is incorporated into development to:</p> <p>(a) minimise heat absorption and reflection</p> <p>(b) maximise shade and shelter</p> <p>(c) maximise stormwater infiltration and biodiversity</p> <p>(d) enhance the appearance of land and streetscapes.</p>	<p>DTS/DPF 12.1</p> <p>Residential development incorporates pervious areas for soft landscaping with a minimum dimension of 700mm provided in accordance with (a) and (b):</p> <p>(a) a total area as determined by the following table:</p> <table border="1"> <tr> <th>Dwelling site area (or in the case of residential flat building or group dwelling(s), average site area) (m<sup>2</sup>)</th><th>Minimum percentage of site</th></tr> <tr> <td>&lt;150</td><td>10%</td></tr> <tr> <td>&lt;200</td><td>15%</td></tr> <tr> <td>200-450</td><td>20%</td></tr> <tr> <td>&gt;450</td><td>25%</td></tr> </table> <p>(b) at least 30% of land between the road boundary and the building line.</p>	Dwelling site area (or in the case of residential flat building or group dwelling(s), average site area) (m <sup>2</sup> )	Minimum percentage of site	<150	10%	<200	15%	200-450	20%	>450	25%
Dwelling site area (or in the case of residential flat building or group dwelling(s), average site area) (m <sup>2</sup> )	Minimum percentage of site										
<150	10%										
<200	15%										
200-450	20%										
>450	25%										
Water Sensitive Design											
<p>PO 13.1</p> <p>Residential development is designed to capture and use stormwater to:</p> <p>(a) maximise efficient use of water resources</p> <p>(b) manage peak stormwater runoff flows and volume to ensure the carrying capacities of downstream systems are not overloaded</p> <p>(c) manage runoff quality to maintain, as close as practical, pre-development conditions.</p>	<p>DTS/DPF 13.1</p> <p>None are applicable.</p>										
Car Parking											
<p>PO 14.1</p> <p>On-site car parking is provided to meet the anticipated demand of residents, with less on-site parking in areas in close proximity to public transport.</p>	<p>DTS/DPF 14.1</p> <p>On-site car parking is provided at the following rates per dwelling:</p> <p>(a) 2 or fewer bedrooms - 1 car parking space</p> <p>(b) 3 or more bedrooms - 2 car parking spaces.</p>										
<p>PO 14.2</p>	<p>DTS/DPF 14.2</p>										

Enclosed car parking spaces are of dimensions to be functional, accessible and convenient.	<p>Residential parking spaces enclosed by fencing, walls or other obstructions with the following internal dimensions (separate from any waste storage area):</p> <p>(a) single parking spaces:</p> <ul style="list-style-type: none"> <li>(i) a minimum length of 5.4m</li> <li>(ii) a minimum width of 3.0m</li> <li>(iii) a minimum garage door width of 2.4m</li> </ul> <p>(b) double parking spaces (side by side):</p> <ul style="list-style-type: none"> <li>(i) a minimum length of 5.4m</li> <li>(ii) a minimum width of 5.5m</li> <li>(iii) minimum garage door width of 2.4m per space.</li> </ul>
<p>PO 14.3</p> <p>Uncovered car parking spaces are of dimensions to be functional, accessible and convenient.</p>	<p>DTS/DPF 14.3</p> <p>Uncovered car parking spaces have:</p> <ul style="list-style-type: none"> <li>(a) a minimum length of 5.4m</li> <li>(b) a minimum width of 2.4m</li> <li>(c) a minimum width between the centre line of the space and any fence, wall or other obstruction of 1.5m.</li> </ul>
<p>PO 14.4</p> <p>Residential flat buildings and group dwelling developments provide sufficient on-site visitor car parking to cater for anticipated demand.</p>	<p>DTS/DPF 14.4</p> <p>Visitor car parking for group and residential flat buildings incorporating 4 or more dwellings is provided on-site at a minimum ratio of 0.25 car parking spaces per dwelling.</p>
<p>PO 14.5</p> <p>Residential flat buildings provide dedicated areas for bicycle parking.</p>	<p>DTS/DPF 14.5</p> <p>Residential flat buildings provide one bicycle parking space per dwelling.</p>
Overshadowing	
<p>PO 15.1</p> <p>Development minimises overshadowing of the private open spaces of adjoining land by ensuring that ground level open space associated with residential buildings receive direct sunlight for a minimum of 2 hours between 9am and 3pm on 21 June.</p>	<p>DTS/DPF 15.1</p> <p>None are applicable.</p>
Waste	
<p>PO 16.1</p> <p>Provision is made for the convenient storage of waste bins in a location screened from public view.</p>	<p>DTS/DPF 16.1</p> <p>A waste bin storage area is provided behind the primary building line that:</p> <ul style="list-style-type: none"> <li>(a) has a minimum area of 2m<sup>2</sup> with a minimum dimension of 900mm (separate from any designated car parking spaces or private open space).; and</li> <li>(b) has a continuous unobstructed path of travel (excluding moveable objects like gates, vehicles and roller doors) with a minimum width of 800mm between the waste bin storage area and the street.</li> </ul>
PO 16.2	DTS/DPF 16.2

<p>Residential flat buildings provide a dedicated area for the on-site storage of waste which is:</p> <ul style="list-style-type: none"> <li>(a) easily and safely accessible for residents and for collection vehicles</li> <li>(b) screened from adjoining land and public roads</li> <li>(c) of sufficient dimensions to be able to accommodate the waste storage needs of the development considering the intensity and nature of the development and the frequency of collection.</li> </ul>	<p>None are applicable.</p>
Vehicle Access	
<p>PO 17.1</p> <p>Driveways are located and designed to facilitate safe access and egress while maximising land available for street tree planting, landscaped street frontages and on-street parking.</p>	<p>DTS/DPF 17.1</p> <p>None are applicable.</p>
<p>PO 17.2</p> <p>Vehicle access is safe, convenient, minimises interruption to the operation of public roads and does not interfere with street infrastructure or street trees.</p>	<p>DTS/DPF 17.2</p> <p>Vehicle access to designated car parking spaces satisfy (a) or (b):</p> <ul style="list-style-type: none"> <li>(a) is provided via a lawfully existing or authorised access point or an access point for which consent has been granted as part of an application for the division of land</li> <li>(b) where newly proposed, is set back: <ul style="list-style-type: none"> <li>(i) 0.5m or more from any street furniture, street pole, infrastructure services pit, or other stormwater or utility infrastructure unless consent is provided from the asset owner</li> <li>(ii) 2m or more from the base of the trunk of a street tree unless consent is provided from the tree owner for a lesser distance</li> <li>(iii) 6m or more from the tangent point of an intersection of 2 or more roads</li> <li>(iv) outside of the marked lines or infrastructure dedicating a pedestrian crossing.</li> </ul> </li> </ul>
<p>PO 17.3</p> <p>Driveways are designed to enable safe and convenient vehicle movements from the public road to on-site parking spaces.</p>	<p>DTS/DPF 17.3</p> <p>Driveways are designed and sited so that:</p> <ul style="list-style-type: none"> <li>(a) the gradient from the place of access on the boundary of the allotment to the finished floor level at the front of the garage or carport is not more than 1-in-4 on average</li> <li>(b) they are aligned relative to the street so that there is no more than a 20 degree deviation from 90 degrees between the centreline of any dedicated car parking space to which it provides access (measured from the front of that space) and the road boundary.</li> <li>(c) if located so as to provide access from an alley, lane or right of way - the alley, lane or right of way is at least 6.2m wide along the boundary of the allotment / site.</li> </ul>
<p>PO 17.4</p> <p>Driveways and access points are designed and distributed to optimise the provision of on-street parking.</p>	<p>DTS/DPF 17.4</p> <p>Where on-street parking is available abutting the site's street frontage, on-street parking is retained in accordance with the following requirements:</p>

	<ol style="list-style-type: none"> <li>1. minimum 0.33 on-street spaces per dwelling on the site (rounded up to the nearest whole number)</li> <li>2. Minimum car park length of 5.4m where a vehicle can enter or exit a space directly</li> <li>3. minimum car park length of 6m for an intermediate space located between two other parking spaces.</li> </ol>
<p>PO 17.5</p> <p>Residential driveways that service more than one dwelling of a dimension to allow safe and convenient movement.</p>	<p>DTS/DPF 17.5</p> <p>Where on-street parking is available abutting the site's street frontage, on-street parking is retained in accordance with the following requirements:</p> <ol style="list-style-type: none"> <li>(a) minimum 0.33 on-street spaces per dwelling on the site (rounded up to the nearest whole number)</li> <li>(b) minimum car park length of 5.4m where a vehicle can enter or exit a space directly</li> <li>(c) minimum carpark length of 6m for an intermediate space located between two other parking spaces or to an end obstruction where the parking is indented.</li> </ol>
<p>PO 17.6</p> <p>Residential driveways that service more than one dwelling are designed to allow passenger vehicles to enter and exit the site and manoeuvre within the site in a safe and convenient manner.</p>	<p>DTS/DPF 17.6</p> <p>Driveways providing access to more than one dwelling, or a dwelling on a battle-axe site, allow a B85 passenger vehicle to enter and exit the garages or parking spaces in no more than a three-point turn manoeuvre</p>
<p>PO 17.7</p> <p>Dwellings are adequately separated from common driveways and manoeuvring areas.</p>	<p>DTS/DPF 17.7</p> <p>Dwelling walls with entry doors or ground level habitable room windows are set back at least 1.5m from any driveway or area designated for the movement and manoeuvring of vehicles.</p>
Storage	
<p>PO 18.1</p> <p>Dwellings are provided with sufficient and accessible space for storage to meet likely occupant needs.</p>	<p>DTS/DPF 18.1</p> <p>Dwellings are provided with storage at the following rates and 50% or more of the storage volume is provided within the dwelling:</p> <ol style="list-style-type: none"> <li>(a) studio: not less than 6m<sup>3</sup></li> <li>(b) 1 bedroom dwelling / apartment: not less than 8m<sup>3</sup></li> <li>(c) 2 bedroom dwelling / apartment: not less than 10m<sup>3</sup></li> <li>(d) 3+ bedroom dwelling / apartment: not less than 12m<sup>3</sup>.</li> </ol>
Earthworks	
<p>PO 19.1</p> <p>Development, including any associated driveways and access tracks, minimises the need for earthworks to limit disturbance to natural topography.</p>	<p>DTS/DPF 19.1</p> <p>The development does not involve:</p> <ol style="list-style-type: none"> <li>(a) excavation exceeding a vertical height of 1m or</li> <li>(b) filling exceeding a vertical height of 1m or</li> <li>(c) a total combined excavation and filling vertical height exceeding 2m.</li> </ol>
Service connections and infrastructure	
<p>PO 20.1</p>	<p>DTS/DPF 20.1</p>



Dwellings are provided with appropriate service connections and infrastructure.	<p>The site and building:</p> <ul style="list-style-type: none"> <li>(a) have the ability to be connected to a permanent potable water supply</li> <li>(b) have the ability to be connected to a sewerage system, or a wastewater system approved under the <i>South Australian Public Health Act 2011</i></li> <li>(c) have the ability to be connected to electricity supply</li> <li>(d) have the ability to be connected to an adequate water supply (and pressure) for fire-fighting purposes</li> <li>(e) would not be contrary to the Regulations prescribed for the purposes of Section 86 of the <i>Electricity Act 1996</i>.</li> </ul>
Site contamination	
<p>PO 21.1</p> <p>Land that is suitable for sensitive land uses to provide a safe environment.</p>	<p>DTS/DPF 21.1</p> <p>Development satisfies (a), (b), (c) or (d):</p> <ul style="list-style-type: none"> <li>(a) does not involve a change in the use of land</li> <li>(b) involves a change in the use of land that does not constitute a change to a <u>more sensitive use</u></li> <li>(c) involves a change in the use of land to a <u>more sensitive use</u> on land at which <u>site contamination</u> does not exist (as demonstrated in a <u>site contamination declaration form</u>)</li> <li>(d) involves a change in the use of land to a <u>more sensitive use</u> on land at which <u>site contamination</u> exists, or may exist (as demonstrated in a site contamination declaration form), and satisfies both of the following: <ul style="list-style-type: none"> <li>(i) a <u>site contamination audit report</u> has been prepared under Part 10A of the <i>Environment Protection Act 1993</i> in relation to the land within the previous 5 years which states that <ul style="list-style-type: none"> <li>A. <u>site contamination</u> does not exist (or no longer exists) at the land or</li> <li>B. the land is suitable for the proposed use or range of uses (without the need for any further <u>remediation</u>) or</li> <li>C. where <u>remediation</u> is, or remains, necessary for the proposed use (or range of uses), <u>remediation work</u> has been carried out or will be carried out (and the applicant has provided a written undertaking that the remediation works will be implemented in association with the development)</li> </ul> </li> <li>and</li> <li>(ii) no other <u>class 1 activity</u> or <u>class 2 activity</u> has taken place at the land since the preparation of the site contamination audit report (as demonstrated in a <u>site contamination declaration form</u>).</li> </ul> </li> </ul>

## Infrastructure and Renewable Energy Facilities

**Assessment Provisions (AP)**

<b>Desired Outcome</b>	
DO 1	Efficient provision of infrastructure networks and services, renewable energy facilities and ancillary development in a manner that minimises hazard, is environmentally and culturally sensitive and manages adverse visual impacts on natural and rural landscapes and residential amenity.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

<b>Performance Outcome</b>	<b>Deemed-to-Satisfy Criteria / Designated Performance Feature</b>
General	
PO 1.1 Development is located and designed to minimise hazard or nuisance to adjacent development and land uses.	DTS/DPF 1.1 None are applicable.
Visual Amenity	
PO 2.1 The visual impact of above-ground infrastructure networks and services (excluding high voltage transmission lines), renewable energy facilities (excluding wind farms), energy storage facilities and ancillary development is minimised from townships, scenic routes and public roads by:  (a) utilising features of the natural landscape to obscure views where practicable (b) siting development below ridgelines where practicable (c) avoiding visually sensitive and significant landscapes (d) using materials and finishes with low-reflectivity and colours that complement the surroundings (e) using existing vegetation to screen buildings (f) incorporating landscaping or landscaped mounding around the perimeter of a site and between adjacent allotments accommodating or zoned to primarily accommodate sensitive receivers.	DTS/DPF 2.1 None are applicable.
PO 2.2 Pumping stations, battery storage facilities, maintenance sheds and other ancillary structures incorporate vegetation buffers to reduce adverse visual impacts on adjacent land.	DTS/DPF 2.2 None are applicable.

PO 2.3	DTS/DPF 2.3
Surfaces exposed by earthworks associated with the installation of storage facilities, pipework, penstock, substations and other ancillary plant are reinstated and revegetated to reduce adverse visual impacts on adjacent land.	None are applicable.
Rehabilitation	
PO 3.1	DTS/DPF 3.1
Progressive rehabilitation (incorporating revegetation) of disturbed areas, ahead of or upon decommissioning of areas used for renewable energy facilities and transmission corridors.	None are applicable.
Hazard Management	
PO 4.1	DTS/DPF 4.1
Infrastructure and renewable energy facilities and ancillary development located and operated to not adversely impact maritime or air transport safety, including the operation of ports, airfields and landing strips.	None are applicable.
PO 4.2	DTS/DPF 4.2
Facilities for energy generation, power storage and transmission are separated as far as practicable from dwellings, tourist accommodation and frequently visited public places (such as viewing platforms / lookouts) to reduce risks to public safety from fire or equipment malfunction.	None are applicable.
PO 4.3	DTS/DPF 4.3
Bushfire hazard risk is minimised for renewable energy facilities by providing appropriate access tracks, safety equipment and water tanks and establishing cleared areas around substations, battery storage and operations compounds.	None are applicable.
Electricity Infrastructure and Battery Storage Facilities	
PO 5.1	DTS/DPF 5.1
Electricity infrastructure is located to minimise visual impacts through techniques including: <ul style="list-style-type: none"> <li>(a) siting utilities and services: <ul style="list-style-type: none"> <li>(i) on areas already cleared of native vegetation</li> <li>(ii) where there is minimal interference or disturbance to existing native vegetation or biodiversity</li> </ul> </li> <li>(b) grouping utility buildings and structures with non-residential development, where practicable.</li> </ul>	None are applicable.
PO 5.2	DTS/DPF 5.2

Electricity supply (excluding transmission lines) serving new development in urban areas and townships installed underground, excluding lines having a capacity exceeding or equal to 33kV.	None are applicable.
PO 5.3  Battery storage facilities are co-located with substation infrastructure where practicable to minimise the development footprint and reduce environmental impacts.	DTS/DPF 5.3  None are applicable.
Telecommunication Facilities	
PO 6.1  The proliferation of telecommunications facilities in the form of towers/monopoles in any one locality is managed, where technically feasible, by co-locating a facility with other communications facilities to mitigate impacts from clutter on visual amenity.	DTS/DPF 6.1  None are applicable.
PO 6.2  Telecommunications antennae are located as close as practicable to support structures to manage overall bulk and mitigate impacts on visual amenity.	DTS/DPF 6.2  None are applicable.
PO 6.3  Telecommunications facilities, particularly towers/monopoles, are located and sized to mitigate visual impacts by the following methods:  (a) where technically feasible, incorporating the facility within an existing structure that may serve another purpose  or all of the following:  (b) using existing buildings and landscape features to obscure or interrupt views of a facility from nearby public roads, residential areas and places of high public amenity to the extent practical without unduly hindering the effective provision of telecommunications services  (c) using materials and finishes that complement the environment  (d) screening using landscaping and vegetation, particularly for equipment shelters and huts.	DTS/DPF 6.3  None are applicable.
Renewable Energy Facilities	
PO 7.1  Renewable energy facilities are located as close as practicable to existing transmission infrastructure to facilitate connections and minimise environmental impacts as a result of extending transmission infrastructure.	DTS/DPF 7.1  None are applicable.

Renewable Energy Facilities (Wind Farm)	
PO 8.1  Visual impact of wind turbine generators on the amenity of residential and tourist development is reduced through appropriate separation.	DTS/DPF 8.1  Wind turbine generators are:  (a) set back at least 2000m from the base of a turbine to any of the following zones: <ul style="list-style-type: none"> <li>(i) Rural Settlement Zone</li> <li>(ii) Township Zone</li> <li>(iii) Rural Living Zone</li> <li>(iv) Rural Neighbourhood Zone</li> </ul> with an additional 10m setback per additional metre over 150m overall turbine height (measured from the base of the turbine). (b) set back at least 1500m from the base of the turbine to non-associated (non-stakeholder) dwellings and tourist accommodation
PO 8.2  The visual impact of wind turbine generators on natural landscapes is managed by:  (a) designing wind turbine generators to be uniform in colour, size and shape (b) coordinating blade rotation and direction (c) mounting wind turbine generators on tubular towers as opposed to lattice towers.	DTS/DPF 8.2  None are applicable.
PO 8.3  Wind turbine generators and ancillary development minimise potential for bird and bat strike.	DTS/DPF 8.3  None are applicable.
PO 8.4  Wind turbine generators incorporate recognition systems or physical markers to minimise the risk to aircraft operations.	DTS/DPF 8.4  No Commonwealth air safety (CASA / ASA) or Defence requirement is applicable.
PO 8.5  Meteorological masts and guidewires are identifiable to aircraft through the use of colour bands, marker balls, high visibility sleeves or flashing strobes.	DTS/DPF 8.5  None are applicable.
Renewable Energy Facilities (Solar Power)	
PO 9.1  Ground mounted solar power facilities generating 5MW or more are not located on land requiring the clearance of areas of intact native vegetation or on land of high environmental, scenic or cultural value.	DTS/DPF 9.1  None are applicable.
PO 9.2  Ground mounted solar power facilities allow for movement of wildlife by:  (a) incorporating wildlife corridors and habitat refuges	DTS/DPF 9.2  None are applicable.

(b)	avoiding the use of extensive security or perimeter fencing or incorporating fencing that enables the passage of small animals without unreasonably compromising the security of the facility.																																				
PO 9.3	Amenity impacts of solar power facilities are minimised through separation from conservation areas and sensitive receivers in other ownership.	<div>DTS/DPF 9.3</div> <div>Ground mounted solar power facilities are set back from land boundaries, conservation areas and relevant zones in accordance with the following criteria:</div> <table><tr><th>Generation Capacity</th><th>Approximate size of array</th><th>Setback from adjoining land boundary</th><th>Setback from conservation areas</th><th>Setback from Township, Rural Settlement, Rural Neighbourhood and Rural Living Zones<sup>1</sup></th></tr><tr><td>50MW&gt;</td><td>80ha+</td><td>30m</td><td>500m</td><td>2km</td></tr><tr><td>10MW&lt;50MW</td><td>16ha-&lt;80ha</td><td>25m</td><td>500m</td><td>1.5km</td></tr><tr><td>5MW&lt;10MW</td><td>8ha to &lt;16ha</td><td>20m</td><td>500m</td><td>1km</td></tr><tr><td>1MW&lt;5MW</td><td>1.6ha to &lt;8ha</td><td>15m</td><td>500m</td><td>500m</td></tr><tr><td>100kW&lt;1MW</td><td>0.5ha&lt;1.6ha</td><td>10m</td><td>500m</td><td>100m</td></tr><tr><td>&lt;100kW</td><td>&lt;0.5ha</td><td>5m</td><td>500m</td><td>25m</td></tr></table> <div>Notes:</div> <div>1. Does not apply when the site of the proposed ground mounted solar power facility is located within one of these zones.</div>	Generation Capacity	Approximate size of array	Setback from adjoining land boundary	Setback from conservation areas	Setback from Township, Rural Settlement, Rural Neighbourhood and Rural Living Zones <sup>1</sup>	50MW>	80ha+	30m	500m	2km	10MW<50MW	16ha-<80ha	25m	500m	1.5km	5MW<10MW	8ha to <16ha	20m	500m	1km	1MW<5MW	1.6ha to <8ha	15m	500m	500m	100kW<1MW	0.5ha<1.6ha	10m	500m	100m	<100kW	<0.5ha	5m	500m	25m
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PO 9.4	Ground mounted solar power facilities incorporate landscaping within setbacks from adjacent road frontages and boundaries of adjacent allotments accommodating non-host dwellings, where balanced with infrastructure access and bushfire safety considerations.	<div>DTS/DPF 9.4</div> <div>None are applicable.</div>																																			
Hydropower / Pumped Hydropower Facilities																																					
PO 10.1	Hydropower / pumped hydropower facility storage is designed and operated to minimise the risk of storage dam failure.	<div>DTS/DPF 10.1</div> <div>None are applicable.</div>																																			



PO 10.2	DTS/DPF 10.2
Hydropower / pumped hydropower facility storage is designed and operated to minimise water loss through increased evaporation or system leakage, with the incorporation of appropriate liners, dam covers, operational measures or detection systems.	None are applicable.
PO 10.3	DTS/DPF 10.3
Hydropower / pumped hydropower facilities on existing or former mine sites minimise environmental impacts from site contamination, including from mine operations or water sources subject to such processes, now or in the future.	None are applicable.
Water Supply	
PO 11.1	DTS/DPF 11.1
Development is connected to an appropriate water supply to meet the ongoing requirements of the intended use.	Development is connected, or will be connected, to a reticulated water scheme or mains water supply with the capacity to meet the on-going requirements of the development.
PO 11.2	DTS/DPF 11.2
Dwellings are connected to a reticulated water scheme or mains water supply with the capacity to meet the requirements of the intended use. Where this is not available an appropriate rainwater tank or storage system for domestic use is provided.	<p>A dwelling is connected, or will be connected, to a reticulated water scheme or mains water supply with the capacity to meet the requirements of the development. Where this is not available it is serviced by a rainwater tank or tanks capable of holding at least 50,000 litres of water which is:</p> <ul style="list-style-type: none"> <li>(a) exclusively for domestic use</li> <li>(b) connected to the roof drainage system of the dwelling.</li> </ul>
Wastewater Services	
PO 12.1	DTS/DPF 12.1
<p>Development is connected to an approved common wastewater disposal service with the capacity to meet the requirements of the intended use. Where this is not available an appropriate on-site service is provided to meet the ongoing requirements of the intended use in accordance with the following:</p> <ul style="list-style-type: none"> <li>(a) it is wholly located and contained within the allotment of the development it will service</li> <li>(b) in areas where there is a high risk of contamination of surface, ground, or marine water resources from on-site disposal of liquid wastes, disposal systems are included to minimise the risk of pollution to those water resources</li> <li>(c) septic tank effluent drainage fields and other wastewater disposal areas are located away from watercourses and flood prone, sloping, saline or poorly drained land to minimise environmental harm.</li> </ul>	<p>Development is connected, or will be connected, to an approved common wastewater disposal service with the capacity to meet the requirements of the development. Where this is not available it is instead capable of being serviced by an on-site waste water treatment system in accordance with the following:</p> <ul style="list-style-type: none"> <li>(a) the system is wholly located and contained within the allotment of development it will service; and</li> <li>(b) the system will comply with the requirements of the South Australian Public Health Act 2011.</li> </ul>
PO 12.2	DTS/DPF 12.2
Effluent drainage fields and other wastewater disposal areas are maintained to ensure the effective operation	Development is not built on, or encroaches within, an area that is, or will be, required for a sewerage system or waste control system.

of waste systems and minimise risks to human health and the environment.	
Temporary Facilities	
PO 13.1  In rural and remote locations, development that is likely to generate significant waste material during construction, including packaging waste, makes provision for a temporary on-site waste storage enclosure to minimise the incidence of wind-blown litter.	DTS/DPF 13.1  A waste collection and disposal service is used to dispose of the volume of waste at the rate it is generated.
PO 13.2  Temporary facilities to support the establishment of renewable energy facilities (including borrow pits, concrete batching plants, laydown, storage, access roads and worker amenity areas) are sited and operated to minimise environmental impact.	DTS/DPF 13.2  None are applicable.

## Intensive Animal Husbandry and Dairies

### Assessment Provisions (AP)

Desired Outcome	
DO 1	Development of intensive animal husbandry and dairies in locations that are protected from encroachment by sensitive receivers and in a manner that minimises their adverse effects on amenity and the environment.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Siting and Design	
PO 1.1  Intensive animal husbandry, dairies and associated activities are sited, designed, constructed and managed to not unreasonably impact on the environment or amenity of the locality.	DTS/DPF 1.1  None are applicable.
PO 1.2  Intensive animal husbandry, dairies and associated activities are sited, designed, constructed and managed to prevent the potential transmission of disease to other operations where animals are kept.	DTS/DPF 1.2  None are applicable.

PO 1.3 Intensive animal husbandry and associated activities such as wastewater lagoons and liquid/solid waste disposal areas are sited, designed, constructed and managed to not unreasonably impact on sensitive receivers in other ownership in terms of noise and air emissions.	DTS/DPF 1.3 None are applicable.
PO 1.4 Dairies and associated activities such as wastewater lagoons and liquid/solid waste disposal areas are sited, designed, constructed and managed to not unreasonably impact on sensitive receivers in other ownership in terms of noise and air emissions.	DTS/DPF 1.4 Dairies, associated wastewater lagoon(s) and liquid/solid waste storage and disposal facilities are located 500m or more from the nearest sensitive receiver in other ownership.
PO 1.5 Lagoons for the storage or treatment of milking shed effluent is adequately separated from roads to minimise impacts from odour on the general public.	DTS/DPF 1.5 Lagoons for the storage or treatment of milking shed effluent are set back 20m or more from public roads.
Waste	
PO 2.1 Storage of manure, used litter and other wastes (other than waste water lagoons) is sited, designed, constructed and managed to:  (a) avoid attracting and harbouring vermin (b) avoid polluting water resources (c) be located outside 1% AEP flood event areas.	DTS/DPF 2.1 None are applicable.
Soil and Water Protection	
PO 3.1 To avoid environmental harm and adverse effects on water resources, intensive animal husbandry operations are appropriately set back from:  (a) public water supply reservoirs (b) major watercourses (third order or higher stream) (c) any other watercourse, bore or well used for domestic or stock water supplies.	DTS/DPF 3.1 Intensive animal husbandry operations are set back:  (a) 800m or more from a public water supply reservoir (b) 200m or more from a major watercourse (third order or higher stream) (c) 100m or more from any other watercourse, bore or well used for domestic or stock water supplies.
PO 3.2 Intensive animal husbandry operations and dairies incorporate appropriately designed effluent and run-off facilities that:  (a) have sufficient capacity to hold effluent and runoff from the operations on site (b) ensure effluent does not infiltrate and pollute groundwater, soil or other water resources.	DTS/DPF 3.2 None are applicable.

## Interface between Land Uses

### Assessment Provisions (AP)

## Desired Outcome

DO 1	Development is located and designed to mitigate adverse effects on or from neighbouring and proximate land uses.
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Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature								
General Land Use Compatibility									
PO 1.1  Sensitive receivers are designed and sited to protect residents and occupants from adverse impacts generated by lawfully existing land uses (or lawfully approved land uses) and land uses desired in the zone.	DTS/DPF 1.1  None are applicable.								
PO 1.2  Development adjacent to a site containing a sensitive receiver (or lawfully approved sensitive receiver) or zone primarily intended to accommodate sensitive receivers is designed to minimise adverse impacts.	DTS/DPF 1.2  None are applicable.								
Hours of Operation									
PO 2.1  Non-residential development does not unreasonably impact the amenity of sensitive receivers (or lawfully approved sensitive receivers) or an adjacent zone primarily for sensitive receivers through its hours of operation having regard to: <ul style="list-style-type: none"> <li>(a) the nature of the development</li> <li>(b) measures to mitigate off-site impacts</li> <li>(c) the extent to which the development is desired in the zone</li> <li>(d) measures that might be taken in an adjacent zone primarily for sensitive receivers that mitigate adverse impacts without unreasonably compromising the intended use of that land.</li> </ul>	DTS/DPF 2.1  Development operating within the following hours: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Class of Development</th><th style="text-align: center;">Hours of operation</th></tr> </thead> <tbody> <tr> <td>Consulting room</td><td>7am to 9pm, Monday to Friday 8am to 5pm, Saturday</td></tr> <tr> <td>Office</td><td>7am to 9pm, Monday to Friday 8am to 5pm, Saturday</td></tr> <tr> <td>               Shop, other than any one or combination of the following:               <ul style="list-style-type: none"> <li>(a) restaurant</li> <li>(b) cellar door in the Productive Rural Landscape Zone, Rural</li> </ul> </td><td>7am to 9pm, Monday to Friday 8am to 5pm, Saturday and Sunday</td></tr> </tbody> </table>	Class of Development	Hours of operation	Consulting room	7am to 9pm, Monday to Friday 8am to 5pm, Saturday	Office	7am to 9pm, Monday to Friday 8am to 5pm, Saturday	Shop, other than any one or combination of the following: <ul style="list-style-type: none"> <li>(a) restaurant</li> <li>(b) cellar door in the Productive Rural Landscape Zone, Rural</li> </ul>	7am to 9pm, Monday to Friday 8am to 5pm, Saturday and Sunday
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	Zone or Rural Horticulture Zone	
Overshadowing		
PO 3.1  Overshadowing of habitable room windows of adjacent residential land uses in:  a. a neighbourhood-type zone is minimised to maintain access to direct winter sunlight b. other zones is managed to enable access to direct winter sunlight.	DTS/DPF 3.1  North-facing windows of habitable rooms of adjacent residential land uses in a neighbourhood-type zone receive at least 3 hours of direct sunlight between 9.00am and 3.00pm on 21 June.	
PO 3.2  Overshadowing of the primary area of private open space or communal open space of adjacent residential land uses in:  a. a neighbourhood type zone is minimised to maintain access to direct winter sunlight b. other zones is managed to enable access to direct winter sunlight.	DTS/DPF 3.2  Development maintains 2 hours of direct sunlight between 9.00 am and 3.00 pm on 21 June to adjacent residential land uses in a neighbourhood-type zone in accordance with the following:  a. for ground level private open space, the smaller of the following: i. half the existing ground level open space or ii. 35m2 of the existing ground level open space (with at least one of the area's dimensions measuring 2.5m) b. for ground level communal open space, at least half of the existing ground level open space.	
PO 3.3  Development does not unduly reduce the generating capacity of adjacent rooftop solar energy facilities taking into account:  (a) the form of development contemplated in the zone (b) the orientation of the solar energy facilities (c) the extent to which the solar energy facilities are already overshadowed.	DTS/DPF 3.3  None are applicable.	
PO 3.4  Development that incorporates moving parts, including windmills and wind farms, are located and operated to not cause unreasonable nuisance to nearby dwellings and tourist accommodation caused by shadow flicker.	DTS/DPF 3.4  None are applicable.	
Activities Generating Noise or Vibration		
PO 4.1  Development that emits noise (other than music) does not unreasonably impact the amenity of sensitive receivers (or lawfully approved sensitive receivers).	DTS/DPF 4.1  Noise that affects sensitive receivers achieves the relevant Environment Protection (Noise) Policy criteria.	
PO 4.2  Areas for the on-site manoeuvring of service and delivery vehicles, plant and equipment, outdoor work spaces (and the like) are designed and sited to not unreasonably impact the	DTS/DPF 4.2  None are applicable.	

<p>amenity of adjacent sensitive receivers (or lawfully approved sensitive receivers) and zones primarily intended to accommodate sensitive receivers due to noise and vibration by adopting techniques including:</p> <ul style="list-style-type: none"> <li>(a) locating openings of buildings and associated services away from the interface with the adjacent sensitive receivers and zones primarily intended to accommodate sensitive receivers</li> <li>(b) when sited outdoors, locating such areas as far as practicable from adjacent sensitive receivers and zones primarily intended to accommodate sensitive receivers</li> <li>(c) housing plant and equipment within an enclosed structure or acoustic enclosure</li> <li>(d) providing a suitable acoustic barrier between the plant and / or equipment and the adjacent sensitive receiver boundary or zone.</li> </ul>					
<p>PO 4.3</p> <p>Fixed plant and equipment in the form of pumps and/or filtration systems for a swimming pool or spa are positioned and/or housed to not cause unreasonable noise nuisance to adjacent sensitive receivers (or lawfully approved sensitive receivers).</p>	<p>DTS/DPF 4.3</p> <p>The pump and/or filtration system ancillary to a dwelling erected on the same site is:</p> <ul style="list-style-type: none"> <li>(a) enclosed in a solid acoustic structure located at least 5m from the nearest habitable room located on an adjoining allotment or</li> <li>(b) located at least 12m from the nearest habitable room located on an adjoining allotment.</li> </ul>				
<p>PO 4.4</p> <p>External noise into bedrooms is minimised by separating or shielding these rooms from service equipment areas and fixed noise sources located on the same or an adjoining allotment.</p>	<p>DTS/DPF 4.4</p> <p>Adjacent land is used for residential purposes.</p>				
<p>PO 4.5</p> <p>Outdoor areas associated with licensed premises (such as beer gardens or dining areas) are designed and/or sited to not cause unreasonable noise impact on existing adjacent sensitive receivers (or lawfully approved sensitive receivers).</p>	<p>DTS/DPF 4.5</p> <p>None are applicable.</p>				
<p>PO 4.6</p> <p>Development incorporating music achieves suitable acoustic amenity when measured at the boundary of an adjacent sensitive receiver (or lawfully approved sensitive receiver) or zone primarily intended to accommodate sensitive receivers.</p>	<p>DTS/DPF 4.6</p> <p>Development incorporating music includes noise attenuation measures that will achieve the following noise levels:</p> <table border="1"> <thead> <tr> <th>Assessment location</th><th>Music noise level</th></tr> </thead> <tbody> <tr> <td>Externally at the nearest existing or envisaged noise sensitive location</td><td>Less than 8dB above the level of background noise (<math>L_{90,15min}</math>) in any octave band of the sound spectrum (<math>LOCT_{10,15} &lt; LOCT_{90,15} + 8dB</math>)</td></tr> </tbody> </table>	Assessment location	Music noise level	Externally at the nearest existing or envisaged noise sensitive location	Less than 8dB above the level of background noise ( $L_{90,15min}$ ) in any octave band of the sound spectrum ( $LOCT_{10,15} < LOCT_{90,15} + 8dB$ )
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Externally at the nearest existing or envisaged noise sensitive location	Less than 8dB above the level of background noise ( $L_{90,15min}$ ) in any octave band of the sound spectrum ( $LOCT_{10,15} < LOCT_{90,15} + 8dB$ )				
Air Quality					
<p>PO 5.1</p> <p>Development with the potential to emit harmful or nuisance-</p>	<p>DTS/DPF 5.1</p> <p>None are applicable.</p>				



generating air pollution incorporates air pollution control measures to prevent harm to human health or unreasonably impact the amenity of sensitive receivers (or lawfully approved sensitive receivers) within the locality and zones primarily intended to accommodate sensitive receivers.	
<p>PO 5.2</p> <p>Development that includes chimneys or exhaust flues (including cafes, restaurants and fast food outlets) is designed to minimise nuisance or adverse health impacts to sensitive receivers (or lawfully approved sensitive receivers) by:</p> <ul style="list-style-type: none"> <li>(a) incorporating appropriate treatment technology before exhaust emissions are released</li> <li>(b) locating and designing chimneys or exhaust flues to maximise the dispersion of exhaust emissions, taking into account the location of sensitive receivers.</li> </ul>	<p>DTS/DPF 5.2</p> <p>None are applicable.</p>
Light Spill	
<p>PO 6.1</p> <p>External lighting is positioned and designed to not cause unreasonable light spill impact on adjacent sensitive receivers (or lawfully approved sensitive receivers).</p>	<p>DTS/DPF 6.1</p> <p>None are applicable.</p>
<p>PO 6.2</p> <p>External lighting is not hazardous to motorists and cyclists.</p>	<p>DTS/DPF 6.2</p> <p>None are applicable.</p>
Solar Reflectivity / Glare	
<p>PO 7.1</p> <p>Development is designed and comprised of materials and finishes that do not unreasonably cause a distraction to adjacent road users and pedestrian areas or unreasonably cause heat loading and micro-climatic impacts on adjacent buildings and land uses as a result of reflective solar glare.</p>	<p>DTS/DPF 7.1</p> <p>None are applicable.</p>
Electrical Interference	
<p>PO 8.1</p> <p>Development in rural and remote areas does not unreasonably diminish or result in the loss of existing communication services due to electrical interference.</p>	<p>DTS/DPF 8.1</p> <p>The building or structure:</p> <ul style="list-style-type: none"> <li>(a) is no greater than 10m in height, measured from existing ground level or</li> <li>(b) is not within a line of sight between a fixed transmitter and fixed receiver (antenna) other than where an alternative service is available via a different fixed transmitter or cable.</li> </ul>
Interface with Rural Activities	
<p>PO 9.1</p> <p>Sensitive receivers are located and designed to mitigate impacts from lawfully existing horticultural and farming activities (or lawfully approved horticultural and farming activities), including spray drift and noise and do not prejudice the continued operation of these activities.</p>	<p>DTS/DPF 9.1</p> <p>None are applicable.</p>

PO 9.2	DTS/DPF 9.2
Sensitive receivers are located and designed to mitigate potential impacts from lawfully existing intensive animal husbandry activities and do not prejudice the continued operation of these activities.	None are applicable.
PO 9.3	DTS/DPF 9.3
Sensitive receivers are located and designed to mitigate potential impacts from lawfully existing land-based aquaculture activities and do not prejudice the continued operation of these activities.	Sensitive receivers are located at least 200m from the boundary of a site used for land-based aquaculture and associated components in other ownership.
PO 9.4	DTS/DPF 9.4
Sensitive receivers are located and designed to mitigate potential impacts from lawfully existing dairies including associated wastewater lagoons and liquid/solid waste storage and disposal facilities and do not prejudice the continued operation of these activities.	Sensitive receivers are sited at least 500m from the boundary of a site used for a dairy and associated wastewater lagoon(s) and liquid/solid waste storage and disposal facilities in other ownership.
PO 9.5	DTS/DPF 9.5
Sensitive receivers are located and designed to mitigate the potential impacts from lawfully existing facilities used for the handling, transportation and storage of bulk commodities (recognising the potential for extended hours of operation) and do not prejudice the continued operation of these activities.	<p>Sensitive receivers are located away from the boundary of a site used for the handling, transportation and/or storage of bulk commodities in other ownership in accordance with the following:</p> <ul style="list-style-type: none"> <li>(a) 300m or more, where it involves the handling of agricultural crop products, rock, ores, minerals, petroleum products or chemicals to or from any commercial storage facility</li> <li>(b) 300m or more, where it involves the handling of agricultural crop products, rock, ores, minerals, petroleum products or chemicals at a wharf or wharf side facility (including sea-port grain terminals) where the handling of these materials into or from vessels does not exceed 100 tonnes per day</li> <li>(c) 500m or more, where it involves the storage of bulk petroleum in individual containers with a capacity up to 200 litres and a total on-site storage capacity not exceeding 1000 cubic metres</li> <li>(d) 500m or more, where it involves the handling of coal with a capacity up to 1 tonne per day or a storage capacity up to 50 tonnes</li> <li>(e) 1000m or more, where it involves the handling of coal with a capacity exceeding 1 tonne per day but not exceeding 100 tonnes per day or a storage capacity exceeding 50 tonnes but not exceeding 5000 tonnes.</li> </ul>
PO 9.6	DTS/DPF 9.6
Setbacks and vegetation plantings along allotment boundaries should be incorporated to mitigate the potential impacts of spray drift and other impacts associated with agricultural and horticultural activities.	None are applicable.
PO 9.7	DTS/DPF 9.7
Urban development does not prejudice existing agricultural and horticultural activities through appropriate separation and design	None are applicable.

techniques.	
Interface with Mines and Quarries (Rural and Remote Areas)	
PO 10.1  Sensitive receivers are separated from existing mines to minimise the adverse impacts from noise, dust and vibration.	DTS/DPF 10.1  Sensitive receivers are located no closer than 500m from the boundary of a Mining Production Tenement under the <i>Mining Act 1971</i> .

## Land Division

### Assessment Provisions (AP)

Desired Outcome	
DO 1	<p>Land division:</p> <ul style="list-style-type: none"> <li>(a) creates allotments with the appropriate dimensions and shape for their intended use</li> <li>(b) allows efficient provision of new infrastructure and the optimum use of underutilised infrastructure</li> <li>(c) integrates and allocates adequate and suitable land for the preservation of site features of value, including significant vegetation, watercourses, water bodies and other environmental features</li> <li>(d) facilitates solar access through allotment orientation</li> <li>(e) creates a compact urban form that supports active travel, walkability and the use of public transport</li> <li>(f) avoids areas of high natural hazard risk.</li> </ul>

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
All land division	
Allotment configuration	
PO 1.1  Land division creates allotments suitable for their intended use.	<p>DTS/DPF 1.1</p> <p>Division of land satisfies (a) or (b):</p> <ul style="list-style-type: none"> <li>(a) reflects the site boundaries illustrated and approved in an operative or existing development authorisation for residential development under the <i>Development Act 1993</i> or <i>Planning, Development and Infrastructure Act 2016</i> where the allotments are used or are proposed to be used solely for residential purposes</li> <li>(b) is proposed as part of a combined land division application with deemed-to-satisfy dwellings on the proposed allotments.</li> </ul>
PO 1.2  Land division considers the physical characteristics of the land, preservation of environmental and cultural features of value and the prevailing context of the locality.	<p>DTS/DPF 1.2</p> <p>None are applicable.</p>

Design and Layout	
PO 2.1 Land division results in a pattern of development that minimises the likelihood of future earthworks and retaining walls.	DTS/DPF 2.1 None are applicable.
PO 2.2 Land division enables the appropriate management of interface impacts between potentially conflicting land uses and/or zones.	DTS/DPF 2.2 None are applicable.
PO 2.3 Land division maximises the number of allotments that face public open space and public streets.	DTS/DPF 2.3 None are applicable.
PO 2.4 Land division is integrated with site features, adjacent land uses, the existing transport network and available infrastructure.	DTS/DPF 2.4 None are applicable.
PO 2.5 Development and infrastructure is provided and staged in a manner that supports an orderly and economic provision of land, infrastructure and services.	DTS/DPF 2.5 None are applicable.
PO 2.6 Land division results in watercourses being retained within open space and development taking place on land not subject to flooding.	DTS/DPF 2.6 None are applicable.
PO 2.7 Land division results in legible street patterns connected to the surrounding street network.	DTS/DPF 2.7 None are applicable.
PO 2.8 Land division is designed to preserve existing vegetation of value including native vegetation and regulated and significant trees.	DTS/DPF 2.8 None are applicable.
Roads and Access	
PO 3.1 Land division provides allotments with access to an all-weather public road.	DTS/DPF 3.1 None are applicable.
PO 3.2 Street patterns and intersections are designed to enable the safe and efficient movement of pedestrian, cycle and vehicular traffic.	DTS/DPF 3.2 None are applicable.
PO 3.3 Land division does not impede access to publicly owned open space and/or recreation facilities.	DTS/DPF 3.3 None are applicable.
PO 3.4 Road reserves provide for safe and convenient movement and parking of projected volumes of vehicles and allow for the	DTS/DPF 3.4 None are applicable.

efficient movement of service and emergency vehicles.	
PO 3.5 Road reserves are designed to accommodate pedestrian and cycling infrastructure, street tree planting, landscaping and street furniture.	DTS/DPF 3.5 None are applicable.
PO 3.6 Road reserves accommodate stormwater drainage and public utilities.	DTS/DPF 3.6 None are applicable.
PO 3.7 Road reserves provide unobstructed vehicular access and egress to and from individual allotments and sites.	DTS/DPF 3.7 None are applicable.
PO 3.8 Street patterns and intersections are designed to enable the safe and efficient movement of pedestrian, cycle and vehicular traffic.	DTS/DPF 3.8 None are applicable.
PO 3.9 Roads, open space and thoroughfares provide safe and convenient linkages to the surrounding open space and transport network.	DTS/DPF 3.9 None are applicable.
PO 3.10 Public streets are designed to enable tree planting to provide shade and enhance the amenity of streetscapes.	DTS/DPF 3.10 None are applicable.
PO 3.11 Local streets are designed to create low-speed environments that are safe for cyclists and pedestrians.	DTS/DPF 3.11 None are applicable.
Infrastructure	
PO 4.1 Land division incorporates public utility services within road reserves or dedicated easements.	DTS/DPF 4.1 None are applicable.
PO 4.2 Waste water, sewage and other effluent is capable of being disposed of from each allotment without risk to public health or the environment.	DTS/DPF 4.2 Each allotment can be connected to:  (a) a waste water treatment plant that has the hydraulic volume and pollutant load treatment and disposal capacity for the maximum predicted wastewater volume generated by subsequent development of the proposed allotment or (b) a form of on-site waste water treatment and disposal that meets relevant public health and environmental standards.
PO 4.3 Septic tank effluent drainage fields and other waste water disposal areas are maintained to ensure the effective operation	DTS/DPF 4.3 Development is not built on, or encroaches within, an area that is or will be, required for a sewerage system or waste control

of waste systems and minimise risks to human health and the environment.	system.
PO 4.4 Constructed wetland systems, including associated detention and retention basins, are sited and designed to ensure public health and safety is protected, including by minimising potential public health risks arising from the breeding of mosquitoes.	DTS/DPF 4.4 None are applicable.
PO 4.5 Constructed wetland systems, including associated detention and retention basins, are sited and designed to allow sediments to settle prior to discharge into watercourses or the marine environment.	DTS/DPF 4.5 None are applicable.
PO 4.6 Constructed wetland systems, including associated detention and retention basins, are sited and designed to function as a landscape feature.	DTS/DPF 4.6 None are applicable.
Minor Land Division (Under 20 Allotments)	
Open Space	
PO 5.1 Land division proposing an additional allotment under 1 hectare provides or supports the provision of open space.	DTS/DPF 5.1 None are applicable.
Solar Orientation	
PO 6.1 Land division for residential purposes facilitates solar access through allotment orientation.	DTS/DPF 6.1 None are applicable.
Water Sensitive Design	
PO 7.1 Land division creating a new road or common driveway includes stormwater management systems that minimise the discharge of sediment, suspended solids, organic matter, nutrients, bacteria, litter and other contaminants to the stormwater system, watercourses or other water bodies.	DTS/DPF 7.1 None are applicable.
PO 7.2 Land division designed to mitigate peak flows and manage the rate and duration of stormwater discharges from the site to ensure that the development does not increase the peak flows in downstream systems.	DTS/DPF 7.2 None are applicable.
Battle-Axe Development	
PO 8.1 Battle-axe development appropriately responds to the existing neighbourhood context.	DTS/DPF 8.1 Allotments are not in the form of a battle-axe arrangement.
PO 8.2 Battle-axe development designed to allow safe and convenient movement.	DTS/DPF 8.2 The handle of a battle-axe development:



	<ul style="list-style-type: none"> <li>(a) has a minimum width of 4m or</li> <li>(b) where more than 3 allotments are proposed, a minimum width of 5.5m.</li> </ul>
PO 8.3 Battle-axe allotments and/or common land are of a suitable size and dimension to allow passenger vehicles to enter and exit and manoeuvre within the site in a safe and convenient manner.	DTS/DPF 8.3 Battle-axe development allows a B85 passenger vehicle to enter and exit parking spaces in no more than a three-point turn manoeuvre.
PO 8.4 Battle-axe or common driveways incorporate landscaping and permeability to improve appearance and assist in stormwater management.	DTS/DPF 8.4 Battle-axe or common driveways satisfy (a) and (b): <ul style="list-style-type: none"> <li>(a) are constructed of a minimum of 50% permeable or porous material</li> <li>(b) where the driveway is located directly adjacent the side or rear boundary of the site, soft landscaping with a minimum dimension of 1m is provided between the driveway and site boundary (excluding along the perimeter of a passing point).</li> </ul>
Major Land Division (20+ Allotments)	
Open Space	
PO 9.1 Land division allocates or retains evenly distributed, high quality areas of open space to improve residential amenity and provide urban heat amelioration.	DTS/DPF 9.1 None are applicable.
PO 9.2 Land allocated for open space is suitable for its intended active and passive recreational use considering gradient and potential for inundation.	DTS/DPF 9.2 None are applicable.
PO 9.3 Land allocated for active recreation has dimensions capable of accommodating a range of active recreational activities.	DTS/DPF 9.3 None are applicable.
Water Sensitive Design	
PO 10.1 Land division creating 20 or more residential allotments includes a stormwater management system designed to mitigate peak flows and manage the rate and duration of stormwater discharges from the site to ensure that the development does not increase the peak flows in downstream systems.	DTS/DPF 10.1 None are applicable.
PO 10.2 Land division creating 20 or more non-residential allotments includes a stormwater management system designed to mitigate peak flows and manage the rate and duration of stormwater discharges from the site to ensure that the development does not increase the peak flows in downstream systems.	DTS/DPF 10.2 None are applicable.
PO 10.3 Land division creating 20 or more allotments includes	DTS/DPF 10.3 None are applicable.

stormwater management systems that minimise the discharge of sediment, suspended solids, organic matter, nutrients, bacteria, litter and other contaminants to the stormwater system, watercourses or other water bodies.	
Solar Orientation	
PO 11.1  Land division creating 20 or more allotments for residential purposes facilitates solar access through allotment orientation and allotment dimensions.	DTS/DPF 11.1  None are applicable.

## Marinas and On-Water Structures

### Assessment Provisions (AP)

Desired Outcome	
DO 1	Marinas and on-water structures are located and designed to minimise the impairment of commercial, recreational and navigational activities and adverse impacts on the environment.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Navigation and Safety	
PO 1.1  Safe public access is provided or maintained to the waterfront, public infrastructure and recreation areas.	DTS/DPF 1.1  None are applicable.
PO 1.2  The operation of wharves is not impaired by marinas and on-water structures.	DTS/DPF 1.2  None are applicable.
PO 1.3  Navigation and access channels are not impaired by marinas and on-water structures.	DTS/DPF 1.3  None are applicable.
PO 1.4  Commercial shipping lanes are not impaired by marinas and on-water structures.	DTS/DPF 1.4  Marinas and on-water structures are set back 250m or more from commercial shipping lanes.
PO 1.5  Marinas and on-water structures are located to avoid interfering	DTS/DPF 1.5  On-water structures are set back:

with the operation or function of a water supply pumping station.	(a) 3km or more from upstream water supply pumping station take-off points (b) 500m or more from downstream water supply pumping station take-off points.
PO 1.6 Maintenance of on-water infrastructure, including revetment walls, is not impaired by marinas and on-water structures.	DTS/DPF 1.6 None are applicable.
Environmental Protection	
PO 2.1 Development is sited and designed to facilitate water circulation and exchange.	DTS/DPF 2.1 None are applicable.

## Open Space and Recreation

### Assessment Provisions (AP)

Desired Outcome	
DO 1	Pleasant, functional and accessible open space and recreation facilities are provided at State, regional, district, neighbourhood and local levels for active and passive recreation, biodiversity, community health, urban cooling, tree canopy cover, visual amenity, gathering spaces, wildlife and waterway corridors, and a range of other functions and at a range of sizes that reflect the purpose of that open space.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Land Use and Intensity	
PO 1.1 Recreation facilities are compatible with surrounding land uses and activities.	DTS/DPF 1.1 None are applicable.
PO 1.2 Open space areas include natural or landscaped areas using locally indigenous plant species and large trees.	DTS/DPF 1.2 None are applicable.
Design and Siting	
PO 2.1 Open space and recreation facilities address adjacent public roads to optimise pedestrian access and visibility.	DTS/DPF 2.1 None are applicable.

PO 2.2 Open space and recreation facilities incorporate park furniture, shaded areas and resting places.	DTS/DPF 2.2 None are applicable.
PO 2.3 Open space and recreation facilities link habitats, wildlife corridors and existing open spaces and recreation facilities.	DTS/DPF 2.3 None are applicable.
Pedestrians and Cyclists	
PO 3.1 Open space incorporates:  (a) pedestrian and cycle linkages to other open spaces, centres, schools and public transport nodes; (b) safe crossing points where pedestrian routes intersect the road network; (c) easily identified access points.	DTS/DPF 3.1 None are applicable.
Usability	
PO 4.1 Land allocated for open space is suitable for its intended active and passive recreational use taking into consideration its gradient and potential for inundation.	DTS/DPF 4.1 None are applicable.
Safety and Security	
PO 5.1 Open space is overlooked by housing, commercial or other development to provide casual surveillance where possible.	DTS/DPF 5.1 None are applicable.
PO 5.2 Play equipment is located to maximise opportunities for passive surveillance.	DTS/DPF 5.2 None are applicable.
PO 5.3 Landscaping provided in open space and recreation facilities maximises opportunities for casual surveillance throughout the park.	DTS/DPF 5.3 None are applicable.
PO 5.4 Fenced parks and playgrounds have more than one entrance or exit to minimise potential entrapment.	DTS/DPF 5.4 None are applicable.
PO 5.5 Adequate lighting is provided around toilets, telephones, seating, litter bins, bicycle storage, car parks and other such facilities.	DTS/DPF 5.5 None are applicable.
PO 5.6 Pedestrian and bicycle movement after dark is focused along clearly defined, adequately lit routes with observable entries and exits.	DTS/DPF 5.6 None are applicable.
Signage	

PO 6.1 Signage is provided at entrances to and within the open space and recreation facilities to provide clear orientation to major points of interest such as the location of public toilets, telephones, safe routes, park activities and the like.	DTS/DPF 6.1 None are applicable.
Buildings and Structures	
PO 7.1 Buildings and car parking areas in open space areas are designed, located and of a scale to be unobtrusive.	DTS/DPF 7.1 None are applicable.
PO 7.2 Buildings and structures in open space areas are clustered where practical to ensure that the majority of the site remains open.	DTS/DPF 7.2 None are applicable.
PO 7.3 Development in open space is constructed to minimise the extent of impervious surfaces.	DTS/DPF 7.3 None are applicable.
PO 7.4 Development that abuts or includes a coastal reserve or Crown land used for scenic, conservation or recreational purposes is located and designed to have regard to the purpose, management and amenity of the reserve.	DTS/DPF 7.4 None are applicable.
Landscaping	
PO 8.1 Open space and recreation facilities provide for the planting and retention of large trees and vegetation.	DTS/DPF 8.1 None are applicable.
PO 8.2 Landscaping in open space and recreation facilities provides shade and windbreaks:  (a) along cyclist and pedestrian routes; (b) around picnic and barbecue areas; (c) in car parking areas.	DTS/DPF 8.2 None are applicable.
PO 8.3 Landscaping in open space facilitates habitat for local fauna and facilitates biodiversity.	DTS/DPF 8.3 None are applicable.
PO 8.4 Landscaping including trees and other vegetation passively watered with local rainfall run-off, where practicable.	DTS/DPF 8.4 None are applicable.

## Out of Activity Centre Development

### Assessment Provisions (AP)

## Desired Outcome

DO1	The role of Activity Centres in contributing to the form and pattern of development and enabling equitable and convenient access to a range of shopping, administrative, cultural, entertainment and other facilities in a single trip is maintained and reinforced.
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Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
<p>PO 1.1</p> <p>Non-residential development outside Activity Centres of a scale and type that does not diminish the role of Activity Centres:</p> <ul style="list-style-type: none"> <li>(a) as primary locations for shopping, administrative, cultural, entertainment and community services</li> <li>(b) as a focus for regular social and business gatherings</li> <li>(c) in contributing to or maintaining a pattern of development that supports equitable community access to services and facilities.</li> </ul>	<p>DTS/DPF 1.1</p> <p>None are applicable.</p>
<p>PO 1.2</p> <p>Out-of-activity centre non-residential development complements Activity Centres through the provision of services and facilities:</p> <ul style="list-style-type: none"> <li>(a) that support the needs of local residents and workers, particularly in underserved locations</li> <li>(b) at the edge of Activities Centres where they cannot readily be accommodated within an existing Activity Centre to expand the range of services on offer and support the role of the Activity Centre.</li> </ul>	<p>DTS/DPF 1.2</p> <p>None are applicable.</p>

## Resource Extraction

### Assessment Provisions (AP)

Desired Outcome	
DO 1	Resource extraction activities are developed in a manner that minimises human and environmental impacts.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Land Use and Intensity	



PO 1.1 Resource extraction activities minimise landscape damage outside of those areas unavoidably disturbed to access and exploit a resource and provide for the progressive reclamation and betterment of disturbed areas.	DTS/DPF 1.1 None are applicable.
PO 1.2 Resource extraction activities avoid damage to cultural sites or artefacts.	DTS/DPF 1.2 None are applicable.
Water Quality	
PO 2.1 Stormwater and/or wastewater from resource extraction activities is diverted into appropriately sized treatment and retention systems to enable reuse on site.	DTS/DPF 2.1 None are applicable.
Separation Treatments, Buffers and Landscaping	
PO 3.1 Resource extraction activities minimise adverse impacts upon sensitive receivers through incorporation of separation distances and/or mounding/vegetation.	DTS/DPF 3.1 None are applicable.
PO 3.2 Resource extraction activities are screened from view from adjacent land by perimeter landscaping and/or mounding.	DTS/DPF 3.2 None are applicable.

## Site Contamination

### Assessment Provisions (AP)

Desired Outcome	
DO 1	Ensure land is suitable for the proposed use in circumstances where it is, or may have been, subject to site contamination.

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
PO 1.1 Ensure land is suitable for use when land use changes to a more sensitive use.	DTS/DPF 1.1 Development satisfies (a), (b), (c) or (d):  (a) does not involve a change in the use of land (b) involves a change in the use of land that does not constitute a change to a more sensitive use (c) involves a change in the use of land to a more sensitive use on land at which site contamination is unlikely to exist (as demonstrated in a site contamination declaration form)

	<p>(d) involves a change in the use of land to a more sensitive use on land at which site contamination exists, or may exist (as demonstrated in a site contamination declaration form), and satisfies both of the following:</p> <p>(i) a site contamination audit report has been prepared under Part 10A of the <i>Environment Protection Act 1993</i> in relation to the land within the previous 5 years which states that-</p> <p>A. site contamination does not exist (or no longer exists) at the land or</p> <p>B. the land is suitable for the proposed use or range of uses (without the need for any further remediation) or</p> <p>C. where remediation is, or remains, necessary for the proposed use (or range of uses), remediation work has been carried out or will be carried out (and the applicant has provided a written undertaking that the remediation works will be implemented in association with the development)</p> <p>and</p> <p>(ii) no other class 1 activity or class 2 activity has taken place at the land since the preparation of the site contamination audit report (as demonstrated in a site contamination declaration form).</p>
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## Tourism Development

### Assessment Provisions (AP)

Desired Outcome	
DO 1	Tourism development is built in locations that cater to the needs of visitors and positively contributes to South Australia's visitor economy.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
General	
PO 1.1 Tourism development complements and contributes to local, natural, cultural or historical context where:	DTS/DPF 1.1 None are applicable.

<p>(a) it supports immersive natural experiences</p> <p>(b) it showcases South Australia's landscapes and produce</p> <p>(c) its events and functions are connected to local food, wine and nature.</p>	
<p>PO 1.2</p> <p>Tourism development comprising multiple accommodation units (including any facilities and activities for use by guests and visitors) is clustered to minimise environmental and contextual impact.</p>	<p>DTS/DPF 1.2</p> <p>None are applicable.</p>
Caravan and Tourist Parks	
<p>PO 2.1</p> <p>Potential conflicts between long-term residents and short-term tourists are minimised through suitable siting and design measures.</p>	<p>DTS/DPF 2.1</p> <p>None are applicable.</p>
<p>PO 2.2</p> <p>Occupants are provided privacy and amenity through landscaping and fencing.</p>	<p>DTS/DPF 2.2</p> <p>None are applicable.</p>
<p>PO 2.3</p> <p>Communal open space and centrally located recreation facilities are provided for guests and visitors.</p>	<p>DTS/DPF 2.3</p> <p>12.5% or more of a caravan park comprises clearly defined communal open space, landscaped areas and areas for recreation.</p>
<p>PO 2.4</p> <p>Perimeter landscaping is used to enhance the amenity of the locality.</p>	<p>DTS/DPF 2.4</p> <p>None are applicable.</p>
<p>PO 2.5</p> <p>Amenity blocks (showers, toilets, laundry and kitchen facilities) are sufficient to serve the full occupancy of the development.</p>	<p>DTS/DPF 2.5</p> <p>None are applicable.</p>
<p>PO 2.6</p> <p>Long-term occupation does not displace tourist accommodation, particularly in important tourist destinations such as coastal and riverine locations.</p>	<p>DTS/DPF 2.6</p> <p>None are applicable.</p>
Tourist accommodation in areas constituted under the National Parks and Wildlife Act 1972	
<p>PO 3.1</p> <p>Tourist accommodation avoids delicate or environmentally sensitive areas such as sand dunes, cliff tops, estuaries, wetlands or substantially intact strata of native vegetation (including regenerated areas of native vegetation lost through bushfire).</p>	<p>DTS/DPF 3.1</p> <p>None are applicable.</p>
<p>PO 3.2</p> <p>Tourist accommodation is sited and designed in a manner that is subservient to the natural environment and where adverse impacts on natural features, landscapes, habitats and cultural</p>	<p>DTS/DPF 3.2</p> <p>None are applicable.</p>

assets are avoided.	
<p>PO 3.3</p> <p>Tourist accommodation and recreational facilities, including associated access ways and ancillary structures, are located on cleared (other than where cleared as a result of bushfire) or degraded areas or where environmental improvements can be achieved.</p>	<p>DTS/DPF 3.3</p> <p>None are applicable.</p>
<p>PO 3.4</p> <p>Tourist accommodation is designed to prevent conversion to private dwellings through:</p> <ul style="list-style-type: none"> <li>(a) comprising a minimum of 10 accommodation units</li> <li>(b) clustering separated individual accommodation units</li> <li>(c) being of a size unsuitable for a private dwelling</li> <li>(d) ensuring functional areas that are generally associated with a private dwelling such as kitchens and laundries are excluded from, or physically separated from individual accommodation units, or are of a size unsuitable for a private dwelling.</li> </ul>	<p>DTS/DPF 3.4</p> <p>None are applicable.</p>

## Transport, Access and Parking

### Assessment Provisions (AP)

Desired Outcome	
DO 1	A comprehensive, integrated and connected transport system that is safe, sustainable, efficient, convenient and accessible to all users.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Movement Systems	
<p>PO 1.1</p> <p>Development is integrated with the existing transport system and designed to minimise its potential impact on the functional performance of the transport system.</p>	<p>DTS/DPF 1.1</p> <p>None are applicable.</p>
<p>PO 1.2</p> <p>Development is designed to discourage commercial and industrial vehicle movements through residential streets and adjacent other sensitive receivers.</p>	<p>DTS/DPF 1.2</p> <p>None are applicable.</p>

PO 1.3	DTS/DPF 1.3
Industrial, commercial and service vehicle movements, loading areas and designated parking spaces are separated from passenger vehicle car parking areas to ensure efficient and safe movement and minimise potential conflict.	None are applicable.
PO 1.4	DTS/DPF 1.4
Development is sited and designed so that loading, unloading and turning of all traffic avoids interrupting the operation of and queuing on public roads and pedestrian paths.	All vehicle manoeuvring occurs onsite.
Sightlines	
PO 2.1	DTS/DPF 2.1
Sightlines at intersections, pedestrian and cycle crossings, and crossovers to allotments for motorists, cyclists and pedestrians are maintained or enhanced to ensure safety for all road users and pedestrians.	None are applicable.
PO 2.2	DTS/DPF 2.2
Walls, fencing and landscaping adjacent to driveways and corner sites are designed to provide adequate sightlines between vehicles and pedestrians.	None are applicable.
Vehicle Access	
PO 3.1	DTS/DPF 3.1
Safe and convenient access minimises impact or interruption on the operation of public roads.	<p>The access is:</p> <ul style="list-style-type: none"> <li>(a) provided via a lawfully existing or authorised driveway or access point or an access point for which consent has been granted as part of an application for the division of land</li> <li>or</li> <li>(b) not located within 6m of an intersection of 2 or more roads or a pedestrian activated crossing.</li> </ul>
PO 3.2	DTS/DPF 3.2
Development incorporating vehicular access ramps ensures vehicles can enter and exit a site safely and without creating a hazard to pedestrians and other vehicular traffic.	None are applicable.
PO 3.3	DTS/DPF 3.3
Access points are sited and designed to accommodate the type and volume of traffic likely to be generated by the development or land use.	None are applicable.
PO 3.4	DTS/DPF 3.4
Access points are sited and designed to minimise any adverse impacts on neighbouring properties.	None are applicable.
PO 3.5	DTS/DPF 3.5

Access points are located so as not to interfere with street trees, existing street furniture (including directional signs, lighting, seating and weather shelters) or infrastructure services to maintain the appearance of the streetscape, preserve local amenity and minimise disruption to utility infrastructure assets.	Vehicle access to designated car parking spaces satisfy (a) or (b): (a) is provided via a lawfully existing or authorised access point or an access point for which consent has been granted as part of an application for the division of land (b) where newly proposed, is set back: (i) 0.5m or more from any street furniture, street pole, infrastructure services pit, or other stormwater or utility infrastructure unless consent is provided from the asset owner (ii) 2m or more from the base of the trunk of a street tree unless consent is provided from the tree owner for a lesser distance (iii) 6m or more from the tangent point of an intersection of 2 or more roads (iv) outside of the marked lines or infrastructure dedicating a pedestrian crossing.
PO 3.6  Driveways and access points are separated and minimised in number to optimise the provision of on-street visitor parking (where on-street parking is appropriate).	DTS/DPF 3.6  Driveways and access points: (a) for sites with a frontage to a public road of 20m or less, one access point no greater than 3.5m in width is provided (b) for sites with a frontage to a public road greater than 20m: (i) a single access point no greater than 6m in width is provided or (ii) not more than two access points with a width of 3.5m each are provided.
PO 3.7  Access points are appropriately separated from level crossings to avoid interference and ensure their safe ongoing operation.	DTS/DPF 3.7  Development does not involve a new or modified access or cause an increase in traffic through an existing access that is located within the following distance from a railway crossing:  (a) 80 km/h road - 110m (b) 70 km/h road - 90m (c) 60 km/h road - 70m (d) 50km/h or less road - 50m.
PO 3.8  Driveways, access points, access tracks and parking areas are designed and constructed to allow adequate movement and manoeuvrability having regard to the types of vehicles that are reasonably anticipated.	DTS/DPF 3.8  None are applicable.
PO 3.9  Development is designed to ensure vehicle circulation between activity areas occurs within the site without the need to use public roads.	DTS/DPF 3.9  None are applicable.
Access for People with Disabilities	
PO 4.1	DTS/DPF 4.1



Development is sited and designed to provide safe, dignified and convenient access for people with a disability.	None are applicable.
Vehicle Parking Rates	
<p>PO 5.1</p> <p>Sufficient on-site vehicle parking and specifically marked accessible car parking places are provided to meet the needs of the development or land use having regard to factors that may support a reduced on-site rate such as:</p> <ul style="list-style-type: none"> <li>(a) availability of on-street car parking</li> <li>(b) shared use of other parking areas</li> <li>(c) in relation to a mixed-use development, where the hours of operation of commercial activities complement the residential use of the site, the provision of vehicle parking may be shared</li> <li>(d) the adaptive reuse of a State or Local Heritage Place.</li> </ul>	<p>DTS/DPF 5.1</p> <p>Development provides a number of car parking spaces on-site at a rate no less than the amount calculated using one of the following, whichever is relevant:</p> <ul style="list-style-type: none"> <li>(a) Transport, Access and Parking Table 1 - General Off-Street Car Parking Requirements</li> <li>(b) Transport, Access and Parking Table 2 - Off-Street Vehicle Parking Requirements in Designated Areas</li> <li>(c) if located in an area where a lawfully established carparking fund operates, the number of spaces calculated under (a) or (b) less the number of spaces offset by contribution to the fund.</li> </ul>
Vehicle Parking Areas	
<p>PO 6.1</p> <p>Vehicle parking areas are sited and designed to minimise impact on the operation of public roads by avoiding the use of public roads when moving from one part of a parking area to another.</p>	<p>DTS/DPF 6.1</p> <p>Movement between vehicle parking areas within the site can occur without the need to use a public road.</p>
<p>PO 6.2</p> <p>Vehicle parking areas are appropriately located, designed and constructed to minimise impacts on adjacent sensitive receivers through measures such as ensuring they are attractively developed and landscaped, screen fenced, and the like.</p>	<p>DTS/DPF 6.2</p> <p>None are applicable.</p>
<p>PO 6.3</p> <p>Vehicle parking areas are designed to provide opportunity for integration and shared-use of adjacent car parking areas to reduce the total extent of vehicle parking areas and access points.</p>	<p>DTS/DPF 6.3</p> <p>None are applicable.</p>
<p>PO 6.4</p> <p>Pedestrian linkages between parking areas and the development are provided and are safe and convenient.</p>	<p>DTS/DPF 6.4</p> <p>None are applicable.</p>
<p>PO 6.5</p> <p>Vehicle parking areas that are likely to be used during non-daylight hours are provided with sufficient lighting to entry and exit points to ensure clear visibility to users.</p>	<p>DTS/DPF 6.5</p> <p>None are applicable.</p>
<p>PO 6.6</p> <p>Loading areas and designated parking spaces for service vehicles are provided within the boundary of the site.</p>	<p>DTS/DPF 6.6</p> <p>Loading areas and designated parking spaces are wholly located within the site.</p>
<p>PO 6.7</p> <p>On-site visitor parking spaces are sited and designed to be accessible to all visitors at all times.</p>	<p>DTS/DPF 6.7</p> <p>None are applicable.</p>

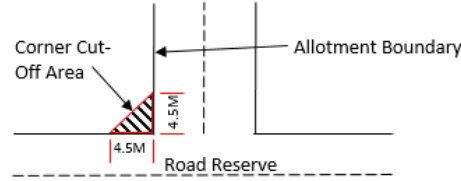
Undercroft and Below Ground Garaging and Parking of Vehicles	
<p>PO 7.1</p> <p>Undercroft and below ground garaging of vehicles is designed to enable safe entry and exit from the site without compromising pedestrian or cyclist safety or causing conflict with other vehicles.</p>	<p>DTS/DPF 7.1</p> <p>None are applicable.</p>
Internal Roads and Parking Areas in Residential Parks and Caravan and Tourist Parks	
<p>PO 8.1</p> <p>Internal road and vehicle parking areas are surfaced to prevent dust becoming a nuisance to park residents and occupants.</p>	<p>DTS/DPF 8.1</p> <p>None are applicable.</p>
<p>PO 8.2</p> <p>Traffic circulation and movement within the park is pedestrian friendly and promotes low speed vehicle movement.</p>	<p>DTS/DPF 8.2</p> <p>None are applicable.</p>
Bicycle Parking in Designated Areas	
<p>PO 9.1</p> <p>The provision of adequately sized on-site bicycle parking facilities encourages cycling as an active transport mode.</p>	<p>DTS/DPF 9.1</p> <p>Areas and / or fixtures are provided for the parking and storage of bicycles at a rate not less than the amount calculated using Transport, Access and Parking Table 3 - Off Street Bicycle Parking Requirements.</p>
<p>PO 9.2</p> <p>Bicycle parking facilities provide for the secure storage and tethering of bicycles in a place where casual surveillance is possible, is well lit and signed for the safety and convenience of cyclists and deters property theft.</p>	<p>DTS/DPF 9.2</p> <p>None are applicable.</p>
<p>PO 9.3</p> <p>Non-residential development incorporates end-of-journey facilities for employees such as showers, changing facilities and secure lockers, and signage indicating the location of the facilities to encourage cycling as a mode of journey-to-work transport.</p>	<p>DTS/DPF 9.3</p> <p>None are applicable.</p>
Corner Cut-Offs	
<p>PO 10.1</p> <p>Development is located and designed to ensure drivers can safely turn into and out of public road junctions.</p>	<p>DTS/DPF 10.1</p> <p>Development does not involve building work, or building work is located wholly outside the land shown as Corner Cut-Off Area in the following diagram:</p> 

Table 1 - General Off-Street Car Parking Requirements

The following parking rates apply and if located in an area where a lawfully established carparking fund operates, the number of spaces is reduced by an amount equal to the number of spaces offset by contribution to the fund.

Class of Development	Car Parking Rate (unless varied by Table 2 onwards)
<b>Residential Development</b>	
<b>Detached Dwelling</b>	<p>Dwelling with 1 bedroom (including rooms capable of being used as a bedroom) - 1 space per dwelling.</p> <p>Dwelling with 2 or more bedrooms (including rooms capable of being used as a bedroom) - 2 spaces per dwelling, 1 of which is to be covered.</p>
<b>Group Dwelling</b>	<p>Dwelling with 1 or 2 bedrooms (including rooms capable of being used as a bedroom) - 1 space per dwelling.</p> <p>Dwelling with 3 or more bedrooms (including rooms capable of being used as a bedroom) - 2 spaces per dwelling, 1 of which is to be covered.</p> <p>0.33 spaces per dwelling for visitor parking where development involves 3 or more dwellings.</p>
<b>Residential Flat Building</b>	<p>Dwelling with 1 or 2 bedrooms (including rooms capable of being used as a bedroom) - 1 space per dwelling.</p> <p>Dwelling with 3 or more bedrooms (including rooms capable of being used as a bedroom) - 2 spaces per dwelling, 1 of which is to be covered.</p> <p>0.33 spaces per dwelling for visitor parking where development involves 3 or more dwellings.</p>
<b>Row Dwelling where vehicle access is from the primary street</b>	<p>Dwelling with 1 bedroom (including rooms capable of being used as a bedroom) - 1 space per dwelling.</p> <p>Dwelling with 2 or more bedrooms (including rooms capable of being used as a bedroom) - 2 spaces per dwelling, 1 of which is to be covered.</p>
<b>Row Dwelling where vehicle access is not from the primary street (i.e. rear-loaded)</b>	<p>Dwelling with 1 or 2 bedrooms (including rooms capable of being used as a bedroom) - 1 space per dwelling.</p> <p>Dwelling with 3 or more bedrooms (including rooms capable of being used as a bedroom) - 2 spaces per dwelling, 1 of which is to be covered.</p>
<b>Semi-Detached Dwelling</b>	<p>Dwelling with 1 bedroom (including rooms capable of being used as a bedroom) - 1 space per dwelling.</p> <p>Dwelling with 2 or more bedrooms (including rooms capable of being used as a bedroom) - 2 spaces per dwelling, 1 of which is to be covered.</p>
<b>Aged / Supported Accommodation</b>	
<b>Retirement village</b>	<p>Dwelling with 1 or 2 bedrooms (including rooms capable of being used as a bedroom) - 1 space per dwelling.</p> <p>Dwelling with 3 or more bedrooms (including rooms capable of being used as a bedroom) - 2 spaces per dwelling.</p> <p>0.2 spaces per dwelling for visitor parking.</p>

<b>Supported accommodation</b>	0.3 spaces per bed.
<b>Residential Development (Other)</b>	
<b>Ancillary accommodation</b>	No additional requirements beyond those associated with the main dwelling.
<b>Residential park</b>	<p>Dwelling with 1 or 2 bedrooms (including rooms capable of being used as a bedroom) - 1 space per dwelling.</p> <p>Dwelling with 3 or more bedrooms (including rooms capable of being used as a bedroom) - 2 spaces per dwelling.</p> <p>0.2 spaces per dwelling for visitor parking.</p>
<b>Student accommodation</b>	0.3 spaces per bed.
<b>Workers' accommodation</b>	0.5 spaces per bed plus 0.2 spaces per bed for visitor parking.
<b>Tourist</b>	
<b>Caravan park / tourist park</b>	<p>Parks with 100 sites or less - a minimum of 1 space per 10 sites to be used for accommodation.</p> <p>Parks with more than 100 sites - a minimum of 1 space per 15 sites used for accommodation.</p> <p>A minimum of 1 space for every caravan (permanently fixed to the ground) or cabin.</p>
<b>Tourist accommodation</b>	1 car parking space per accommodation unit / guest room.
<b>Commercial Uses</b>	
<b>Auction room/ depot</b>	1 space per 100m <sup>2</sup> of building floor area plus an additional 2 spaces.
<b>Automotive collision repair</b>	3 spaces per service bay.
<b>Call centre</b>	8 spaces per 100m <sup>2</sup> of gross leasable floor area.
<b>Motor repair station</b>	3 spaces per service bay.
<b>Office</b>	4 spaces per 100m <sup>2</sup> of gross leasable floor area.
<b>Retail fuel outlet</b>	3 spaces per 100m <sup>2</sup> gross leasable floor area.
<b>Service trade premises</b>	<p>2.5 spaces per 100m<sup>2</sup> of gross leasable floor area</p> <p>1 space per 100m<sup>2</sup> of outdoor area used for display purposes.</p>
<b>Shop (no commercial kitchen)</b>	5.5 spaces per 100m <sup>2</sup> of gross leasable floor area where not located in an integrated complex containing two or more tenancies (and which may comprise more than one building) where facilities for off-street vehicle parking, vehicle loading and unloading, and the storage and collection of refuse are shared.

	5 spaces per 100m <sup>2</sup> of gross leasable floor area where located in an integrated complex containing two or more tenancies (and which may comprise more than one building) where facilities for off-street vehicle parking, vehicle loading and unloading, and the storage and collection of refuse are shared.
<b>Shop (in the form of a bulky goods outlet)</b>	2.5 spaces per 100m <sup>2</sup> of gross leasable floor area.
<b>Shop (in the form of a restaurant or involving a commercial kitchen)</b>	<p>Premises with a dine-in service only (which may include a take-away component with no drive-through) - 0.4 spaces per seat.</p> <p>Premises with take-away service but with no seats - 12 spaces per 100m<sup>2</sup> of total floor area plus a drive-through queue capacity of ten vehicles measured from the pick-up point.</p> <p>Premises with a dine-in and drive-through take-away service - 0.3 spaces per seat plus a drive through queue capacity of 10 vehicles measured from the pick-up point.</p>
<b>Community and Civic Uses</b>	
<b>Childcare centre</b>	0.25 spaces per child
<b>Library</b>	4 spaces per 100m <sup>2</sup> of total floor area.
<b>Community facility</b>	10 spaces per 100m <sup>2</sup> of total floor area.
<b>Hall / meeting hall</b>	0.2 spaces per seat.
<b>Place of worship</b>	1 space for every 3 visitor seats.
<b>Pre-school</b>	1 per employee plus 0.25 per child (drop off/pick up bays)
<b>Educational establishment</b>	<p>For a primary school - 1.1 space per full time equivalent employee plus 0.25 spaces per student for a pickup/set down area either on-site or on the public realm within 300m of the site.</p> <p>For a secondary school - 1.1 per full time equivalent employee plus 0.1 spaces per student for a pickup/set down area either on-site or on the public realm within 300m of the site.</p> <p>For a tertiary institution - 0.4 per student based on the maximum number of students on the site at any time.</p>
<b>Health Related Uses</b>	
<b>Hospital</b>	<p>4.5 spaces per bed for a public hospital.</p> <p>1.5 spaces per bed for a private hospital.</p>

<b>Consulting room</b>	4 spaces per consulting room excluding ancillary facilities.
<b>Recreational and Entertainment Uses</b>	
<b>Cinema complex</b>	0.2 spaces per seat.
<b>Concert hall / theatre</b>	0.2 spaces per seat.
<b>Hotel</b>	1 space for every 2m <sup>2</sup> of total floor area in a public bar plus 1 space for every 6m <sup>2</sup> of total floor area available to the public in a lounge, beer garden plus 1 space per 2 gaming machines, plus 1 space per 3 seats in a restaurant.
<b>Indoor recreation facility</b>	6.5 spaces per 100m <sup>2</sup> of total floor area for a Fitness Centre 4.5 spaces per 100m <sup>2</sup> of total floor area for all other Indoor recreation facilities.
<b>Industry/Employment Uses</b>	
<b>Fuel depot</b>	1.5 spaces per 100m <sup>2</sup> total floor area 1 spaces per 100m <sup>2</sup> of outdoor area used for fuel depot activity purposes.
<b>Industry</b>	1.5 spaces per 100m <sup>2</sup> of total floor area.
<b>Store</b>	0.5 spaces per 100m <sup>2</sup> of total floor area.
<b>Timber yard</b>	1.5 spaces per 100m <sup>2</sup> of total floor area 1 space per 100m <sup>2</sup> of outdoor area used for display purposes.
<b>Warehouse</b>	0.5 spaces per 100m <sup>2</sup> total floor area.
<b>Other Uses</b>	
<b>Funeral Parlour</b>	1 space per 5 seats in the chapel plus 1 space for each vehicle operated by the parlour.
<b>Radio or Television Station</b>	5 spaces per 100m <sup>2</sup> of total building floor area.

**Table 2 - Off-Street Car Parking Requirements in Designated Areas**

The following parking rates apply in any zone, subzone or other area described in the 'Designated Areas' column subject to the following:

- (a) the location of the development is unable to satisfy the requirements of Table 2 – Criteria (other than where a location is exempted from the application of those criteria)  
or
- (b) the development satisfies Table 2 – Criteria (or is exempt from those criteria) and is located in an area where a lawfully established carparking fund operates, in which case the number of spaces are reduced by an amount equal to the number of spaces offset by contribution to the fund.



Class of Development	Car Parking Rate		Designated Areas
	Where a development comprises more than one development type, then the overall car parking rate will be taken to be the sum of the car parking rates for each development type.		
	Minimum number of spaces	Maximum number of spaces	
Development generally			
All classes of development	No minimum.	No maximum except in the Primary Pedestrian Area identified in the Primary Pedestrian Area Concept Plan, where the maximum is:	Capital City Zone
			City Main Street Zone
			City Riverbank Zone
			Adelaide Park Lands Zone
			Business Neighbourhood Zone (within the City of Adelaide)
		1 space for each dwelling with a total floor area less than 75 square metres	
		2 spaces for each dwelling with a total floor area between 75 square metres and 150 square metres	The St Andrews Hospital Precinct Subzone and Women's and Children's Hospital Precinct Subzone of the Community Facilities Zone
		3 spaces for each dwelling with a total floor area greater than 150 square metres.	
		Residential flat building or Residential component of a multi-storey building: 1 visitor space for each 6 dwellings.	
Non-residential development			
Non-residential development excluding tourist accommodation	3 spaces per 100m <sup>2</sup> of gross leasable floor area.	5 spaces per 100m <sup>2</sup> of gross leasable floor area.	City Living Zone
			Urban Corridor (Boulevard) Zone
			Urban Corridor (Business) Zone
			Urban Corridor (Living) Zone
			Urban Corridor (Main Street ) Zone
			Urban Neighbourhood Zone
Non-residential development excluding tourist accommodation	3 spaces per 100m <sup>2</sup> of gross leasable floor area.	6 spaces per 100m <sup>2</sup> of gross leasable floor area.	Strategic Innovation Zone
			Suburban Activity Centre Zone
			Suburban Business Zone
			Business Neighbourhood Zone
			Suburban Main Street Zone

			Urban Activity Centre Zone
<b>Tourist accommodation</b>	1 space for every 4 bedrooms up to 100 bedrooms plus 1 space for every 5 bedrooms over 100 bedrooms	1 space per 2 bedrooms up to 100 bedrooms and 1 space per 4 bedrooms over 100 bedrooms	City Living Zone Urban Activity Centre Zone Urban Corridor (Boulevard) Zone Urban Corridor (Business) Zone Urban Corridor (Living) Zone Urban Corridor (Main Street ) Zone Urban Neighbourhood Zone
<b>Residential development</b>			
<b>Residential component of a multi-storey building</b>	Dwelling with no separate bedroom -0.25 spaces per dwelling  1 bedroom dwelling - 0.75 spaces per dwelling  2 bedroom dwelling - 1 space per dwelling  3 or more bedroom dwelling - 1.25 spaces per dwelling  0.25 spaces per dwelling for visitor parking.	None specified.	City Living Zone  Strategic Innovation Zone  Urban Activity Centre Zone Urban Corridor (Boulevard) Zone Urban Corridor (Business) Zone Urban Corridor (Living) Zone Urban Corridor (Main Street ) Zone Urban Neighbourhood Zone
<b>Residential flat building</b>	Dwelling with no separate bedroom -0.25 spaces per dwelling  1 bedroom dwelling - 0.75 spaces per dwelling  2 bedroom dwelling - 1 space per dwelling  3 or more bedroom dwelling - 1.25 spaces per dwelling  0.25 spaces per dwelling for visitor parking.	None specified.	City Living Zone  Urban Activity Centre Zone  Urban Corridor (Boulevard) Zone Urban Corridor (Business) Zone Urban Corridor (Living) Zone Urban Corridor (Main Street ) Zone Urban Neighbourhood Zone

Table 2 - Criteria:

The following criteria are used in conjunction with Table 2. The 'Exception' column identifies locations where the criteria do not apply and the car parking rates in Table 2 are applicable.

Criteria	Exceptions
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<p><b>The designated area is wholly located within Metropolitan Adelaide and any part of the development site satisfies one or more of the following:</b></p> <ul style="list-style-type: none"> <li>(a) is within 200 metres of any section of road reserve along which a bus service operates as a high frequency public transit service<sup>(2)</sup></li> <li>(b) is within 400 metres of a bus interchange<sup>(1)</sup></li> <li>(c) is within 400 metres of an O-Bahn interchange<sup>(1)</sup></li> <li>(d) is within 400 metres of a passenger rail station<sup>(1)</sup></li> <li>(e) is within 400 metres of a passenger tram station<sup>(1)</sup></li> <li>(f) is within 400 metres of the Adelaide Parklands.</li> </ul>	<ul style="list-style-type: none"> <li>(a) All zones in the City of Adelaide</li> <li>(b) Strategic Innovation Zone in the following locations: <ul style="list-style-type: none"> <li>(i) City of Burnside</li> <li>(ii) City of Marion</li> <li>(iii) City of Mitcham</li> </ul> </li> <li>(c) Urban Corridor (Boulevard) Zone</li> <li>(d) Urban Corridor (Business) Zone</li> <li>(e) Urban Corridor (Living) Zone</li> <li>(f) Urban Corridor (Main Street ) Zone</li> <li>(g) Urban Neighbourhood Zone</li> </ul>
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[NOTE(S): (1) Measured from an area that contains any platform(s), shelter(s) or stop(s) where people congregate for the purpose waiting to board a bus, tram or train, but does not include areas used for the parking of vehicles. (2) A high frequency public transit service is a route serviced every 15 minutes between 7.30am and 6.30pm Monday to Friday and every 30 minutes at night, Saturday, Sunday and public holidays until 10pm.]

### Table 3 - Off-Street Bicycle Parking Requirements

The bicycle parking rates apply within designated areas located within parts of the State identified in the Schedule to Table 3.

Class of Development	Bicycle Parking Rate
	Where a development comprises more than one development type, then the overall bicycle parking rate will be taken to be the sum of the bicycle parking rates for each development type.
<b>Consulting Room</b>	1 space per 20 employees plus 1 space per 20 consulting rooms for customers.
<b>Educational establishment</b>	<p>For a secondary school - 1 space per 20 full-time time employees plus 10 percent of the total number of employee spaces for visitors.</p> <p>For tertiary education - 1 space per 20 employees plus 1 space per 10 full time students.</p>
<b>Hospital</b>	1 space per 15 beds plus 1 space per 30 beds for visitors.
<b>Indoor recreation facility</b>	1 space per 4 employees plus 1 space per 200m <sup>2</sup> of gross leasable floor area for visitors.
<b>Licensed Premises</b>	1 per 20 employees, plus 1 per 60 square metres total floor area, plus 1 per 40 square metres of bar floor area, plus 1 per 120 square metres lounge and beer garden floor area, plus 1 per 60 square metres dining floor area, plus 1 per 40 square metres gaming room floor area.
<b>Office</b>	1 space for every 200m <sup>2</sup> of gross leasable floor area plus 2 spaces plus 1 space

	per 1000m <sup>2</sup> of gross leasable floor area for visitors.
<b>Pre-school</b>	1 space per 20 full time employees plus 1 space per 40 full time children.
<b>Recreation area</b>	1 per 1500 spectator seats for employees plus 1 per 250 visitor and customers.
<b>Residential flat building</b>	Within the City of Adelaide 1 for every dwelling for residents with a total floor area less than 150 square metres, 2 for every dwelling for residents with a total floor area greater than 150 square metres, plus 1 for every 10 dwellings for visitors, and in all other cases 1 space for every 4 dwellings for residents plus 1 for every 10 dwellings for visitors.
<b>Residential component of a multi-storey building</b>	Within the City of Adelaide 1 for every dwelling for residents with a total floor area less than 150 square metres, 2 for every dwelling for residents with a total floor area greater than 150 square metres, plus 1 for every 10 dwellings for visitors, and in all other cases 1 space for every 4 dwellings for residents plus 1 space for every 10 dwellings for visitors.
<b>Shop</b>	1 space for every 300m <sup>2</sup> of gross leasable floor area plus 1 space for every 600m <sup>2</sup> of gross leasable floor area for customers.
<b>Tourist accommodation</b>	1 space for every 20 employees plus 2 for the first 40 rooms and 1 for every additional 40 rooms for visitors.

**Schedule to Table 3**

<b>Designated Area</b>	<b>Relevant part of the State</b>
	<b>The bicycle parking rate applies to a designated area located in a relevant part of the State described below.</b>
All zones	City of Adelaide
Business Neighbourhood Zone	Metropolitan Adelaide
Strategic Innovation Zone	
Suburban Activity Centre Zone	
Suburban Business Zone	
Suburban Main Street Zone	
Urban Activity Centre Zone	
Urban Corridor (Boulevard) Zone	
Urban Corridor (Business) Zone	
Urban Corridor (Living) Zone	
Urban Corridor (Main Street ) Zone	
Urban Neighbourhood Zone	

**Waste Treatment and Management Facilities**

**Assessment Provisions (AP)**

<b>Desired Outcome</b>	
DO 1	Mitigation of the potential environmental and amenity impacts of waste treatment and management facilities.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

<b>Performance Outcome</b>	<b>Deemed-to-Satisfy Criteria / Designated Performance Feature</b>
Siting	
PO 1.1  Waste treatment and management facilities incorporate separation distances and attenuation measures within the site between waste operations areas (including all closed, operating and future cells) and sensitive receivers and sensitive environmental features to mitigate off-site impacts from noise, air and dust emissions.	DTS/DPF 1.1  None are applicable.
Soil and Water Protection	
PO 2.1  Soil, groundwater and surface water are protected from contamination from waste treatment and management facilities through measures such as: <ul style="list-style-type: none"> <li>(a) containing potential groundwater and surface water contaminants within waste operations areas</li> <li>(b) diverting clean stormwater away from waste operations areas and potentially contaminated areas</li> <li>(c) providing a leachate barrier between waste operations areas and underlying soil and groundwater.</li> </ul>	DTS/DPF 2.1  None are applicable.
PO 2.2  Wastewater lagoons are set back from watercourses to minimise environmental harm and adverse effects on water resources.	DTS/DPF 2.2  Wastewater lagoons are set back 50m or more from watercourse banks.
PO 2.3  Wastewater lagoons are designed and sited to: <ul style="list-style-type: none"> <li>(a) avoid intersecting underground waters;</li> <li>(b) avoid inundation by flood waters;</li> <li>(c) ensure lagoon contents do not overflow;</li> <li>(d) include a liner designed to prevent leakage.</li> </ul>	DTS/DPF 2.3  None are applicable.
PO 2.4	DTS/DPF 2.4

Waste operations areas of landfills and organic waste processing facilities are set back from watercourses to minimise adverse impacts on water resources.	Waste operations areas are set back 100m or more from watercourse banks.
Amenity	
PO 3.1 Waste treatment and management facilities are screened, located and designed to minimise adverse visual impacts on amenity.	DTS/DPF 3.1 None are applicable.
PO 3.2 Access routes to waste treatment and management facilities via residential streets is avoided.	DTS/DPF 3.2 None are applicable.
PO 3.3 Litter control measures minimise the incidence of windblown litter.	DTS/DPF 3.3 None are applicable.
PO 3.4 Waste treatment and management facilities are designed to minimise adverse impacts on both the site and surrounding areas from weed and vermin infestation.	DTS/DPF 3.4 None are applicable.
Access	
PO 4.1 Traffic circulation movements within any waste treatment or management site are designed to enable vehicles to enter and exit the site in a forward direction.	DTS/DPF 4.1 None are applicable.
PO 4.2 Suitable access for emergency vehicles is provided to and within waste treatment or management sites.	DTS/DPF 4.2 None are applicable.
Fencing and Security	
PO 5.1 Security fencing provided around waste treatment and management facilities prevents unauthorised access to operations and potential hazard to the public.	DTS/DPF 5.1 Chain wire mesh or pre-coated painted metal fencing 2m or more in height is erected along the perimeter of the waste treatment or waste management facility site.
Landfill	
PO 6.1 Landfill gas emissions are managed in an environmentally acceptable manner.	DTS/DPF 6.1 None are applicable.
PO 6.2 Landfill facilities are separated from areas of environmental significance and land used for public recreation and enjoyment.	DTS/DPF 6.2 Landfill facilities are set back 250m or more from a public open space reserve, forest reserve, national park or Conservation Zone.
PO 6.3 Landfill facilities are located on land that is not subject to land	DTS/DPF 6.3 None are applicable.



slip.	
PO 6.4 Landfill facilities are separated from areas subject to flooding.	DTS/DPF 6.4 Landfill facilities are set back 500m or more from land inundated in a 1% AEP flood event.
Organic Waste Processing Facilities	
PO 7.1 Organic waste processing facilities are separated from the coast to avoid potential environment harm.	DTS/DPF 7.1 Organic waste processing facilities are set back 500m or more from the coastal high water mark.
PO 7.2 Organic waste processing facilities are located on land where the engineered liner and underlying seasonal water table cannot intersect.	DTS/DPF 7.2 None are applicable.
PO 7.3 Organic waste processing facilities are sited away from areas of environmental significance and land used for public recreation and enjoyment.	DTS/DPF 7.3 Organic waste processing facilities are set back 250m or more from a public open space reserve, forest reserve, national park or a Conservation Zone.
PO 7.4 Organic waste processing facilities are located on land that is not subject to land slip.	DTS/DPF 7.4 None are applicable.
PO 7.5 Organic waste processing facilities separated from areas subject to flooding.	DTS/DPF 7.5 Organic waste processing facilities are set back 500m or more from land inundated in a 1% AEP flood event.
Major Wastewater Treatment Facilities	
PO 8.1 Major wastewater treatment and disposal systems, including lagoons, are designed to minimise potential adverse odour impacts on sensitive receivers, minimise public and environmental health risks and protect water quality.	DTS/DPF 8.1 None are applicable.
PO 8.2 Artificial wetland systems for the storage of treated wastewater are designed and sited to minimise potential public health risks arising from the breeding of mosquitoes.	DTS/DPF 8.2 None are applicable.

## Workers' accommodation and Settlements

### Assessment Provisions (AP)

Desired Outcome	
DO 1	Appropriately designed and located accommodation for seasonal and short-term workers in rural areas that minimises environmental and social impacts.

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
<p>PO 1.1</p> <p>Workers' accommodation and settlements are obscured from scenic routes, tourist destinations and areas of conservation significance or otherwise designed to complement the surrounding landscape.</p>	<p>DTS/DPF 1.1</p> <p>None are applicable.</p>
<p>PO 1.2</p> <p>Workers' accommodation and settlements are sited and designed to minimise nuisance impacts on the amenity of adjacent users of land.</p>	<p>DTS/DPF 1.2</p> <p>None are applicable.</p>
<p>PO 1.3</p> <p>Workers' accommodation and settlements are built with materials and colours that blend with the landscape.</p>	<p>DTS/DPF 1.3</p> <p>None are applicable.</p>
<p>PO 1.4</p> <p>Workers' accommodation and settlements are supplied with service infrastructure such as power, water and effluent disposal sufficient to satisfy the living requirements of workers.</p>	<p>DTS/DPF 1.4</p> <p>None are applicable.</p>

No criteria applies to this land use. Please check the definition of the land use for further detail.