

PLAN 3

PLANNING APPLICATION PLN-20-0078

880 HOBART ROAD, BREADALBANE

ATTACHMENTS

- A Application & plans, correspondence with applicant
- B Responses from referral agencies
- C Representation & applicant's response

1-410
PLANNING APPLICATION
Proposal

Description of proposal:Proposed Pet Crematorium.....

.....
.....
.....
.....

(attach additional sheets if necessary)

If applying for a subdivision which creates a new road, please supply three proposed names for the road, in order of preference:

1..... 2..... 3.....

Site address: ...880 Hobart Road, Breadalbane.....

.....

CT no: ...1/125509.....

Estimated cost of project \$330,000..... *(Include cost of landscaping, car parks etc for commercial/industrial uses)*

Are there any existing buildings on this property? **Yes**

If yes – main building is used asShed.....

If variation to Planning Scheme provisions requested, justification to be provided:

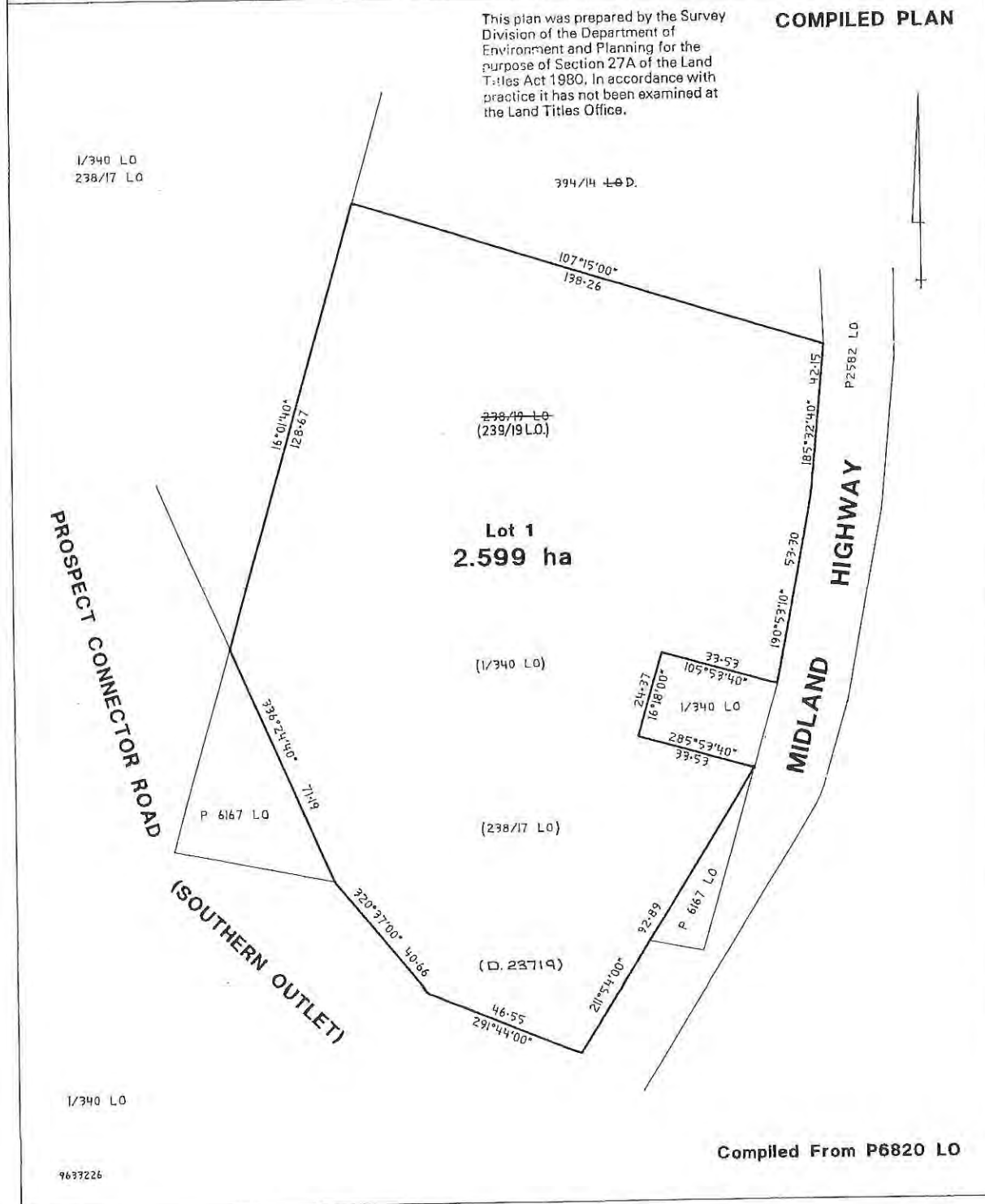
.....
.....
.....
.....
.....

(attach additional sheets if necessary)

Is any signage required?

(if yes, provide details)

OWNER THE CROWN		<p>PLAN OF TITLE</p> <p>LOCATION TOWN OF BREADALBANE & LAND DISTRICT OF CORNWALL</p> <p>PARISH OF BREADALBANE</p> <p>FIRST SURVEY PLAN No. P6820 LO</p> <p>COMPILED BY OFFICE OF THE SURVEYOR-GENERAL</p> <p>SCALE 1:1000 LENGTHS IN METRES</p>	REGISTERED NUMBER
<p>FOLIO REFERENCE SEC.27A (B.97194)</p> <p>INC. F/R: 23719-2 (NOTN. 29/1925, NOTN. 29/3058)</p> <p>GRANTEE PART OF 556-O-O & 564-O-O G/D. TO THOMAS SCOTT</p>			<p>P125509</p> <p>APPROVED EFFECTIVE FROM 20 SEP 1996</p> <p><i>M. Hillier</i> Recorder of Titles</p>
MAPSHEET MUNICIPAL CODE No 123	LAST UPI No	LAST PLAN No P6820 LO D.23719	ALL EXISTING SURVEY NUMBERS TO BE CROSS REFERENCED ON THIS PLAN





15/04/2020

Applicant – Wilkin Design

Our ref - DA-201224

To: NMC Planning Dept.

Re: Proposed Pet Crematorium at 880 Hobart Rd. Breadalbane

The proposal is for a 246.50m² brick and clad building with a colorbond roof to be built on a block of land at Breadalbane to be used as a Pet Crematorium.

It is proposed to have a public drop off area that will be under cover and an additional access to the rear for picked up animals and goods deliveries.

The hours for the use would be 7:30am to 5:30pm Monday to Sunday.

This crematorium is to be moved from its existing, permitted position at the Pets now Boarding complex at 805 Hobart Rd.

Generally, there would be 2 to 3 public vehicles per day and 2 to 3 van deliveries making 6 to 8 traffic movements per day including two staff.

There is an existing crossover and access road that will require minimum upgrades to comply with LGAT details for Urban Roads driveways.

The closest existing sensitive use is 175.00m. to the North.

Planning Notes:

- Zone is Rural Resource and borders RRZ or highways in all directions.
- Use is permitted as per NMC interim planning scheme with two uses possible.

Domestic animal breeding, boarding or training If not on prime agricultural land

Crematoria and cemeteries If for crematoria and not on prime agricultural land

With the proviso of PAL we would comment:

Class	4
Description	Land well suited to grazing but which is limited to occasional cropping or a very restricted range of crops

Comment: So, the land, while being class 4 is extremely restricted because of the size of the lot. Being roughly 2.6Ha with dam, road, existing shed and trees it would be impossible to make a viable agricultural business from grazing.

26.3.1

P1.1 *It must be demonstrated that the use is consistent with local area objectives for the provision of nonprimary industry uses in the zone, if applicable; and*

Comment: The use is consistent as it will be a movement of an existing use already in the area, it could also be argued that the use is "primary" not nonprimary as it caters to landholders for disposal of animals as much as for the general public.



P1.2 Business and professional services and general retail and hire must not exceed a combined gross floor area of 250m² over the site.

Comment: N/A

P2.1 Utilities, extractive industries and controlled environment agriculture located on prime agricultural land must demonstrate that the:

- i) amount of land alienated/converted is minimised; and
- ii) location is reasonably required for operational efficiency; and

Comment: N/A

P2.2 Uses other than utilities, extractive industries or controlled environment agriculture located on prime agricultural land, must demonstrate that the conversion of prime agricultural land to that use will result in a significant benefit to the region having regard to the economic, social and environmental costs and benefits.

Comment: N/A

P3 The conversion of non-prime agricultural to nonagricultural use must demonstrate that:

- a) the amount of land converted is minimised having regard to:
 - i) existing use and development on the land; and
 - ii) surrounding use and development; and
 - iii) topographical constraints; or
- b) the site is practically incapable of supporting an agricultural use or being included with other land for agricultural or other primary industry use, due to factors such as:
 - i) limitations created by any existing use and/or development surrounding the site; and
 - ii) topographical features; and
 - iii) poor capability of the land for primary industry; or
- c) the location of the use on the site is reasonably required for operational efficiency.

Comment: Currently the land is empty and has no agricultural use, it is a small block with large rock outcrops so impossible to crop in conventional ways, it is too small to graze and with sensitive uses 200m. away sprays and noisy applications would be much more detrimental to the area.

P4 It must be demonstrated that:

- a) emissions are not likely to cause an environmental nuisance; and
- b) primary industry uses will not be unreasonably confined or restrained from conducting normal operations; and
- c) the capacity of the local road network can accommodate the traffic generated by the use.

Comment: Emissions are not an issue as the existing crematorium is a EPA approved model and has been in use for years in the area without any issues, no primary industry will be affected and as it is very minimal vehicle movements the road network is more than capable of carrying it, it should also be note that the vehicle movements are actually no more than existing as it's a use that's being move 100m. up the same road.

P5 It must be demonstrated that the visual appearance of the use is consistent with the local area having regard to:

- a) the impacts on skylines and ridgelines; and
- b) visibility from public roads; and
- c) the visual impacts of storage of materials or equipment; and
- d) the visual impacts of vegetation clearance or retention; and
- e) the desired future character statements.



Comment: The new building will have a high level of finish and design prowess as it is designed to make people comfortable after the loss of their animals. It won't be seen from the main highway but there will be a vignette of view from the roundabout. We believe it could be argued that it will enhance the visual appearance of that area. There will be no goods or equipment outside, some vegetation will be removed but again minimal as it is located in a cleared area.

26.4.1

A1 Building height must not exceed:

- a) 8m for dwellings; or
- b) 12m for other purposes.

Comment: The building is under 12m. therefore complies

A2 Buildings must be set back a minimum of:

- a) 50m where a non-sensitive use or extension to existing sensitive use buildings is proposed; or
- b) 200m where a sensitive use is proposed; or
- c) the same as existing for replacement of an existing dwelling.

Comment: The building is set back from any sensitive use 175.00m. The boundary setbacks to roads are not clearly set out in the scheme but as they are major highways and large urban roads it will certainly not be any issue. As it is a nonsensitive use we would argue that setbacks comply.

Further: Under the Car-parking Code the closest we have is either

*Crematoria and cemetery 1 space per employee + 1 visitor space + 1 space per 4 chapel seats
1 space per 50 chapel seats or Domestic animal breeding, boarding or training 1 space per staff member*

Comment: This proposal doesn't quite fit the criteria as it doesn't hold a chapel. We would argue that 1 space per employee equals two plus one visitor space and one space for 4 chapel seats (waiting room) gives a requirement of four therefore the application complies.

Commentary: This Application fits the intent of the rural resource zone especially on these small land holdings that dot the landscape. It is a shift of an existing use that has never had any issues and we would expect that would continue. It won't affect any industry or agricultural use in the area and will be visually pleasing.

If you require anything else please don't hesitate to ask.

Yours Sincerely

Todd Wilkin

Applicant obo client

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PROPOSED PET CREMATORIUM AND DOG KENNELS IN EXISTING SHED AT 880 HOBART RD. BREADALBANE



wilkin
design

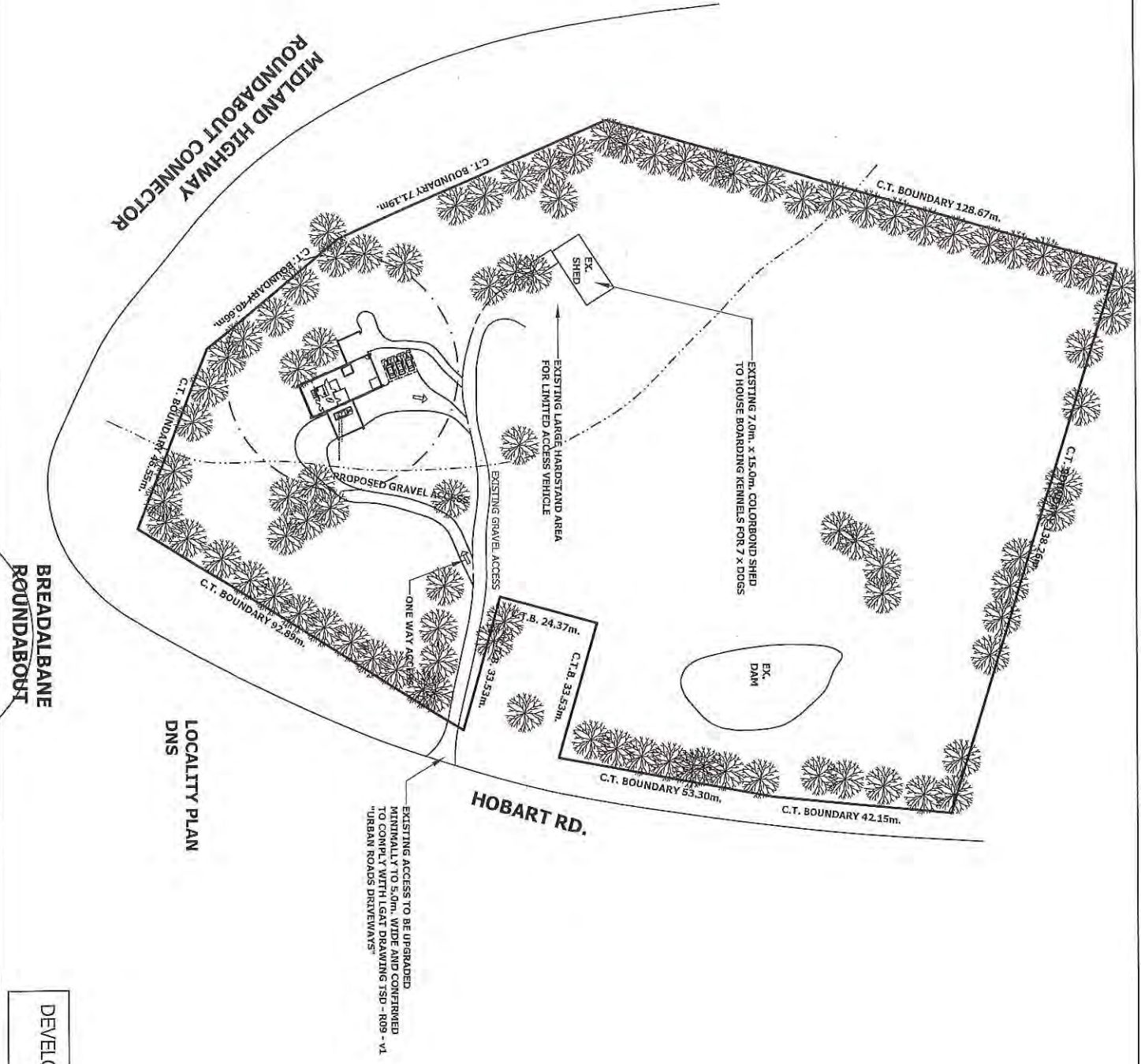
P.O. BOX 478
LAUNCESTON
TASMANIA 7250

ACCREDITATION NO:
CC678 X

DATE:
14/06/2020

TDS NUMBER:
DA-201224

DEVELOPMENT APPLICATION ONLY
[NOT FOR CONSTRUCTION]



880 HOBART RD
 BREADALBANE TAS 7298
 TITLE REF: 125509/1
 PROPERTY ID: 18/8261
 AREA = 2.5991a



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 design

P.O. BOX 478
 LAUNCESTON
 TASMANIA 7230

REGISTRATION NO
 CC678 X

NOTES
 1. All work to be done in accordance with the relevant Australian Standards and Tasmanian Regulations.

PROJECT TITLE:
**PET CREMATORIUM,
 880 HOBART RD,
 BREADALBANE**

REVISION:
 1. As shown

DATE:
 14/06/2020

SCALE:
 AS SHOWN

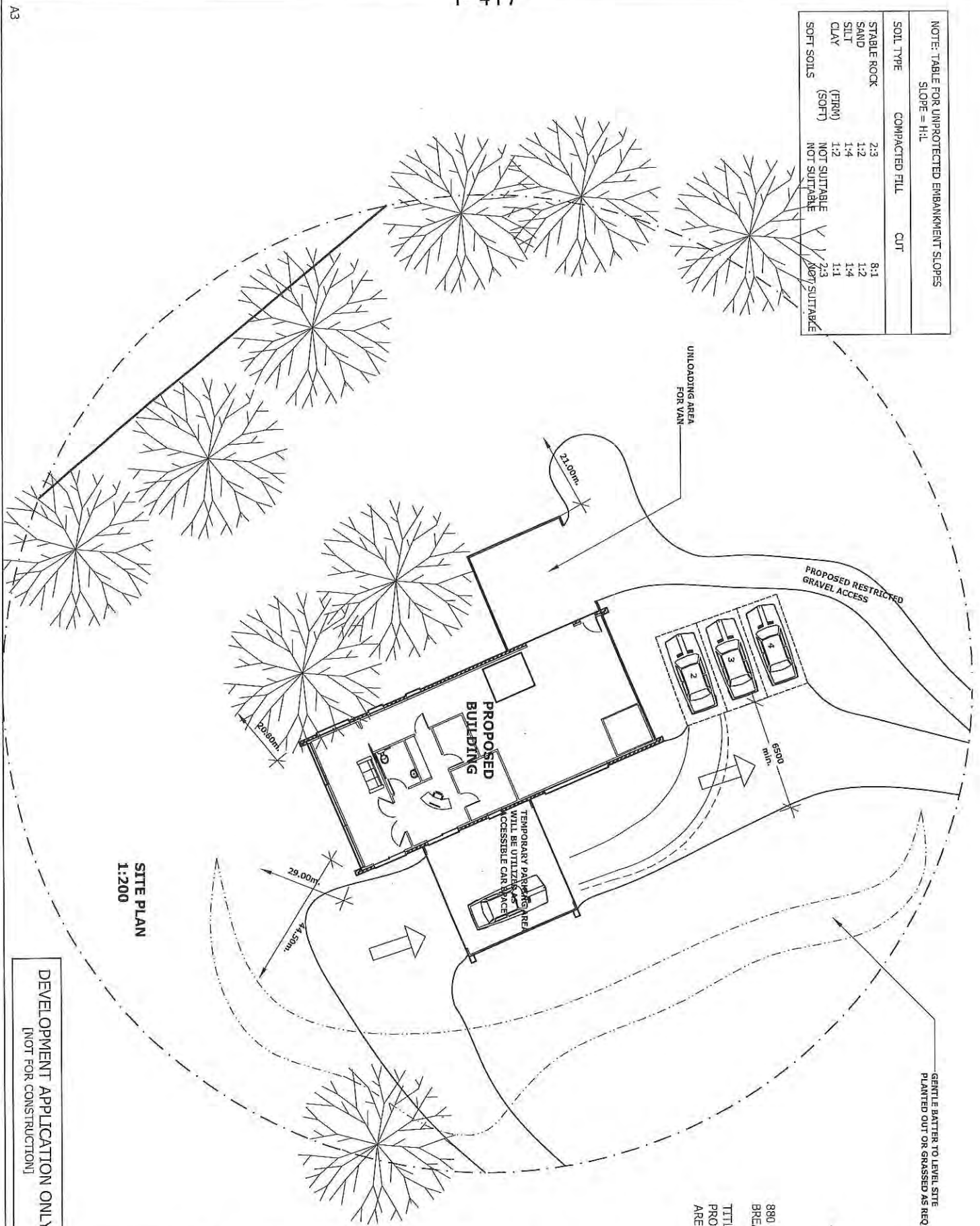
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 01 of 06

DEVELOPMENT APPLICATION ONLY
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NOTE: TABLE FOR UNPROTECTED EMBANKMENT SLOPES
SLOPE = H:L

SOIL TYPE	COMPACTED FILL	CUT
STABLE ROCK	2:3	8:1
SAND	1:2	1:2
SILT	1:4	1:4
CLAY (FIRM)	1:2	1:1
CLAY (SOFT)	NOT SUITABLE	2:3
SOFT SOILS	NOT SUITABLE	NOT SUITABLE




SITE PLAN
1:200

880 HOBART RD
BREADALBANE TAS 7258
TITLE REF: 125509/1
PROPERTY ID: 1878261
AREA = 2.599ha



DEVELOPMENT APPLICATION ONLY
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P.O. BOX 478
LAUNCESTON
TASMANIA 7250

ACREDITATION NO:
CC678 X

NOTES:
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PROJECT TITLE
**PET CREMATORIUM,
880 HOBART RD,
BREADALBANE**

REVISION:
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DATE:
14/06/2020

SCALE:
AS SHOWN

JOB NUMBER:
DA-201224

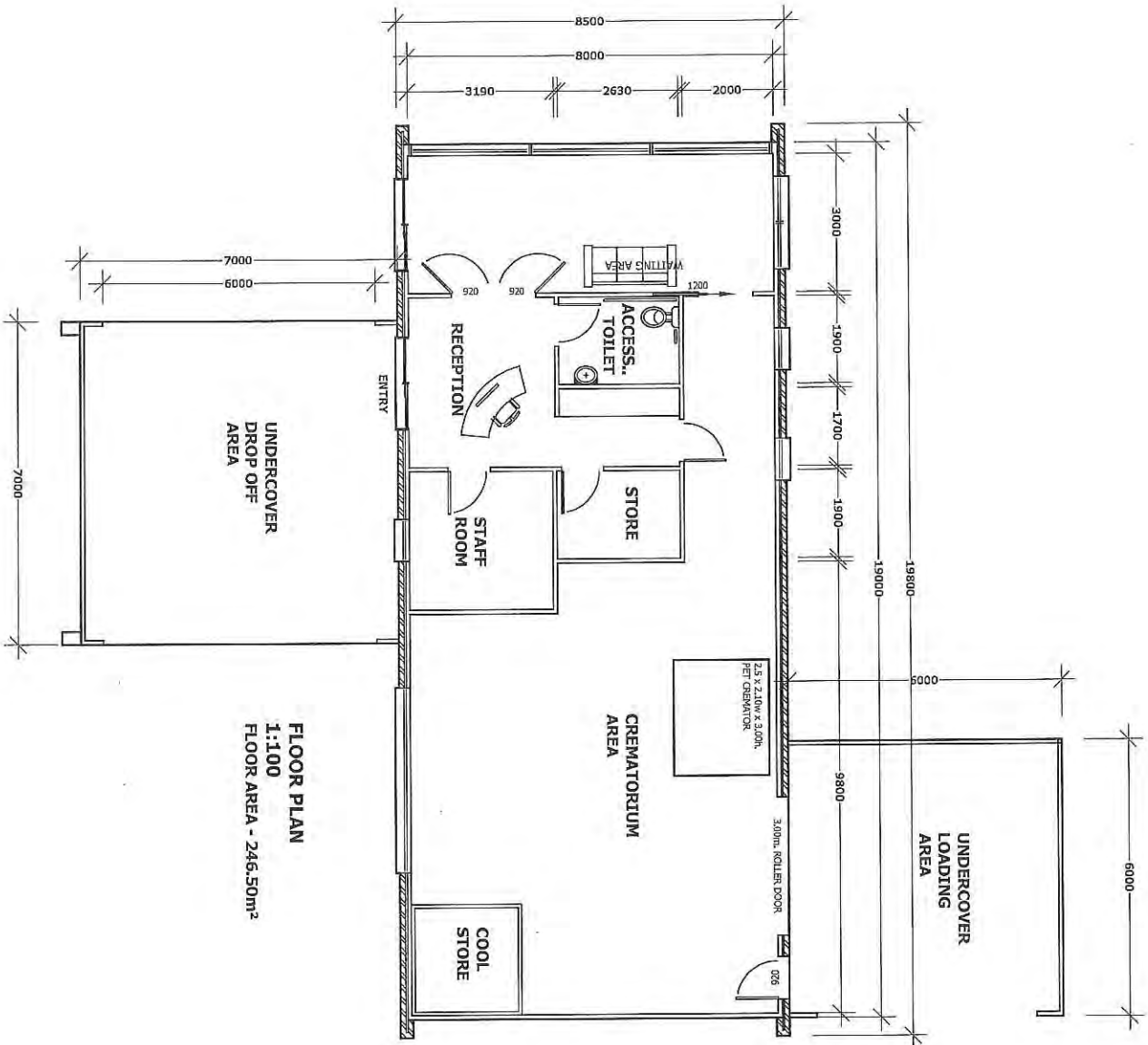
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FLOOR PLAN
1:100
FLOOR AREA - 246.50m²



Wilkin
 design

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 TASMANIA 7250

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 CC678 X

NOTES:

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PET CREMATORIUM.
880 HOBART RD.
BREDALEBANE

REVISION:

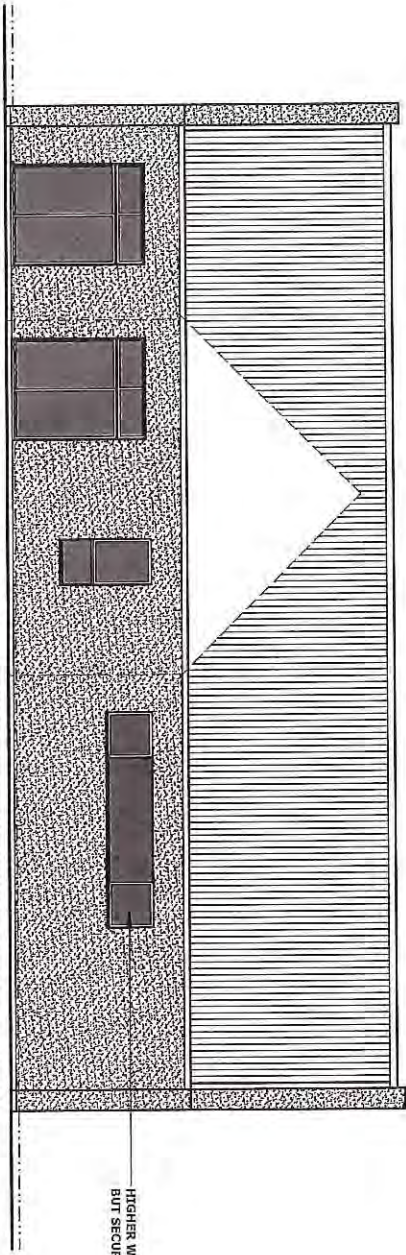
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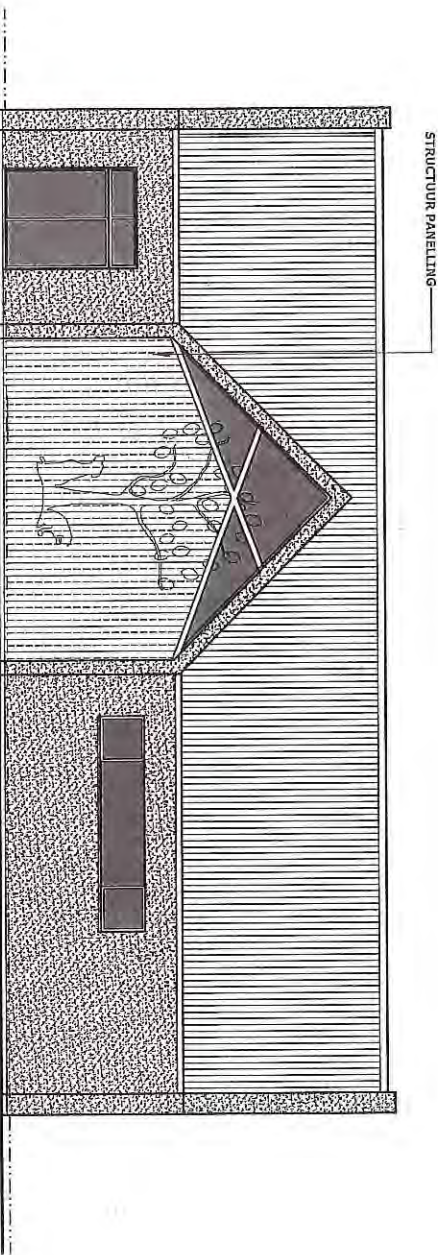
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EAST ELEVATION (WITHOUT DRIVE THROUGH AREA)
1:100



EAST ELEVATION
1:100

HIGHER WINDOWS FOR LIGHT
BUT SECURE

STRUCTURE PANELLING



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TASMANIA 7250

ACCREDITATION NO:
CC678 X

NOTES

PROJECT TITLE
PET CREMATORIUM.

**880 HOBART RD.
BREADALBANE**

REVISION:

DATE
14/06/2020

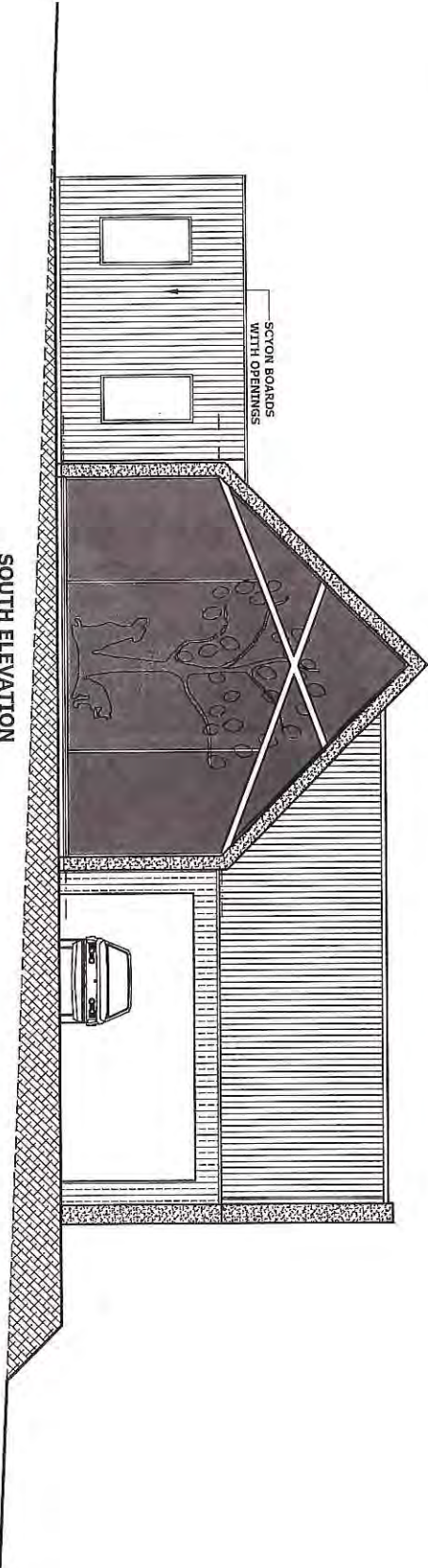
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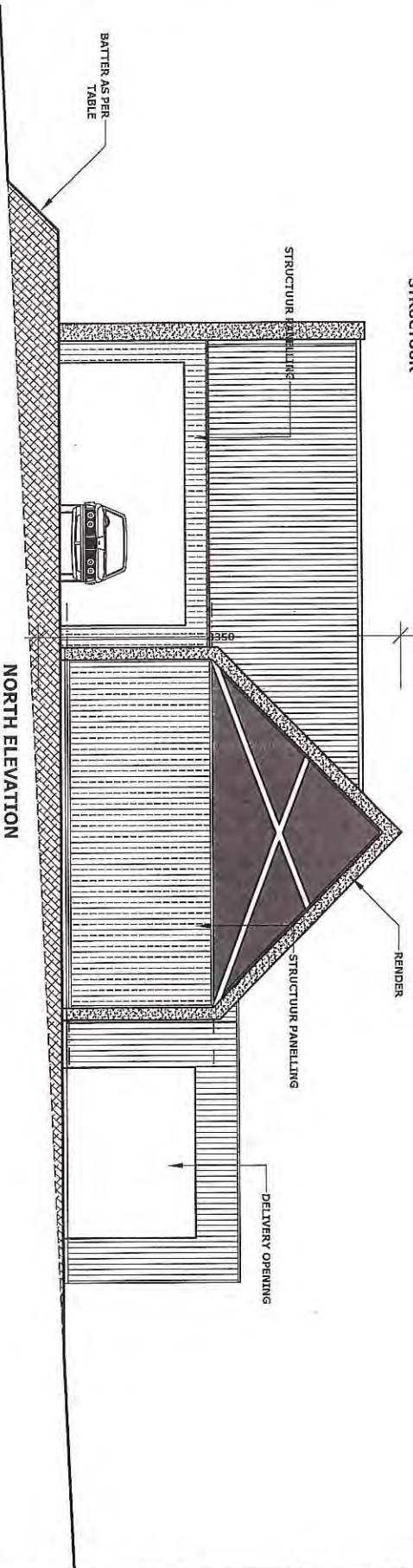
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SOUTH ELEVATION
1:100



STRUCTUUR

NORTH ELEVATION
1:100



BATTER AS PER TABLE

STRUCTUUR PANELLING

RENDER

STRUCTUUR PANELLING

DELIVERY OPENING



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NOTES

PROJECT TITLE:
**PET CREMATORIUM,
880 HOBART RD,
BREADALBANE**

REVISION:
1

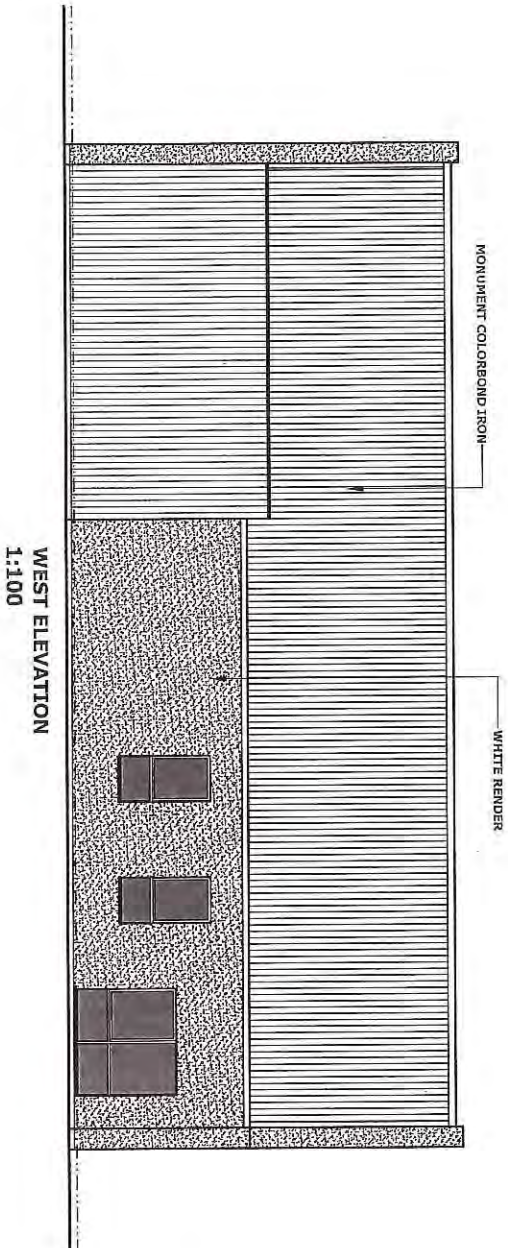
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WEST ELEVATION
1:100



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**PET CREMATORIUM,
880 HOBART RD,
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DEVELOPMENT APPLICATION ONLY
[NOT FOR CONSTRUCTION]

Our ref: PLN-20-0078
Enquiries: Paul Godier



NORTHERN
MIDLANDS
COUNCIL

7 May 2020

Wilkin Design
PO BOX 478
LAUNCESTON 7250

By email: office@wilkindesign.com.au

Dear Mr Wilkin

Additional Information Required for Planning Application PLN-20-0078- Pet Crematorium at 880 Hobart Road, Breadalbane

I refer to the abovementioned application, which has been reviewed by council's planners. The following information is required to allow consideration of your application under the *Northern Midlands Interim Planning Scheme 2013*:

- A Traffic Impact Assessment addressing clauses E4.6.1 A3/P3 and E4.7.4 A1/P1.
- As the cremator is proposed within 300m of dwellings, a Site Specific Study addressing clause E11.6.1 P2 (I have attached a proforma for your assistance).
- Advice on the type and quantity of gas to be stored that will be used in the cremator.

In accordance with Section 54 of the *Land Use Planning and Approvals Act 1993*, the statutory period for processing the application will not recommence until the requested information has been supplied to the satisfaction of the Planning Authority.

If you have any queries, please contact me on 6397 7301, or e-mail planning@nmc.tas.gov.au

Yours sincerely

Paul Godier
SENIOR PLANNER

Encl. Site Specific Study proforma

Traffic Assessment

Proposed Pet Crematorium

880 Hobart Road, Breadalbane

SUBMITTED BY:

TERRY EATON
Traffic Engineer
29 Carey's Road
Bridgenorth TAS 7277
TEL / FAX: (03) 6330 1510

JUNE 2020

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1. Introduction

A proposal is being advanced to provide a Pet Crematorium at 880 Hobart Road, Breadalbane.

As part of the application documentation a traffic report is required to address Section E4 Road and Railway Assets Code of the Northern Midlands Interim Planning Scheme.

This report, prepared by Terry Eaton, an experienced traffic engineer, is provided for that purpose.

Preparation of the report has included discussions with the designer, Mr T Wilkin, and a site visit.

2. The Site

The site is a lot of some 2.6 hectares located between the Midland Highway round-a-bout connector to Evandale Main Road and Hobart Road just north of the Hobart Road / Evandale Road round-a-bout.

Access to the land is by an existing gravel driveway to Hobart Road some 90 metres north of the round-a-bout.

Sight distance at the driveway is some 135 metres to the north, some 160 metres to right turns at the roundabout and 115 metres to left turns to the south.

3. The Proposal

The proposal is to construct a building of some 320 m² to provide office, waiting room and crematorium area to facilitate the disposal of generally household pets.

The building to be located some 30 metres from the southern boundary and 20 metres to the west side boundary of the Midland Highway round-a-bout connector.

Access to the building is to be by a driveway from the existing road crossing.

4. Frontage Roads

- **Midland Highway Round-a-bout Connector**

This road provides the off-ramp connectors for the Midland Highway to Evandale Main Road and Hobart Road. Following the recent upgrade and relocation of the Midland Highway in this vicinity this road is considered in classification as an extension of Evandale Main Road. In view of this change in road configuration it is considered this road as a Category 3 road within the State Road Hierarchy.

- **Hobart Road**

Hobart Road is a local road under the management of the Northern Midlands Council and is considered to function as a sub-arterial route between the southern suburbs of Launceston and the Airport / Evandale area.

At the site frontage the road is constructed with 4.5 metre wide sealed traffic lanes for each direction with 1.5 metre sealed and 1.5 metre gravel shoulders on the site side and 2.0 metre sealed and 1.0 metre gravel shoulder opposite with grassed verges on both sides.

A 1.3 metre wide table drain is at the lot frontage generally located central to the 7.0 metre wide verge area.

Road markings past the site included double centre lines and edge lines. An 80 km/h speed zone for the road to the north is located some 39 metres north of the existing driveway for No. 880.

The road is relatively straight past the site and relatively flat in profile. Roadside development is considered as medium density residential north of the 80 km/h sign.

5. Traffic Data

- **Hobart Road**

The average daily traffic (ADT) volume on Hobart Road past the site is estimated at some 4,000 vehicles.

- **Existing Access**

This access is to a vacant lot such that minor traffic movements, i.e. ADT of less than 2 vehicle movements.

- **Pet Crematorium**

Limited information is available on the traffic generation of such facilities, the information on use provided by Wilkin Design estimates use at some 20 two-way movements per day, this value is considered as realistic.

6. Assessment

Assessment in accord with Section E4 Road and Railway Assets Code of the Northern Midlands Interim Planning Scheme 2013 indicates:

E4.6.1 P3 The location fronts a section of Hobart Road where the 100 km/h speed limit would apply, however due to the proximity of the round-a-bout to the south of the access and the 80 km/h speed limit just to the north, the travel speed pas the site is estimated at some 60 to 70 km/h.

- a) Not applicable
- b) Not applicable, Hobart Road is not classified as a Category 1, 2 or 3 road
- c) The existing driveway is considered adequate for the use with the layout consistent with the municipal standard for use. However, upgrading and widening of the pavement to cater for two-way use from the nearest edge of seal to some 10 metres inside the boundary to the requirements of the Northern Midlands Council is suggested.

- Considered to Comply

E4.7.1 A1 As outlined in this report one boundary of this road is to the State Highway reserve until recently a Category 1 road, but with recent alignment changes it is considered the Category 1 road is now more than 50 metres from this boundary. It is suggested that the State Highway reserve at the boundary can now be classified as a Category 3 road.

- P1 a) The access to the site is from Hobart Road, this road is managed by the Northern Midlands Council and is not a State maintained road. In this report traffic use for the site will not impact on the safety of the state road network.
- b) The use is non-residential and will generally generate light vehicle traffic is some distance from the Category 1 Highway such that transport related impacts should have no adverse impacts on the use.
- c) The building location and site area provides for any future extensions away from the Highway boundary.
- d) Not applicable
- E4.7.2 A2 The proposal is to access the site by use of the existing driveway to Hobart Road
- E4.7.3 Not applicable
- E4.7.4 P1 The location in close proximity to the Evandale Road round-a-bout with a negotiating speed less than 60 km/h and the 80 km/h speed limit just north of the driveway suggests approach and departure speeds past the driveway at some 70 km/h. Department of State Growth (DSG) crash records indicate no recorded crashes on Hobart Road in proximity to the site in the last 5 years.
- Sight distance to the north at some 135 metres is just short of the Table E4.7.4 safe intersection sight distance (SISD) provisions for a 70 km/h speed, i.e. provides for an approach speed of some 68 km/h. The 135 metre distance meets approach sight distance (ASD) for an approach speed in excess of 85 km/h (2.5 second reaction time) and meets truck stopping distance for an approach speed of some 75 km/h (2.5 second reaction time). Additionally, the single lane sealed width some 6.0 metres provides for passing vehicles to manoeuvre clear of any stored vehicle waiting to turn to No. 880. Consideration of the above factors suggests use of the existing access should be safe for vehicles passing the driveway to No. 880 from the north.

- Sight distance to the south:

Sight distance from this direction to a vehicle turning right at the round-a-bout (160 metres) is in excess of the Table E4.7.4 requirements for a 70 km/h vehicle speed.

Sight distance for vehicles turning left to Hobart Road at the round-a-bout (some 115 metres). However, this speed meets ASD for a 80 km/h approach speed at 2.5 second reaction time and truck stopping distance for a 70 km/h approach speed. Note, ASD and truck stopping distance are considered as the minimum criteria which should be available at an access.

The available sealed traffic lane width for north bound traffic of some 6.0 metres provides for manoeuvring space clear of any left turn vehicle to the driveway.

Consideration of these factors indicates a safe access for vehicles approaching the driveway from the south.

7. Conclusion

A traffic assessment for a proposed Pet Crematorium at 880 Hobart Road with access via the existing driveway to 880 Hobart Road indicates compliance with Section E4 of the Northern Midlands Interim Planning Scheme provided the driveway is upgraded for two-way use and in compliance with the requirements of the Northern Midlands Council.

Terry Eaton

Attachments

1. PHOTOS



EXISTING
DRIVEWAY

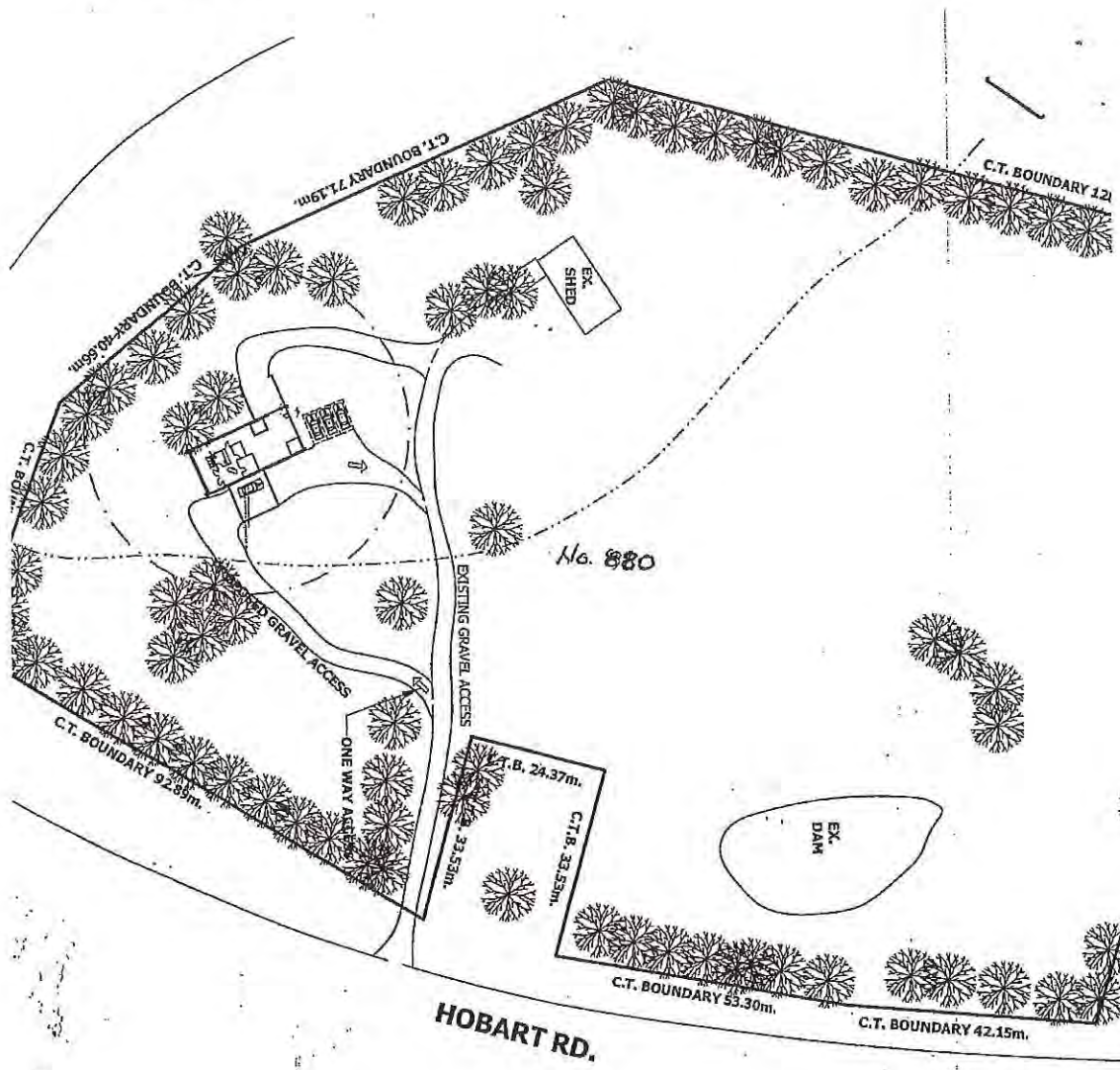


VIEW TO NORTH



VIEW TO SOUTH

2. SITE PLAN



SITE PLAN

Rosemary Jones

From: TasWater Development Mailbox <Development@taswater.com.au>
Sent: Friday, 10 July 2020 3:31 PM
To: NMC Planning
Subject: TasWater Advice RE: Planning Authority Notice, TWDA 2020/00855-NMC, for Council permit PLN-20-0078

Dear Sir/Madam

Pursuant to the Water and Sewerage Industry Act 2008 (TAS) Section 56P(1) TasWater has assessed the application for the above mentioned permit and has determined that the proposed development does not require a submission from TasWater.

If you have any queries, please contact me.

Thanks

Sam Bryant
Senior Assessment Officer



D (03) 6237 8642
M 0474 933 294
F 1300 862 066
A GPO Box 1393, Hobart TAS 7001
169 Main Road, Moonah, TAS 7009
E sam.bryant@taswater.com.au
W <http://www.taswater.com.au/>

Have I been helpful? Please provide feedback by clicking [here](#).



**THANKS
IS ENOUGH**



Tasmanians are often keen to say thanks to our employees for a job well done. Instead of a gift, we'd prefer that you send us a simple card, a letter or an email. We'd appreciate it!

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REFERRAL OF DEVELOPMENT APPLICATION PLN-20-0078 TO WORKS & INFRASTRUCTURE DEPARTMENT

Property/Subdivision No: 203300.2

Date: 19 June 2020

Applicant: Wilkin Design

Proposal: Pet Crematorium (vary setbacks) and dog boarding kennels (Road & Railway Assets Code, Scenic Management Code, Environmental Impacts & Attenuation Code)

Location: 880 Hobart Road, Breadalbane

W&I referral PLN-20-0078, 880 Hobart Road, Breadalbane

Planning admin: W&I fees paid.

Jonathan - if you require further information, advise planning section as soon as possible – there are only 14 days from receipt of permitted applications and 21 days from receipt of discretionary applications to stop the clock.

W.2 Access (Rural)

- a) The existing driveway crossover must be sealed and upgraded to meet LGAT standard drawing TSD-R03
- b) Access works must not commence until an application for vehicular crossing has been approved by Council.

Jonathan Galbraith (Engineering Officer)

Date: 19/6/20

Rosemary Jones

From: Hills, Garry <Garry.Hills@stategrowth.tas.gov.au>
Sent: Tuesday, 23 June 2020 2:05 PM
To: NMC Planning
Subject: RE: Referral to Department of State Growth of Planning Application PLN-20-0078 - 880 Hobart Road, Breadalbane TAS 7258

Our Ref: D20/153509

Hello Rosemary – thanks for the referral.

The Department have no comment to make regarding this proposal.

Cheers, Garry

Garry Hills | Senior Traffic Engineering Officer
 State Roads Division | Department of State Growth
 GPO Box 536, Hobart TAS 7001
 Phone: (03) 6777 1940
www.stategrowth.tas.gov.au

DEPARTMENT OF STATE GROWTH COURAGE TO MAKE A DIFFERENCE THROUGH:



From: NMC Planning [mailto:planning@nmc.tas.gov.au]
Sent: Friday, 19 June 2020 2:45 PM
To: Development <Development@stategrowth.tas.gov.au>
Subject: Referral to Department of State Growth of Planning Application PLN-20-0078 - 880 Hobart Road, Breadalbane TAS 7258

19/06/2020

Department of State Growth

via email to: Development@stategrowth.tas.gov.au

Referral to Department of State Growth of Planning Application PLN-20-0078 - 880 Hobart Road, Breadalbane TAS 7258

The following planning application has been received under the *Northern Midlands Interim Planning Scheme 2013*.

NMC ref no:	PLN-20-0078
Site:	880 Hobart Road, Breadalbane TAS 7258
Proposal:	Pet Crematorium (vary setbacks) and dog boarding kennels (Road & Railway Assets Code, Scenic Management Code, Environmental Impacts & Attenuation Code)
Applicant:	Wilkin Design
Use class:	Crematoria & Cemeteries, Domestic Animal breeding, boarding or training
Zone:	RURAL RESOURCE ZONE
Development status:	Discretionary
Notes:	The subject site is in a 80kph zone.

Attached is a copy of the application, plans/documentation relating to the proposal. It would be appreciated if you could return any comments, or notification that you do not wish to comment on the application, within fourteen (14)

Site Specific Study for PLN-20-0078-
Pet Crematorium at 880 Hobart Road, Breadalbane
within Attenuation Distance

Response to Planning Scheme provisions of Code E11-
Environmental Impacts and Attenuation Code, Clause E11.6.1 (P1):

P1 Sensitive use or subdivision for sensitive use within an attenuation area to an existing activity listed in Tables E11.1 and E11.2 must demonstrate by means of a site specific study that there will not be an environmental nuisance or environmental harm, having regard to the:

a) degree of encroachment:

How close is the emitting operation?

- 1 Raeburn Road - Approximately 230.000.....m.
- 3 Raeburn Road - Approximately 228.00.....m.
- 18 Raeburn Road - Approximately 242.00.....m.
- 24 Raeburn Road - Approximately 255.00.....m.
- 851 Hobart Road - Approximately 296.00.....m.
- 861 Hobart Road - Approximately 235.00.....m.
- 852 Hobart Road - Approximately 262.00.....m.
- 854 Hobart Road - Approximately 228.00.....m.
- 860 Hobart Road - Approximately 198.00.....m.
- 862 Hobart Road - Approximately 190.00.....m.
- 864 Hobart Road - Approximately 170.00.....m.

What is between the subject site and the emitting operation?

general countryside, trees shrubs, sheds roads etc.,
.....
.....

b) nature of the emitting operation being protected by the attenuation area:

What emissions does the operation produce? (noise and odours etc).

neither noise or odour as it uses a EPA approved machine
.....

.....
Are these emissions prevalent at this site?

no
.....
.....

If so, how do the emissions affect the subject site?

no
.....
.....

degree of hazard or pollution that may emanate from the emitting operation:

Are the emission produced having negative effects on the site?

there is none
.....
.....

Is the degree of impact at the site increased, lessened or the same as a result of the structure?

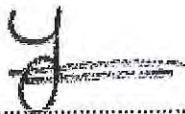
same
.....
.....

c) the measures within the proposal to mitigate impacts of the emitting activity to the sensitive use:

Are there any manmade or natural buffers offered on site, or in the surrounding area, that may reduce the impact of the emitting operation? (i.e. distance of residential development between the subject site and emitting operation)

none are required
.....
.....

Signed:



Date:

11-05-20

THE General Manager
Northern Midlands Council
PO Box 156,
Longford, TAS 7301
planning@nmc.tas.gov.au

30 June 2020

Dear Sirs,

RE: PLN-20-0078 PET CREMATORIUM 880 HOBART ROAD. BREADLABANE

We write in regard to the above application. Whilst we don't not object in principle to development there are a number of factors that we have concerns with.

1. Existing Land Use

The application states the existing use is vacant land. Until recently the land was a working commercial Cherry farm. Whilst we have no concerns with the change of use the misleading statement should be noted.

2. Environmental Nuisance

The application states the emission are not an issue as the existing crematorium is an EPA approved model. We strongly disagree with this statement and further supporting documentation should be provided. In speaking with the operators or the Van Diemen's Quarry and the workers at the Hazel Bros Concrete batching plant. They have stated there is considerable odour when the crematorium is in use, The Quarry offices are 845m from the current site and the batching plant is approx. 350m. neither of these are sensitive use. The proposal seeks to locate within 175m of existing residents. With all Breadalbane residents falling withinside a 350m area of the proposed site. The use of an odour producing device so close to existing residents is an inappropriate use. Furthermore, thee application states a 7 day a week operation so there will be no reprieve to any of the surrounding residents.

The Environment Protection Policy (air quality) 204 states

Odour

13. (1) If a regulatory authority is satisfied that an odour from an activity is causing or is likely to cause an environmental nuisance or environmental harm, the authority should require that the odour emission from the source not exceed the odour criteria specified in Schedule 3, at or beyond the boundary of the land on which the source is located.

The current situation does not contain the odour to the boundary and as such, the residents of Breadalbane should not be exposed to this increase odour. As residential use is classified as a sensitive use we believe the above information justifies the inappropriate use of the site and trust that you will act in the best interest of your residents in refusing this application

Yours Sincerely



Heath and Trish Clayton
832 Hobart Road
Breadalbane, TAS. 7258

Paul Godier

From: Todd Wilkin <todd@wilkindesign.com.au>
Sent: Wednesday, 8 July 2020 11:20 AM
To: Paul Godier
Cc: Laura Walduck; NMC Planning; anna mcfarlane
Subject: RE: 880 Hobart Rd
Attachments: EPP_Air_Quality_2004.pdf; Planning application (2).pdf; Toowoomba oder report.pdf

Thanks Paul, yes Anna rang me after I had drafted that over night.
It would be really appreciated if you would let me know if you are recommending it for approval before the meeting.
All info attached

Kind Regards



Todd Wilkin | Director
Wilkin Design | PO Box 478 | Launceston | Tas | 7250
t. 0418 596 377 | e. office@wilkindesign.com.au

From: Paul Godier <paul.godier@nmc.tas.gov.au>
Sent: Wednesday, 8 July 2020 11:14 AM
To: Todd Wilkin <todd@wilkindesign.com.au>
Cc: Laura Walduck <laura@wilkindesign.com.au>; NMC Planning <planning@nmc.tas.gov.au>
Subject: 880 Hobart Rd

Dear Todd, this application has been assigned to me.

The representation will be taken into consideration in accordance with clause 8.10.1 of the scheme.

The application will need to go to the Council meeting of 20 July for a decision, we don't have delegation when one or more representations are received.

If you can provide the following it will assist in deciding on the application:

- Specifications of the machine including emissions limits and the maximum size animal it can cremate.

Our Longford office is open from 8:45am until 4:30pm weekdays, however meetings with Council Officers are by appointment only, and we ask that transactions be conducted via telephone or online wherever possible. Our Customer Service team can be contacted by phone, post, via our website or email at council@nmc.tas.gov.au
Our priority is to keep our community, including staff, ratepayers and residents safe and to minimise the spread of COVID-19.

Paul Godier



NORTHERN
MIDLANDS
COUNCIL

Senior Planner | Northern Midlands Council
Council Office, 13 Smith Street (PO Box 156), Longford Tasmania 7301
T: (03) 6397 7303 | F: (03) 6397 7331
E: paul.godier@nmc.tas.gov.au | W: www.northernmidlands.tas.gov.au

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From: Todd Wilkin <todd@wilkindesign.com.au>
Sent: Wednesday, 8 July 2020 11:01 AM
To: Paul Godier <paul.godier@nmc.tas.gov.au>
Cc: Laura Walduck <laura@wilkindesign.com.au>; NMC Planning <planning@nmc.tas.gov.au>
Subject: FW: 880 Hobart Rd - see what you think before I send it

Hi Paul, I hope this finds you well.

I am not sure who to contact about the representation received about the crematorium as I don't know if a specific officer has been assigned to it.

Firstly I would like to know what credence this rep has been given and whether you will be recommending the application for approval.

Secondly I am wondering if you have a number for rep's received when you can still approve by delegation?

With the rep itself, we have lots of information about this type of machine and can forward it through but the rep uses anecdotal evidence so all the scientific information in the world is not going to stop that.

The points we would raise in return are:

- RRZ allows a crematorium as a discretionary use but the table makes specific mention of it so we are well inside the allowable uses.
- Residential use is supposed to be a subservient use to any agricultural one in this zone.
- It is not the fault of this application that subservient residential development has been permitted in the area that in turn increases the risk of a rep.
- The letter says it doesn't have a problem, as such with the use but wants it refused, I'm not sure of the logic of that.
- The cherry farm is not an existing use, the trees are in a chronic state of repair with many dead trees. They sourced cherries externally and sold them from the shed for a good while, but finally, this has no relevance anyway.
- The complaint about odours is completely anecdotal, the facility has never had a complaint from the quarry or anyone else.
- Even if this existed, which we categorically deny, the prevailing winds will be away from any residences.
- If the machine is used as the people have been trained in, it complies with all Australian standards and EPA requirements. There is not much more than can be done in that respect.

So in summary, I am asking if the planners will be giving this rep any credence and if so for what reason.

If the planners are going to recommend the application for approval.

If the council can still approve by delegation with this rep.

One final thing we would also like noted:

Council have approved another pet crematorium recently, to the best of our knowledge they are not installing an Aust. Standard approved machine.

This machine is to the North of Breadalbane so with winds there may be a smell from that.

We want to make it on the record so if it ever happens we want to point out we are not responsible.

If you could get back to as soon as possible it would be great, we would really like to not have to sign a stop clock for a rep like this as I don't think it should be taken seriously and slow up the procedures. I will also try and call.

Kind Regards



Todd Wilkin | Director
 Wilkin Design | PO Box 478 | Launceston | Tas | 7250
 t. 0418 596 377 | e. office@wilkindesign.com.au

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ENVIRONMENT PROTECTION POLICY (AIR QUALITY) 2004

Environment Division
Department of Tourism, Arts and the Environment



I, the Administrator in and over the State of Tasmania and its Dependencies in the Commonwealth of Australia, acting with the advice of the Executive Council and on the recommendation of the Minister, make the following environment protection policy under section 96K of the Environmental Management and Pollution Control Act 1994.

Dated 13 December 2004.

PETER G UNDERWOOD
Administrator

By His Excellency's Command,

JUDY JACKSON
Minister for Environment and Planning

This Environment Protection Policy came into effect on 1 June 2005

ENVIRONMENT PROTECTION POLICY (AIR QUALITY) 2004

Environment Division
Department of Tourism, Arts and the Environment
GPO Box 1751
Hobart Tasmania 7001
Australia

Published in June 2005 by the Department of Primary Industries, Water and Environment, GPO Box 44, Hobart, Tasmania 7001, Australia

Reprinted August 2007

ISBN 0 7246 6337 1

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Part 1 - PRELIMINARY

Authority

1. This Environment Protection Policy is made pursuant to the provisions of section 96A-96O of the *Environmental Management and Pollution Control Act 1994*. The types of provisions that may be included in an Environment Protection Policy are specified in section 96D of the Act.

Short title and commencement

2. This Environment Protection Policy may be cited as the Environment Protection Policy (Air Quality) 2004.

This Policy takes effect on the later of the following days –

- (a) 1 June 2005;
- (b) the date after it has been approved by both Houses of Parliament in accordance with section 96K of the Act.

Interpretation

3. (1) In this Policy, unless the contrary intention appears -

“**accepted modern technology**” means technology which has a demonstrated capacity to achieve the desired emission concentration in a cost-effective manner, takes account of cost-effective engineering and scientific developments and pursues opportunities for waste minimisation;

“**Act**” means the *Environmental Management and Pollution Control Act 1994*;

“**Air NEPM**” means the National Environment Protection Measure for Ambient Air Quality made by the National Environment Protection Council on 26th June 1998, as amended from time to time;

“**airshed**” means an area that is defined by natural or topographic features affecting air quality. Once a substance is emitted into an airshed, it is contained therein for a reasonable period of time;

“**ambient air environment**” means the external air environment and does not include the air environment inside buildings or structures;

“**Appeal Tribunal**” means the Resource Management and Planning Appeal Tribunal established by the *Resource Management and Planning Appeal Tribunal Act 1993*;

“**best practice environmental management**” has the same meaning as in the Act;

“**Board**” has the same meaning as in the Act;

“**diffuse sources of air pollution**” means a number of dispersed sources from which pollution entering the environment has the potential to combine with other such sources, and includes pollution from domestic solid fuel burning appliances,

motor vehicles, backyard burning and planned burning (as defined in clause 17(1));

“**Director**” means the Director of Environmental Management holding office under section 18 of the Act;

“**environmental harm**” has the same meaning as in the Act;

“**environmental nuisance**” has the same meaning as in the Act;

“**industrial location**” means:

- (a) premises used for the purpose of providing water, sewerage, drainage, electricity, gas, telecommunications, passenger transport, or similar services;
- (b) premises used by aircraft or ships or as a freight yard;
- (c) premises used for the carrying out of any process for and incidental to -
 - (i) production, processing or manufacture;
 - (ii) dismantling or breaking-up goods or equipment;
 - (iii) repairing, cleaning or servicing of equipment or buildings, but not including on-site work on buildings;
 - (iv) packaging; or
 - (v) outdoor storage not in association with any other activity on the site, but not including a vehicle sales yard;
- (d) a mine within the meaning of the *Mineral Resources Development Act 1995*;
- (e) without limiting item 4, any premises used for sand, soil, gravel, clay, limestone or rock excavation;
- (f) waste disposal sites and premises used for any process for and incidental to the treatment or disposal of waste;

“**in-stack concentration**” means the concentration of a pollutant within and prior to its emission from a chimney stack or other point of emission, as measured in accordance with the relevant Australian Standard or other procedure approved by the Director;

“**level 1 activity**” has the same meaning as in the Act;

“**level 2 activity**” has the same meaning as in the Act;

“**level 3 activity**” has the same meaning as in the Act;

“**material environmental harm**” has the same meaning as in the Act;

“**mg/m³**” means milligrams per cubic metre referenced to a temperature of 0 degrees Celsius and an absolute pressure of 101.325 kilopascals;

“**Minister**” means the Minister responsible for the administration of the Act;

“**NEPM**” means a national environmental protection measure within the meaning of the *National Environment Protection Council (Tasmania) Act 1995*;

“point source of air pollution” means a discrete, stationary, industrial location which is a source of pollution by one or more chimneys or other points of emission, but does not include a stationary motor vehicle, train or marine vessel;

“pollutant” has the same meaning as in the Act;

“pollute” has the same meaning as in the Act;

“ppm” means parts per million by volume;

“regulatory authority” means any authority that has a statutory power to approve or regulate the environmental effects of an activity. For level 1 activities the regulatory authority will be the relevant planning authority and for level 2 activities, the Director or the Board. There are some activities that are neither level 1 or level 2 activities and the regulatory authority in such instances is likely to be the relevant planning authority;

“responsible person” means the person responsible for an activity which emits or is likely to emit pollutants to the air;

“serious environmental harm” has the same meaning as in the Act;

“ $\mu\text{g}/\text{m}^3$ ” means micrograms per cubic metre referenced to a temperature of 0 degrees Celsius and an absolute pressure of 101.325 kilopascals; and

“waste” has the same meaning as in the Act.

(2) In this policy, words in the singular shall include the plural and words in the plural shall include the singular.

Part 2 - APPLICATION AND OBJECTIVES

Application of Policy

4. This Policy applies to the ambient air environment of Tasmania.

Objective of Policy

5. (1) The objective of this Policy is to further the objectives of the Act in relation to the ambient air environment of Tasmania.

(2) The objectives of the Act are set out in Schedule 1 to the Act.

Part 3 - ENVIRONMENTAL VALUES AND STANDARDS

Environmental values

6. (1) Environmental values are the values or uses of the environment that are to be protected.

(2) The environmental values to be protected under this Policy are –

(a) the life, health and well-being of humans at present and in the future;

(b) the life, health and well-being of other forms of life, including the present and future health, wellbeing and integrity of ecosystems and ecological processes;

(c) visual amenity; and

(d) the useful life and aesthetic appearance of buildings, structures, property and materials.

Ambient air quality standards

7. (1) The Air NEPM standards are the national environment protection standards set by Part 3 and Schedule 2 of the Air NEPM and include any national environment protection standards for ambient air which are adopted in substitution for or in addition to those standards.

(2) Compliance with the Air NEPM standards will be measured in accordance with the provisions of the Air NEPM and any associated methodologies approved by the National Environment Protection Council.

Achieving Air NEPM standards

8. Within 12 months of the making of this Policy, the Minister will publish an Air Quality Strategy that:

(a) assesses compliance with the Air NEPM standards in Tasmania; and

(b) where the Air NEPM standards are not being met, specifies strategies for achieving compliance with the standards by 2008.

Part 4 - MANAGING POINT SOURCES OF AIR CONTAMINANTS

Point sources to be managed and regulated

9. (1) Regulatory authorities should manage and regulate point sources of air pollution which have the potential to cause material or serious environmental harm or an environmental nuisance in such a manner as to not prejudice the achievement of the environmental values identified in this Policy.

(2) Where necessary for the purposes of sub-clause (1), regulatory limits on the concentration or emission rate of pollutants that may be emitted from a new or significantly upgraded point source of air pollution should be established in accordance with clauses 10 and 11, as relevant.

(3) The regulatory controls and monitoring requirements applied to a point source of air pollution should be proportionate to the level of environmental risk posed by the emission of pollution from that source.

Waste avoidance

10. (1) In setting regulatory limits in accordance with clause 9, regulatory authorities should ensure that all reasonable and practical measures are taken to minimise the production of wastes that might be emitted to the atmosphere.

(2) The measures considered for the purposes of sub-clause (1) should include, but are not limited to, the management and disposal of wastes in the following order of priority –

- (a) avoidance;
- (b) reuse;
- (c) recycling;
- (d) recovery of energy;
- (e) treatment;
- (f) containment; and
- (g) disposal.

Managing and setting regulatory controls for unavoidable emissions

11. (1) Regulation of unavoidable emissions of pollutants to the atmosphere from point sources of air pollution should be consistent with the following principles –

(a) Accepted modern technology should be applied to reduce emissions to the greatest extent practicable. Guidelines on in-stack concentrations that would normally be expected to be achievable using accepted modern technology are specified in Schedule 1 and should be used by regulatory authorities as default values unless a case is made that alternative values more appropriately represent accepted modern technology in the circumstances.

(b) To retain a reserve capacity for airsheds, no activity at a point source of air pollution should be permitted to emit a pollutant in a manner or quantity that, allowing for other reasonable emissions to the relevant airshed, would prejudice compliance with the Air NEPM.

(c) Notwithstanding sub-clause (1)(b) regulatory authorities may determine not to require a reserve capacity if –

(i) emissions from the activity conform to accepted modern technology; or

(ii) it is highly unlikely that there will be additional sources of emissions of the pollutant to the airshed; or

(iii) this would prevent a proposal that is clearly in the public interest from proceeding.

(d) When modelled in accordance with the requirements of this Policy, emissions of a pollutant should not cause design criteria for that pollutant, as specified in Schedule 2, to be exceeded at or beyond the boundary of the land on which the industrial activity is located.

(e) If Schedule 2 does not contain design criteria for a pollutant, the regulatory authority should request the Director to determine appropriate design criteria,

and should regulate the relevant activity in accordance with the concentrations so determined.

(f) If it is not possible with the application of best practice environmental management to comply with design criteria determined in accordance with (d) and (e) above at the boundary of the land on which the point source of pollution is located, the regulatory authority may permit the emission of the pollutants if it is satisfied that the emission will not –

(i) put at risk the health of any person beyond the boundary of the land on which the point source of the pollution is located;

(ii) allow the pollutant(s) to unreasonably interfere with the enjoyment of the environment by any person living or working beyond the boundary of the land on which the point source of the pollutant(s) is located; or

(iii) otherwise cause serious or material environmental harm; or

(iv) be exceeded outside commissioning, start-up or shutdown periods provided the regulatory authority has specified the conditions under which the excess emissions from such events are permitted;

and there is an ongoing commitment to a program of pollution reduction to reach compliance with (d) or (e) as soon as reasonably practical.

(2) In determining the most appropriate manner in which to manage and treat potential atmospheric pollutants, regulatory authorities and responsible persons should have regard to the net environmental impacts of management options.

(3) The concentrations specified in Schedule 1 should not be exceeded during commissioning, start up or shutdown unless the Board has specified conditions under which excess emissions from such events are permitted, and the emissions occur in compliance with those conditions.

(4) In determining the most appropriate manner in which to manage point sources of air pollution, regulatory authorities should have regard to any guidelines published, adopted or endorsed by the Board for the purposes of this clause which describe accepted modern technology for activities that are likely to give rise to the emission of air pollution.

Improving the performance of current emission sources

12. (1) Regulatory authorities should require a responsible person in relation to a significant source of air pollution which is in existence at the time this Policy is made to progressively reduce the emission of pollutants from that source in accordance with the requirements of clauses 10 and 11.

(2) The time frame for compliance with sub-clause (1) should be determined on a case specific basis having regard to:

(a) the environmental risk associated with the pollutant being emitted;

(b) the economic cost of upgrading and the capacity of the relevant activity to support this cost; and

- (c) the practicability of reducing emissions.

Odour

13. (1) If a regulatory authority is satisfied that an odour from an activity is causing or is likely to cause an environmental nuisance or environmental harm, the authority should require that the odour emission from the source not exceed the odour criteria specified in Schedule 3, at or beyond the boundary of the land on which the source is located.

(2) If the activity that is the source of the odour is being carried out at the time that this Policy is made, the time frame for compliance with sub-clause (1) should be determined on a case-specific basis having regard to:

- (a) the environmental impact associated with the pollutant being emitted;
- (b) the economic cost of upgrading and the capacity of the relevant activity to support this cost; and
- (c) the practicability of reducing emissions.

Air pollution dispersion modelling

14. (1) If a regulatory authority has reasonable grounds to consider that an existing emission of a pollutant to the atmosphere might cause serious or material environmental harm or environmental nuisance, it should require the responsible person to undertake air pollution dispersion modelling in accordance with a methodology approved by the Director.

(2) If a regulatory authority has reasonable grounds to consider that a proposed emission of a pollutant to the atmosphere might cause serious or material environmental harm or environmental nuisance, it should require the responsible person to undertake air pollution dispersion modelling in accordance with a methodology approved by the Director.

(3) Where the regulatory authority has determined that air pollution dispersion modelling is necessary it should require the modelling to be carried out in accordance with a methodology approved by the Director in order to:

- (a) assess air quality against the Air NEPM, the values contained in Schedule 2 or values set in accordance with clause 11(1)(b);
- (b) assess the potential for reducing the impact of the emissions or proposed emissions on the air environment;
- (c) assess the cumulative effect of the emissions or proposed emissions;
- (d) define the appropriate dimensions or location of an emission source or chimney from which it is proposed to release contaminants into the ambient air environment; or
- (e) achieve any other outcome consistent with the objective of this Policy.

Monitoring of emissions and their effects

15. (1) A regulatory authority should where appropriate require a responsible person to measure and report emissions according to protocols approved by the Director so that the authority can determine whether the emissions are being managed in accordance with this Policy or the Act.
- (2) A regulatory authority should where appropriate require a responsible person to measure and report the relevant indicators of air quality in the ambient air environment.
- (3) The scope and frequency of monitoring requirements imposed by a regulatory authority should be commensurate with the probability of exceeding a required limit or standard, the probability of causing environmental harm, and the severity of the environmental harm which might be caused.

Part 5 - MANAGING DIFFUSE SOURCES OF AIR CONTAMINANTS

Management of diffuse sources of air pollution

16. (1) Regulatory authorities should manage and regulate diffuse sources of air pollution that have the potential to cause material or serious environmental harm or an environmental nuisance in such a manner as will protect the environmental values identified in this Policy.
- (2) Diffuse sources of air pollution should be managed using best practice environmental management so as to:
- (a) minimise emissions; and
 - (b) manage those emissions that are unavoidable in a manner that minimises impacts on health, safety or amenity.
- (3) Diffuse sources of air pollution should be managed in accordance with any relevant guidelines published, adopted or endorsed by the Board for the purposes of this clause.
- (4) Diffuse sources of air pollution must be managed in accordance with any regulations made under the Act.

Planned Burning

17. (1) "Planned burning" is the planned application of fire to vegetation under controlled conditions to achieve a deliberate outcome. Planned burning includes low intensity fuel reduction, ecological management, and high intensity regeneration and windrow burning. Planned burning does not include burning undertaken to control existing wildfires.
- (2) Persons or organisations involved in the conduct of planned burning or in the preparation of management guidelines for such operations must take account of the health and amenity impacts of smoke pollution on individuals and the community.

(3) Best practice environmental management should be employed by those persons undertaking planned burning to minimise the effects of smoke pollution on individuals and the community. This includes, but is not limited to, complying with State Fire Management Council guidelines on high intensity and low intensity burning.

(4) Where practicable, agencies, companies or organisations undertaking burning on a regular basis or on a large scale should:

(a) adopt efficient and effective air quality monitoring programmes;

(b) adopt a uniform approach to recording and assessing complaints;

(c) focus upon minimising the impact of smoke on the community in terms of health, amenity and safety;

(d) encourage the planning and execution of planned burning in a way that minimises the generation of smoke and improves the management of the effects of smoke; and

(e) require a responsible person involved in planned burning for land management to be competent in relevant burning procedures.

(5) The State Fire Management Council should review its guidelines on high intensity and low intensity burning to ensure that they are consistent with best practice environmental management.

SCHEDULE 1 - IN-STACK CONCENTRATIONS

Table 2 of this Schedule specifies in-stack concentrations that would normally be expected to be achievable using accepted modern technology referred to in clause 11 of this Policy.

The guidelines are intended to apply to new stationary sources and facility upgrades. Existing industry not able to currently meet the guidelines may need to progressively improve emissions performance according to a negotiated schedule (with due regard to environmental risk, economic cost and practicability) approved by the Director.

The in-stack concentrations contained in this schedule refer to routine operations of the activity. It is recognised that these values may not be achieved during commissioning, start-up or shutdown.

This Schedule does not apply to any boiler whose heating capacity (as determined by the apparatus by which it is heated) is less than 100 megajoules per hour.

The emission of a pollutant from a chimney or stack associated with a source specified in the second column of Schedule 1 should comply with the values of the third column in cases where accepted modern technology is used.

The concentration of a pollutant in the chimney or stack should be determined according to Australian Standard Methods or procedures approved by the Director. Moreover, the determination of pollutants should be conducted by personnel or laboratories approved by the Director.

For the purpose of this Schedule, a particular volume of a gas should be taken to be the amount of that gas which when dry would occupy that volume at a temperature of 0° Celsius and at an absolute pressure of 101.325 kilopascals. Moreover, the concentration of particles in an emission should be determined before its admixture with air, smoke, or other gases and be collected at a temperature as near to ambient as practicable.

For fuel burning equipment, the concentration of particles and oxides of nitrogen measured, should be adjusted to a reference gas value (oxygen or carbon dioxide) to compensate for variability due to the excess air rates in different combustion processes. The reference gas values (by equipment and pollutant) are specified in Table 1.

Table 1 - Reference conditions

Equipment	Pollutant	Basis ^a
Boilers and incinerators	Particulate matter	12% CO ₂ for wood-firing and 7% O ₂ for other fuels
Gas turbines	Oxides of nitrogen	15% O ₂
Other fuel burning equipment	Oxides of nitrogen	7% O ₂

a The adjusted concentration (C_a) is determined as follows:

$$\text{For O}_2 \quad C_a = C_m \times (21 - \text{reference O}_2 \text{ as vol. \%}) / (21 - \text{measured O}_2 \text{ concentration as vol. \%})$$

$$\text{For CO}_2 \quad C_a = C_m \times 12 / (\text{measured CO}_2 \text{ concentration as vol. \%})$$

where C_m is the measured concentration adjusted for dry gas at 0°C and 101.325 kPa.

Table 2 – In-stack concentrations

Pollutant	Source	In-stack concentration (mg/m ³ , unless otherwise specified)
Chlorine	Any trade, industry, or process	200
Hydrogen chloride	Any trade, industry, or process	100
Hydrogen sulfide	Any trade, industry, or process	5
Fluorine and compounds	Any trade, industry, or process, other than a primary aluminium smelter manufacturing aluminium from alumina	50 (HF or HF equivalent)
	Any primary aluminium smelter manufacturing aluminium from alumina	0.8 kg of total fluoride per tonne of aluminium produced
Metals	Any trade, industry, or process emitting antimony, arsenic, cadmium, lead, mercury, beryllium, chromium (hexavalent only), cobalt, manganese, nickel, selenium, tin, or vanadium or any compound thereof	5 for total 1 for cadmium or mercury
Oxides of nitrogen	Any boiler operating on gas	350 (as NO ₂)
	Any boiler operating on a fuel other than gas, other than a boiler used in connection with an electricity generator	500 (as NO ₂)
	Any boiler operating on a fuel other than gas, being a boiler used in connection with an electricity generator with a capacity of less than 30 megawatts	500 (as NO ₂)

Pollutant	Source	In-stack concentration (mg/m ³ , unless otherwise specified)
	Any boiler operating on a fuel other than gas, being a boiler used in connection with an electricity generator with a capacity of 30 megawatts or more	800 (as NO ₂)
	Any gas turbine operating on gas, being a turbine used in connection with an electricity generator with a capacity of less than 10 megawatts	90 (as NO ₂)
	Any gas turbine operating on gas, being a turbine used in connection with an electricity generator with a capacity of 10 megawatts or more	70 (as NO ₂)
	Any trade, industry or process other than for the manufacture of glass using sodium nitrate	2.0 g/m ³ (as NO ₂)
	Any trade, industry or process for the manufacture of glass using sodium nitrate	4.0 g/m ³ (as NO ₂)
Particulate matter	Any trade, industry or process and any fuel burning equipment or industrial plant	100
Smoke	Any trade, industry or process and any fuel burning equipment or industrial plant	A concentration no darker than Ringelmann 1, except that the concentration may be darker (but not so to exceed Ringelmann 3) for up to 10 minutes in any period of 8 hours for lighting a boiler or blowing soot, but only as long as all practicable means are employed to prevent or minimise the emission of air impurities. (This limit does not apply to emissions involving water vapour.)
Sulfur dioxide	Any trade, industry or process manufacturing sulfuric acid from other than elemental sulfur	7.2 g/m ³
	Any trade, industry or process manufacturing sulfuric acid from elemental sulfur	2.8 g/m ³
Sulfuric acid mist or sulfur trioxide or both	Any trade, industry or process	100 (as SO ₃ equivalent)

SCHEDULE 2 – DESIGN CRITERIA

Table 1 of this Schedule specifies the design criteria referred to in clause 11 of this Policy.

If a regulatory authority is satisfied that emissions from a stationary source are causing or are likely to cause an environmental nuisance or material environmental harm, a plume dispersion calculation should be performed to establish whether the predicted maximum ground level concentration (as defined below) exceeds the design criteria specified in this Schedule at relevant receptor locations. The atmospheric dispersion calculation should consider local terrain and meteorology, the effect of background concentrations, the contribution of adjacent sources and the need to preserve the capacity of the local environment to receive future emissions.

For the purpose of this Schedule, the maximum predicted ground level concentration at each receptor location is defined as the 99.9 percentile peak concentration for averaging periods of one hour or less and the 100 percentile peak concentrations otherwise. Using the 99.9 percentile concentration overcomes the need to place reliance on a single predicted hourly value calculated using an extreme set of meteorological conditions, which may produce an aberrant prediction.

Where suitable meteorological data are not available, the Director may in some cases approve the use of a default meteorological file containing likely “worst case” combinations of wind speed, stability and mixing height. In such cases, the maximum ground level concentration is defined as the 100 percentile peak concentration.

Atmospheric dispersion calculations should be conducted in a manner and with a model approved by the Director.

Table 1 – Design criteria

Pollutant	3 minute average unless otherwise specified	
	ppm	mg/m ³
Acetaldehyde ^o	0.042	0.076
Acetic acid ^o	0.20	0.50
Acetone ^o	20	48
Acrolein ^t	0.0033	0.0083
Acrylic acid ^o	0.094	
Acrylonitrile ^t	0.067	0.15
Ammonia ^t	0.83	0.6
Aniline ^t	0.17	0.63
Asbestos ^t		33,000 fibres/m ³
Asphalt fume ^t		0.17
Barium (soluble compounds) ^t		0.017
Benzene ^t	0.033	0.10
Benzyl chloride ^o	0.0094	0.047
Beryllium ^t		0.00007
Biphenyl ^t	0.0067	0.033

Pollutant	3 minute average unless otherwise specified	
	ppm	mg/m ³
Bromochloromethane ^t	6.7	35
Bromoform ^t	0.017	0.17
Bromotrifluoromethane ^t	33	203
1,3-Butadiene ^o	0.45	1.0
n-Butanol ^o	0.3	0.9
Butyl mercaptan ^o	0.004	0.012
Carbon black ^t		0.1
Carbon disulphide ^o	0.042	0.13
Carbon monoxide (8-hour average)	9.0	
Carbon tetrachloride ^t	0.17	1.1
Chlorine ^t	0.033	0.1
Chlorine dioxide ^t	0.003	0.01
Chlorobenzene ^o	0.042	0.20
Chloroform ^t	0.33	1.59
Chloromethane ^t	3.3	7.0
Chromic acid and chromates, as CrO ₃ ^t		0.0017
Chromium, soluble chromic and chromous salts as Cr ^t		0.017
Copper: fume ^t		0.0067
Copper: dust and mist ^t		0.033
Cotton dust (raw) ^t		0.0067
Crotonaldehyde ^t	0.067	0.2
Cumene ^o	0.008	0.039
Cyanide as CN ^t		0.2
Cyclohexane ^t	10	35
Cyclohexanol ^t	1.7	6.7
Cyclohexanone ^o	0.12	0.48
Diacetone alcohol ^o	0.28	1.3
o-Dichlorobenzene ^t	1.7	10
1,2-Dichloroethylene ^t	6.7	26.3
1,2-Dichloroethane ^t	1.7	6.7
Dichlorvos ^t	0.0033	0.033
Diethylamine ^o	0.02	0.06
Dimethylamine ^o	0.0094	0.017
Dinitrobenzene (all isomers) ^t	0.005	0.033
Dinitrotoluene ^t		0.05
Dioxins and furans (as TCDD I-TEQs) ^{t,1}		0.0000000037
Diphenyl ether ^o	0.02	0.14
Diphenylmethane-di-isocyanate	0.0007	0.007
Epichlorhydrin ^t	0.067	0.25
Ethanol ^o	2.0	3.8
Ethanolamine ^t	0.10	0.20
Ethyl acetate ^o	6.3	22.1
Ethyl acrylate ^o	0.0002	0.0008
Ethylbenzene ^t	3.3	14.5
Ethyl butyl ketone ^t	1.7	7.7
Ethyl chloride ^t	33.3	86.6
Ethylene glycol (vapour) ^t	3.3	8.7
Ethylene oxide ^t	0.03	0.05

Pollutant	3 minute average unless otherwise specified	
	ppm	mg/m ³
Fluorine ^t	0.033	0.067
Fluoride ^t		
1 day average	0.0034	0.0029
7 day average	0.0020	0.0017
90 day average	0.00059	0.0005
Formaldehyde ^t	0.033	0.05
n-Hexane ^t	1.67	6.0
2-Hexanone ^t	0.83	3.3
Hydrogen chloride ^t	0.2	0.2
Hydrogen cyanide ^t	0.3	0.4
Hydrogen sulphide ^{o,2}	0.0001	0.00014
Iron oxide fume ^t		0.17
Lead (90 day average)		0.0015
Magnesium oxide fume ^t		0.33
Maleic anhydride ^t	0.0083	0.033
Mercury (organic) ^t	0.00003	0.0003
Mercury (inorganic) ^t		0.017
Methanol ^o	4.26	5.5
Methyl acrylate ^t	0.33	1.2
Methylamine ^o	0.0042	0.005
Methylene chloride ^t	3.3	12.0
Methyl ethyl ketone ^o	2.0	5.9
Methyl mercaptan ^{o,2}	0.00042	0.00084
Methyl methacrylate ^o	0.05	0.21
Methyl styrene ^o	0.052	0.25
Methyl isobutyl ketone ^o	0.1	0.41
Nickel carbonyl ^t	0.0017	0.012
Nitric acid ^t	0.067	0.17
Nitrobenzene ^o	0.00094	0.0047
Nitrogen dioxide (1-hour average)	0.16	
Particulate matter (as PM ₁₀ , 24-hour average)		0.150
Pentachlorophenol ^t		0.017
n-Pentane ^t	20	60
2-Pentanone ^t	6.7	23.3
Perchloroethylene ^o	0.94	6.3
Phenol ^o	0.0094	0.036
Phosgene ^t	0.0033	0.013
Phosphine ^o	0.0042	0.0056
Phthalic anhydride ^t	0.033	0.20
n-Propanol ^o	0.03	0.075
Propylene glycol monomethyl ether ^t	3.3	12.0
Propylene oxide ^t	3.3	8.0
Pyridine ^o	0.0042	0.013
Silver, metal and soluble compounds (as Ag) ^t		0.00033
Styrene (monomer) ^o	0.05	0.21
Sulfur dioxide (1-hour average)	0.20	
Sulfuric acid ^t		0.033

Pollutant	3 minute average unless otherwise specified	
	ppm	mg/m ³
Toluene ^o	0.17	0.65
Toluene-2,4-di-isocyanate ^t	0.0007	0.005
Total reduced sulphur ^{o,3}		0.0015
1,1,1-Trichloroethane ^t	11.7	63.3
1,1,2-Trichloroethane ^t	0.33	1.5
Trichloroethylene ^t	1.67	9.0
Trichlorofluoromethane ^t	33.3	187
Triethylamine ^o	0.09	0.36
Trimethylbenzene (mixed isomers) ^t	0.83	4.0
Vinyl chloride ^t	0.033	0.1
Vinyl toluene ^t	3.3	16.0
Welding fume (total particulate) ^t		0.17
Wood dust (non-allergenic) ^t		0.17
Xylene ^o	0.08	0.35
Zinc chloride fume ^t		0.033
Zinc oxide fume ^t		0.17

o Based on odour properties.

t Based on toxic properties.

1 TCDD I-TEQs means 2,3,7,8-tetrachloro-dibenzodioxin as international toxic equivalents.

2 Does not apply to bleached eucalypt kraft pulp mills.

3 Applies only to bleached eucalypt kraft pulp mills.

SCHEDULE 3 - ODOUR CRITERIA

This Schedule specifies the odour criteria referred to in clause 13 of this Policy.

If a regulatory authority is satisfied that odour from a source is causing or is likely to cause an environmental nuisance or material environmental harm, an atmospheric dispersion calculation should be performed to ensure that the predicted maximum ("worst case") ground level concentration does not exceed the concentration criteria specified below. The atmospheric dispersion calculation should consider local terrain and meteorology, the effect of background concentrations, the contribution of adjacent sources and the need to preserve the capacity of the local environment to receive future emissions.

For the purpose of this Schedule, the maximum predicted ground level concentration specified in column 2 of Table 1 is defined as the percentile peak concentration specified in column 4 of Table 1.

Atmospheric dispersion calculations should be conducted using a model approved by the Director.

The concentration of an odour should be determined according to Australian Standard Methods or procedures approved by the Director. Moreover, the determination of odour should be conducted by personnel or laboratories approved by the Director.

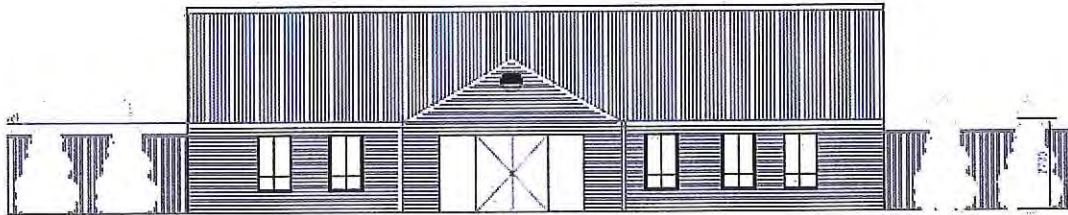
Table 1 – Odour criteria

Column 1	Column 2	Column 3	Column 4
	Criterion	Averaging Period	Percentile
Known pollutant(s)	See Schedule 2	See Schedule 2	99.9 ^a
Unknown mixture	2 odour units ^{1,a}	1 hour	99.5 ^b

1 "Odour unit" has the same meaning as in Australian Standard AS/NZS 4323.3 *Stationary source emissions – Determination of odour concentration by dynamic olfactometry*.

- a** Modelled 99.9 percentile concentration at or beyond the boundary of a facility (whichever is higher) in cases where local high-quality meteorological and emissions data are available. In cases where such data are not available, the 100 percentile concentration modelled at or beyond the boundary of a facility applies.
- b** Modelled 99.5 percentile concentration at or beyond the boundary of a facility (whichever is higher) in cases where local high-quality meteorological and emissions data are available. In cases where such data are not available, the 100 percentile concentration modelled at or beyond the boundary of a facility applies.

Dog Boarding Kennel & Pet Cremation



Planning Application
For
Anna McFarlane
July 2010

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Introduction

Details of Applicant

Name Anna McFarlane

Postal Address: 15 Breaside St, Prospect, TAS 7250

Email: annamcf18@hotmail.com

Purpose of Report

This report supports a planning application by Anna McFarlane to the Northern Midlands Council for a dog boarding kennel with associated parking facilities and a pet crematorium with associated pet cemetery and associated signage near Breadalbane.

Proposed Development Use

- I intend to establish a dog boarding facility to house 26 small dogs initially with the intention of expanding another 26 kennels within three years. The kennel facility will be constructed from besser block and colourbond, measuring 21m wide x 15m long x 6 m high including an office/reception area, located at the front. Provisions will be made for disabled access, toilet facilities and staff amenities.
- I also intend to provide the pet owners with the facility to park their car on the property whilst on holidays. I propose that the number of car parks match the number of kennels. The parking facility will be made to council standards.
- To value add to this establishment I also propose to use the current shed as the housing for a pet cremator. The shed will be altered to council standards to allow separation from the residential component. Ref appendix J.
- To complete the services needed by the community I also propose to have a pet burial site on the property. However I don't expect this to have a high demand.
- I also propose to reside in the residential component of the shed.

Owner

National Australia Bank

Location

The subject land is located 9/805 Hobart Rd, Breadalbane and is approximately 1km north east of the centre of Breadalbane.

Title Description and Area

The title for the proposed business development is 5.002 ha and the title reference is Cert. of Title 131512 Folio 9 Ref appendix A.

Reason for Request

Tasmania is the leading state for dog and cat ownership per 100 people. The state average for dogs is 23 and 19 for cats. Both Queensland and Western Australia are the next highest states for dog ownership, with 21 dogs per 100 people.

Source: TNS, ABS and BIS Shrapnel estimates

Most other dog boarding competitors are located at least 15-30 min out of Launceston CBD, and off the beaten track to many holiday destinations e.g. the airport, Hobart, and the East coast. Ref appendix B. I know that all these kennels are full at high demand time such as school holidays and Christmas, with many people enquiring at the veterinary clinic where I am employed for more dog boarding. I'm of the understanding that the RSPCA Launceston may be moving out of dog boarding leaving a large hole in the Launceston capacity. None of my competitor's kennels cater solely for small dogs. The numbers of small dogs requiring boarding facilities far out way larger dogs, subsequently smaller dogs reside indoors and are often pampered animals. The reason behind the parking facility for the customers leaving their pets for boarding is to provide an additional service at a competitive rate, the location and size of the property and it's proximity to the airport make it possible.

As I have been a Vet nurse in the Launceston area for 10 years, I have been at the forefront of understanding the requirements and needs of pet owners. Currently the North East of Tasmania is in need of a pet cremation service. Tasmania has only two other pet cremation services one being located in a residential area of Devonport and the other in Hobart. Through my vet nursing I have noticed a shift in pet owners now

wanting to have their pet cremated. This can be put down to many factors such as, the increased awareness of cremation options, aging population unable to physically bury their pet and it is also been recognised that people who may be renting or are continually on the move. I believe being located relatively close to Launceston with the ability to pick up deceased pets quickly from vets and/or homes is imperative to this service. I also believe that a quick turn around time from pickup to drop off is essential as upset owners find it more difficult with long delays. Other pet cremation services can not provide such a service due to their distance from Launceston. With this location I can provide this service. The reason for a pet burial service is to accommodate the few pet owners that do not like the idea of cremation or it is against their religious beliefs. I do not anticipate that this will be in high demand it's purely an alternative option.

Surrounding Land Use and Zoning

The development site is situated in a rural area, which is zoned rural general. The land has a gradual slope to the west. The nearest residence is approximately 300 metres to the north-east.

Road Access and Movements

Hobart Rd is a category III Road under the planning scheme. As the access will service a low traffic generator the application does not require a traffic impact assessment. Provisions have been made for 26 car spaces (ref appendix C) however I still only envisage that there will only be approx 10 traffic movements a day to the site as dog boarding check in and pick ups are staggered and the cremation animals will be collected off site. I envisage that the cars will be staying for longer periods of time as opposed to a regular in and out car park.

Cultural Heritage

No significant European cultural heritage items are on the site.

There are no known aboriginal cultural or heritage sites or issues within the boundary of the site. If any aboriginal heritage sites are discovered in the interim or as part of any future development works, the Aboriginal Relics Act 1975 will apply for reporting and management processes.

Fauna and Flora

No threatened species have been registered on the Tasmania Nature Values Atlas.

Sewer

The kennels and pens will be constructed with impervious reinforced concrete floors drained by gravity to a deep spoon drain and thence to a grit arrestor. Liquid waste from the grit arrestor shall discharge into a Council approved absorption area.

Faeces (stools) will be collected daily from kennels, pens and runs and disposed of through the garbage waste system, not through the septic system.

The cremator does not generate wastewater.

Water

The property is on the town water system however I plan to install rain water tanks for garden use to reduce environmental impact.

Power

The proposed site has existing underground three phase power, ample for both operations.

Telecommunications

It is proposed that a land line be installed if not already on site, also the use of mobile and internet.

Noise Emission

As I intend on living on the property some 30-60m from the proposed kennel I have the ability to quickly quieten the dogs when necessary. I also anticipate feeding the dogs in the evening rather than morning, or both if required by the owner to help settle the dogs for the evening. Given that only small dogs will be boarding the noise level produced would be less than if housing large dogs.

The block has had some earth works done previously, which has created a risen swail of compacted dirt thus creating an area protected by wind. This would have tremendous noise cancelling effect. I intend on locating the kennel to the north side of

the existing shed creating even more protection against noise disturbance.(Ref appendix .C) Windrose information shown in (appendix F) also shows that the prevailing winds are from the North and North West. These prevailing winds will carry onto agricultural land where no residents exist.

I also plan to plant many fast growing trees this will not only improve the image of the property but help eliminate noise.

Fencing

The minimum security fencing immediately surrounding and containing the kennels, pens and runs will be a minimum 1.80 metres high of mesh, stock-proof wire, erected so that dogs are not able to enter or escape. The area enclosed will be sufficient to provide exercise and security for the number and type of dog concerned.

Air Quality

The pet cremation unit specifications and engineering details are included in the following table

Table 1: Cremator Emissions

	Emissions	Tas EPA Policy
Total Particulate Emission	8.2	100
Sulphur Dioxide	<0.1	7.2
Total Metals	0.04	5
Mercury	0.00024	1
Cadmium	0.0085	1
NO2	16.76	350

Note: all units mg/m3

As indicated in table 1 the emissions are well below the State requirements.

Attenuation Distances

The Planning Scheme establishes buffer areas to avoid land use conflicts between uses that are sensitive to a reduction in environmental quality because of emissions.

Table 2. Show the attenuation distances for a crematorium.

Activity	Distance
Crematoria	300m
	300m

Signage & Landscaping

I propose that the land will be attractively landscaped with the plan to plant trees around the perimeter of the block for wind and noise protection ref appendix C. Two small signs will be located on the driveway entrance to the size of 1m² each ref appendix D.

Building Design and Siting

Building design and siting complies with the planning scheme requirements. The building height is proposed to be approximately 6 metres. Neutral colours (tones eg. brown, taupe and cream) have been chosen to compliment the landscape and blend in with the existing building. Ref Appendix E.

Statutory and Strategic Planning Instruments

Planning Scheme Provisions

Land use or development in the subject are is controlled by the Northern Midlands Planning Scheme

Zone Objectives (RU2) Zone

(i) To identify those areas not classed as Prime Agricultural Land or having the attributes to support more intensive forms of agriculture, but are still capable of supporting a range of primary industry and other resource development activities.

(ii) To recognise areas which may also be of particular value in providing:

(a) significant scenic areas;

(b) recreational opportunities;

(c) water catchments; or

(d) significant flora and fauna habitats.

(iii) To ensure that new development is sympathetic to the existing landscape character of the area.

(iv) To prevent developments in areas subject to natural hazards.

(v) To protect agricultural and other forms of resource development activity from incompatible use and development that could fetter their operations.

(vi) To provide for associated activities incidental to agricultural use and development.

(vii) To prevent fragmentation of land holdings by subdivision.

The proposed development and use meets the objectives for the following reason.

- The site has been chosen because it is not an urban area but is suitably located in close proximity to the Launceston CBD and surrounding suburbs. This proposal is not suitable for a commercial or industrial location, given the sensitivity of its purpose; I feel it is only appropriate that this proposal is located in on rural general zoned land. (Obj i.)

- It is an appropriate use in a rural general zone which promotes greater diversity of rural enterprises.
- The existing vegetation, proposed landscaping, building size and design will be sympathetic to the existing landscape or character of the area. (obj iii.)
- There will be no impact in surrounding environmental values as the emissions from the cremator are negligible and the waste water will be appropriately treated.
- There will be no adverse impact in the natural, ecological or cultural landscape of the area. (obj iv.)
- The proposed development and use will not fetter adjoining land or any other operations. (obj v.)

Definition of Use and Classification

Animal Boarding is listed under the table of uses and development in the Rural General (RU2) Zone as Discretionary with Permit

There is no definition in the planning scheme for a crematorium but advice received from the council's senior planning officer indicates it should be classified under clause 2.3.3 which states:

“Notwithstanding Clause 2.3.1 a use or development not defined or classified in Part 1.6 is subject to the Clause 2.6.1(iii)”.

Clause 2.6.1 states that:

“A use or development:

(iii) not defined or does not comply precisely with any definition in Part 1.6 or is not specified in the Table of Uses and Developments in Parts 3 or 13.” is to be considered under S57 of the Land Use Planning and Approvals Act 1993 (i.e. a discretionary application)

Assessment of Applications

When considering an application (clause 2.12) the planning authority shall take into consideration:

- (i) the Goals and Objectives of the Northern Midlands Planning Scheme 1995, the relevant zone intent, any relevant development standards and any other relevant requirements of the Northern Midlands Planning Scheme 1995;
- (ii) the objectives and provisions of the Resource Management and Planning System of Tasmania;
- (iii) any reports or guidelines adopted by Council, or any relevant proposals, reports or requirements of any public authorities or public representations received;
- (iv) whether any part of the land is subject to:
 - (a) landslip, soil instability, or erosion;
 - (b) excessive slope;
 - (c) ponding or flooding;
 - (d) bush fire hazard;
 - (e) a Protected Catchment District under Section 26 of the *Water Act* 1957; or
 - (f) pollution of the subject site or surrounding lands; or
 - (g) other hazards to safety or health.

- Landslip: Only a gradual slop with existing grass vegetation and proposed additional plantation of trees this eliminate this. Area is not zoned or identified as a landslip area
- Excessive Slope: N/A
- Ponding or Flooding: N/A
- Bush Fire Hazard: The land is predominantly grass vegetation and I intend on keeping the vegetation low during dry summer months.
- Protection Catchment District: N/A:

- **Pollution of the Subject Site and Surrounding Lands:** As the site has only been used for rural purposes assumingly grazing and possible rock extraction, contamination from previous use is not considered an issue. In addition the emissions report from an identical cremator unit Ref Appendix G shows that emissions from the cremator will be minimal and therefore the expected resulting ground level contamination will be negligible. Ground water under the proposed cemetery will be protected by ensuring that each animal's body is fully encapsulated in a sealed bag prior to burial.
- **Other Hazards to Safety:** From the emission report and the windrose information there will be no hazards to safety or health. Ref Appendix F.

State Policies

State Coastal Policy 1996

The subject area is not within one kilometre of the coast thus the policy does not apply.

State Policy on Water Quality Management 1997

The Purpose of this policy is to protect surface and ground water resources from pollution.

In order to protect the groundwater I propose that all animals buried on the property will be enclosed in a seal impervious bag before burial.

Water collected into rain water tanks will only be used for gardening purposes, to eliminate any contamination possibly produced by the cremation machine.

The design and/or management of potential stormwater contamination issues will be addressed during site development.

Conclusion

In conclusion I believe that I have identified a growing need within the community for both a well located dog boarding facility and a pet crematorium with associated services such as pet burial and parking facilities.

The boarding facility will be a new state-of-the-art establishment which will be aesthetically pleasing once complete. The boarding kennel will cater for small dogs in particular, with both indoor and outdoor exercise areas and many other luxury facilities such as grooming, 24 hour care and a pool for post surgery rehabilitation.

The crematorium system is well tested as the proposed machine happens to be the same as many used in Tasmania for both human and animal needs and will be non-polluting.

The pet burial is an additional service to customers. The traffic generated from the proposed venture will be minimal, as will the impact (if any) on the surrounding areas.

The proposed development meets all the requirements of the planning scheme and is not within an urban area. I believe that the development will benefit the community through providing many needed services, whilst the proposed landscape will enhance the property's overall appeal. I have been a veterinary nurse for 10 years in Launceston and realise the need for this proposal.

Appendix A.**Plan of Title**the **LIST.**DEPARTMENT of PRIMARY INDUSTRIES
and WATER

Land Information Services


RESULT OF SEARCH
 RECORDER OF TITLES, TASMANIA
 Issued pursuant to the Land Titles Act 1980

SEARCH OF TORRENS TITLE

VOLUME 131512	FOLIO 9
EDITION 7	DATE OF ISSUE 21-Aug-2007

SEARCH DATE : 05-May-2010
 SEARCH TIME : 03.01 pm

DESCRIPTION OF LAND

Parish of BREADALBANE, Land District of CORNWALL
 Lot 9 on Plan 131512
 Derivation : Part of 584 Acres Gtd. to T. Scott
 Prior CT 127710/1

SCHEDULE 1

C434565 TRANSFER to JOHN ROLAND MANSLEY - Registered 28-Feb-2003
 at 12:01 pm

SCHEDULE 2

Reservations and conditions in the Crown Grant, if any

- C332804 BURDENING EASEMENT: a right of drainage (appurtenant to
 Lots 4 & 8 on P.131512) over the Right of Way 'A' Drainage
 & Pipeline Easement on P.131512
- * C332804 BURDENING EASEMENT: a right of carriageway (appurtenant to
 Lots 4 & 8 on P.131512) over the Right of Way 'A' Drainage
 & Pipeline Easement on P.131512
- C332804 BURDENING EASEMENT: pipeline rights (fully defined
 therein) (appurtenant to Lots 4 & 8 on P.131512) over the
 Right of Way 'A' Drainage & Pipeline Easement on P.131512
 (subject to provisions)
- * C332808 BURDENING EASEMENT: a right of carriageway (appurtenant to
 Lot 3 on P.131512) over the Right of Way 'A' Drainage &
 Pipeline Easement on P.131512
- C332808 BURDENING EASEMENT: pipeline rights (fully defined
 therein) (appurtenant to Lot 3 on P.131512) over the Right
 of Way 'A' Drainage & Pipeline Easement on P.131512
 (subject to provisions)
- C332808 BURDENING EASEMENT: power supply easements (fully defined
 therein) (appurtenant to Lot 3 on P.131512) over the Power
 Supply Easement 'P' 12.00 Wide on P.131512 (subject to
 provisions)
- C332804 BURDENING EASEMENT: a power supply easement (fully defined
 therein) (appurtenant to Lots 2, 4, 6 & 8 on P.131512)
 over the Power Supply Easement 'P' 12.00 Wide on P.131512
 (subject to provisions) - Registered 09-Sep-2002 at 12:02
 pm
- * C332808 BURDENING EASEMENT: a right of drainage (appurtenant to Lot
 3 on P.131512) over the Right of Way 'A' Drainage &
 Pipeline Easement on P.131512 - Registered 09-Sep-2002 at
 12:08 pm
- ✓ C396903 BENEFITING EASEMENT: a right of drainage and a right of
 carriageway over the Right of Way 'B' Drainage & Pipeline

Easement on P.131512 - Registered 09-Sep-2002 at 12:09 pm
C649543 MORTGAGE to National Australia Bank Limited - Registered
22-Jun-2005 at 12:01 pm
C810916 MORTGAGE to Ralph James Leihn Mansley and Annette May
Mansley - Registered 21-Aug-2007 at 12:00 pm
C865770 CAVEAT by Becks Pty Ltd - Registered 10-Jun-2008 at 12:00
pm
C867560 CAVEAT by Duo Trading Pty Ltd - Registered 30-Jun-2008 at
12:00 pm

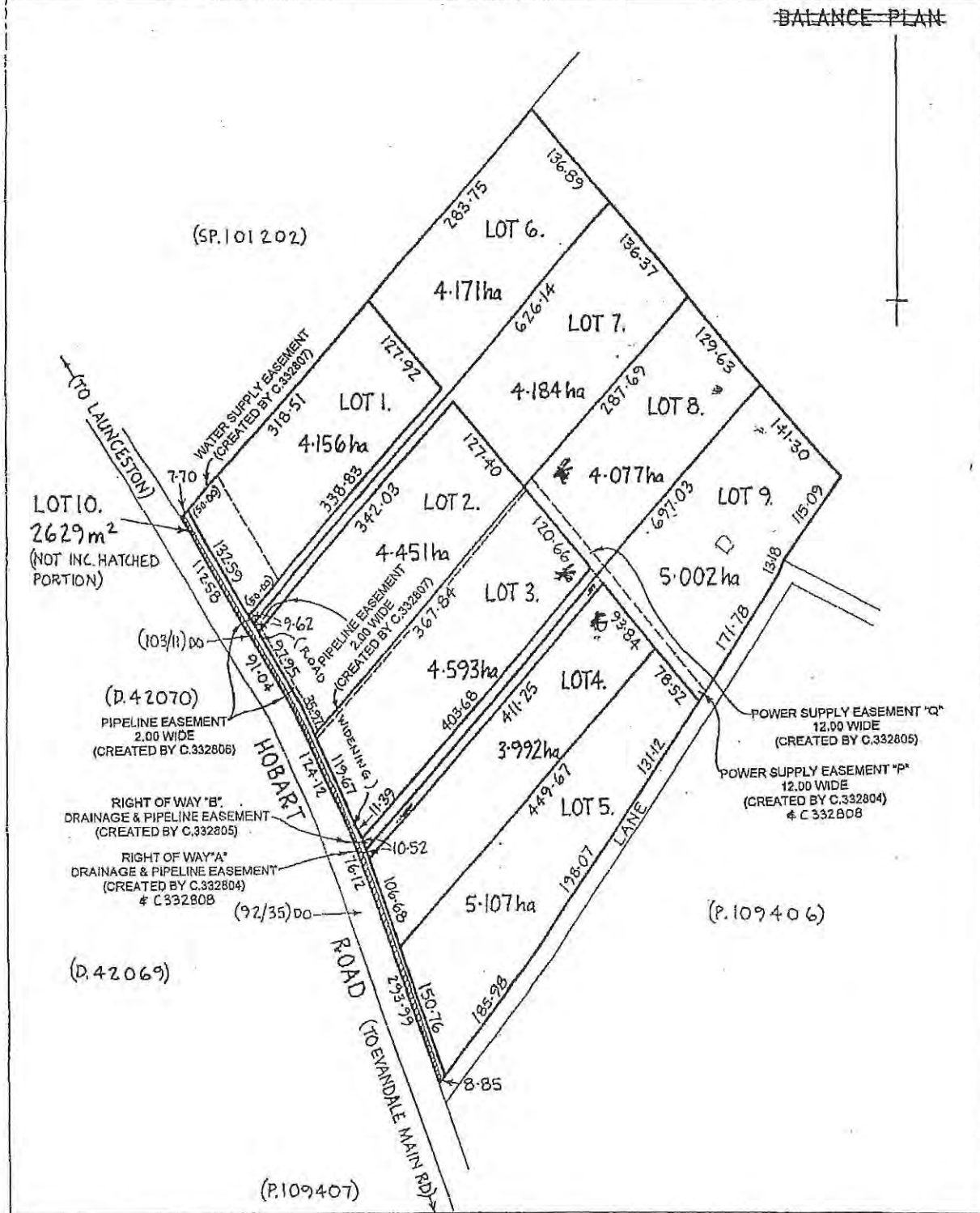
UNREGISTERED DEALINGS AND NOTATIONS

No unregistered dealings or other notations

END OF SEARCH.

OWNER FOLIO REFERENCE F/R.127710-1 GRANTEE	PLAN OF TITLE		REGISTERED NUMBER P131512
	LOCATION CORNWALL - BREADALBANE	FIRST SURVEY PLAN No. (B1/B8 D.O.) COMPILED BY L.D.R.B. SCALE 1:4000 LENGTHS IN METRES	APPROVED 17 FEB 1999 <i>M. R. B.</i> Recorder of Titles

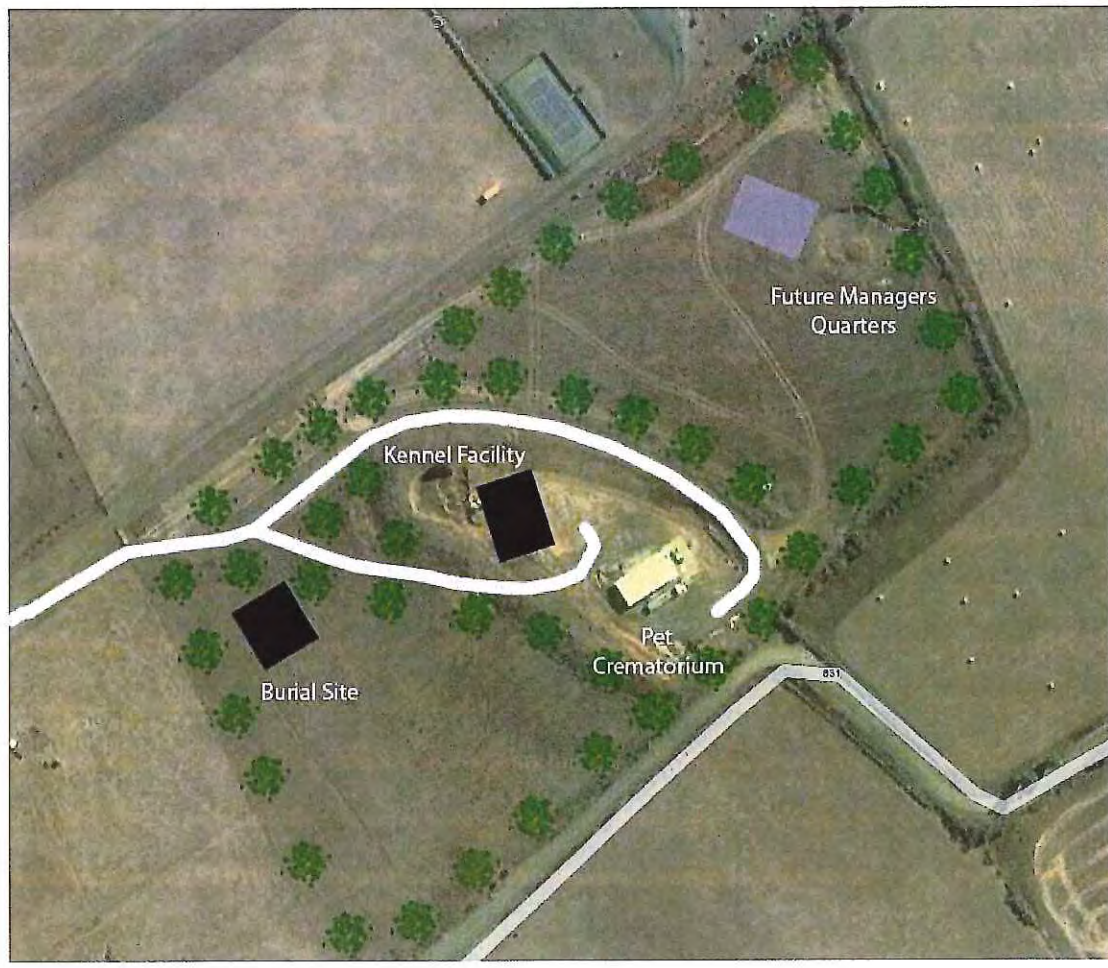
MAPSHEET MUNICIPAL CODE No. 120 (5040)	LAST UPI No F&F 74	LAST PLAN No. P.127710	ALL EXISTING SURVEY NUMBERS TO BE CROSS REFERENCED ON THIS PLAN
--	--------------------	------------------------	---



Appendix B. Competitor Locations



Appendix C. Site Map



Appendix D. Sample Signage

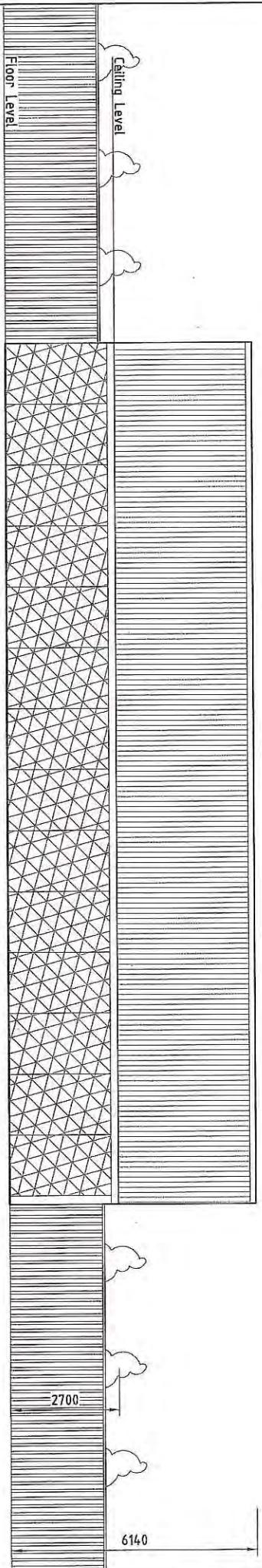
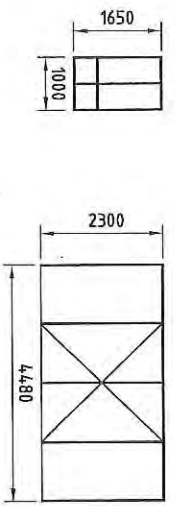
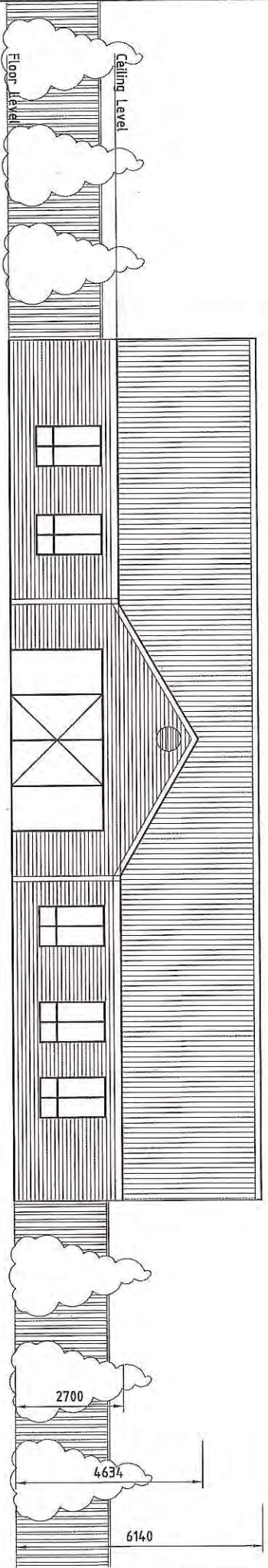


Sample Kennel



Appendix E. Building Elevations and Layout

THIS DRAWING IS THE PROPERTY OF THE ARCHITECT AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF THE ARCHITECT.



SOUTH-EAST
ELEVATION
SCALE 1:100

NORTH-WEST
ELEVATION
SCALE 1:100

NO.	DESCRIPTION	DATE	BY
1	ISSUED FOR PERMIT	2018	AM

DRAWING CHECK		COORDINATION CHECK	
DESIGNED	DATE	REVIEWED	DATE
AM	2/27/18	AM	2/27/18
CHECKED	DATE	APPROVED	DATE
BA	2/27/18	AM	2/27/18

A. McFARLANE

SEMF
ENGINEERS
MANAGERS &
ARCHITECTS
FACILITIES

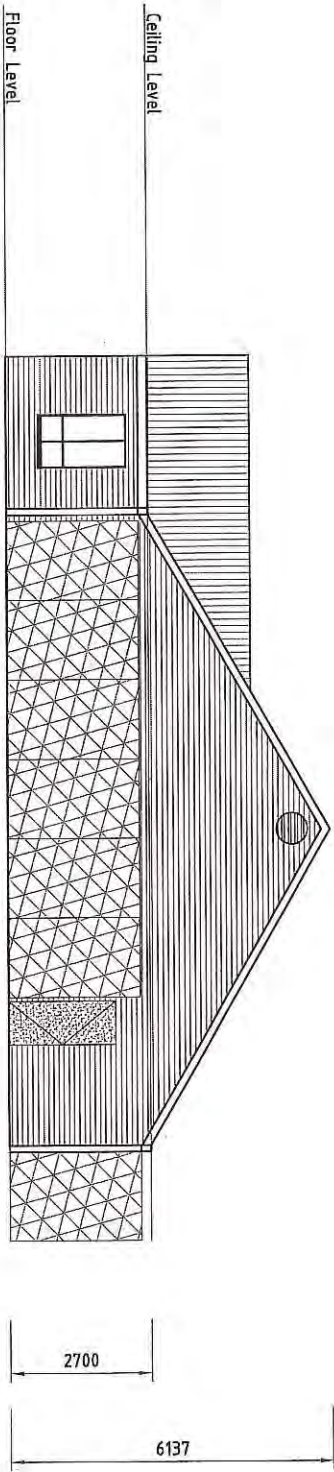
191 George Street
Level 10
Sydney NSW 2000
Tel: (61) 2 9232 5288
Fax: (61) 2 9232 5289
www.semf.com.au

PROJECT: DEVELOPMENT APPLICATION
PROPOSED BREADALBANE
BOARDING KENNELS

TITLE: NORTH-WEST &
SOUTH-EAST ELEVATIONS

SCALE	1:100
DATE	2018
ISSUE	PRELIMINARY ISSUE
PROJECT NO.	3376.002-SK02
DATE	0

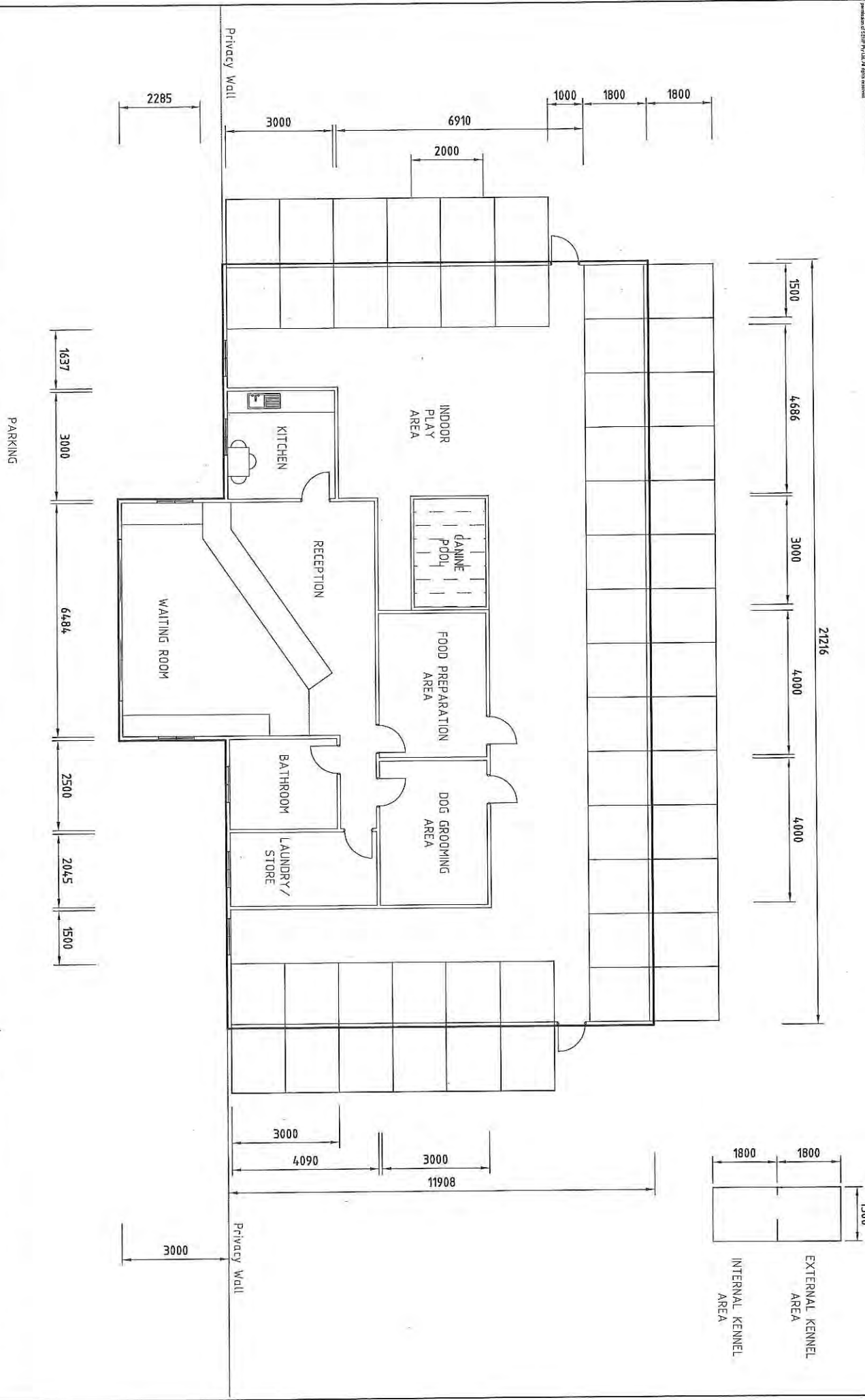
THIS DOCUMENT IS THE PROPERTY OF THE ARCHITECT. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF SHoP ARCHITECTS.



NORTH-EAST &
SOUTH-WEST ELEVATION

NO.	DESCRIPTION	REV	DATE	DRAWING CHECK				COORDINATION CHECK				DATE
				DESIGNED BY	DATE	DESIGNED BY	DATE	DESIGNED BY	DATE			
				AM	2/17/10	AM	2/17/10	AM	2/17/10	AM	2/17/10	
				FA	2/17/10	FA	2/17/10	FA	2/17/10	FA	2/17/10	
DRAWING CHECKED BY: A. McFARLANE COORDINATION CHECKED BY: A. McFARLANE												
 SCIENTISTS ENGINEERS & FACILITY CORP. 101 George Street Level 10, Sydney NSW 2000 Phone: (61) 2 9239 2222 Fax: (61) 2 9239 2222 Email: info@semcorp.com.au Website: www.semcorp.com.au												
PROJECT: DEVELOPMENT APPLICATION PROPOSED BREEDALBANE BOARDING KENNELS												
TITLE: NORTH-EAST & SOUTH-WEST ELEVATIONS												
SHEET NO. 3376.002 - SK03 OF 10 PRELIMINARY ISSUE DATE: 2010												

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DRAWING CHECK		COORDINATION CHECK		DATE	
DATE	BY	DATE	BY	DATE	BY
2024/01/15	AM	2024/01/15	AM		
2024/01/15	RA	2024/01/15	RA		
2024/01/15	TR	2024/01/15	TR		
2024/01/15	PR	2024/01/15	PR		

A. McFARLANE

SEMF
 500 BAYVIEW AVE. 10TH FLOOR
 MARKHAM, ONT. L3R 9V7
 (905) 477-8888
 www.semf.com

**DEVELOPMENT APPLICATION
 PROPOSED BREADALBANE
 BOARDING KENNELS**

PLAN VIEW

3376.002-SK01

Appendix F Windrose Launceston Airport

Rose of Wind direction versus Wind speed in km/h (01 Apr 1939 to 17 Jun 2005)

Custom times selected, refer to attached note for details

LAUNCESTON AIRPORT COMPARISON

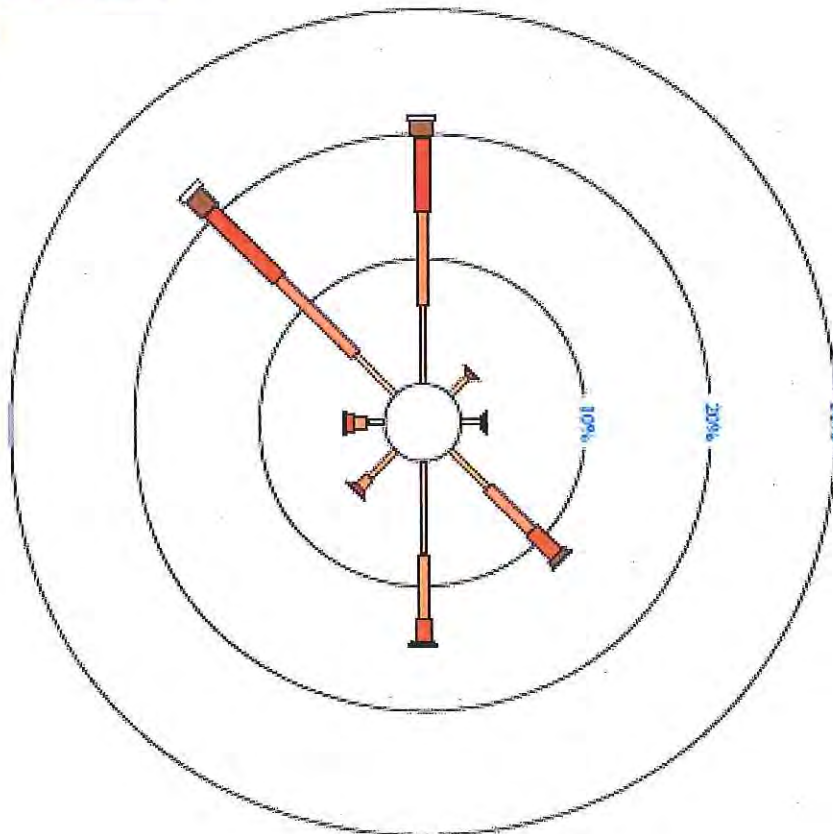
Site No: 091105 • Opened Jun 1939 • Closed Jun 2005 • Latitude: -41.5287° • Longitude: 147.2032° • Elevation: 188m

An asterisk (*) indicates that calm is less than 0.5%.
Other important info about this analysis is available in the accompanying notes.



9 am
24608 Total Observations

Calm 15%



Copyright © Commonwealth of Australia 2010. Prepared on 19 Mar 2010
 Prepared by National Climate Centre of the Bureau of Meteorology.
 Contact us by phone on (02) 9839 4282, by fax on (02) 9839 4915, or by email on webdata@bom.gov.au
 We have taken all due care but cannot provide any warranty or accept any liability for this information.

Appendix G

03/09 2009 15:01 FAX 0243722070

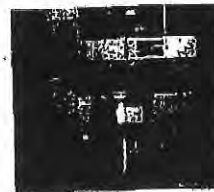
R&Y MOORE

001

R & Y ENGINEERING

ABN 89 002 859 547

PO BOX 6166, WEST GOSFORD NSW 2250
Ph: 02 4372 1585 Fax: 02 4372 2070 Mobile: 0414 239 585
rye@exemail.com.au



FACSIMILE TRANSMITTAL SHEET

TO:	JUSTINE BROOKS	FROM:	RAY MOORE
COMPANY:		DATE:	3/09/2009
FAX NUMBER:	03 6334 3269	TOTAL NO. OF PAGES INCL. COVER:	6
RE:	EPA SUMMARY & APPROVALS		

NOTES/COMMENTS:

Please call if you need any further information.

03/09 2009 15:01 FAX 0243722070

R&V MOORE

005



Tasmania

PREMIER
MINISTER FOR STATE DEVELOPMENTMr B Mirowski
Bob Mirowski Homes
157 Campbell Street
HOBART TAS 7000

26 MAR 2001

Dear Mr Mirowski

I refer to your request, on behalf of H C Millington Pty Ltd, for approval under the *Cremation Act 1934* of the building plans, and plans and specifications of equipment and apparatus to be used in a crematory to be operated at Lots 14 and 15 McIntyre Street, Mornington.

I have considered the plans and specifications which you tendered in support of your request.

Having considered this material, and having noted that the Clarence City Council issued a permit to carry out building work on 10 August 2000, I am pleased to approve, in accordance with section 4 of the *Cremation Act 1934*, of the building plans, and the plans and specifications of equipment and apparatus to be used in the crematory.

It should be noted that the *Cremation Act 1934* requires that any alteration of, or departure from, any approved plans or specifications must be approved by the Minister. It is also a requirement of the *Cremation Regulations 1999* that the operator of a crematory is to ensure that the crematory is maintained in good working order, and in a clean and orderly condition.

This approval does not displace your client's obligations under any relevant State legislation covering matters such as workplace health and safety, environmental standards and dangerous goods.

May I take this opportunity to wish your client well in this business endeavour.

Yours sincerely

Jim Bacon MHA
Premier

Level 11, Executive Building, 15 Murray Street, Hobart, Tasmania, 7000
Postal Address: GPO Box 123B, Hobart, Tasmania, 7001, Australia
Telephone: (03) 6234 2454 Facsimile: (03) 6234 1572

2009 15:01 FAX 0243722070

R&Y MOORE

Doc

July 21, 2005

ATTN: Tracey
R & Y Engineering
PO Box 6166
West Gosford NSW 2250

RE: Emission Testing Summary

Dear Tracey,

Following discussions on 21 July 2005, Table 1 below is a summary of results from emission testing at Rookwood Crematorium on 18 May 2005.

Table 1: Rookwood Crematorium Results Summary

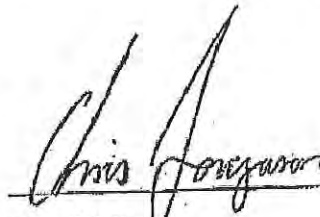
Analyte	Result	Regulatory Limit
Total Particulate (mg/m ³)	8.2	250
Sulfur Dioxide (mg/m ³)	<0.1	Not Listed
Sulfur Trioxide (mg/m ³)	<0.1	100
Total Hazardous Substances (metals) (mg/m ³)	0.04	Not Listed
Total Lead and Arsenic (mg/m ³)	0.0023	10
Mercury (as Hg) (mg/m ³)	0.00024	3
Cadmium (as Cd) (mg/m ³)	0.0085	3
Total Organic Carbon (TOC) (mg/m ³)	<0.1	Not Listed
Equivalent Nitrogen Dioxide (NO ₂) (mg/m ³)	16.76	2500
Carbon Monoxide (CO) (mg/m ³)	10.24	Not Listed
Oxygen (O ₂) (%)	19.8	Not Listed

If you require any further information or additional assistance, please do not hesitate to contact me in the Newcastle office on (02) 4968 0044.

Yours faithfully,
HLA-Envirosciences Pty Limited



Grant Farrow
Emission Technician



Chad Whitburn
Environmental Scientist

N4003701_LTR_21Jul05

002

03/09 2009 15:01 FAX 0243722070



R&V MOORE

HASTINGS COUNCIL

ALL COMMUNICATIONS TO BE ADDRESSED TO
THE GENERAL MANAGEMENT CLERK

TEL: (02) 6581 9487 FAX: (02) 6581 0791
FROM 1ST JULY NEW NUMBERS:
TEL: (02) 6581 8777 FAX: (02) 6581 8786

PHILIP CHARLEY DRIVE,
PORT MACQUARIE, 2444,
P.O. BOX 84,
PORT MACQUARIE, 2444.

IN REPLY PLEASE QUOTE

Innes Gardens Memorial Park

1 March 1999

TO WHOM IT MAY CONCERN

Innes Gardens Memorial Park installed an R & Y single chamber cremator in December 1997. The installation and commissioning of the cremator was done expertly with no delay in operations as it was installed from Friday until Monday afternoon inclusive.

After 12 months of relatively problem free running Ray made an annual service on the cremator which showed it to be operating perfectly.

I would not hesitate to recommend Ray Moore as an installer and backup maintenance group and the R & Y cremator to be the most efficient and cost effective cremator available in Australia.

If I can assist you further do not hesitate to contact me on the above phone number.

Regards,

Tony Thomas
Manager

03/08 2009 15:01 FAX 0243722070

R&Y MOORE

003



THE COUNCIL OF CAMDEN

(Incorporated 1889 - Reconstituted 1949)

All communications to be addressed to:
General Manager, Box 188, P.O. Camden 2570

(OUR REF.) THORNTON:IG:DA3425.90-5

(YOUR REF.)

Council Office,
37 John Street,
Camden, N.S.W.

DX 25807
Camden

Telephone: (02) 4655 2455
Facsimile : (02) 4655 2770

Pets at Peace
PO Box 665
CAMDEN 2570

1/5

being the applicant in respect of this development application.

NOTICE OF DETERMINATION OF DEVELOPMENT APPLICATION No. 10/98

Issued under Section 92 of the
Environmental Planning and Assessment Act, 1979

LAND TO BE DEVELOPED: UNIT 5, NO. 5 GRAHAMS HILL ROAD,
NARELLAN

PROPOSED DEVELOPMENT: THE ESTABLISHMENT OF A PET
CREMATORIUM

DETERMINATION

MADE ON: 21 JANUARY, 1998

DETERMINATION: Consent granted subject to conditions
described below.

CONSENT TO OPERATE FROM: 21 JANUARY, 1998

CONSENT TO LAPSE ON: 21 JANUARY, 2003 (unless substantially
commenced)



Birthplace of the Nation's Wealth

Printed on Australian Made Recycled Paper

**HLA-Envirosciences Pty Limited**

AFN 029 904 102

A subsidiary of Harding Lawson Australia Pty Limited

ACN 003 314 806

Our Ref: H1057/MJB:os

29 August 1995

R & Y Engineering
PO Box 166
WEST GOSFORD NSW 2250

Fax to: (043) 722070

ATTENTION: MR RAY MOORE

Dear Ray

re: AIR EMISSIONS TESTING - PALMDALE CREMATORIUM

Further to our testing at Palmdale Crematorium on 14 December 1993 and subsequent report on the results of that testing issued on 10 January 1994, you have requested additional information on odours from the plant. I have reviewed the field notes taken on the original testing day (14 December 1993) and I am pleased to supply the following information:

no odour was detected from the furnace stack, as observed outside the building, downwind of the stack discharge and approximately 30 m from the stack measured in a direct line.

The above observation did not appear in the January 1994 report because odour was not a requirement in the December 1993 testing as performed by HLA-Envirosciences. However, observations about the stack discharge are made in all stack tests as a matter of course.

If you require clarification of any aspect of the above please call me on (049) 262500.

Yours sincerely
HLA-ENVIROSCIENCES PTY LIMITED

Martin Bell
MARTIN BELL
Consulting Chemical Engineer

Appendix H. Cremator Unit Information



R & Y ENGINEERING

**PRODUCT
INFORMATION**

R & Y ENGINEERING



R & Y ENGINEERING

ACN 002 859 547

1161 Wisemans Ferry Road
Somersby NSW 2250

Phone: 02 4372 1585

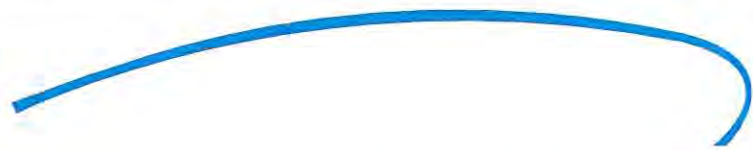
Mobile: 0414 239 585

Fax: 02 4372 2070

General Maintenance & Fabrication
Service & Maintenance - Oil & Gas Fired
Heat Exchangers - Boilers - Forges
Refractory Reline & Repair
Cremation Systems

24 Hours
7 Days

PO Box 6166
West Gosford NSW 2250
rye@exemail.com.au



R & Y ENGINEERING

- ✿ Been in operation since 1982
- ✿ Specialise in design, manufacture, installation and service of furnaces and ancillary equipment
- ✿ Constant, reliable and affordable service
- ✿ Small but committed team
- ✿ Manufacture with Australian products
- ✿ Units not computer controlled
- ✿ Manufacture for easy and low cost maintenance
- ✿ All materials and equipment readily available
- ✿ 24 hour, 7 day breakdown service
- ✿ Reliable, fuel efficient, clean, simple operation
- ✿ Acceptance by Local Council and EPA

PET CREMATOR



BOTTOM CHAMBER

- 🔧 HEIGHT (mm): 350
- 🔧 WIDTH (mm): 450
- 🔧 DEPTH (mm): 1500
- 🔧 OVERALL 2400L X 2400W X 2750H
- 🔧 WEIGHT APPROXIMATELY 5000KG



PET CREMATOR

- ✎ Within our many years of involvement in the cremation industry we have observed a growing need for the disposal of loved and family pets in a more ecological friendly and less distressing manner than simply burying in a backyard or disposing of at a local council tip
- ✎ It is our intention and aim to provide this service to the public at a reasonable cost and efficient, caring and sympathetic manner. As most family pets are regarded as a family member many people have asked existing Human Crematoriums to provide this service. However, this is not acceptable or ethically possible
- ✎ In proposing to provide these services we have considered the project from a spectator/neighbour point of view and have addressed many issues likely to cause concern and inconvenience. Through our many years of design and experience we have developed units capable of extremely efficient disposal of remains. Taking the point of pet disposal there are far less possible contaminants as there is no timber coffin or plastic lining, plastic handles or unknown packaging as is common with the Human Cremation Industry
- ✎ Our units are designed to be aesthetically pleasing, very low noise, low fuel consumption and Automatically controlled. Our operation would be of a low personalised volume



PET CREMATOR

- ✚ 1 off cremator unit with 1 main chamber and lower secondary chamber
- ✚ 2 off LPG fuelled burners or natural gas
 - 1 off main burner rated at 0.9 GJU/hr
 - 1 off secondary burner rated at 0.6 GJU/hr
- Fully automatic control with manual over-ride control
- ✚ 1 off combustion blower
- ✚ 1 off exhaust fan unit
- ✚ 4 metres stainless steel stack (standard)
- ✚ Fully programmable temperature controllers. Both burners with manual over-ride control
- ✚ Auto exhaust rate adjusting and manual over-ride
- ✚ Auto pressure sampling and self adjusting system with manual over-ride(optional)
- ✚ Power insertion door wireless remote control for safety with manual over-ride(Optional)
- ✚ Post firing cool down timer
- ✚ 1.5 second fume holding (standard)
- ✚ Fully installed, commissioned including delivery to site (Australia wide)
- ✚ Painted enamel finish (standard) with stainless steel optional
- ✚ 2 off ash pans plus 2 off rakes

Options

- ✚ Hydraulic - height adjustable insertion machine
- ✚ 1 off holding rack
- ✚ Ash processor

CUSTOMER SUPPLY

Please note




- ✚ Power supply to our control panel is customer supply
- ✚ Fuel supply to our isolation point on furnace is customer supply
- ✚ Flue trenching is customer supply (for under floor systems)
- ✚ Unloading and installation requirements to be discussed
- ✚ Roof flashing around stack is customer supply

These services could be arranged by R & Y Engineering on customer request






Technical Detail





MAIN BURNER

-  MVTA 98 - rated 0.9 GJU/hr.
-  LPG fired. Fully automatic firing.
-  Temperature controlled - with manual firing selection controlled at 800°C.




SECONDARY BURNER

-  MVTA 68 - rated at 0.6 GJU/hr.
-  LPG fired. Fully automatic firing.
-  Temperature controlled - with manual firing selection. Controlled at 850°C.




TEMPERATURE INSTRUMENTS

-  Main and secondary chambers are temperature controlled via fully programmable instruments.
-  Temperature is displayed.
-  Safety shut-down limits are incorporated.
-  Manual over-ride firing rate instruments fitted with firing rate percentage display.








COMBUSTION BLOWER.

-  Volume - 1500 CFM @ 15" WG 2950 RPM.
-  Motor Rating 415 Volts 3.5 KW.
-  240v X .75KW


PRESSURE SAMPLING.(OPTIONAL)

-  Pressure controlled via Adjustable and Self-Correcting "Null" switch.
-  Dampers controlled to maintain Furnace Pressure and Exhaust Rate.
-  Provisions are fitted for Manual Control.

EXHAUST FAN.

-  MCL 460 - 100s.
-  Designed for operation at 350°C.
-  Power by 4.5 KW, 415V motor @ 900 RPM with discharge volume of 5476 L/s.
-  Inlet density 1.204 kg/M.
-  Outlet Velocity 12.5 M/s.
-  Discharge pressure 250.00 PA @ 20°C.
-  240v X 1.5kv

DAMPER CONTROL

-  24 V instant response modulating type.

INSERTION DOOR(AUTO- OPTIONAL)

- Driven via chain drive.
- Powered by 0.09 KW motor @ 36 RPM.
- Gearbox 240 V.
- Wireless remote control for safety.
- Manual operation fitted standard

PREHEAT TIME

- From cold: 30-35 minutes.
- Daily use: 20 minutes.

CREMATION TIME

- Assuming 1 off usage: 60-80 minutes at 1.5 second fume holding time.

RAKE DOORS

- Top and bottom - manually operated.

TEMPERATURE PROBES

- Type 'K' thermocouples.

POST OPERATION COOLING

- Variable Timer holds Exhaust Fan running with Burners off to assist Fume Extraction and Cooling Down
- Auto Exhaust Fan shut down at end of set time

ELECTRICAL CONTROL PANEL

- Fitted with Microprocessor Temperature Instrument, Hardwired Contactors and Motor Controllers including Indicators and Manual Controls

FINISH

- Enamel Painted Finish on Zinc Anneal Panels – Standard

SUPPLY

- Ex-Gosford - Supplied, loaded and delivered to Site (Australia wide). Unloading and crange is Customer responsibility



COMPANY DETAILS

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Somersby NSW 2250
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Location of R & Y Cremators

CLIENT	UNITS	YEAR	STATE
Beresfield *	4	1990	NSW
Castlebrook *	2	1994	NSW
Dapto *	1	1992	NSW
Dubbo *	1	1995	NSW
Leppington *	2	1996 / 2001	NSW
Leura *	1	1992	NSW
Northern Suburbs, Sydney *	6	1998 / 2001	NSW
Orange *	1	1995	NSW
Ourimbah *	1	2001	NSW
Palmdale *	3	1993 / 1998	NSW
Pinegrove *	2	2000	NSW
Port Macquarie *	1	1985 / 1987	NSW
Rookwood *	4	1996	NSW
Tamworth	1	2003	NSW
Lismore	1	2001	NSW
Taree *	1	1997	NSW
Tomago *	1	2002	NSW
Toronto *	2	1994 / 2002	NSW
Tweed Heads *	1	1996	NSW
Unanderra	2	1993	NSW
Camden (Pet) *	3	1998 / 2002	NSW
Camden University (Pet)	1	2008	NSW
Sandgate	1		NSW
Somersby (Pet) *	1	2001	NSW
Badgery's Creek	5	2003	NSW
Wilberforce	1	2003	NSW
Maralya	1	2002	NSW
Bowral	1	2003	NSW
Kurrajong	1	2002	NSW
Allambe Gardens *	2	1995 / 2001	QLD
Albany Creek *	3	1996	QLD
Buderim	1	1990	QLD
Cairns *	1	1985	QLD
Deception Bay *	1	1997	QLD
Heritage Park	1	1989	QLD
Laidley	1	1992	QLD
Logan *	1	1997	QLD
Mount Isa *	1	2001	QLD
Mount Thompson *	3	2001	QLD
Loganholme (Pet)	2	2001	QLD
Bundaberg *	1	2006	QLD
Cairns (Pet) *	1	2005	QLD
Harvey Bay (Poultry)	1	2005	QLD

* These sites are equipped with Ash Processors and Dust Extractors manufactured by R & Y Engineering



Location of R & Y Cremators

CLIENT	UNITS	YEAR	STATE
Devonport	1	2003	TAS
Hobart *	1	2000 / 2001	TAS
Hobart (pet)	1	2007	TAS
Hobart	1	2007	TAS
Hobart Corneliun Bay	2 2007	TAS	
Bendigo (pet) *	2	2007	VIC
New Calenodia (pet) *	1	2006	NOUMEA

WORK IN PROGRESS

CLIENT	UNITS	YEAR	STATE
Orange	1 cremator	2007 – 2008	NSW
Orange	1 pet cremator	2008/9 build in progress	NSW
New Caledonia	2 cremators	2008/9 build in progress	NOUMEA
Millington Funeral Homes	2 Cremators	Rebuild	TAS
Parkside Funerals	1 Cremator	2008/2009	TAS

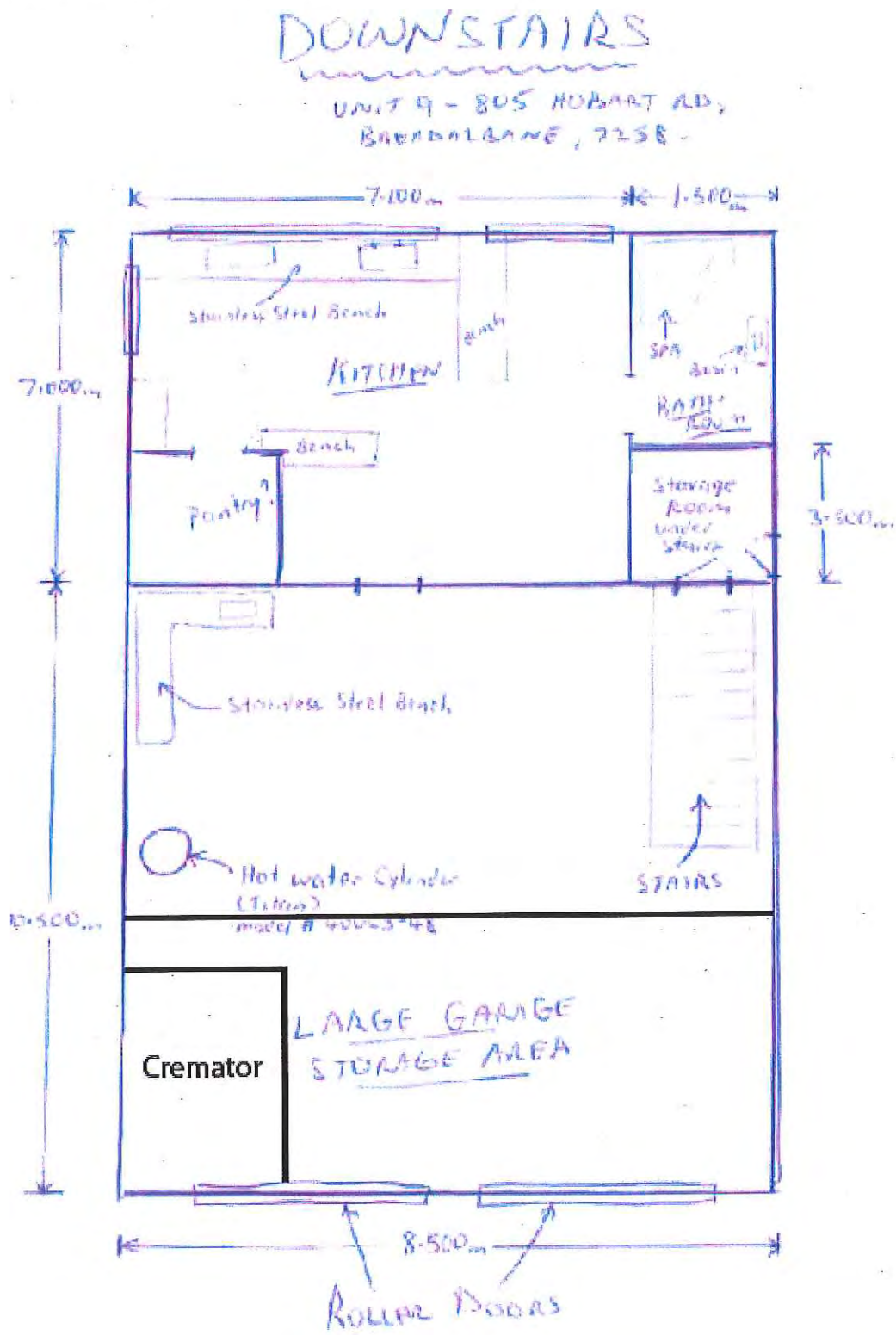
PROPOSALS IN PROGRESS

CLIENT	UNITS	YEAR	STATE
Bathurst	1 cremator	proposal in progress	NSW
Wagga	1 cremator	proposal in progress	NSW
Caloundra	1 cremator	proposal in progress	QLD
Wesfarmers Group	6 incinerators	proposal in progress	SA

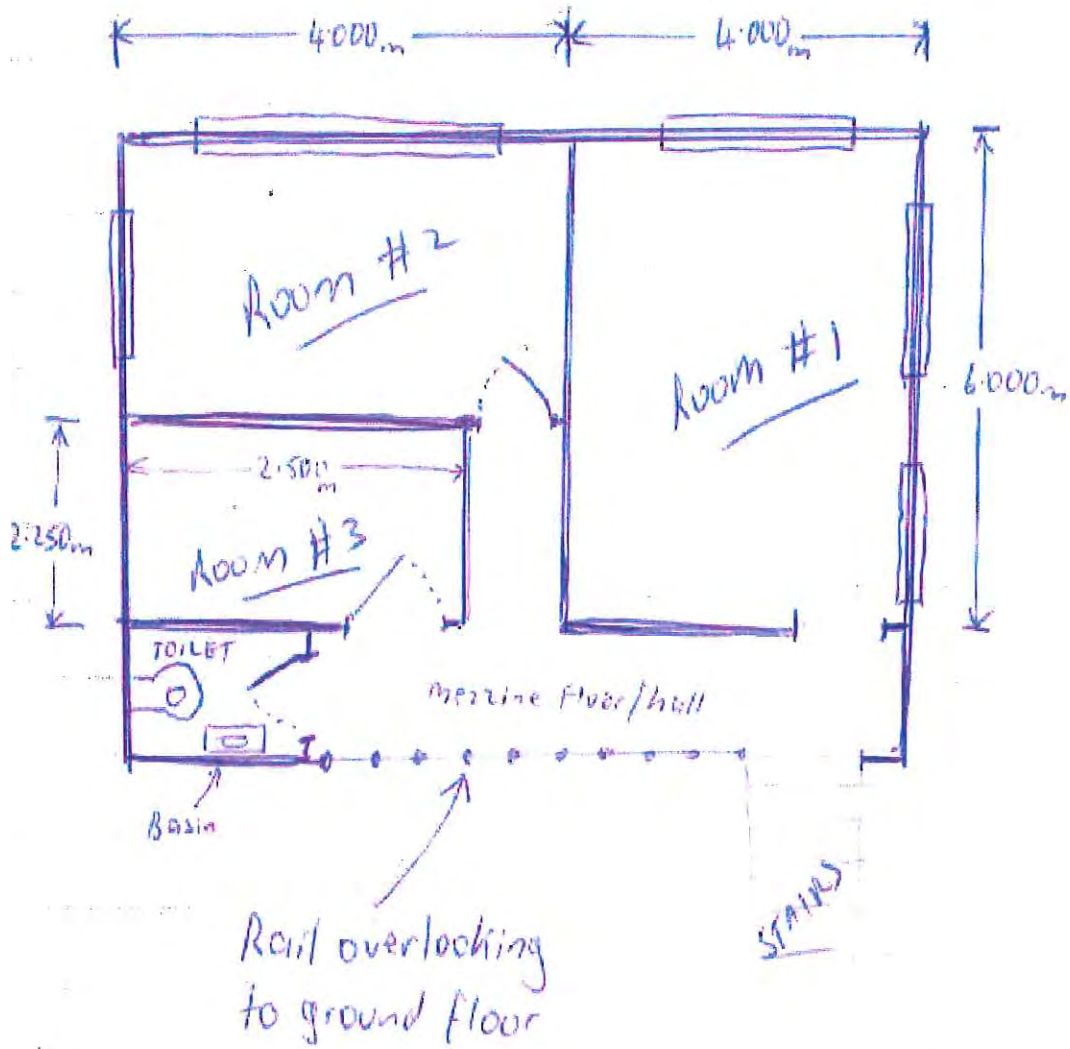
MAINTENANCE WORK IN PROGRESS

CLIENT	UNITS	YEAR	STATE
Wollongong Council	Exhaust System		NSW
Palmdale	Exhaust System		NSW
Port Macquarie	Exhaust System		NSW
Shoal Haven	Ash Processor & Dust Extractor		NSW
Logan	Rebrick		QLD
Deception Bay	Rebrick & Maintenance		QLD
Sydney University	Rebrick incinerator		NSW
Coffs Harbour	Rebrick		NSW

Appendix J. Existing Shed Layout



(measurements rough estimate only)



Appendix K. Site Photos





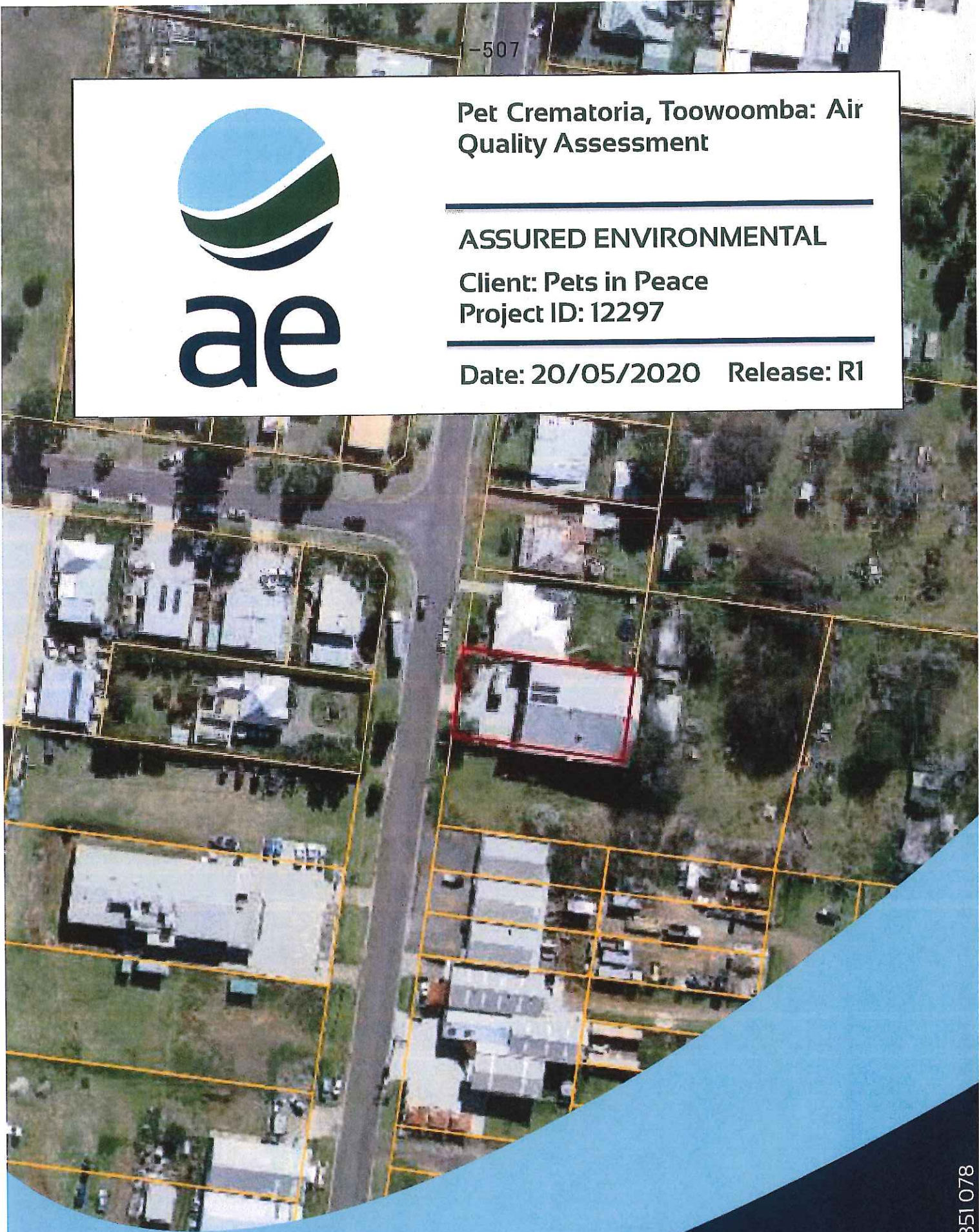


**Pet Crematoria, Toowoomba: Air
Quality Assessment**

ASSURED ENVIRONMENTAL

**Client: Pets in Peace
Project ID: 12297**

Date: 20/05/2020 Release: R1



ABN: 87 604 851 078



DOCUMENT CONTROL PAGE

Project Title: Pet Crematoria, Toowoomba: Air Quality Assessment

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Table 1: History of Revisions

Revision	Date	Issued to	Changes
R0	23/01/2020	M. Hopp	Initial Release
R1	20/05/2020	M. Hopp	Odour Assessment

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GLOSSARY

Conversion of ppm to mg/m ³	<p>Where R is the ideal gas constant; T, the temperature in kelvin (273.16 + T°C); and P, the pressure in mm Hg, the conversion is as follows:</p> $\mu\text{g m}^3 = (P/RT) \times \text{Molecular weight} \times (\text{concentration in ppm})$ $= \frac{P \times \text{Molecular weight} \times (\text{concentration in ppm})}{62.4 \times (273.2 + T^\circ\text{C})}$ <p>For the purposes of the air quality assessment all conversions were made at 0°C unless stated otherwise.</p>
g/s	Grams per second
mg/m ³	Milligrams (10 ⁻³) per cubic metre. Conversions from mg/m ³ to parts per volume concentrations (i.e., ppm) are calculated at 0 °C.
µg/m ³	Micrograms (10 ⁻⁶) per cubic metre. Conversions from µg/m ³ to parts per volume concentrations (i.e., ppb) are calculated at 0 °C.
ppb	Parts per billion.
ppm	Parts per million.
PM ₁₀ , PM _{2.5} , PM ₁	Fine particulate matter with an equivalent aerodynamic diameter of less than 10, 2.5 or 1 micrometres respectively. Fine particulates are predominantly sourced from combustion processes. Vehicle emissions are a key source in urban environments.
50 th percentile	The value exceeded for 50 % of the time.
NO _x	Oxides of nitrogen – a suite of gaseous contaminants that are emitted from road vehicles and other sources. Some of the compounds can react in the atmosphere and, in the presence of other contaminants, convert to different compounds (e.g., NO to NO ₂).
VOC	Volatile Organic Compounds. These compounds can be both toxic and odorous.

ABBREVIATIONS

TRC	Toowoomba Regional Council
EPP(Air)	Environmental Protection (Air) Policy 2019



1 INTRODUCTION

1.1 Background

Pets in Peace propose to develop a purpose-built pet crematorium at 36A Vanity Street, Rockville (Subject Site). In accordance with the requirements of the TRC Planning Scheme, an air quality assessment is required to demonstrate compliance with Schedule 1 Air Quality Objectives of the EPP(Air).

1.2 Scope of Assessment

Assured Environmental (AE) was commissioned by Pets in Peace to undertake an air quality and odour impact assessment to assess the proposed crematorium to determine compliance with the Air Quality Objectives provided in Schedule 1 of the EPP(Air) and Department of Environment and Heritage Protection "Odour Impact Assessment from Developments Guidelines" (2013).

To achieve this, AE has utilised air emissions and odour monitoring data from an existing Pets in Peace facility and predictive dispersion modelling to determine compliance with the air quality objectives.

This report summarises the methodology, results, and conclusions of the impact assessment.

1.3 Request for Information

Toowoomba Regional Council issued a Request for Information on 26 February 2020. The information request is presented in Table 2

Table 2: Information Request

Toowoomba Council Comment	Assured Environmental Response
<p>At a pre-lodgement meeting held on 19 December 2019, the proponent was advised that, should they choose to proceed to lodge a development application for Crematorium at this site, they would be required to address potential air quality and odour impacts in an Air Quality and Odour Impact Assessment. Furthermore, the proponent was advised that the Air Quality and Odour Impact Assessment may require peer review. The submitted Planning Report states that:</p> <p>"The development application is supported by an Air Quality Assessment that confirms the development will not generate adverse off-site amenity impacts including odour."</p> <p>Council's Senior Environmental Officer advises that the submitted Air Quality Assessment does not address odour.</p>	<p>An odour impact assessment was not undertaken as odour is not typically a concern for crematoria operations. If the crematoria is operated in accordance with manufacturer's recommendations, the temperature within the combustion chamber removes odorous compounds.</p> <p>Assured Environmental carried out duplicate odour measurements from the exhaust at Pets in Peace Clontarf facility in May 2020 and this data has formed the basis of the odour assessment.</p> <p>Assured Environmental personnel have visited Pets in Peace facilities several times, during each visit, no odour was detected by personnel.</p> <p>An Odour Management Plan including a complaints procedure is provided in Appendix D.</p>



2 PROPOSED DEVELOPMENT

2.1 Site Location

The Subject Site is located on Lot 2 on RP15983 (36A Vanity Street, Rockville) within an area zoned for light industrial uses in the TRC Planning Scheme. Figure 1 presents the location of the site whilst Figure 2 presents the land use zones under TRC (v23 dated 20 December 2019).

The nearest off-site sensitive receptors to the Subject Site include several existing dwellings located within 100 m to the north and west of the Subject Site. In addition, are commercial receptors are noted to be located immediately adjacent to the Subject Site. Figure 1 below provide a summary of the nearest sensitive receptors to the Subject Site and commercial uses.

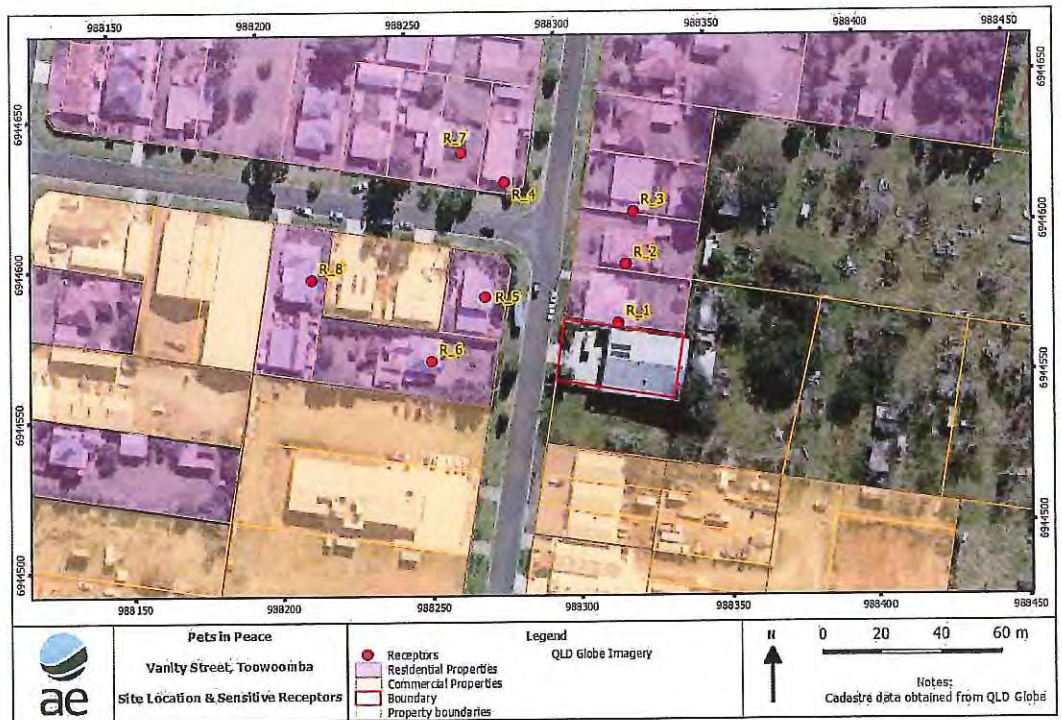


Figure 1: Site Location and Sensitive Receptors

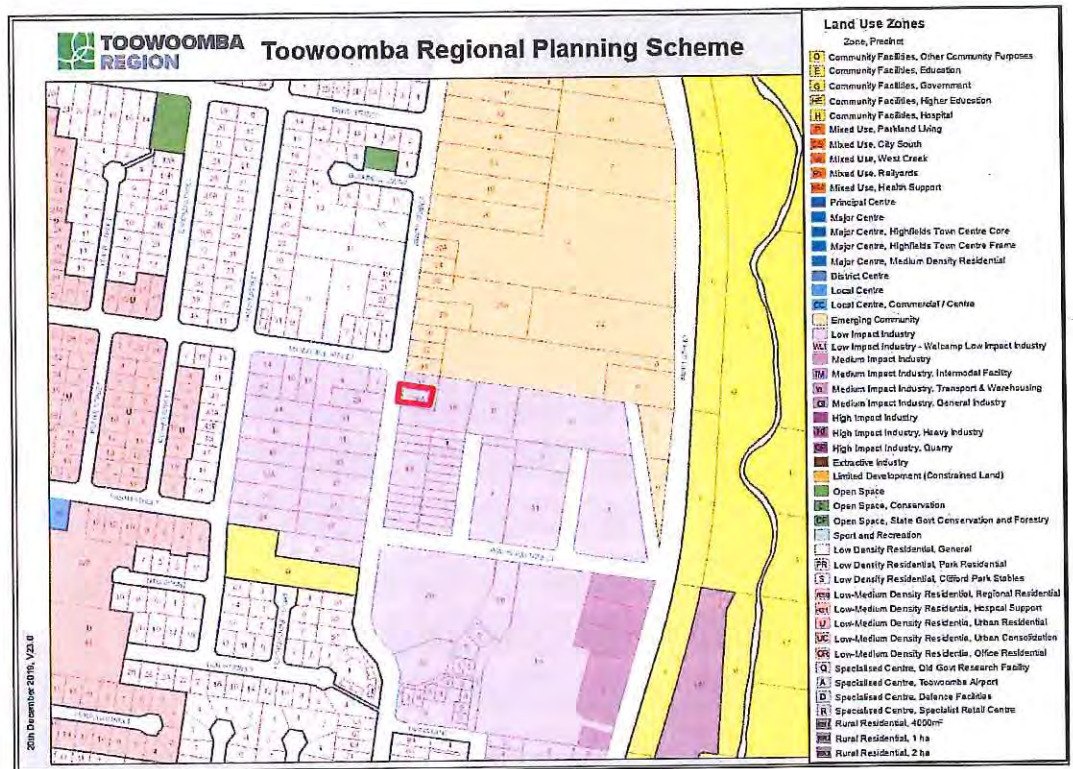


Figure 2: Toowoomba Regional Council Land Use Zones

2.2 Proposed Equipment

The proposed crematoria will be a R&Y Engineering single unit, which two chambers, one main chamber and one secondary chamber. The single unit operates at 800 °C and has a retention time of 1.5 seconds, which is considered sufficient to remove all odorous compounds.

The R&Y Engineering single units are currently installed at Pets in Peace's other locations. The technical specifications for the single unit are presented in Appendix E.

2.3 Description of the Crematoria Operations

The Pets in Peace operations are as follows:

- Step 1: Turn cremator on at start switch and turn both chamber flame switches. Wait 30 minutes to ensure the bottom chamber is at the required temperature.
- Step 2: Scan pet into Bis computer system to log the cremation time and date.
- Step 3: Place pet on cremator trolley then open top chamber door and place pet into the cremator
- Step 4: Close chamber door and begin cremation. The chamber temperature is checked to ensure the temperature is rising as required.
- Step 5: Regularly check security cameras of the stack during the cremation process.



- Step: 6: When cremation is completed, allow the main flame to die down and rack the ashes into lower chamber. Remove ashes and place on cooling trolley.
- Step 7: Make sure cremator main chamber temperature drops below 350°C before going through the next cremation process. This process usually takes about 30-45 mins.



3 EXISTING ENVIRONMENT

3.1 Existing Sources of Air Emissions

The Subject Site location is within an industrial area. Review of nearby premises has identified car repairs facilities within 60 m of the Subject Site. Typically, emissions from car repairs facilities are primarily VOCs; testing from an existing crematoria has identified that emissions of VOCs were below the limit of detection and therefore cumulative impacts of VOCs has not been assessed.

3.2 Ambient Air Quality

To assess cumulative impacts, daily background air quality data has been obtained from the DES website.

The nearest and most representative monitoring stations have been used for this assessment. Review of the DES air monitoring stations has identified that Toowoomba monitoring station was closed in 2010; the nearest active monitoring station is located at Flinders View, Ipswich.

Table 3 details the historic monitoring data for Toowoomba in 2010 for carbon monoxide, PM₁₀ and nitrogen dioxide. Table 3 presents the 2018 monitoring data for Flinders View monitoring station. Monitoring data for CO, formaldehyde and PM₂₅ were taken from the nearest monitoring stations as detailed in Table 3.

Table 3: Historic Concentrations at Toowoomba for 2010 ($\mu\text{g}/\text{m}^3$)

Compound	Time Period	Concentration ($\mu\text{g}/\text{m}^3$)				OEH Station
		Max	90 th Percentile	70 th Percentile	Average	
CO	8-hour	3292.7	294.5	26.8	103.7	Toowoomba
NO ₂	1-hour	84.2	20.5	8.2	8.1	Toowoomba
PM ₁₀	24-hour	94.9	21.9	14.5	12.6	Toowoomba

Table 4: Background Concentrations for 2018 ($\mu\text{g}/\text{m}^3$)

Compound	Missing Data	Concentration ($\mu\text{g}/\text{m}^3$)				OEH Station
		Max	90 th Percentile	70 th Percentile	Average	
CO	8-hour	2195.1	618.7	404.5	335.8	S. Brisbane
NO ₂	1-hour	104.7	34.9	18.5	15.4	Flinders View
SO ₂	1-hour	14.3	5.7	2.9	2.0	Flinders View
TSP	Annual	125.2	43.4	28.5	27.7	Canon Hill
PM ₁₀	24-hour	490.1	33.2	21.6	20.0	Flinders View
PM ₂₅	24-hour	68.0	12.5	7.5	6.4	Rocklea
Formaldehyde	1-hour	31.4	11.12	8.71	7.15	Springwood

For this assessment, monitoring data for 2018 has been applied as the background concentrations are higher than historic data from Toowoomba and therefore more conservative.



4 ASSESSMENT CRITERIA

4.1 TRC Planning Scheme

The proposed development is located within a low industry zone. The purpose of the Industry Use Code of TRC Planning Scheme is to facilitate the efficient operation of industrial activities in which adverse impacts on sensitive receptors are avoided and environmental values are protected and a safe and attractive working environment.

To achieve this, performance outcomes are provided within the Planning Scheme. Table 5 presents the applicable performance outcome for air quality. It should be noted that EPP(Air) 2008 has been superseded by EPP(Air) 2019. These changes between the versions do not affect this assessment.

Table 5: Acceptable Outcomes of Industry Use Code

Performance Outcome	Acceptable Outcome
PO7 Development minimises potential conflicts with, or impacts on, other uses having regard to vibration, odour, dust or other emissions to air.	AO7.1 Development achieves the air quality design objectives set out in the Environmental Protection (Air) Policy 2008. AO7.2 Any industry that involves the storage of materials on site that are capable of generating air contaminants either by wind or when disturbed are managed by: (a) being wholly enclosed in storage bins; or (b) a watering program so material cannot become airborne.

4.2 EPP(Air) 2019

The EPP(Air) 2019 provides air quality objectives for a range of compounds with the potential to impact on the health and well-being and aesthetics of the environment. Specifically, the objectives are intended to enhance or protect the following environmental values:

- (a) *the qualities of the air environment that are conducive to human health and wellbeing; and*
- (b) *the qualities of the air environment that are conducive to protecting the aesthetics of the environment, including the appearance of buildings, structures and other property; and*
- (c) *the qualities of the air environment that are conducive to protecting the health and biodiversity of ecosystems; and*
- (d) *the qualities of the air environment that are conducive to protecting agricultural use of the environment.*

Table 6 presents a summary of the air quality objectives applicable to compounds detected in emissions from the pet crematorium based on the results of the emissions monitoring undertaken on another similar facility in Brisbane.



Table 6: Summary of Air Quality Objectives

Indicator	Environmental value	Air quality objectives µg/m ³ at 0 degrees Celsius (except where noted)	Period
Benzo(a)pyrene (as a marker for polycyclic aromatic hydrocarbons)	health and wellbeing	0.3 ng/m ³	1 year
Cadmium and compounds (measured as the total metal content in PM ₁₀)	health and wellbeing	5 ng/m ³	1 year
Carbon monoxide	health and wellbeing	11 mg/m ³	8 hours
	health and wellbeing	54	24 hours
Formaldehyde	protecting aesthetic environment	109	30 min
	health and wellbeing	1.1	1 year
Inorganic mercury vapour	health and wellbeing	1.1	1 year
Lead and compounds (measured as the total metal content in total suspended particles)	health and wellbeing	0.5	1 year
Manganese and compounds (measured as the total metal content in PM ₁₀)	health and wellbeing	0.16	1 year
Nickel and compounds (measured as the total metal content in PM ₁₀)	health and wellbeing	20 ng/m ³	1 year
	health and wellbeing	250	1 hour
Nitrogen dioxide	health and wellbeing	62	1 year
	health and biodiversity of ecosystems	33	1 year
	health and wellbeing	25	24 hours
PM _{2.5}	health and wellbeing	8	1 year
	health and wellbeing	50	24 hours
PM ₁₀	health and wellbeing	50	24 hours
Total Suspended Particulates	health and wellbeing	90	1 year



4.3 Odour Impact Assessment from Developments Guidelines

To assess the potential for amenity impacts on nearby sensitive receptors, reference has been made to the Department of Environment and Heritage Protection "Odour Impact Assessment from Developments Guidelines" (2013).

Given the complex nature of emissions from site (i.e. as a complex mixture of contaminants), it is appropriate to adopt the EHP assessment criteria for complex mixtures as follows:

- 0.5 OU, 1-hour average, 99.5th percentile for tall stacks;
- 2.5 OU, 1-hour average, 99.5th percentile for ground-level sources and down-washed plumes from short stacks; and
- for facilities that do not operate continuously, the 99.5th percentile must be applied to the actual hours of operation.

For the purposes of this assessment, the emission sources will be from one exhausts impacted by building wake effects. As such, it is appropriate to adopt the 2.5 OU (1-hour average, 99.5th percentile) criteria for this assessment. The criteria apply at the most exposed off-site sensitive receptors.



5 AIR QUALITY ASSESSMENT

5.1 Modelling Methodology

Atmospheric dispersion modelling involves the mathematical simulation of the dispersion of air contaminants in the environment. The modelling utilises a range of information to estimate the dispersion of pollutants released from a source including:

- Meteorological data for surface and upper air winds, temperature and pressure profiles, as well as humidity, rainfall, cloud cover and ceiling height information;
- Emissions parameters including source location and height, source dimensions and physical parameters (e.g. exit velocity and temperature) along with pollutant mass emission rates;
- Terrain elevations and land use both at the source and throughout the surrounding region; and
- The location, height and width of any obstructions (such as buildings or other structures) that could significantly impact on the dispersion of the plume.

For the purpose of the assessment, meteorological modelling has been undertaken using TAPM (The Air Pollution Model) and CALMET to predict localised meteorological conditions. The meteorological data derived from these models have been used as an input for the CALPUFF dispersion modelling.

A site-specific meteorological dataset has been determined using the prognostic model TAPM (The Air Pollution Model). Prognostic models, such as TAPM, permit the development of localised meteorological datasets, based on synoptic weather conditions. The model predicts the regional flows important to dispersion, such as sea breezes and terrain induced flows, against a background of larger-scale meteorology provided by synoptic analyses.

The output of this model, when used with a diagnostic meteorological model, such as CALMET, provides a meteorological dataset suitable for introduction into the diagnostic wind field results. This methodology is the recommended approach for the modelling of contaminant concentrations using CALMET^a.

The model parameters for TAPM and CALMET are summarised in Table 7.

^aTRC Environmental Corporation (March 2011) *'Generic Guidance and Optimum Model Settings for the CALPUFF Modelling System for Inclusion into the 'Approved Methods for the Modelling and Assessments of Air Pollutants in NSW, Australia'* prepared on behalf of the NSW Office of Environment and Heritage

**Table 7: Summary of Meteorological Modelling Parameters**

Model	Aspect	Assigned Parameter
TAPM (v4.04)	Year Modelled	One full year - 2016 which is compared to long-term observations to demonstrate suitability
	Domains Grid	25 x 25 x 25 grid points
	Nesting Spacing	30 km, 10 km, 3 km, and 1 km
	Databases	Default databases for sea temperature, terrain and land cover applied
CALMET (v 7.00)	Model Domain	20-km x 20-km grid (200 m grid intervals)
	Terrain Data	Nasa Shuttle Radar Topography Mission (SRTM) 1-second (approximately 30 m) digital elevation model
	Land Use	Default from USGS for 1 km spacing. Review of the land use was undertaken and updated based on recent aerial imagery.
	Vertical Layers	12 Layers - 20 m, 50 m, 75 m, 150 m, 200 m, 500 m, 750 m, 1,000 m, 1,500 m, 2,000 m, 3,000 m and 4,000 m
	TAPM Input	3D meteorological data (no-obs mode) was derived from the 1 km meteorological grid from TAPM used as initial guess field to predict meteorological conditions

5.2 Validation of Meteorological Dataset for Assessment

Figure 3 presents a comparison of the 9 am and 3 pm predicted wind roses for the Subject Site (2016) and the observed wind roses at BOM Toowoomba Airport station (1996 – 2019) which is located approximately 3 km to the east of the Subject Site. Comparison of the BOM observed wind roses with the predicted wind roses for the Subject Site indicate the following:

- Wind during the morning and afternoon periods are dominated by easterly flows based on long term BOM data;
- Predicted 9 am wind fields are generally consistent with the long-term historical wind observations from Toowoomba Airport monitoring station, however there are fewer easterly flows and slightly more westerly and north westerly flows.
- Predicted 3 pm wind fields are generally consistent with the long-term historical wind observations from Toowoomba Airport monitoring station, however there are fewer easterly flows and slightly more north easterly flows.

Overall, the observed variations between predicted and observed meteorology in the area is not expected to significantly impact on the modelling of dispersion from the Subject Site facility. Therefore, in the absence of site-specific monitoring data, the predicted 2016 meteorological data is considered representative of long-term trends at the site. On this basis, the prognostic dataset is considered suitable for the purposes of the assessment.

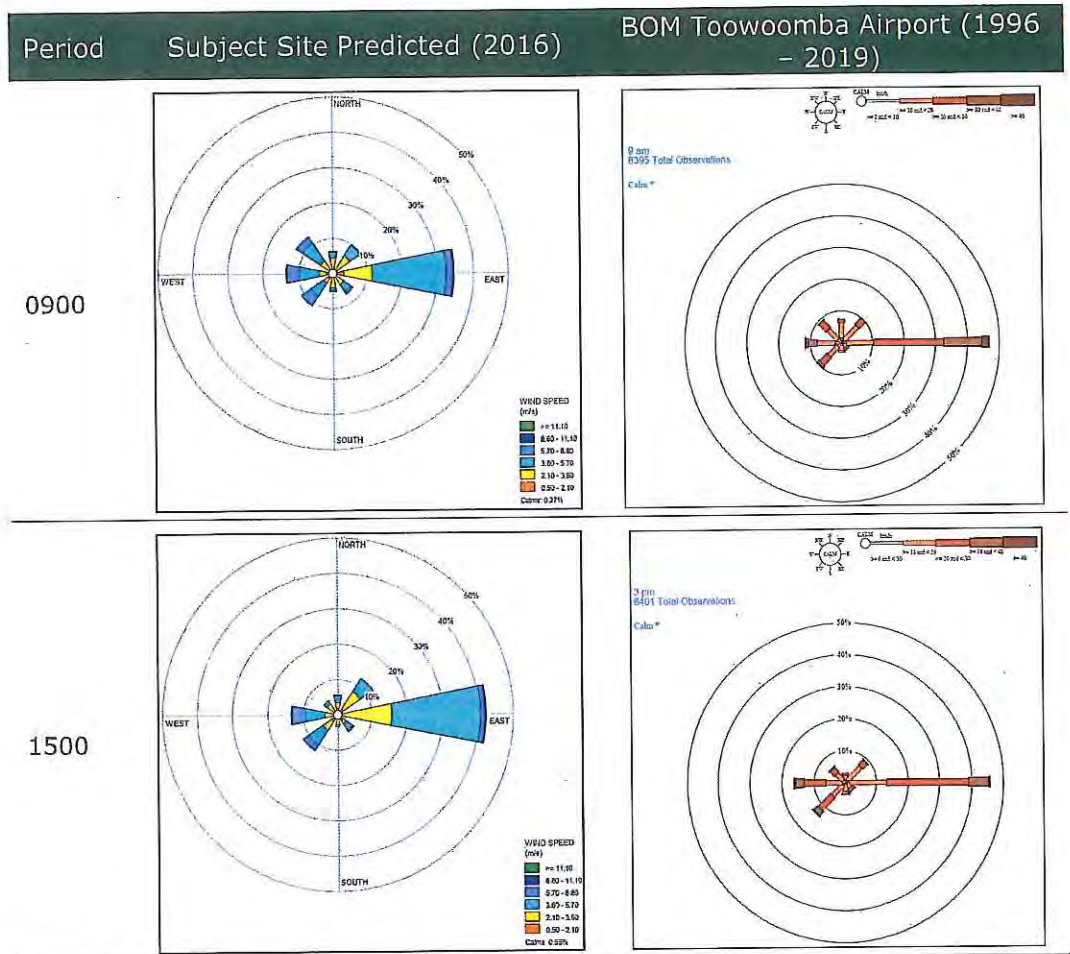


Figure 3: Comparison of Predicted and BOM Observed Wind Roses

5.3 Air Dispersion Modelling

The CALPUFF modelling system treats emissions as a series of puffs. These puffs are then dispersed throughout the modelling area and allowed to grow and bend with spatial variations in meteorology. In doing so, the model can retain a memory of the plume's movement throughout a single hour and from one hour to the next while continuing to better approximate the effects of complex air flows.

CALPUFF utilises the meteorological processing and prediction model CALMET to provide three-dimensional wind field predictions for the area of interest. The final wind field developed by the model (for consideration by CALPUFF) includes an approximation of the effects of local topography, the effects of varying surface temperatures (as is observed in land and sea bodies) and surface roughness (resulting from varied land uses and vegetation cover in an area). The CALPUFF model can resolve complex terrain influences on local wind fields including consideration of katabatic flows and terrain blocking.

Post processing of modelled emissions is undertaken using the CALPOST package. This allows the rigorous analysis of pollutant predictions generated by



the CALPUFF system. CALPOST is able to provide an analysis of predicted pollutant concentrations for a range of averaging periods from 1 hour to 1 year.

Building downwash of the emissions have been considered by using BPIP Prime algorithm which takes into consideration the immediately surrounding buildings within area of influence of the stack.

5.4 Modelled Discrete Receptors

The sensitive receptors identified in Figure 2 are included in the model as discrete receptors. The following additional receptors were modelled:

- gridded discrete receptors (at 200 m intervals) across an area of 4 km x 4 km centred on the subject site;
- site boundary receptors at 10 m intervals; and
- nested grid (at 5 m intervals out to 50 m distance, at 10 m intervals out to 100 m distance, at 20 m intervals out to 200 m distance and at 50 m intervals out to 500 m distance) centred on the subject site.

5.5 Sources of Emissions

Source emissions sampling was undertaken by AE on both crematoria stacks at the Pets in Peace facility in Clontarf, QLD on 21 June 2019 during the cremation of dogs weighing 35 kg. The cremation process took approximately 45 mins to complete. Table 8 presents the stack parameters and contaminant emissions.

Table 8: Source Emissions Results

Release Point Parameter	Unit	Crematoria 4	Crematoria 5	Modelled Emissions
Average stack temperature	°C	126	111	111
Diameter	m	0.55	0.55	0.55
Exhaust Velocity	m/sec	5.16	4.0	4
Exhaust Height above Roof	m	0.6 (at time of testing)	0.6 (at time of testing)	3.0
Total solid particulates	g/min	0.663	<0.149	0.663
Sulphur dioxide	g/min	< 2.84	<2.18	-
Oxides of nitrogen (NO _x)	g/min	0.72	1.02	1.02
Carbon monoxide	g/min	2.09	2.00	2.09
Hydrogen Fluoride (HF)	g/min	< 0.08	<0.08	-
Hydrogen Sulphide (H ₂ S)	g/min	< 0.053	<0.042	-
Formaldehyde	g/min	1.86	2.79	2.79
TVOC	g/min	< 0.089	<0.070	-
PAH as Benzo [a] pyrene equivalents	g/min	1.27 x10 ⁻⁷	6.32 x10 ⁻⁷	6.32 x10 ⁻⁷
Antimony	g/min	<0.0004	<0.0004	-
Arsenic	g/min	<0.0004	<0.0004	-
Barium	g/min	<0.0003	<0.0002	-
Beryllium	g/min	<0.00003	<0.00003	-



Release Point Parameter	Unit	Crematoria 4	Crematoria 5	Modelled Emissions
Cadmium	g/min	0.0005	0.00012	0.0005
Chromium	g/min	<0.00009	<0.00005	-
Cobalt	g/min	<0.00003	<0.00003	-
Lead	g/min	0.0016	0.0009	0.0016
Manganese	g/min	0.0017	0.00015	0.0017
Nickel	g/min	0.0003	0.0002	0.0003
Phosphorus	g/min	<0.017	<0.016	-
Selenium	g/min	<0.0004	<0.0004	-
Silver	g/min	<0.0004	<0.0003	-
Thallium	g/min	<0.0018	<0.0016	-
Tin	g/min	<0.001	<0.001	-
Vanadium	g/min	<0.0006	<0.0005	-
Zinc	g/min	0.0029	0.0033	0.0033
Mercury	g/min	0.00001	<0.000015	0.00001
Odour ^{a)}	OU/m ³ /sec	477	-	477

Notes:

< Indicates the pollutant was less than the detectable level in mg/m³ or µg/m³. As such compounds which are below the detectable level, they have not been modelled

a) Duplicate odour sampling was undertaken on crematoria 4 on 11 May 2020. The odour concentrations were 567 OU and 445 OU, with an average of 506 OU. For this assessment the highest concentration of 567 OU has been applied.

For this assessment, the maximum emission rate of each pollutant has been modelled for one release point. The following information provided by Pets in Peace is considered for the modelling:

- the Subject Site propose to have a licence to operate 24 hours per day;
- during peak demand it is expected to operate five (5) days per week;
- the change over time between cremations is two (2) hours to allow the unit to cool down;
- the maximum continuous operational time of the crematoria is 45 minutes based on maximum weight limit of 110 kg with weights exceeding 100 kg noted to be very infrequent.

For the purposes of this assessment, it is assumed that a cremation is carried out every two hours, which is a conservative approach.



6 PREDICTED GROUND LEVEL CONCENTRATIONS

The predicted ground level concentrations for the existing conditions are presented in Table 9 for the maximum concentration at any sensitive receptor and Table 10 for the maximum concentration across the entire modelling domain. The results presented confirm that compliance with the EPP(Air) is achieved at all sensitive receptors. In addition, compliance is achieved across the entire modelling domain for all contaminants.

The contour plots are provided in Appendix B.

Table 9: Predicted Pollutant Concentrations at Sensitive Receptors (with Background Concentrations)

Contaminant	Averaging Period	Receptor Type	Maximum Predicted GLC ($\mu\text{g}/\text{m}^3$)	Criteria ($\mu\text{g}/\text{m}^3$)	Complies Y/N
NO ₂ as 100% NO _x	1 hour	Discrete	20.5	250	Y
	Annual	Discrete	15.5	62	Y
TSP	Annual	Discrete	28.1	90	Y
PM ₁₀	24-Hour	Discrete	25.0	50	Y
	Annual	Discrete	15.7	25	Y
PM _{2.5}	24-hour	Discrete	10.9	25	Y
	Annual	Discrete	6.8	8	Y
CO	8 hour	Discrete	352.2	11000	Y
PAH	Annual	Discrete	2.54×10^{-5}	0.0003	Y
Cadmium	Annual	Discrete	7.57×10^{-5}	0.005	Y
Formaldehyde	24 hour	Discrete	21.4	54	Y
Lead	Annual	Discrete	0.0007	0.5	Y
Manganese	Annual	Discrete	0.0007	0.16	Y
Mercury	Annual	Discrete	6.83×10^{-6}	1.1	Y
Nickel	Annual	Discrete	0.0001	0.02	Y
Odour	1-hour 99.5 th percentile	Discrete	0.44 OU	2.5 OU	Y



Table 10: Predicted Pollutant Concentrations Across the Modelling Domain (with Background Concentrations)

Contaminant	Averaging Period	Receptor Type	Maximum Predicted GLC ($\mu\text{g}/\text{m}^3$)	Criteria ($\mu\text{g}/\text{m}^3$)	Complies Y/N
NO ₂ as 100%	1 hour	Entire grid	21.7	250	Y
NO _x	Annual	Entire grid	15.8	62	Y
TSP	Annual	Entire grid	28.9	90	Y
PM ₁₀	24-Hour	Entire grid	29.0	50	Y
	Annual	Entire grid	16.6	25	Y
PM _{2.5}	24-hour	Entire grid	24.0	25	Y
	Annual	Entire grid	7.6	8	Y
CO	8 hour	Entire grid	361.4	11000	Y
PAH	Annual	Entire grid	8.3×10^{-5}	0.0003	Y
Cadmium	Annual	Entire grid	0.0002	0.005	Y
Formaldehyde	24 hour	Entire grid	38.4	54	Y
Lead	Annual	Entire grid	0.003	0.5	Y
Manganese	Annual	Entire grid	0.003	0.16	Y
Mercury	Annual	Entire grid	2.9×10^{-5}	1.1	Y
Nickel	Annual	Entire grid	0.0005	0.02	Y
Odour	1-hour 99.5 th percentile	Discrete	0.7 OU	2.5 OU	Y

It should be noted that the model has been assessed using a conservative approach for 24 hours per day (based on 45-minute cremation time and one-hour change over time). Given this, were the actual operating hours to be considered, as discussed in Section 5.5, the cool down time is expected to be two hours, the predicted concentrations are expected to be lower for most contaminants.



7 CONCLUSIONS AND RECOMMENDATIONS

Pets in Peace propose to develop a purpose-built pet crematorium at 36A Vanity Street, Rockville (Subject Site). In accordance with the requirements of the TRC Planning Scheme, an air quality assessment was undertaken to assess the ability of air emissions from the facility to comply with the air quality objective provided in Schedule 1 of the EPP(Air).

Specifically, the air quality impact assessment considered the results of predictive air dispersion modelling based on emission data measured at an existing Pets in Peace facility during normal operations.

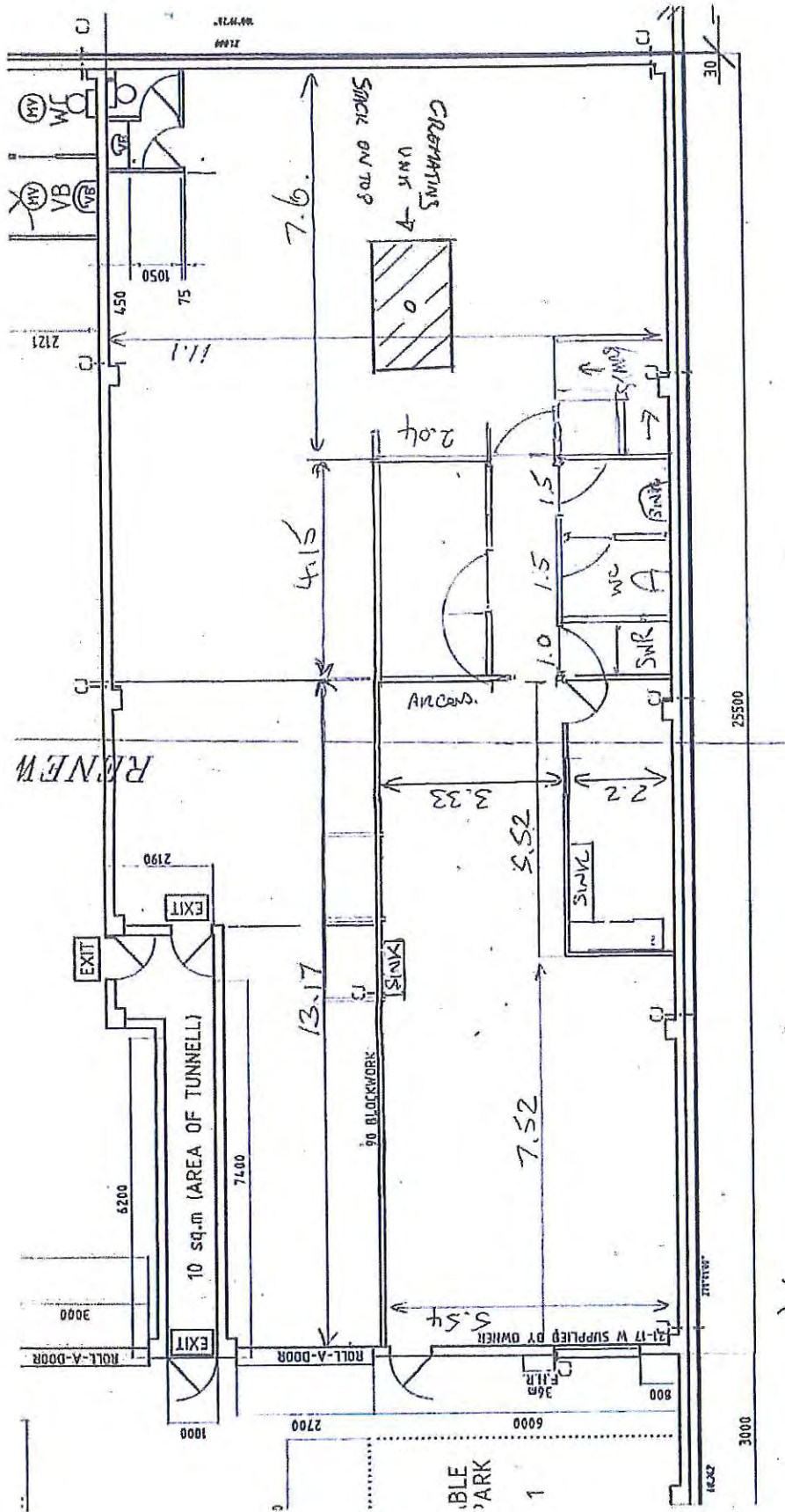
Review of the results of the conservative dispersion modelling has identified that compliance with the air quality objectives is predicted to be achieved for all compounds detected in the emissions to atmosphere where the exhaust stack from the crematorium is constructed to a minimum of 3 m above the highest point on the roof of the building.

Odour measurements from the existing facility using the same equipment have identified that odour emissions are low and the odour concentration is similar to typical combustion odour. Dispersion modelling of odour has identified that the prediction concentrations at sensitive receptors are well below the assessment criteria.

An odour management plan is presented in Appendix D.



APPENDIX A: PLANS





APPENDIX B: METEOROLOGICAL ANALYSIS

This Appendix provides an analysis of the prognostic meteorological dataset extracted from the CALMET model for 2016.

Predicted Atmospheric Stability

The amount of turbulence in the ambient air has a major effect upon the rise and dispersion of emissions. In particular, the amount of turbulence in the atmosphere plays a key role in diffusion of an emitted plume in the air with stronger turbulence (increased instability) increasing the rate of diffusion. Where the atmosphere exhibits weak turbulence (increased stability), downwind contaminant concentrations can be expected to increase due to the limited diffusion.

Figure 4 presents the diurnal variability in atmospheric stability identified in the predicted meteorological dataset. As can be seen, atmospheric instability increased during the day where the influence of the solar energy drives convection in the atmosphere. Conversely, increased stability can be seen during night periods where stable conditions are predicted for more than 70 % of the time.

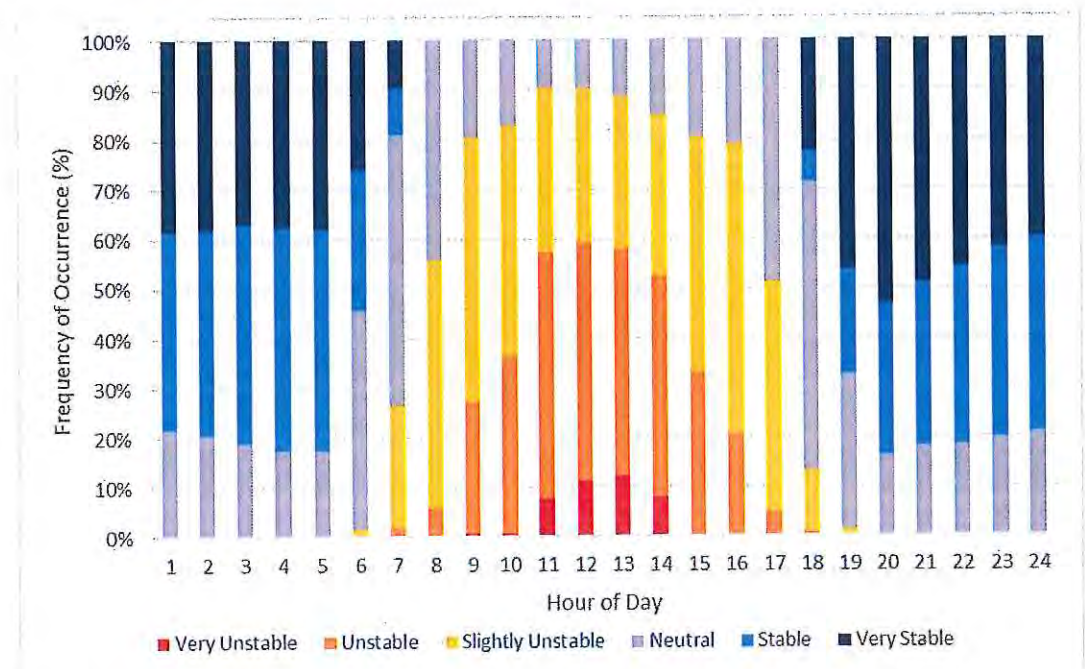


Figure 4: Annual Distribution of Diurnal Atmospheric Stability Variability

Monin-Obukhov Length

The Monin-Obukhov Length represents a parameter (with dimension of length) which provides a relationship between parameters characterising dynamic, thermal, and buoyant processes. The parameter, first described by Obukhov in 1946, is the characteristic height scale of the dynamic sub-layer of the atmosphere and is positive for stable stratifications and negative for unstable stratifications.



Figure 5 below presents a graphical representation of the reciprocal of the Monin-Obukhov length ($1/L$) for the 2016 prognostic (CALMET) dataset. In this figure, neutral stability conditions have the $1/L$ value of zero (0), stable conditions have positive values of $1/L$ and unstable conditions have negative values of $1/L$. The more positive $1/L$ value, the more stable the atmosphere is assumed to be by the model. Similarly, the more negative $1/L$ becomes, the more unstable the atmosphere is assumed to be by the model.

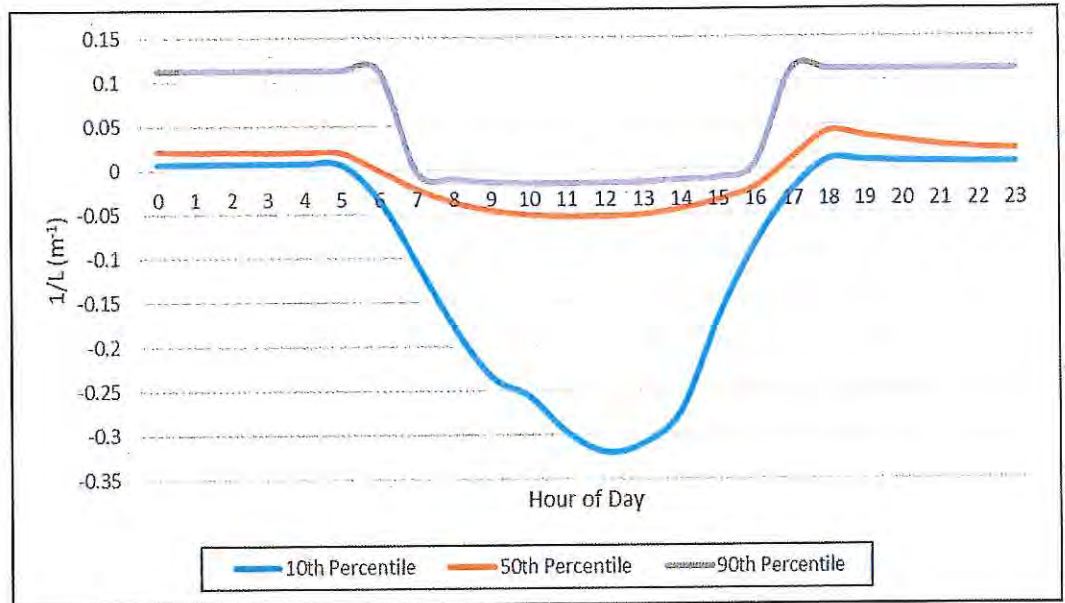


Figure 5: Annual Variability of Monin-Obukhov Length by Hour

Predicted Atmospheric Mixing Height

Figure 6 presents an illustration of diurnal variations in maximum and average mixing heights predicted by CALMET at the Subject Site across the 2016 prognostic meteorological dataset. As expected, an increase in mixing height during the morning is apparent, arising due to the onset of vertical mixing following sunrise. Maximum mixing heights generally occur in the mid to late afternoon, due to the dissipation of ground-based temperature inversions and growth of the convective mixing layer. The highest maximum mixing height for the Subject Site occurs during the late afternoon period.

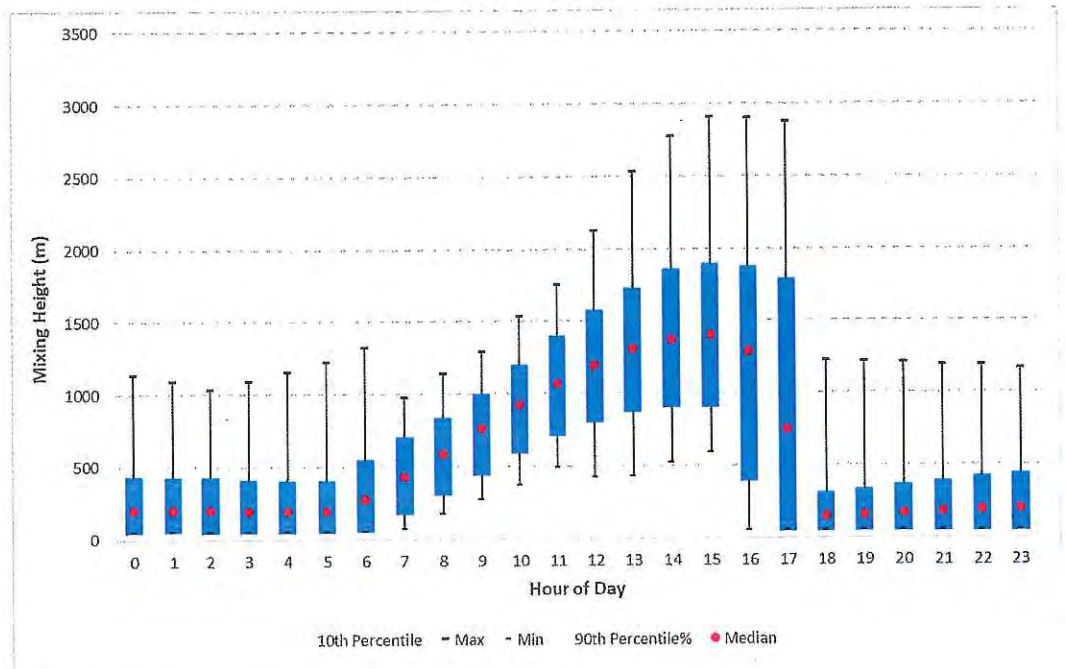


Figure 6: Atmospheric Mixing Height by Hour

APPENDIX C: POLLUTION PREDICTION CONTOURS



Figure 7: Maximum 1-hour NO₂ as 100% NO_x Ground Level Concentrations (µg/m³)

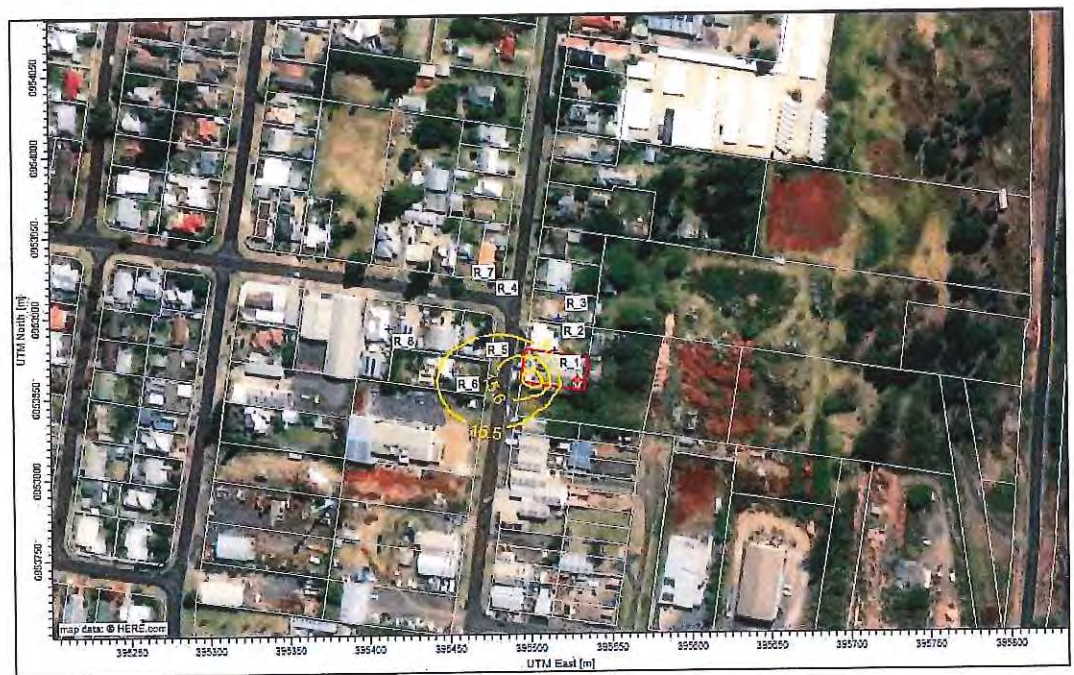


Figure 8: Annual Average NO₂ as 100% NO_x Ground Level Concentrations (µg/m³)



Figure 9: Annual Average TSP Ground Level Concentrations ($\mu\text{g}/\text{m}^3$)



Figure 10: Maximum 24-Hour PM_{10} Ground Level Concentrations ($\mu\text{g}/\text{m}^3$)



Figure 11: Annual Average PM₁₀ Ground Level Concentrations (µg/m³)



Figure 12: Maximum 24-Hour PM_{2.5} Ground Level Concentrations (µg/m³)



Figure 13: Annual Average PM_{2.5} Ground Level Concentrations ($\mu\text{g}/\text{m}^3$)



Figure 14: Maximum 8-hour Carbon Monoxide Ground Level Concentrations ($\mu\text{g}/\text{m}^3$)



Figure 15: Annual Average PAH Ground Level Concentrations ($\mu\text{g}/\text{m}^3$)



Figure 16: Maximum 24-Hour Formaldehyde Ground Level Concentrations ($\mu\text{g}/\text{m}^3$)

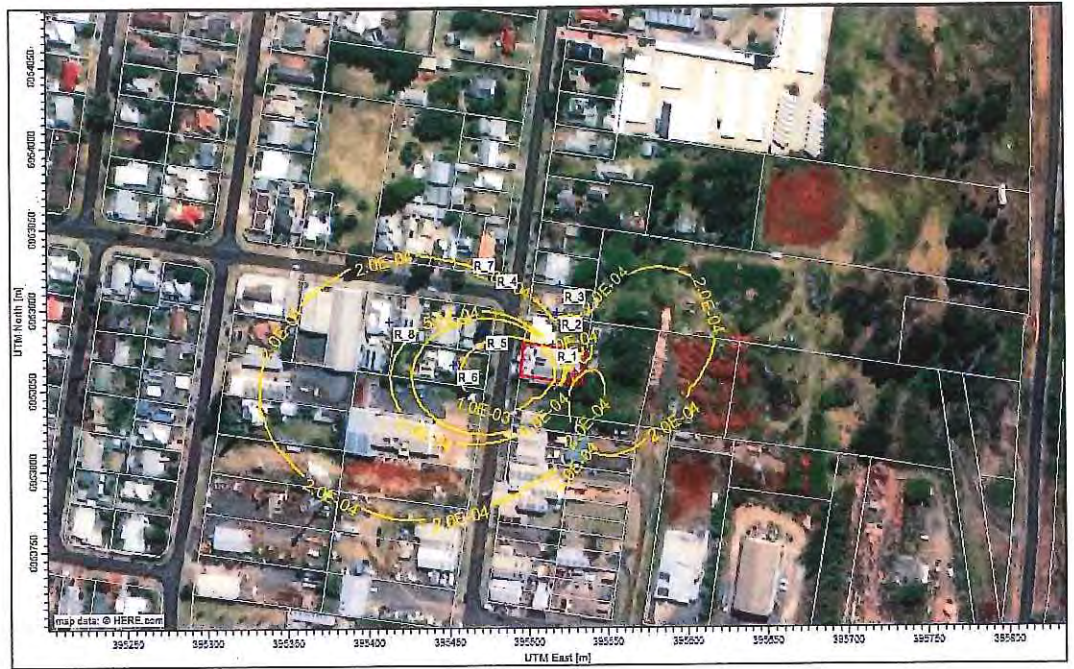


Figure 17: Annual Average Lead Ground Level Concentrations ($\mu\text{g}/\text{m}^3$)

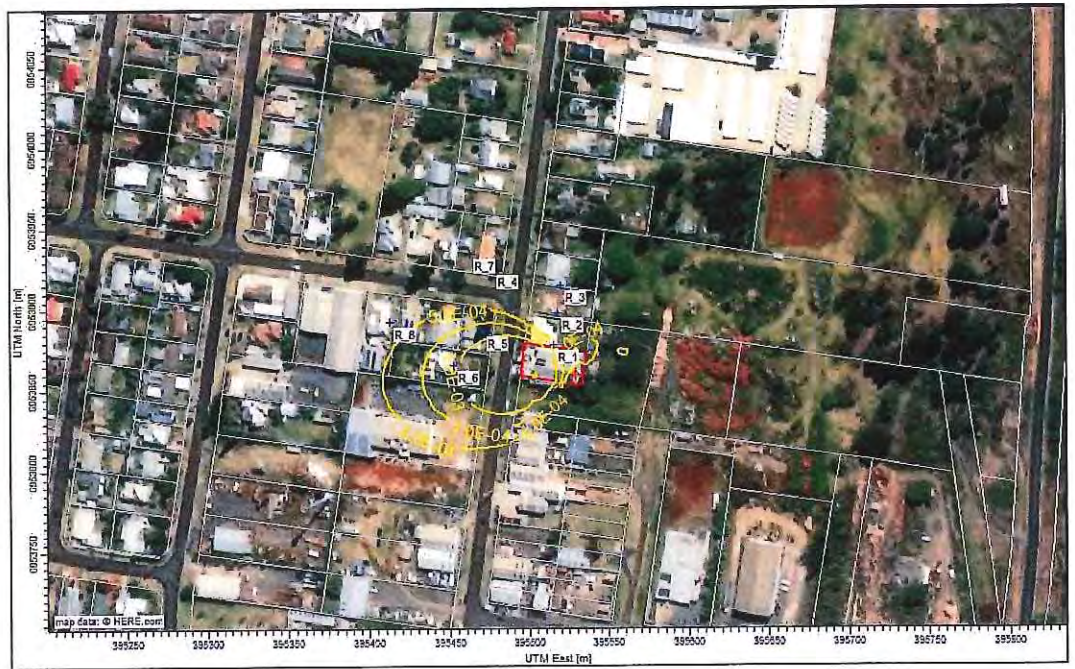


Figure 18: Annual Average Manganese Ground Level Concentrations ($\mu\text{g}/\text{m}^3$)



Figure 19: Annual Average Mercury Ground Level Concentrations ($\mu\text{g}/\text{m}^3$)

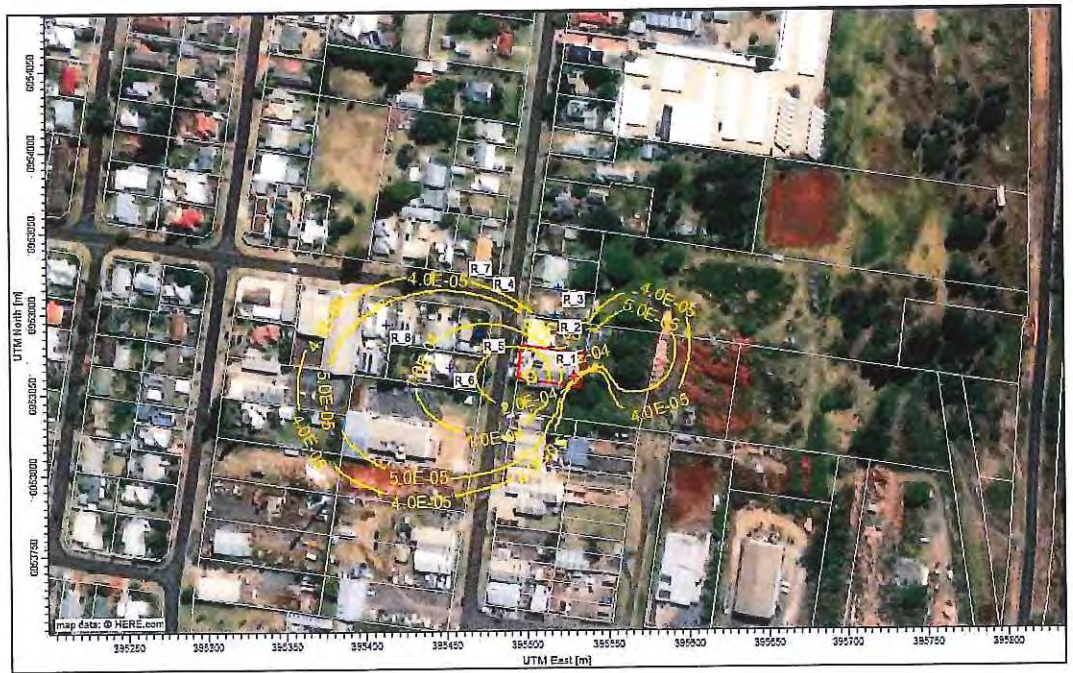


Figure 20: Annual Average Nickel Ground Level Concentrations ($\mu\text{g}/\text{m}^3$)



Figure 21: 1-hour, 99.5th Percentile Odour Ground Level Concentrations (OU)



APPENDIX D: ODOUR MANAGEMENT PLAN

The purpose of this Odour Management Plan (OMP) is to outline the management of odour controls relevant to the Pets in Peace crematoria located at 36A Vanity Street, Rockville (The Site).

The Site is a pet crematorium which operates 24/7. The Site will operate one (1) R&Y Engineering cremation unit, which is suitable for large pets.

The Site aims to minimise the risk of odour to the environment through effective management and use of this OMP. All aspects of this OMP are used to assist the company to manage odour in line with the following Acts and Regulations, where applicable:

- Environment Protection Act 1994
- Environment Protection Policy (Air Quality) 2019
- Odour Impact Assessment from Developments Guidelines

This plan details how identified air quality aspects and impacts as relevant to site operations are to be managed including management, monitoring, responsibilities (as appropriate) and responses to potential adverse events including complaints.

AIR EMISSIONS

A detailed air quality and odour assessment was conducted to support the planning and approvals phase for the facility and to demonstrate that odour emitted will not create an environmental nuisance where effectively managed. The studies included detailed modelling of the dispersion of odour using prognostic meteorological data and measured emission rates from the same crematoria equipment.

Description of infrastructure and equipment utilised for odour mitigation

The crematoria will be a R&Y Engineering single unit, which two chambers, one main chamber and one secondary chamber. The single unit operates at 800 °C and has a retention time of 1.5 seconds, which is considered sufficient to ensure complete combustion and thus mitigate odour emissions. The crematoria operate under negative pressure, meaning that fugitive emissions from the facility are minimal.

The building is fitted with roller shutter doors and the doors will remain closed at all times. Fugitive emissions will be reduced as the pets are placed in body bag immediately upon entering the building. The animals are then placed into a purpose-built walk-in temperature-controlled mortuary which is 3 m by 3 m to ensure there is sufficient capacity for busy periods.

Animals will not be stored outside of the purpose-built mortuary and body bags at any stage.

Equipment Maintenance/Inspection



An effective, planned inspection and preventative maintenance regime will be employed at the Site. This regime will include regular inspection of equipment and associated infrastructure and cleaning the equipment to manufacturers specifications.

- Daily check sheets will be developed and located in a place where all staff can access them throughout the day to report any issues which may lead to odour.
- Equipment information regarding start up procedure, operating temperature, miscellaneous maintenance, manufacturer contact information, and cleaning requirements will also be prepared and located next to the cremator, so all personnel have the correct information to hand at all times.
- Installation of cameras on the roof to enable personnel to watch the emissions from the stack. The cameras will operate continuously, and a record will be kept if smoke is seen emitting from the stack during cremation.

Record Keeping

A record of all pets cremated at the Site is kept. This record includes the following:

- pets name,
- breed,
- weight (pre cremation),
- cremation start time,
- cremation staff member;
- final ashes weight; and
- the pet barcode.

Staff Training

Staff training is important to the efficient operation of the cremator to ensure complete combustion. Training should not only include the correct operation main maintenance of equipment, and cleaning procedures.

All personnel have a duty to report equipment malfunctions, clean operating conditions any other concerns relating to the procedure.

Staff training records are to be maintained and be available. Training requirements include:

- Awareness of their responsibilities for avoiding environmental nuisance.
- Minimising fugitive emissions by keeping all building doors closed and ensuring the walk-in mortuary is closed and operating at the correct temperature.
- Minimising emissions from the equipment by ensuring that all manufacturer's operating procedures are followed especially ensuring the chambers are operating at the correct temperatures.
- Procedures for advising management and recording events when odour emissions occur which are likely to lead to odour complaints and



- Procedures for cleaning work areas and equipment.

Housekeeping

Housekeeping is important for keeping equipment running optimally and reducing any fugitive odours from transportation and storage of deceased animals.

- cleaning equipment routinely;
- correct storage of deceased animals;
- correct handling of deceased animals.

Monitoring Regime

Based on the testing results from the existing Clontarf facility, it is recommended that emissions testing is carried out on a six-monthly basis for the pollutants listed in Table II.

Table II: Recommended Emission Limits

Contaminant release	Recommended Limits
Total Suspended Particulates	50 mg/Nm ³ (dry at 11% O ₂)
Carbon Monoxide (CO)	125 mg/Nm ³ (dry at 11% O ₂)
Oxides of Nitrogen (NO _x)	350 mg/Nm ³ (dry at 11% O ₂)
Sulphur Dioxide (SO ₂)	100 mg/Nm ³ (dry at 11% O ₂)
Odour	1500 OU

Complaints procedure

Odour complaints must be reported to the Pets in Peace Management and entered into complaints register. The complaints register will record the following information:

- name, address, and phone number of the person (or persons) making the complaint (where provided);
- date and time the complaint was made;
- date and time of the event (if different);
- Record the cremation reference (i.e. animal, weight);
- Record the cremator chamber temperature (if logged) and whether any emissions were visibly seen from the exhaust etc; and
- Record weather conditions including wind speed and direction, temperature, rainfall, and humidity from Toowoomba weather station.

Pets in Peace management will then assess this complaint and initiate actions to address the concern. Once the complaint has been investigated and considered to be a valid complaint, this OMP and any mitigation measures will be reviewed.

APPENDIX E: R&Y ENGINEERING EQUIPMENT SPECIFICATIONS



1-544



R & Y ENGINEERING

PRODUCT
INFORMATION

R & Y ENGINEERING



R & Y ENGINEERING

ACN 002 859 547

1161 Wisemans Ferry Road
Somersby NSW 2250

Phone: 02 4372 1585
Mobile: 0414 239 585
Fax: 02 4372 2070

General Maintenance & Fabrication
Service & Maintenance - Oil & Gas Fired
Heat Exchangers - Boilers - Forges
Refractory Reline & Repair
Cremation Systems

24 Hours
7 Days

PO Box 6166
West Gosford NSW 2250
ryeng83@hotmail.com



R & Y ENGINEERING

- ✦ Been in operation since 1982
- ✦ Specialise in design, manufacture, installation and service of furnaces and ancillary equipment
- ✦ Constant, reliable and affordable service
- ✦ Small but committed team
- ✦ Manufacture with Australian products
- ✦ Units not computer controlled
- ✦ Manufacture for easy and low cost maintenance
- ✦ All materials and equipment readily available
- ✦ 24 hour, 7 day breakdown service
- ✦ Reliable, fuel efficient, clean, simple operation
- ✦ Acceptance by Local Council and EPA

SINGLE UNIT



- ✎ HEIGHT (mm): 2200 + 900 Insertion End
- ✎ WIDTH (mm): 1750
- ✎ DEPTH (mm): 3200
- ✎ WEIGHT (kg): 14,000
- ✎ Exhaust system configured to suit installation



SINGLE UNIT

- ✚ 1 off cremator unit with 1 main chamber and lower secondary chamber
- ✚ 2 off LPG fuelled burners or natural gas
 - 1 off main burner rated at 1.8 GJU/hr
 - 1 off secondary burner rated at 0.9 GJU/hr
 fully automatic control with manual over-ride control
- ✚ 1 off combustion blower
- ✚ 1 off exhaust fan unit
- ✚ 4.5 metres under-floor or above ground flue (standard)
- ✚ 4 metres stainless steel stack (standard)
- ✚ Fully programmable temperature controllers. Both burners with manual over-ride control
- ✚ Auto exhaust rate adjusting and manual over-ride
- ✚ Auto pressure sampling and self adjusting system with manual over-ride
- ✚ Power insertion door wireless remote control for safety with manual over-ride
- ✚ Post firing cool down timer
- ✚ 1.5 second fume holding (standard)
- ✚ Fully installed, commissioned including delivery to site (Australia wide)
- ✚ Painted enamel finish (standard) with stainless steel optional
- ✚ 2 off ash pans plus 2 off rake

Options

- ✚ Hydraulic - height adjustable insertion machine
- ✚ 1 off holding rack
- ✚ Ash processor

CUSTOMER SUPPLY

Please note

- ✚ Power supply to our control panel is customer supply
- ✚ Fuel supply to our isolation point on furnace is customer supply
- ✚ Flue trenching is customer supply (for under floor systems)
- ✚ Unloading and installation requirements to be discussed
- ✚ Roof flashing around stack is customer supply

These services could be arranged by R & Y Engineering on customer request



Technical Detail

MAIN BURNER

- ✦ MVTA 168 - rated 1.8 GJU/hr.
- ✦ LPG or natural gas fired. Fully automatic firing.
- ✦ Temperature controlled - with manual firing selection controlled at 800°C.

SECONDARY BURNER

- ✦ MVTA 104 - rated at 0.9 GJU/hr.
- ✦ LPG or natural gas fired. Fully automatic firing.
- ✦ Temperature controlled - with manual firing selection. Controlled at 850°C.

TEMPERATURE INSTRUMENTS

- ✦ Main and secondary chambers are temperature controlled via fully programmable instruments.
- ✦ Temperature is displayed.
- ✦ Safety shut-down limits are incorporated.
- ✦ Manual over-ride firing rate instruments fitted with firing rate percentage display.

COMBUSTION BLOWER.

- ✦ Volume - 1500 CFM @ 15"WG 2950 RPM.
- ✦ Motor Rating 415 Volts 5.5 KW.

PRESSURE SAMPLING.

- ✦ Pressure controlled via Adjustable and Self-Correcting "Null" switch.
- ✦ Dampers controlled to maintain Furnace Pressure and Exhaust Rate.
- ✦ Provisions are fitted for Manual Control.

EXHAUST FAN.

- ✦ MCL 840 - 100s.
- ✦ Designed for operation at 350°C.
- ✦ Power by 7.5 KW.
- ✦ 415V motor @ 900 RPM with discharge volume of 7478 L/s.
- ✦ Inlet density 1.204 kg/M.
- ✦ Outlet Velocity 15.4 M/s.
- ✦ Discharge pressure 250.00 PA @ 20°C.

DAMPER CONTROL

- ✦ 24 V instant response modulating type.

INSERTION DOOR

- Driven via chain drive.
- Powered by 0.09 KW motor @ 36 RPM.
- Gearbox 240 V.
- Wireless remote control for safety.
- Manual operation fitted.

PREHEAT TIME

- From cold: 30-35 minutes.
- Daily use: 20 minutes.

CREMATION TIME

- Assuming 1 off usage: 60-80 minutes at 1.5 second fume holding time.

RAKE DOORS

- Top and bottom - manually operated.
- Chain driven - crank type.

TEMPERATURE PROBES

- Type 'K' thermocouples.

POST OPERATION COOLING

- Variable Timer holds Exhaust Fan running with Burners off to assist Fume Extraction and Cooling Down
- Auto Exhaust Fan shut down at end of set time

ELECTRICAL CONTROL PANEL

- Fitted with Microprocessor Temperature Instrument, Hardwired Contactors and Motor Controllers including Indicators and Manual Controls
- Smoke control mechanisms & Baffles are incorporated
- Pressure and Air Inlet analysing mechanisms are incorporated
- Full Alarm and Manual Back Up on all Control Systems

FINISH

- Enamel Painted Finish on Zinc Anneal Panels – Standard
- Stainless Steel Cover Panels To Cremator Unit Optional Extra

SUPPLY

- Ex-Gosford - Supplied, loaded and delivered to Site (Australia wide). Unloading and crange is Customer responsibility



EPA General Information

- ✘ Cremator Unit primarily has a Modulating After Burner, not 'ON'-'OFF' to maintain temperature of 850°C preset
- ✘ This holds 'After Burner' Chamber and incinerates any discharge with fume retention time of 1.5 seconds within Chamber
- ✘ Air Speed maintained by Automatic Damper via Pressure Sensing 'Null' Switch
- ✘ Main Chamber Burner set at 800°C for efficient Cremation and fully automatic modulating control

EXHAUST FAN

- ✘ Discharge rate of 7476 L/s @ 250 outlet velocity, 15.4M/s

BURNERS

- ✘ LPG or Natural Gas Fuel
- ✘ Main Burner max rated 1.8 GJU/hr
- ✘ Secondary Burner max rated 0.9 GJU/hr
- ✘ Combustion Air - 1350 CFM @ 15 WG

CHAMBER SIZE

- ✘ Main or Top - 2.5m x 0.9m x 1040mm Wide

DOOR OPENINGS

- ✘ Insertion door - 0.9m x 0.9m
- ✘ Top rake door - 0.3m x 0.45m
- ✘ Bottom rake door - 0.6m x 0.45m

REFRACTORY

- ✘ Top chamber - 115mm fire brick rated 1350°C
- ✘ 120mm insulation behind brick rated @ 1300°C
- ✘ Bottom chamber - 115mm fire brick rated 1350°C
- ✘ 350mm insulation behind brick rated @ 1300°C
- ✘ Door lining and arches refractory concrete rate @ 1650°C
- ✘ Exhaust flue, hot side, steel plate section lined with 140mm - 100 mm refractory insulating hot face concrete rate @ 1450 °C
- ✘ All controls are automatic with manual back up for safety and emergency situations
- ✘ If insertion door is left open too long upon 'charging' a light grey emission is visible for 30 seconds. Once door is closed, automatic controls take over and remainder of operation is very clean
- ✘ Any problems experienced over past years have usually been operator error or excessive plastics in casket.
- ✘ Provided instructions and operational procedures are carried out correctly, no problems are experienced.

AS PER REMAINS HANDLING

- ✘ Primary collection by mechanical raking into steel cool tray.
- ✘ Once cooled, remains then processed directly through a cutting ball mill processor (client option).
- ✘ Ash is usually 2-3mm aggregate.
- ✘ Packaging usually plastic containers.



COMPANY DETAILS

- ✦ **Registered Office:**
1161 Wisemans Ferry Road
Somersby NSW 2250

- ✦ **Postal Address:**
PO Box 6166
West Gosford NSW 2250

- ✦ **Company Bankers:**
Westpac Banking Corp
Manns Street, Gosford

- ✦ **Factory:**
1161 Wisemans Ferry Road
Somersby NSW 2250

- ✦ **24 Hour Service Phone:** 02 4372 1585

- ✦ **Facsimile:** 02 4372 2070

- ✦ **Mobile Phone:** Ray: 0414 239 585
Yvonne: 0409 824 078
Tristan: 0414 721 585



Location of R & Y Cremators

CLIENT	UNITS	YEAR	STATE
Beresfield *	4	1990	NSW
Castlebrook *	2	1994	NSW
Dapto *	1	1992	NSW
Dubbo *	1	1995	NSW
Leppington *	2	1996 / 2001	NSW
Leura *	1	1992	NSW
Northern Suburbs, Sydney *	6	1998 / 2001	NSW
Orange *	1	1995	NSW
Ourimbah *	1	2001	NSW
Palmdale *	3	1993 / 1998	NSW
Pinegrove *	2	2000	NSW
Port Macquarie *	1	1985 / 1987	NSW
Rookwood *	4	1996	NSW
Tamworth	1	2003	NSW
Lismore	1	2001	NSW
Taree *	1	1997	NSW
Tomago *	1	2002	NSW
Toronto *	2	1994 / 2002	NSW
Tweed Heads *	1	1996	NSW
Unanderra	2	1993	NSW
Camden (Pet) *	3	1998 / 2002	NSW
Camden (Pet)	2	2008	NSW
Sandgate	1		NSW
Somersby (Pet) *	1	2001	NSW
Badgery's Creek	5	2003	NSW
Wilberforce	1	2003	NSW
Maralya	1	2002	NSW
Bowral	1	2003	NSW
Kurrajong	1	2002	NSW
Allambe Gardens *	2	1995 / 2001	QLD
Albany Creek *	3	1996	QLD
Buderim	1	1990	QLD
Cairns *	1	1985	QLD
Deception Bay *	1	1997	QLD
Heritage Park	1	1989	QLD
Laidley	1	1992	QLD
Logan *	1	1997	QLD
Mount Isa *	1	2001	QLD
Mount Thompson *	3	2001	QLD
Loganholme (Pet)	4	2001-2013	QLD
Bundaberg *	1	2006	QLD
Cairns (Pet) *	1	2005	QLD
Hervey Bay (Poultry)	1	2005	QLD

* These sites are equipped with Ash Processors and Dust Extractors manufactured by R & Y Engineering



Location of R & Y Cremators

CLIENT	UNITS	YEAR	STATE
Devonport	1	2003	TAS
Hobart *	1	2000 / 2001	TAS
Hobart (pet)	1	2007	TAS
Hobart *	2	2007	TAS
Launceston (pet)	1	2011	TAS
Bendigo (pet) *	1	2007	VIC
New Calenodia (pet) *	1	2006	NOUMEA
Kempsey	1	2014	NSW
Norwood Park	1	2015	ACT