NOTICE OF AN APPLICATION FOR PLANNING PERMIT

<table>
<thead>
<tr>
<th>THE LAND AFFECTED BY THE APPLICATION IS LOCATED AT:</th>
<th>236 Clarinda Road, HEATHERTON VIC 3202</th>
</tr>
</thead>
<tbody>
<tr>
<td>THE APPLICATION IS FOR A PERMIT TO:</td>
<td>Use the land as a place of worship and buildings and works for the construction of an associated car parking area.</td>
</tr>
<tr>
<td>THE APPLICATION REFERENCE NUMBER IS:</td>
<td>KP-2018/676</td>
</tr>
<tr>
<td>THE APPLICANT FOR THE PERMIT IS:</td>
<td>Change of Plan</td>
</tr>
<tr>
<td>This can be done during office hours and is free of charge</td>
<td></td>
</tr>
</tbody>
</table>

Any person who may be affected by the granting of the permit may object or make other submissions to the responsible authority.

An objection must:
- be made to the Responsible Authority in writing,
- include the reasons for the objection, and
- state how the objector would be affected.

The responsible authority must make a copy of every objection available at its office for any person to inspect during office hours free of charge until the end of the period during which an application may be made for review of a decision on the application.

<table>
<thead>
<tr>
<th>THE RESPONSIBLE AUTHORITY WILL NOT DECIDE ON THE APPLICATION BEFORE:</th>
<th>04-Jul-2019</th>
</tr>
</thead>
</table>

If you object, the Responsible Authority will tell you of its decision.

Privacy Notification: The personal information provided in a submission/objection is collected for planning purposes in accordance with the Planning & Environment Act 1987 (the Act). The public may view an objection or submission in accordance with Section 57 of the Act whilst the planning application is current. In accordance with the "Improving Access to Planning Documents" Practice Note dated December, 1999, a copy of your submission will be made available on request. If you fail to provide contact details your objection may not be considered. For information regarding access to Planning documents please contact Council’s Planning Department on 1300 653 356.
Dear Sir/Madam,

Re: Planning Application for a place of worship at 236-242 Clarinda, Heatherton.

Please find enclosed a planning application for construction of a place of worship at the above address.

All required documents have been submitted:

- Completed application form.
- Full copy of title that is less than 3 months old.
- Full set of plans.
- Planning Report.

As per your advice, please send an invoice to info@changeofplan.com.au for payment of the application fee.

Please do not hesitate to contact me if you require any further information.

Yours sincerely

Melanie Ellis
Director
Application for a Planning Permit

Office Use Only - Application No. Date Lodged

Application for Planning Permit

Privacy notice - any material submitted with this application, including plans and personal information, will be made available for public viewing, including electronically, and copies may be made for interested parties for the purpose of enabling consideration and review as part of the planning process under the Planning and Environment Act 1987. If you have any concerns please contact Council's Planning Department on 9581 4131.

Need Help? - If you need help to complete this form, read: How to complete the application for planning permit form available at www.kingston.vic.gov.au/planning

Questions marked with an asterisk (*) are mandatory and must be completed

1. Pre-application meeting

Has there been a pre-application meeting with a council planning officer?

☐ No ☐ Yes

If 'yes', with whom?

Date: dd/mm/yyyy

2. The Land *

Address of the land. Complete the street address and one of the formal land descriptions.

Street Address *

Unit No.: St No.:236-212

St Name: Clarinda Road

Suburb: Heatherston

Postcode: 3202

Formal Land Description *

☐ Lodged Plan ☐ Title Plan ☑ Plan of Subdivision

Lot No.: 2

No.: P540557F

Complete either A or B.

OR

B

Crown Allotment No.: Section No.: Parish/Township Name:
3. **Description of Land**

Describe how the land is used and development now

E.g. vacant, single dwelling, three dwellings, shop, factory, medical centre, with two practitioners, licensed restaurant with 80 seats.

4. **Plan of the Land**

[ ] Attach a plan of the existing conditions. Photos are also helpful.

5. **The Proposal**

You must give full details of your proposal and attach the information required to assess the application. Lack of detail, insufficient or unclear information will delay your application.

**For what use, development or other matter do you require a permit?**

If you need help about the proposal, read: **How to complete the application for planning permit form.**

- **Change of use to:**
  - A place of worship, signage, building alterations and construction of car parking area.

6. **Additional Information**

[ ] Attach additional information providing details of the proposal, including:

- [ ] Any information required by the planning scheme, requested by Council or outlined in a council planning permit checklist.
- [ ] Plans and elevations showing the layout and details of the proposal
- [ ] If required, a description of the likely effect of the proposal (e.g. traffic, noise, environmental impacts).

⚠️ **Note**

Contact council or refer to council planning permit checklists for more information about council's requirements.
7. Title Information

- Attach a full, current copy of title information, not older than 30 days, for each individual parcel of land, forming the premises.

Encumbrances on title?

- Is the land affected by any encumbrances such as a restrictive covenant, section 173 agreement or other obligation such as an easement or building envelope?
  
  - Yes, attach a copy of the document (instrument) specifying the details of the encumbrance.
  
  - Does the proposal breach, in any way, the encumbrance on title?
    - No, go to Question 8.
    - Yes, contact council for advice on how to proceed before continuing with this application.

Note

Council must not grant a permit that authorises anything that would result in a breach of a registered restrictive covenant (sections 61 (4) and 62 of the Planning and Environment Act 1987). Contact Council and/or an appropriately qualified person for advice.

8. Costs of Buildings and Works/permit fee

All applications require a fee to be paid. Where development is proposed, the value of the development affects the fee. Contact Council to determine the appropriate fee.

- Estimate cost of development for which the permit is required?
  - Cost $30,000

Note

Write 'Nil' if no development is proposed (e.g., change of use, subdivision, removal of covenant, liquor licence).

- Is a Metropolitan Planning Levy (MPL) certificate required?
  - No, go to Question 9.
  - Yes, attach a valid copy of the MPL Certificate.

Note

If a MPL is applicable, a planning application must be accompanied by the MPL certificate. This is a requirement of section 3 of the Planning and Environment Act 1987. For more information on the MPL, visit www.sro.vic.gov.au.
11. Information checklist

Have you:

- [ ] Filled in the form completely?
- [ ] Included the application fee? (Contact Council to determine the appropriate fee).
- [ ] Provided all necessary supporting information and documents?
  - Provided a copy of full title, no older than 3 months, for each individual parcel of land forming the subject site?
  - Provided a plan of existing site conditions?
  - Included plans showing the layout and details of the proposal?
  - Provided all information required by the planning scheme, requested by Council or outlined in a council planning permit checklist?
  - Where required, provided a description of the likely effect of the proposal (e.g. traffic, noise, environmental impacts)?
  - If applicable, included a current MPL Certificate. Note: a levy certificate expires 90 days after the day on which it is issued by the State Revenue Office. Once expired, the certificate becomes invalid and cannot be used. Failure to comply means the application is void.
  - Completed Kingston's relevant Council Planning Permit Checklist?
  - Signed the Declaration (section 10 of this form)?

12. Lodgement

Lodge the completed and signed form, the fee payment and all documents with:

**By Post**
City Development
Kingston City Council
PO Box 1000, Mentone, VIC 3194

**In Person**
Level 1, 1230 Nepean Highway, Cheltenham VIC 3194

**Contact Information**
T (03) 9581 4131
E info@kingston.vic.gov.au
REGISTER SEARCH STATEMENT (Title Search) Subdivision of Land Act 1958
VOLUME 10606 FOLIO 090

LAND DESCRIPTION
Lot 1 on Plan of Subdivision 405579F.

PARENT TITLES:
Volume 08399 Folio 448 Volume 08534 Folio 687
Created by instrument PS405579F 28/09/2001

REGISTERED PROPRIETOR
Estate Fee Simple
Sole Proprietor
FRY'S SELF STORAGE (HEATHERTON) PTY LTD of 200 ALEXANDRA PARADE FITZROY VIC 3065
AF710009H 12/03/2008

ENCUMBRANCES, CAVEATS AND NOTICES
MORTGAGE AH898987B 15/04/2011
WESTPAC BANKING CORPORATION

Any encumbrances created by Section 98 Transfer of Land Act 1958 or Section 24 Subdivision Act 1988 and any other encumbrances shown or entered on the plan set cut under DIAGRAM LOCATION below.

DIAGRAM LOCATION
SEE PS405579F FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS
NIL

----------END OF REGISTER SEARCH STATEMENT----------

Additional information: (not part of the Register Search Statement)

ADMINISTRATIVE NOTICES
NIL

eCT Control 16320Q WESTPAC BANKING CORPORATION
Effective from 23/10/2016

DOCUMENT END
The document following this cover sheet is an imaged document supplied by LANDATA®, Land Use Victoria.

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The document is invalid if this cover sheet is removed or altered.

ADVERTISED PLANS Documentation May Be Subject to Copyright
PLAN OF SUBDIVISION

LOCATION OF LAND
PARISH: MORDIALLOC
TOWNSHIP: ---
SECTION: 10
CROWN ALLOTMENT: (Part 1), (Part 2)
CROWN PORTION: ---

OPEN SPACE
(i) A requirement for public open space under Section 18 of the Subdivision Act 1988 has not been made.
(ii) The requirement to be satisfied in Stage.

VESTING OF ROADS AND/OR RESERVES
IDENTIFIER COUNCIL/BODY/PERSON
NIL NIL

STAGING This is not a staged subdivision.

DEEP LIMITATION Does not apply.
The dimensions of lot 2 are not the result of this survey.
The area of lot 2 has been obtained by deduction from title.

EASEMENT INFORMATION
LEGEND A - Appurtenant Easement E - Encumbering Easement R - Encumbering Easement (Road)

Easement Reference Purpose Width (Metres) Origin Land Benefited/In Favour Of
<table>
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<td>Drainage &amp; Sewerage</td>
<td>1.83</td>
<td>Transfer A594862</td>
<td>C/T Vol. 8207, Fol. 767</td>
<td></td>
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</tbody>
</table>

RECEIVED

DATE 24/7/01

LTO USE ONLY

STATEMENT OF COMPLIANCE/EXEMPTION STATEMENT

RECEIVED

DATE 24/7/01

LTO USE ONLY

PLAN REGISTERED

TIME 5.00
DATE 23/9/01

Assistant Registrar of Titles

SHEET 1 OF 2 SHEETS

LICENSED SURVEYOR PRINT, GREGORY JOHN HAWKETT

SIGNATURE DATE 11/12/96

REF 6824 VERSION 3

COUNCIL DELEGATE SIGNATURE

DATE 11/3/97

ORIGINAL SHEET SIZE A3
**PAYMENT FORM**

KINGSTON PLANNING SERVICES
1230 Nepean Hwy, Cheltenham, 3192
Ph: 1300 653 356
Fax: 9581 4500

PLEASE RETURN THIS FORM WITH PAYMENT AND ENSURE FORM IS COMPLETELY FILLED OUT PRIOR TO OBTAINING A RECEIPT. CREDIT CARD FACILITY OVERLEAF.

APPLICANT'S NAME: Messianic Ministries

APPLICANT'S ADDRESS: 13 Hansen Court, Narre Warren VIC 3805

PROPERTY: 236 - 242 Clarinda Rd, Heatherton VIC 3202

APPLICATION DESCRIPTION: Permit for church use

DATE: 15 May 2018

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**For office use only**

### Direct Post Receipts

<table>
<thead>
<tr>
<th>APPLICATION</th>
<th>REF NUMBER</th>
<th>AMOUNT</th>
<th>RECEIPT NUMBER</th>
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<td>Subdivision Fees</td>
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<tr>
<td>Tree Vegetation Fees</td>
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### Pre-payment Receipts

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<th>PREPAYMENT NUMBER</th>
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<tr>
<td>Subdivision Fees</td>
<td>S</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tree Vegetation Fees</td>
<td>T</td>
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</table>

### Miscellaneous Receipts

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<th>AMOUNT</th>
<th>CASHIERS CODE</th>
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<td>Fines and Costs</td>
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<td>Tree Contributions / Landscape Bonds</td>
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Includes GST where applicable
AMEX / MASTERCARD / VISA AUTHORIZATION

CREDIT CARD. Your signature below is an authority for Council of Estate sales order for the amount shown below as your payment for this account.

CREDIT CARD NUMBER

Please tick appropriate box

☐ VISA ☑ MASTERCARD ☐ AMEX

Card Expiry Date: 06/21

Amount $ 1268.10

Card Holder's Name: Dr Ammish Adu

Card Holder's Signature:

Date: 15 May 2018
PLANNING REPORT
PLACE OF WORSHIP

236-242 CLARINDA ROAD, HEATHERTON

Date: 22/08/2018
Project No: 2018 RUZ 18010
SITE DESCRIPTION

The subject site is located on the eastern side of Clarinda Road. It is an irregular shaped lot with perimeter being shaped by Old Dandenong Road (to the south west), Elder Street (south) and the Dingley Bypass (north and northeast of the site) and Clarinda Road to the west. The site is curved along many edges and has two sharp points to the north (Clarinda Road and Dingley Bypass) and south (Elder Street and Dingley Bypass). The Clarinda Road edge has a depth of approximately 300m. The site has an overall size of 3.718 hectare.

The site is currently developed with an array of buildings, including structures used for agriculture. There is minimal vegetation on site. Vehicular access is via Elder Street and Clarinda Road. The site also has two dwellings adjacent to and framed by the boundaries of the subject site. No. 2 Elder Street is framed by three boundary lines by the subject site to the south.

SURROUNDING AREA

The subject site is located in large mostly island site that is bound by roads along most frontages. Dingley Bypass is to the north and east (with residential housing further north), Clarinda Road with a wholesale plant nursery to the north-west and the Heatherton Sands mine south to south west beyond Old Dandenong Road.
There is minimal vegetation aligning the roadways around the area, with the private land being devoid of vegetation. There is public transport nearby, via Clarinda Road on the #631 bus.

**PROPOSAL**

It is proposed to use the building located in the southern part of the site for a place of worship. The building is located:

- 13.4m from Old Dandenong Road;
- A maximum of 53.1m and a minimum of 27.7m from the Dingley Freeway Bypass;
- 57.7m from Elder Street.

The building will have a car parking area immediately accessible via the Elder Street South access way. The building is an irregular shape with a footprint of 27.8m x 51.3m. The main entrance is located to the east with the internal office and toilets in the south western corner.

**USE**

Place of Worship

Staff: Maximum of 10

Patrons: Maximum of 300

Hours:  
Mon: 9am – 5pm  
Tues to Thur: 9am – 9pm  
Fri: 9am – 12am  
Sat: 9am – 12am  
Sun: 9am – 6pm
Details on the activities within the church:

- Church services will occur two times per week. Typically the services will have an average of 100 patrons. The church also anticipate that there will be a maximum of 200 patrons attending the services.
- Education sessions will occur at regular times throughout the year. These will typically have 50 patrons for a session, but may have a maximum of 300 for specific sessions. Education sessions will occur around 3 times a week.
- General administration will occur Monday to Friday from 8am-6pm. During these times there will be a maximum of 20 patrons on site.
- Meetings will occur once a week and will have between 200-300 patrons.
- At special times throughout the year they will also host functions such as weddings. There will be a maximum of 250 patrons attending a wedding, with an average of 150 patrons per wedding. There will generally be around 6 weddings a year.

BUILDINGS AND WORKS

Internal alterations to remove stalls and construct a stage are proposed.

Externally a 90 car space gravel car park to the south and east of the building will be provided. Windows will be added over the doors to the south and east.

SIGNAGE

A free standing non-illuminated sign is proposed near the corner of Old Dandenong Road and Elder Street.

The sign will be 3m wide, 2m high and have an area of 6m². The sign will be 1m above the ground and will have a maximum height of 3m.

Details of the content of the sign are included with the application.

PLANNING PERMIT TRIGGERS

- Clause 35.05 Green Wedge A Zone:
  - A planning permit is required for place of worship.
- Clause 42.01 Environmental Significance Overlay:
  - A planning permit is required for buildings and works.
- Clause 45.01 Public Acquisition Overlay Schedule 1:
  - A planning permit is required for a Section 2 Use in the zone.
PLANNING SCHEME CONTROLS

The subject site is within a Green Wedge A Zone. The following overlays effect the site:

- Environmental Audit Overlay (EAO)
- Environmental Significance Overlay (ESO4)
- Public Acquisition Overlay (PAO1)

GREEN WEDGE A ZONE

The purpose of the Green Wedge A Zone is:

- To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.
- To provide for the use of land for agriculture.
- To protect, conserve and enhance the biodiversity, natural resources, scenic landscapes and heritage values of the area.
- To ensure that use and development promotes sustainable land management practices and infrastructure provision.
- To protect, conserve and enhance the cultural heritage significance and the character of rural and scenic non-urban landscapes.
- To recognise and protect the amenity of existing rural living areas.

Clause 35.05-6 specifies decision guidelines for applications relating buildings and works, which is applicable:

General Issues

- The proposal is appropriate, having regard to the State and Local Planning Policy Framework, as detailed in the next sections.
- The site is currently used primarily for an agricultural use and the land is capable of accommodating the place of worship and car parking.
- The proposal is compatible with other surrounding uses and the predominantly mixed use of land in the area. The place of worship will not impact on the surrounding land uses, or the potential for agricultural activities on the subject site.
- The proposed place of worship will utilize an existing low scale building with a small footprint that is sufficiently setback from adjoining uses and the road. The proposed use will not be readily visible and will not impact the existing character of the area.
- Access to the site is provided by an all-weather road with dimensions adequate to accommodate emergency vehicles, access to the place of worship will be an accessway from Elder Street South.
Rural Issues

• The building is existing and the proposed place of worship will have no impact on the use or development of surrounding properties.
• The place of worship will not impact on the potential of the site for sustainable agricultural activities.

Environmental Issues

• The proposal will not require the removal of vegetation.
• The site has been chosen as the area that will have the least impact upon existing vegetation, suitability for access and parking.
• The site has use of town sewerage.

Design and Siting Issues

• The existing building is a low scale building that is well setback from all boundaries.
• The building is setback 56.4m from the eastern boundary (Dingley Bypass), 10m from Old Dandenong Road and 58.6m from Elder Street South.
• The building is sited at the southern end of the site of the property in a position that allows existing agricultural uses to continue on the remainder of the site.
• The siting of the place of worship at this site allows sufficient room for car parking. This area already has a built interface on the property boundary and is clear from vegetation.

It is considered that the proposed place of worship is appropriate for the site and the Green Wedge Zone A. The proposal is compatible with the use of land in the area and will not impact on any surrounding land uses. The proposed place of worship will not adversely impact upon the amenity of neighboring properties as it is setback at least 31.9m from the closest boundary.

It is considered that the proposed place of worship is a reasonable response to the site and context of the area and will not unreasonably impact upon the character of the area.

ENVIRONMENTAL AUDIT OVERLAY (EAO)

The purpose of the Environmental Audit Overlay is:

• To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.
• To ensure that potentially contaminated land is suitable for a use which could be significantly adversely affected by any contamination.
Pursuant to Clause 45.03-1 a planning permit is required before a sensitive use commences, or the construction or carrying out of building and works in association with a sensitive use commences. As the proposed use, place of worship, is not a sensitive use, a planning permit is not required under this Clause.

ENVIRONMENTAL SIGNIFICANCE OVERLAY – SCHEDULE 4 (ESO4)

The purpose of the Environmental Significance Overlay is:

- To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.
- To identify areas where the development of land may be affected by environmental constraints.
- To ensure that development is compatible with identified environmental values.

Pursuant to Clause 42.01-2 a permit is required to construct a building or to carry out works. The proposal is not varied by the Schedule Land North of Kingston and Heatherton Roads Outside the Urban Growth Boundary.

A Landfill Gas Risk Assessment has been carried out for the site. The Assessment has determined that no ongoing monitoring or further assessment is required as the risk of gas migration to the site is very low.

PUBLIC ACQUISITION OVERLAY – SCHEDULE 1 (PAO1)

The purpose of the Public Acquisition Overlay is:

- To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.
- To identify land which is proposed to be acquired by a Minister, public authority or municipal council.
- To reserve land for a public purpose and to ensure that changes to the use or development of the land do not prejudice the purpose for which the land is to be acquired.
- To designate a Minister, public authority or municipal council as an acquiring authority for land reserved for a public purpose.

Pursuant to Clause 45.01-1 a planning permit is required to use land for a Section 1 or Section 2 use in the zone. As the proposal requires a planning permit for the use in the Road Zone 1, the proposal triggers a permit under the Clause.

The proposal meets the requirements of the decision guidelines as follows:
The proposed use of the land identified in the Scheme as RZ1 is concentrated in the area near the proposed Dingley Bypass. The proposed use of a place of worship is not in this area.

- The external alterations to the existing building are minor, involving two windows and forming of an open car parking area, and will not impact upon the existing and continued uses in the area;

- The land associated with the PAO1 will not be spoiled or wasted by the proposed use or utilized as part of this proposal.

As the land proposed to be used as a place of worship is not specifically within the PAO1 area, it is not necessary to have the Public Land Manager's consent for the proposal.

**STATE PLANNING POLICY**

The following Clauses are applicable to the application:

- Natural Resource Management (Clause 14)
- Built Environment and Heritage (Clause 15).
- Industry (Clause 17)

It is considered that the proposal supports the purpose and objectives of the State Planning Policy Framework. The proposal is not an inappropriate use for the Green Wedge Zone and is in an appropriate location near other uses that will not compromise the use of surrounding land. The proposal supports these Clauses as it will not impact on existing surrounding uses and will not prejudice the use of surrounding land in the future.

**LOCAL PLANNING POLICY**

**CLAUSE 21.03 LAND USE CHALLENGES FOR THE NEW MILLENNIUM**

This local policy recognises a number of critical land use challenges identified by the Council. There are a number of issues pertinent to this proposal. The long term role of agriculture in the Green Wedge area is unclear. However, as stated above, the ongoing use of Green Wedge land Heatherton area will not be impacted by this proposal. Similarly, the proposal will not impact upon the extractive industries located nearby. The proposal will not adversely affect the long term strategy involving the construction of road arterial links (such as the Dingley Bypass).
**CLAUSE 21.09 ENVIRONMENT, WETLANDS AND WATERWAYS**

This local policy recognises that environmental landscape of the City of Kingston is recognised for its diversity and significance in both a local and regional context. The Environmental Significance Overlay is utilised as a mechanism to protect specific sites from inappropriate use and development. The proposal responds to this local policy and the overlay by not impacting upon native vegetation.

**CLAUSE 21.10 NONURBAN AREAS**

This local policy states that Kingston’s Green Wedge (land outside the Urban Growth Boundary) fulfils a multiplicity of roles, ranging from traditional agricultural production, land filling of former extraction sites, regional open space networks, active passive and recreation facilities, protection of Moorabbin Airport’s flight paths, nature conservation and a location for a range of urban related uses (including institutional, religious, recreation and sporting facilities, etc). Extra controls involve the use of the Environmental Audit Overlay and Environmental Significance Overlay.

The policy recognises that these areas are under pressure for more intensive urban development due in part to their proximity to established urban areas, the availability of physical infrastructure and the decline in agricultural production. The proposal responds to the objectives in the Clause by supporting and maintaining the green wedge concept whilst ensuring the proposed activity is consistent with, and contributes to, optimal long term planning solutions for the whole of the south east metropolitan Green Wedge. The proposal responds to this through the use of existing urban infrastructure (the building) and the place of worship will not impact upon existing and continued agricultural uses. The location of the place of worship is far south of the existing agricultural uses onsite and nearby, therefore is likely to be impacted by them.

The proposed place of worship will not impact upon the adjacent extraction industry or nearby wetlands, flora and fauna habitats. The proposal will maintain the scenic and landscape values, by utilising an existing structure with reasonable setbacks, site layout and existing landscape treatment.

**CLAUSE 22.15 OUTDOOR ADVERTISING SIGNAGE POLICY**

This policy seeks to control the location, design, size and layout of outdoor signage to ensure that signage is compatible with the character of the area and the streetscape.

The proposed signage is in keeping with the objectives of this Clause for Main Road and Non-Urban Areas. In particular:
PARTICULAR PROVISIONS

CLAUSE 52.05 ADVERTISING SIGNAGE

Pursuant to Clause 52.05-3 an assessment against the Decision guidelines is provided.

The Character of the area
The proposed free-standing sign is a low scale and unobtrusive sign that is appropriate for the location. It is similar to other business signage in the area.

Impacts on views and vistas
The proposed signage will not obscure views, dominate the skyline or impede views of existing signs. It is noted that the free standing sign is of a low scale to ensure that there will be no impact on views.

The relationship to the streetscape, setting or landscape
The proportion and scale of the sign is appropriate for the existing streetscape. Within the extensive road reserve area the proposed sign will not dominate the landscape setting.

The relationship to the site and building
The scale and form of the proposed signage is in compatible with the area. No vegetation will be required to be removed.

The impact of structures associated with the sign
The supporting structure for the free standing sign will be integrated and will not impact on the area.

The impact of any illumination or logo box
No illumination is proposed.

The need for identification and the opportunities for adequate identification on the site or locality.
The proposed sign has been designed and located to provide the minimum identification required of the use, while being respectful of the area.

The impact on road safety
The proposed signage will not obstruct a driver’s view, create confusion or dazzle or distract drivers. The signage will not mislead drivers or be mistaken for a traffic control device.

Overall the proposed sign is in keeping with the landscape setting and is of a low scale that will not dominate the area. The proposed sign is in keeping with the size and location of other business signage in the area.

CLAUSE 52.06 CAR PARKING

The purpose of the Car Parking Clause is:

- To ensure that car parking is provided in accordance with the State Planning Policy Framework and Local Planning Policy Framework.
- To ensure the provision of an appropriate number of car parking spaces having regard to the demand likely to be generated, the activities on the land and the nature of the locality.
- To support sustainable transport alternatives to the motor car.
- To promote the efficient use of car parking spaces through the consolidation of car parking facilities.
- To ensure that car parking does not adversely affect the amenity of the locality.
- To ensure that the design and location of car parking is of a high standard, creates a safe environment for users and enables easy and efficient use.

Pursuant to Clause 52.06-2 a new use must not commence, or the floor area of an existing use must not increase, until car parking is provided in accordance with this policy, or as approved under Clause 52.06-3 to the satisfaction of the responsible authority.

Table 1 sets out the car parking requirements for different uses. Place of worship is not listed, however Place of Assembly has a specified requirement of 0.3 car parks per patron and so this is the applicable rate. With the maximum patrons being 300 people, 90 car spaces are required.

The required car parking has been provided to the south and east of the site, satisfying Clause 52.06. The dimensions of the accessways and the car spaces accord with the requirements of Clause 52.06.
CLAUSE 52.34 BICYCLE FACILITIES

Under Clause 52.34-1 a new use must not commence until the required bicycle facilities are provided.

Pursuant to Clause 52.34-1 a new use must not commence, or the floor area of an existing use must not increase, until car parking is provided in accordance with this policy, or as approved under Clause 52.34-5 to the satisfaction of the responsible authority.

Table 1 sets out the requirements for bicycle facilities. A Place of Assembly requires 1 bicycle facility to each 1500sqm of net floor space for staff and 2 plus 1 to each 1500sqm of net floor area for visitors/patrons.

As the building area is 1163.8m², the proposal requires 1 bicycle spaces for staff and 3 for visitors/patrons. There is ample space on site for the required bicycle parking to be provided.

KINGSTON’S GREEN WEDGE PLAN

The *Kingston Green Wedge Plan* was produced in 2012. The Plan identifies the values and features of the Green Wedge to be protected and enhanced through appropriate land uses and development and the needs of the community. The Plan identifies that community service uses such as churches will be supported where they provide an identified need for the area. These services should be located for easy access by the community. The subject site is well located to provide easy access to the surrounding community.

Within the Plan the subject site is located within an area designated “Green wedge low intensity”. The proposal is an appropriate response to this area as:

- The proposal will utilise the existing low scale building on site and maintain the spacious open spaces on site.
- The building footprint is minimised and no additional buildings are proposed.
- Spaces between the buildings on site are maintained.
- The proposed parking areas will be permeable gravel surfaces, and represent a small portion of the overall site.
- The proposed signage for the site has been minimised and no illumination is proposed.
- The existing vegetation on site and within the road reserve will be maintained and provide a visual screen of the site.
CONCLUSION

The proposed place of worship meets the purpose and objectives of the Kingston Planning Scheme. The proposed place of worship is an appropriate use within the mixed uses of the surrounding area. The proposal utilises a small, low scale building that is sufficiently setback from all boundaries and activities will have negligible visual impact on the area. The proposal will not compromise the use of surrounding properties and will not detract from the existing landscape character of the area. Sufficient car parking for the place of worship will be provided on site to satisfy Clause 52.06. The proposed sign will not be a dominant element in the streetscape. It has been minimised to ensure the protection of the landscape character of the area and provide a sign that is compatible with the area and other business signage. Overall the proposed place of worship is a suitable use for the site and area.
NOTES:
DO NOT SCALE.
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ANY EXTRA CHARGED IN WORK SHOWN ON THIS DRAWING MUST BE CLAIMED AND APPROVED BEFORE PROCEEDING.

FLOOR PLAN - EXISTING

Ammish Adu
236 Clarinda Road
Heatherton

A04

NOT FOR CONSTRUCTION

Arda Sander
Architect ARBV (19189)
0403 364 967
www.draftpoint.com.au

PRELIMINARY

Scale 1 : 150@A3
Revision PRELIMINARY
Issue 18/04/2019
Project number COP34

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Stalls to be removed

35 m² Office

10 m² Female Toilet

8 m² Male Toilet

35 m² Office

1064 m² Open Plan Church

51.3 m² NEW STAGE

27.8 m

26.0 m

25.2 m

7.9 m

17.5 m

26.0 m

7.9 m

17.5 m

51.3 m

17.5 m

26.0 m

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FLOOR PLAN PROPOSED

Ammish Adu
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A02

PRELIMINARY

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ELEVATIONS - EXISTING

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PRELIMINARY

Project number
COP34

Date
23/04/2019

Issue
PRELIMINARY

Revision
P5

Scale
1 : 150@A3
EXISTING FAN
NEW WINDOW OVER THE DOOR

EXISTING VENT
NEW WINDOW OVER THE DOOR

NOTES:
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ELEVATIONS - PROPOSED

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236 Clarinda Road
Heatherton

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Cultural Heritage Management Plan – Notice of Approval

CHMP NAME: 236-242 Clarinda Road, Heathcote, Place of Assembly

CHMP NUMBER: 16271

SPONSOR: Messianic Ministries Inc.  ABN: 28 910 976 306

Heritage Advisor(s): Ashley Matic

Author(s): Ashley Matic (Pragmatic Cultural Heritage Services)

Cover date: 6 March 2019  Pages: ii-ix, 1-51

TO BE COMPLETED BY THE SECRETARY (OR DELEGATE)

I have considered the Evaluation Report for this CHMP and:

- I am satisfied that the CHMP has been prepared in accordance with the standards prescribed for the purposes of section 53 (in the Aboriginal Heritage Regulations 2007 and the Approved Form).
- I am satisfied that the CHMP adequately addresses the matters set out in section 61.
- In considering this application, I consulted with and considered the views of Aboriginal persons or bodies I considered relevant to the application.
- I have given proper consideration to any relevant human rights

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<th>Yes</th>
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I, Harry Webber, Director Heritage Services Aboriginal Victoria, acting under authority delegated to me by the Secretary, Department of Premier and Cabinet, and pursuant to section 65(2) of the Aboriginal Heritage Act 2006 hereby approve / refuse to approve this cultural heritage management plan:

Signed: ........................................

HARRY WEBBER

Dated: 20 March 2019

- This notice of approval should be inserted after the title page and bound with the body of the management plan.
- The recommendations in this management plan are now compliance requirements. Officers from the Department of Premier and Cabinet may attend the subject land to monitor compliance with the recommendations.
236-242 Clarinda Road, Heatherton
Place of Assembly

Sponsor: Messianic Ministries Inc.

Heritage Advisor: Ashley Matic   Author: Ashley Matic   Date: 6 March 2019
236-242 Clarinda Road, Heatherton
Place of Assembly

Cultural Heritage Management Plan Identifier: 16271

Activity Size: Small
Assessment Level: Complex
Aboriginal Heritage Present in Activity Area: No

Sponsor: Messianic Ministries Inc. (ABN 28 910 976 306)
Heritage Advisor & Author: Ashley Matic
Date: 6 March 2019

Cover Image: View to north over the existing structure located in the Activity Area
Executive Summary

Compliance requirements are set out in Part 1 of the Cultural Heritage Management Plan.

The Activity
The proposed activity consists of the application for statutory approval for the change of use of the land to a Place of Assembly.

Activity Location
The Activity Area consists of the southern portion of a single light industrial property, 236-242 Clarinda Road, Heatherton.

Assessment Summary
This CHMP was completed to a Complex level of assessment.

Desktop Assessment
The desktop assessment was completed following a review of the data stored on ACHRIS on 24 October 2018. This showed that no Aboriginal cultural heritage places have been previously recorded within the Activity Area, and only one has been recorded in close proximity to it; likewise, no previous Aboriginal cultural heritage assessments have been undertaken in the Activity Area. The only place type recorded in the region is a disturbed stone artefact site, VAHR7922-1204 (Old Dandenong Rd IA1), an artefact scatter containing a single silcrete flaked stone artefact which was located on the surface within a road reserve, 650m south-east of the Activity Area.

Standard Assessment
The Standard Assessment was undertaken on 31 January 2019 and involved the full pedestrian survey of the Activity Area. No Aboriginal cultural heritage places were identified during the conduct of the Standard Assessment.

Complex Assessment
The Complex Assessment was undertaken on 31 January 2019. A total of one 1m x 1m Test Pits and one 50cm x 50cm STPs were excavated within the Activity Area, however no Aboriginal cultural heritage places were identified during the conduct of the Complex Assessment.

Summary of Aboriginal Cultural Heritage identified in the conduct of the Assessments
No Aboriginal cultural heritage material was identified in the course of preparing this CHMP document.
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Table 9. Summary of Excavations.

Table 10. Summary of Stratigraphic Information.
### PHOTOS

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Acknowledgements

Pragmatic Cultural Heritage Services acknowledges the contribution the following individuals and organisations have made during the course of preparing this Cultural Heritage Management Plan:

- Ammish Adu, Anna Adu and Paul Semenye (Messianic Ministries Inc.)
- Melanie Ellis and Nina Marshallsea (Change of Plan Pty. Ltd.)
- Rob Ogden and Shane Clark (Bunurong Land Council Aboriginal Corporation)
- Robert Anthony and Joseph O’Leary (Boon wurrung Foundation)
- The staff of Aboriginal Victoria
Abbreviations

The following is a list of abbreviations that may have been used throughout this Cultural Heritage Management Plan:

AACAI Australian Association of Consulting Archaeologists Inc.
ACHRIS Aboriginal Cultural Heritage Registry Information System
AV Aboriginal Victoria
BLCAC Bunurong Land Council Aboriginal Corporation
BOM Bureau of Meteorology
BP Before Present
BwF Boon wurrung Foundation
CHMP Cultural Heritage Management Plan
DEPI Department of Environment and Primary Industries
DGPS Differential Global Positioning System
DPC Department of Premier and Cabinet
DSE Department of Sustainability and Environment
EVC Ecological Vegetation Class
GDA Geographic Datum of Australia
GMU Geomorphological Unit
GPS Global Positioning System
GSV Ground Surface Visibility
HA Heritage Advisor
NLA National Library of Australia
NOI Notification of Intent
PGC Primary Grid Coordinate
PCHS Pragmatic Cultural Heritage Services
STP Shovel Test Pit
SLV State Library of Victoria
TP Test Pit (1m x 1m)
VAHC Victorian Aboriginal Heritage Council
VAHR Victorian Aboriginal Heritage Register

There are several technical terms used within this report that some readers may not be familiar with, please consult the glossary included as Appendix A for an explanation of terms.
PART 1: CULTURAL HERITAGE MANAGEMENT CONDITIONS

These conditions become compliance requirements once the Cultural Heritage Management Plan is Approved. Failure to comply with a condition is an offence under section 67A of the Aboriginal Heritage Act 2006.

The Cultural Heritage Management Plan must be readily accessible to the sponsor and their employees and contractors when carrying out the activity.
1 Specific Cultural Heritage Management Conditions

11 Management required prior to the Activity
   • No specific management conditions are applicable to the project prior to the commencement of works

12 Management required during the Activity
   • All works must be restricted to the listed extent of the Area as shown in Map 1.
   • A copy of this CHMP is to be retained on site during works to ensure compliance with the recommendations and contingency plans outlined within; a Compliance Checklist is included as Appendix C.
2 Contingency Plans

2.1 Section 61 Matters

2.1.1 Dispute Resolution
As there is no Registered Aboriginal Party with responsibility for Aboriginal Cultural Heritage within the Activity Area in place, there is no requirement for a contingency plan in relation to dispute resolution for the proposed activity.

2.2 Discovery of Aboriginal Cultural Heritage during works

2.2.1 Discovery of Human Remains
If any suspected human remains are found during the conduct of any activity, works must cease. The Victoria Police and the State Coroner’s Office must be notified immediately. Do Not Contact the media. If there are reasonable grounds to believe that the remains are Aboriginal, the Coronial Admissions and Enquiries hotline must be contacted immediately on 1300 888 544. This advice has been developed further and is described in the following five-step contingency plan. Any such discovery at the Activity Area must follow these steps.

Discovery:
- If suspected human remains are discovered, all activity in the vicinity must stop to ensure minimal damage is caused to the remains; and
- The remains must be left in place, and protected from harm or damage

Notification:
- Once suspected human skeletal remains have been found, the Coroner’s Office and the Victoria Police must be contacted immediately
- If there are reasonable grounds to believe that the remains could be Aboriginal, the Coronial Admissions and Enquiries hotline must be contacted on 1300 888 544; and
- All details of the location and nature of the human remains must be provided to the relevant authorities.
- If it is confirmed by these authorities that the remains are Aboriginal ancestral remains, the person responsible for the activity must report the remains to the Victorian Aboriginal Heritage Council in accordance with s.17 of the Act.

Impact Mitigation or Salvage:
- The Victorian Aboriginal Heritage Council, after taking reasonable steps to consult with any Aboriginal person or body with an interest in the Aboriginal human remains, will determine the appropriate course of action as required by s.18(2)(b) of the Act.
- An appropriate mitigation or salvage strategy as determined by the Victorian Aboriginal Heritage Council must be implemented (This will depend on the circumstances in which the remains were found, the number of burials found and the type of burials and the outcome of consultation with any Aboriginal person or body).

Curation and further analysis:
- The treatment of the salvaged Aboriginal Human Remains must be in accordance with the direction of the Victorian Aboriginal Heritage Council.

Reburial:
- Any reburial site(s) must be fully documented by an experienced and qualified archaeologist, clearly marked and all details provided to AV; and
Appropriate management measures must be implemented to ensure that the remains are not disturbed in the future.

2.2.2 Discovery of Isolated or Dispersed Cultural Heritage

If isolated or dispersed Aboriginal Cultural Heritage Material is identified within the Activity Area (i.e. material at a density of up to ten (10) artefacts over an area of ten metres by ten metres), then the following procedure must be followed:

- The individual who identifies Aboriginal cultural heritage during the conduct of the activity will immediately notify the relevant Supervisor/Coordinator, and all works within an appropriate buffer zone (10 metres) will be ceased until the appropriate investigation as outlined below is completed;
- The 10 metre buffer zone must be indicated by appropriate temporary fencing, with any associated no-entry signage to be visible at all times;
- A qualified and experienced Heritage Advisor (HA) must be contacted to inspect the identified Aboriginal Cultural Heritage within seven (7) days of the discovery;
- The HA, in association with the representative(s) of the Registered Aboriginal Party (RAP) or Relevant Traditional Owners Group(s) and designated person responsible for the conduct of the activity are to determine if the identified Aboriginal Cultural Heritage is part of an existing site registration or forms a new site that will need to be registered.

Notification

- A HA must be engaged by the sponsor to update existing or complete new site record forms for the place and provide advice on potential management strategies;
- The Registered Aboriginal Party (RAP) or Relevant Traditional Owners Group(s) must also be contacted to provide representatives to inspect the identified Aboriginal cultural heritage;
- The designated person responsible for the conduct of the activity will ensure the Secretary, Department of Premier and Cabinet is notified of the discovery by provision of a completed site record card (to be completed by a HA) as soon as practicable but no longer than 14 days after the initial discovery.

Impact Mitigation or Salvage

- A decision/condition will be determined by the HA, in consultation with the sponsor and Registered Aboriginal Party (RAP) or Relevant Traditional Owners Group(s), with regards to the process to be followed to manage the identified Aboriginal cultural heritage in an appropriate manner, and how to proceed with the activity within three (3) working days of the discovery.
- Conduct of the activity may recommence within the established buffer zone when all relevant site registration have been submitted and-
  - The appropriate protective measures have been taken; or
  - All involved parties agree there is no alternative prudent or feasible course of action; or
  - Any relevant dispute has been solved.
- Where relevant, the sponsor will ensure that the steps listed above are followed and all legal obligations and requirements are complied with at all times.
- The sponsor will also ensure that all appropriate documentation of the Aboriginal cultural heritage has been completed and submitted to the Victorian Aboriginal Heritage Registry (VAHR).
2.2.3 **Discovery of Other Aboriginal Cultural Heritage**

If any other deposit of Aboriginal cultural heritage material, including stratified occupation deposits, earthen mounds, freshwater and saltwater middens, stone quarries, and stone arrangements, are identified during works, the following procedure must be followed:

- The individual who identifies Aboriginal cultural heritage during the conduct of the activity will immediately notify the relevant Supervisor/Coordinator, and all works within an appropriate buffer zone (10 metres) will be ceased until the appropriate investigation as outlined below is completed;
- The 10 metre buffer zone must be indicated by appropriate temporary fencing, with any associated no-entry signage to be visible at all times;
- A qualified and experienced Heritage Advisor (HA) must be contacted to inspect the identified Aboriginal Cultural Heritage within seven (7) days of the discovery;
- The HA, in association with the representative(s) of the Registered Aboriginal Party (RAP) or Relevant Traditional Owners Group(s) and designated person responsible for the conduct of the activity are to determine if the identified Aboriginal Cultural Heritage is part of an existing site registration or forms a new site that will need to be registered.

**Notification**

- A HA must be engaged by the sponsor to update existing or complete new site record forms for the place and provide advice on potential management strategies;
- The relevant Registered Aboriginal Party (RAP) or Relevant Traditional Owners (TO) Group(s) must also be contacted to provide representatives to inspect the identified Aboriginal cultural heritage;
- The designated person responsible for the conduct of the activity will ensure the Secretary, Department of Premier and Cabinet is notified of the discovery by provision of a completed site record card (to be completed by a HA) as soon as practicable but no longer than 14 days after the initial discovery.

**Impact Mitigation or Salvage**

- A decision/condition will be determined by the HA, in consultation with the sponsor and RAP or Relevant TO Group(s), with regards to the process to be followed to manage the identified Aboriginal cultural heritage in an appropriate manner, and how to proceed with the activity within three (3) working days of the discovery.
- In the first instance, *in situ* preservation is the most desirable management strategy for any Aboriginal cultural heritage place. *In situ* retention may involve-
  - The preservation of an area of land including the identified Aboriginal Cultural Heritage; this outcome would occur if the Aboriginal Cultural Heritage is assessed by the HA and RAP or Relevant Traditional Owners Group(s) as having high significance and good stratigraphic integrity;
  - Changes to the conduct of the activity that will not impact to the identified Aboriginal Cultural Heritage.
- If it is not possible to avoid further impacts to the site through total *in situ* retention, then it should be endeavoured to minimise the impact to the site from the conduct of works. Harm minimisation may involve-
  - The preservation of an area of land including part of the identified Aboriginal Cultural Heritage;
Cultural Heritage Management Plan 16271
236-242 Clarinda Road, Heatherton: Place of Assembly
March 2019

- Changes to the conduct of the activity that will lessen impact to the location of identified Aboriginal Cultural Heritage.
- Where harm minimisation cannot occur and impacts to Aboriginal cultural heritage cannot be avoided, then mitigation works must be undertaken in order to set the impacts to the site.

Following the discovery of the Aboriginal cultural heritage and the notification of the HA and the RAP or relevant TO group(s), these parties, in conjunction with representatives of the sponsor, will determine the mitigation methods to be employed. These measures could include (but are not limited to):

- In the case of surface expressions of Aboriginal cultural heritage material (including stone artefact scatters), collection of all extant components of the site through a surface collection, with the coordinates of all recovered components recorded;
- Where sub-surface deposits of Aboriginal cultural heritage material are identified or can reasonably be expected, then salvage excavation should be undertaken. While the specifics of salvage excavation methodologies need to be developed on a case-by-case basis between the relevant parties, at a minimum the salvage excavation should:
  - Be supervised by a sufficiently qualified archaeologist;
  - Be conducted manually (where practical); and
  - Be conducted according to best Archaeological practice.

Where salvage excavation or surface collection has been undertaken, a report detailing the results of the excavation or collection must be completed and supplied to Aboriginal Victoria (AV) within three months of the completion of the salvage or collection occurring, six months if a large-scale salvage.

Resumption of the Activity

- Conduct of the activity may recommence within the established buffer zone when all relevant site registration have been submitted and-
  - The appropriate protective measure(s) or salvage is/are taken; or
  - All involved parties agree there is no alternative prudent or feasible course of action; or
  - Any relevant dispute has been solved.
- Where relevant, the sponsor will ensure that the steps listed above are followed and all legal obligations and requirements are complied with at all times.
- The sponsor will also ensure that all appropriate documentation of the Aboriginal cultural heritage has been completed and submitted to the Victorian Aboriginal Heritage Registry (VAHR).

2.3 Management of Aboriginal Cultural Heritage identified during Works

Section 2.2.1 outlines the treatment for Aboriginal human remains.

Any Aboriginal cultural heritage recovered or salvaged from the Activity Area is the responsibility of the appointed Heritage Advisor to:

- Catalogue the Aboriginal cultural heritage;
- Label and Package the Aboriginal cultural heritage with reference to provenance, to sub-metre accuracy and in a location which is relocatable;
• Organise storage of the Aboriginal cultural heritage in a durable sealed container in a secure location, with copies of the catalogue and relevant assessment documentation;
• Complete the relevant VAHR place and component forms, including the object collection form.

The custody of any Aboriginal cultural heritage (other than human remains) that is identified during or after the activity will be assigned according to the following order of priority:

1. Any relevant Registered Aboriginal Party (RAP) for the land from which the Aboriginal cultural heritage is discovered or salvaged;
2. Any relevant registered Native Title holder for the land from which the Aboriginal cultural heritage is discovered or salvaged;
3. Any relevant Native Title party (as defined by the *Aboriginal Heritage Act 2006*) for the land from which the Aboriginal cultural heritage is discovered or salvaged;
4. Any relevant Traditional Owner or Owners of the land from which the Aboriginal cultural heritage is discovered or salvaged;
5. Any relevant Aboriginal body or organisation which has historical or contemporary interests in Aboriginal heritage relating to the land from which the Aboriginal cultural heritage is discovered or salvaged;
6. The owner of the land from which the Aboriginal cultural heritage is discovered or salvaged;
7. The Museum of Victoria

Should reburial of the Aboriginal Cultural Heritage material be considered as an appropriate management strategy by the relevant Traditional Owners, then it should occur within the Activity Area upon completion of the completion of the Activity; the reburial will be in a suitable location (ideally within designated open space) agreed upon by the sponsor and the RAP (if appointed) or relevant Traditional Owners Group(s). Details of the final reburial location of the Aboriginal Cultural Heritage material will be recorded by the Heritage Advisor and submitted to the Victorian Aboriginal Heritage Register on the relevant form.

2.4 Reviewing Compliance

A compliance checklist is included as Appendix C of this report; to ensure the activity is conducted in compliance with the conditions of this Cultural Heritage Management Plan a copy of both the CHMP document and the checklist must be kept on site during the conduct of the activity and referred to as required.

• Compliance with the conditions of an approved CHMP or Cultural Heritage Permit is mandatory under the *Aboriginal Heritage Act 2006*; non-compliance that results in harm to Aboriginal cultural heritage is an offence under the Act and the sponsor may be charged accordingly;
• Under Part 11, Division 1 and 1A of the *Aboriginal Heritage Act 2006*, appointed authorised officers (AOs) and Aboriginal heritage officers (AHOs) are responsible for monitoring compliance with the Act. The functions of an authorised officer include-
  o Monitoring compliance with the Act;
  o Investigating suspected offences against the Act;
  o Directing the conduct of cultural heritage audits under Part 6 of the Act;
  o Issuing and delivering stop orders under Part 6 of the Act; and
  o Reporting to the secretary on the carrying out by the authorised officer of his or her functions under the Act, when required by the secretary.
The functions of an Aboriginal heritage officer include:

- Monitoring compliance of Cultural Heritage Management Plans, Cultural Heritage Permits and Aboriginal cultural heritage land agreements; and
- Issuing and delivering 24-hour stop orders under Part 6 of the Act.

As they are authorised to gather relevant information to assist in the investigation of offences and prosecutions, in some cases this gives AO and AHO’s

- General powers to enter land and private premises;
- Search powers upon entry; and
- The power to seize objects or human remains.

AO and AHO’s must produce their identity card (issued by the Secretary and in the approved form) before exercising their powers or at any time during the exercise of a power under the Act if asked to do so.

- Penalties apply for harming Aboriginal cultural heritage;
- Should the conditions of the approved CHMP not be followed and harm occurs to Aboriginal cultural heritage then AV must be contacted immediately;
- When non-compliance that has caused harm to Aboriginal cultural heritage is suspected to have occurred, the Minister for Aboriginal Affairs may order a Cultural Heritage Stop Order under section 80 of the Act; an audit may be undertaken independently of a Cultural Heritage Stop Order to ensure compliance; and
- Where AV identifies that a breach of an approved CHMP that has resulted in harm being caused to Aboriginal cultural heritage has occurred, the sponsor of the CHMP may be directed to remedy the harm.
PART 2: ASSESSMENT
3 Introduction

3.1 Preamble

Pragmatic Cultural Heritage Services has been commissioned by Messianic Ministries Inc. (the sponsor) to prepare a Cultural Heritage Management Plan (CHMP) for an area of land at 236-242 Clarinda Road, Heatherton, within the municipal district of the City of Kingston (Map 1). The Activity Area is a component of an irregularly shaped parcel of land located within an industrial area of Heatherton and is 7,770 m² in size.

3.2 Reasons for Preparing the Cultural Heritage Management Plan

Part 2 Division 1 of the *Aboriginal Heritage Regulations 2018* states that a CHMP is required if:

a) All or part of the Activity Area for the activity is an Area of Cultural Heritage Sensitivity; and

b) All or part of the activity is a high impact activity

The Activity Area is located within an Area of Cultural Heritage Sensitivity as specified under Division 3, Regulation 41 of the *Aboriginal Heritage Regulations 2018*, which states:

41 Sand sheets

(1) Subject to subregulation (2), a sand sheet, including the Cranbourne Sand, is an area of cultural heritage sensitivity.

(2) If part of a sand sheet, including the Cranbourne Sand, has been subjected to significant ground disturbance, that part is not an area of cultural heritage sensitivity.

(3) In this regulation, *sand sheet, including the Cranbourne sand* means an area identified as “Qd1” and “Qxr” in the surface Geology of Victoria 1:2500 000 map book.

The proposed activity constitutes a high impact activity under Division 5 Regulation 58 which states:

58 Use of land

(1) The use of land for a purpose specified under regulation 46(1)(b) is a high impact activity if a statutory authorisation is required to change the use of the land for that purpose.

The proposed Activity is seeking statutory authorisation to change the use of the land to a place of assembly, which is listed as a high impact activity under regulation 46(1)(b)(xviii) and thus triggers this regulation; therefore, preparation of this CHMP is mandatory under s.46 of the *Aboriginal Heritage Act 2006* (*the Act*).

3.3 Notice of Intent to Prepare a CHMP

Section 54 of the Act requires the sponsor to provide written notice of the intent to prepare a Cultural Heritage Management Plan to the Secretary (Department of Premier and Cabinet), each relevant Registered Aboriginal Party (RAP), and the owner or occupier of the Activity Area.

There is no RAP with responsibility for the management of Aboriginal Cultural Heritage located in the Activity Area; therefore, Aboriginal Victoria will be responsible for assessment of the Plan as the body with responsibility for management of Aboriginal Cultural Heritage within the Activity Area.
A Notification of Intent (NOI) to prepare this plan was submitted to Aboriginal Victoria on 13 December 2018, their formal response including assignment of registration Number 16271 was received on 13 December 2018.

A copy of the notice and the notification of registration from AV are provided in this Plan as Appendix B.

3.4 Sponsor Details
The Sponsor of the CHMP is:

Name: Messianic Ministries Inc.
ABN: 28 910 976 306
Contact Name: Dr. Ammish Adu
Address: PO Box 1325, Woden ACT 2606
Contact Phone: 0430 041 736
Contact Email: pastor@messianicministriesinc.org

3.5 Heritage Advisor Details

The Heritage Advisor for this Management Plan is Ashley Matic. Ashley holds a Master of Arts (MA) in Archaeology attained from the Flinders University of South Australia in 2003, in addition to a Bachelor of Archaeology (Honours) degree he attained from the same institution in 2001. He has been working as an Archaeologist and Heritage Advisor in a full-time capacity since 2003, and has over ten years’ experience working on Aboriginal Cultural Heritage Projects in Victoria; Ashley is also a full member of the Australian Association of Consulting Archaeologists, Inc. (AACAI).

3.6 Owners/Occupiers of the Activity Area

The owner and occupier of the Activity Area is:

Name: Emil Paul Sheeran
Address: 1 Elder Street South, Heatherton VIC 3202
Phone Number: 0427 836 823

The allotment details for the properties are: Lot 1, PS734530, Parish of Mordialloc, County of Bourke, City of Kingston.

3.7 Registered Aboriginal Party/ies (RAP/s) with responsibility for Management of Aboriginal Cultural Heritage within the Activity Area

There is currently no Registered Aboriginal Party (RAP) in place for the region within which the Activity Area is located. The Bunurong Land Council Aboriginal Corporation (BLCAC) have applied for RAP status over the region including the Activity Area, with the application currently before the Victorian Aboriginal Heritage Council. Additionally, the Boon wurrung Foundation (BwF) has been recognised as representing the traditional owners of the region including the Activity Area.
4 Activity Description

4.1 Description of the Proposed Activity

4.1.1 Existing Conditions
The Activity Area consists of the southern portion of a single light industrial property, 236-242 Clarinda Road, Heatherton, which features an existing large galvanised iron shed structure in the north-west, with the remainder consisting of open space, primarily utilised for vehicular traffic around the shed and other components of the 236-242 Clarinda Road complex. The property is bounded on the north by further components of the 236-242 Clarinda Road property, the west by Old Dandenong Road, the south by Elder Street South, the south-east by a residential property (2 Elder Street South, Heatherton), and the east by the corridor of the Dingley Bypass.

4.2 Proposed Activity
The proposed Activity calls for the change in use of the land to a Place of Assembly (Place of Worship). This will involve no construction work besides alteration of the existing structure to facilitate this use and the increase in use of the open space around the existing structure for car parking. There is no excavation or ground disturbance works required for the change in use.

4.3 Potential Impact to Aboriginal Cultural Heritage
The proposed Activity does not involve any excavation works and all construction works will be confined to modifications to the existing structure on site, and as such has no potential to significantly impact on either current or buried natural soil deposits or associated deposits of Aboriginal cultural heritage material. The increased future use of the site for car parking has the potential to impact on the current ground surface and any associated deposits of Aboriginal cultural heritage that may be located there; these impacts are considered likely to be minimal and limited to the upper 100mm of the existing soil profile.
5 Extent of Activity Area

The Activity Area consists of an irregularly shaped portion of the southern end of 236-242 Clarinda Road, Heatherton, with a total surface area of 7,770m².

The extent of the Activity Area is shown in Map 1.
6 Documentation of Consultation

6.1 Consultation in relation to the assessment

Table 1 (below) provides the details of any consultation undertaken in relation to the assessment of the Activity Area in the preparation of this Cultural Heritage Management Plan.

<table>
<thead>
<tr>
<th>Date</th>
<th>Participant(s)</th>
<th>Organisation</th>
<th>Consultation</th>
</tr>
</thead>
<tbody>
<tr>
<td>18/01/2019</td>
<td>Ashley Matic, Sarah Sanajko, Robert Ogden, Robert Anthony</td>
<td>PCHS, BLCAC</td>
<td>Email invitation for participation in field assessment phase of the CHMP from HA to Aboriginal community groups.</td>
</tr>
<tr>
<td>19/01/2019</td>
<td>Robert Anthony, Ashley Matic</td>
<td>BwF, PCHS</td>
<td>Email acknowledgement of receipt of invitation and confirmation of representation during the fieldwork</td>
</tr>
</tbody>
</table>

Table 1  Consultation in relation to the assessment

6.2 Participation in the conduct of the assessment

Table 2 (below) identifies the individuals who participated in the standard and complex assessment phases of the preparation of this Cultural Heritage Management Plan.

<table>
<thead>
<tr>
<th>Date</th>
<th>Participant(s)</th>
<th>Organisation</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>31/01/2019</td>
<td>Ashley Matic, Jason Gay, Shane Clark, Jason O’Leary</td>
<td>PCHS, BLCAC, BwF</td>
<td>Heritage Advisor, Archaeological Assistant, Aboriginal Community Representative, Aboriginal Community Representative</td>
</tr>
</tbody>
</table>

Table 2  Participation in the conduct of the assessment

6.3 Consultation in relation to the Management Conditions

Table 3 (below) provides the details of any consultation in relation to the development of the management conditions determined as a result of the assessment undertaken in the preparation of this Cultural Heritage Management Plan.

<table>
<thead>
<tr>
<th>Date</th>
<th>Participant(s)</th>
<th>Organisation</th>
<th>Consultation</th>
</tr>
</thead>
<tbody>
<tr>
<td>31/03/2019</td>
<td>Ashley Matic, Shane Clark, Jason O’Leary</td>
<td>PCHS, BLCAC, BwF</td>
<td>Field discussion of the results of the investigations, the proposed management conditions, and requirements for the management of Aboriginal Cultural Heritage matters during the conduct of the proposed Activity.</td>
</tr>
</tbody>
</table>

Table 3  Consultation in relation to the Management Conditions

6.4 Summary of outcomes of consultation

The following summary points list the outcomes of the consultation undertaken in the preparation of this Cultural Heritage Management Plan:

- The results of the desktop assessment comply with Aboriginal community knowledge about the presence of Aboriginal cultural heritage places previously recorded in the geographic region;
- The level of field assessment undertaken for this CHMP is sufficient to understand the nature and extent of Aboriginal Cultural Heritage located within the Activity Area;
- It is not considered likely that unidentified Aboriginal Cultural Heritage Material is located within the Activity Area as it was in all probability a primarily swampy environment in the past, and therefore the proposed development is extremely unlikely to impact on any as yet unrecorded Aboriginal Cultural Heritage Places;
• The potential for the Activity Area to feature discreet landforms within that wider swamp area that may contain deposits of Aboriginal Cultural Heritage Material, such as isolated sand dunes, could not be discounted from the results of the Desktop Assessment, and as such further field assessment was warranted;

• The deposition of gravel across the entire Activity Area has completely obscured the former natural grand surface and has capped any such deposits that may have been present prior to that time, and as such any deposits of Aboriginal cultural heritage material that had been located there or landforms with the potential to contain such deposits;

• The Activity does not feature any construction works or excavation, and will not result in any impacts to either the existing ground surface or any buried former land surfaces, and as such is considered to have no potential to negatively impact deposits of Aboriginal cultural heritage material; and

• Any Aboriginal Cultural Heritage material identified during works to be managed as per the Contingency Plans listed in Section 9 of this Cultural Heritage Management Plan.
7 Aboriginal Cultural Heritage Assessment

7.1 Desktop Assessment

The Desktop Assessment was completed by Ashley Matic (Pragmatic Cultural Heritage Services), utilising published and unpublished documentary sources and statutory registers to obtain relevant historical and environmental background information.

7.1.1 Search of the Victorian Aboriginal Heritage Register (VAHR)

The Victorian Aboriginal Heritage Register (VAHR) contains a complete database of recorded Aboriginal Cultural Heritage Places located in Victoria, as well as a library of all reports detailing Aboriginal Cultural Heritage Investigations undertaken in the state. The register is maintained by Aboriginal Victoria, and can be accessed electronically through the Aboriginal Cultural Heritage Register Information System (ACHRIS).

The register was accessed by Ashley Matic (Pragmatic Cultural Heritage Services) on 9 January 2019, with information relevant to the current Activity Area (including previously recorded Aboriginal Cultural Heritage Places, Aboriginal Historic Places and previously completed Aboriginal Cultural Heritage Assessments) collected and collated to produce the Desktop Assessment included within this Plan.

7.1.2 The Geographic Region

The Geographic Region for this CHMP has been defined as a circular area centred on the Activity Area, with a radius of two kilometres (Map 2). This area has been determined as it will provide a manageable data set of previously registered Aboriginal cultural heritage places and completed Aboriginal cultural heritage assessments relevant to the Activity Area, in order to allow for the development of a predictive model for Aboriginal cultural heritage that may be located within it.
7.1.3 **Recorded Aboriginal Places in the Geographic Region**
A review of the VAHR identified there are no previously recorded Aboriginal Cultural Heritage Places within the Activity Area, and only one has been recorded within the defined Geographic Region, VAHR7922-1204 (Old Dandenong Rd IA1), a disturbed artefact scatter containing a single silcrete flake which is located 650m south-east of the Activity Area (Map 2).

<table>
<thead>
<tr>
<th>VAHR Number</th>
<th>Place Name</th>
<th>Coordinates (GDA94 Zone 55)</th>
<th>Place Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>7922-1204</td>
<td>Old Dandenong Rd IA1</td>
<td>333265 5797623</td>
<td>Artefact Scatter</td>
</tr>
</tbody>
</table>

**Table 4** Registered Aboriginal Cultural Heritage Places within the defined geographic region

No historical references to places utilised by Aboriginal people have been recorded within the Geographic Region.

7.1.4 **Previous Studies conducted in the Geographic Region**
A review of the VAHR showed that no Aboriginal Cultural Heritage Assessment reports have been completed for the land including the Activity Area in the past, however it falls within the boundaries of one large-scale regional assessments of Aboriginal Cultural Heritage, and a few localised studies have been completed in the geographic region.

7.1.4.1 **Regional Studies**
The Activity Area falls within the boundaries of some regional studies of Aboriginal cultural heritage, the most relevant being Ellender’s (1992) topographic prediction for Aboriginal archaeological sites within the Heatherton Dingley Chain of Parks, the study area for which runs along and spreads out from the alignment of Old Dandenong Road. Ellender identified that while much of the study area consisted of former swampland, these swamps were utilised by Aboriginal people in the past and as such material evidence of their use may be retained. Specifically, Ellender identified elevated, sandy landforms associated with dunes both within and surrounding swampy areas as being sensitive for such places, particularly stone artefact sites. Despite this, Ellender identified that such locations were also seen as desirable locations to develop by Europeans post-settlement, and that such activities are likely to have disturbed many places located within such contexts.

The Activity Area also falls within the boundaries of the large-scale archaeological survey of Aboriginal Cultural Heritage Places in the Melbourne Metropolitan region conducted by Presland (1983). Although the Activity Area itself was not surveyed during the assessment, it is included within a Landscape Unit defined by Presland as the flat plain adjacent to Port Phillip Bay that was partially surveyed. Presland identified the potential for Aboriginal Cultural Heritage Places to be located within the Landscape Unit, particularly in association with the waterways that run through the area; however he also identified that the high level of urbanisation the Landscape Unit had been subjected to is likely to have had a significant impact on the places located within it.

7.1.4.2 **Localised Studies**
Relatively few localised assessments have been completed within the defined geographic region compared with the number undertaken within the Melbourne metropolitan area in the last over years; these have been listed in Table 5 (overleaf), with a brief summary of the findings of the investigations included in section 7.1.4.3.
<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Year</th>
<th>Location</th>
<th>Distance from AA</th>
<th>Project Type</th>
<th>Level of Assessment</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stone &amp; Hermes</td>
<td>2018</td>
<td>448 Heatherton Road, Clayton South</td>
<td>1.7km SE</td>
<td>Place of Assembly</td>
<td>Complex</td>
<td>No Aboriginal cultural heritage material identified</td>
</tr>
<tr>
<td>Wines</td>
<td>2014</td>
<td>Dingley Arterial Components, Heatherton</td>
<td>Immediately S</td>
<td>Infrastructure</td>
<td>Standard</td>
<td>No Aboriginal cultural heritage material identified</td>
</tr>
<tr>
<td>McAllister &amp; Dugay- Grist</td>
<td>2012</td>
<td>Dingley Arterial, Heatherton</td>
<td>Immediately E</td>
<td>Infrastructure</td>
<td>Complex</td>
<td>One Aboriginal cultural heritage place (VAHR7922-1204) identified</td>
</tr>
<tr>
<td>Murphy &amp; Rymer</td>
<td>2006</td>
<td>Corner Clayton &amp; Heatherton Roads, Clarinda</td>
<td>1.8km SE</td>
<td>Infrastructure</td>
<td>Survey</td>
<td>No Aboriginal cultural heritage material identified</td>
</tr>
<tr>
<td>George</td>
<td>2005</td>
<td>Old Dandenong Road, Heatherton</td>
<td>Immediately W</td>
<td>Infrastructure</td>
<td>Survey</td>
<td>No Aboriginal cultural heritage material identified</td>
</tr>
<tr>
<td>Pavlides &amp; Rhodes</td>
<td>2000</td>
<td>Boundary Road, Dingley</td>
<td>1.3km SE</td>
<td>Infrastructure</td>
<td>Survey</td>
<td>No Aboriginal cultural heritage material identified</td>
</tr>
</tbody>
</table>

Table 5  Previously completed localised studies within the defined geographic region
### 7.1.4.3 Summary of Previous Studies

The review of previously completed Cultural Heritage assessments in the Geographic Region has demonstrated that very few such projects have been completed in the past, however the presence of Aboriginal cultural heritage material has been confirmed – albeit also in low amounts.

The lone Aboriginal cultural heritage place that has been recorded in the defined Geographic Region (VAHR7922-1204) consists of a single silcrete flake, which was identified in a disturbed surface context in close proximity to a modern quarry site (McAllister and Dugay-Grist 2012). This complies with the conclusions made by Ellender (2012), in that while it was likely Aboriginal cultural heritage places are likely to have been located within some sections of the Geographic Region, historic land use practices have probably caused significant disturbance to many of the places in the past. Evidence of such disturbance was recorded in the majority of studies completed with many associated with infrastructure projects that had undergone prior disturbance through road construction, however in other locations where this was not the case evidence of disturbance to the topsoil contexts was identified.

While many of the reports conducted have only been completed to a survey, some excavations have occurred in the past. The most relevant to the Activity Area was conducted by McAllister and Dugay-Grist (2012), who tested the area of land immediately to the east of the Activity Area; they identified deposits of light grey coloured sands overlying indurated sands, with the depth of the topsoil deposits extending to around 650mm depth. Given the majority of other test excavation works in the Geographic Region have identified shallow (ca. 200mm deep) deposits of brownish grey clayey silts overlying brown heavy clays, which more closely correspond to geomorphological mapping of the region, it would appear that testing identified one of the sand dunes located within or around the former swamp areas.

### 7.1.5 Historical and Ethno-historical accounts of Aboriginal People in the Geographic Region

#### 7.1.5.1 Ethno-history

Following the initial visits to Port Phillip Bay by Europeans in the early 19th Century a great deal of information was recorded about the local Aboriginal peoples, particularly following the 1835 settlement of the Melbourne area. Much of the available information on the Aboriginal people in the region comes from the observations of Europeans in the area at that time, as the impact settlement had on the Aboriginal communities that inhabited the area in the years following resulted in an end to traditional lifestyles for the most part, and with it much of the associated knowledge of how the people had lived.

**The Bun wurrung**

At the time of European settlement, the lands to the east of Port Phillip Bay were inhabited by Aboriginal people of the *Bun wurrung* language group, who occupied the coastal area of Victoria in an area extending from the Yarra River and Port Phillip Bay in the north and west, to the south and east as far as Corner Inlet, taking in the Mornington Peninsula, French and Phillip Islands, and Wilsons Promontory (Clark 1990).

The *Bun wurrung* were part of a larger network based on language similarities and inter-marriage between groups known as the East Kulin Language Area, which extended across much of central and western Victoria and also included the *Woi wurrung*, *Jajowrong*, *Taunguong* and *Wathaurung* (Presland 1994:40).

**Bun wurrung Social Organisation**

The *Bun wurrung* followed a moiety kinship system, which recognised clans as belonging to one of two moieties- *Bunjil* (Eaglehawk) or *Waa* (Crow). The moiety system is described by Barwick as ‘a named patrilineal descent group...whose members had an historical, religious
and genealogical identity' (Barwick 1984: 106). Whilst each clan inhabited a defined geographic territory and clan membership was life-long, the composition of a clan could alter significantly throughout the lifetime of an individual through marriages in and out of the clan; marriages could only occur between individuals of different moiety, meaning partnerships had to be created between clans (Clark 1990: 4).

Little information exists with regard to *Bun wurrung* spirituality and ceremonial life; Presland (1994: 87-88) puts this down to the fact that initiation practices and the location of sacred sites was restricted knowledge, and the removal of Aboriginal people from their traditional lands and subsequent decline in population resulted in a loss of much of this information.

**Bun wurrung Hunting and Gathering**

Although historical details of the hunting and gathering processes of the *Bun wurrung* are extremely limited, the local plants and animals within their clan areas are known to have provided their subsistence, with their patterns of settlement shaped by seasonal availability of resources. While little has been recorded with regards to hunting practices, it is likely that the *Bun wurrung* used spears to hunt larger animals such as Kangaroo and Wallaby, utilising the vegetation and ‘hunting hides’ made from stone to provide cover for their efforts. The Carrum swamp would have provided a source of fish, eels, waterbirds and freshwater crayfish which would have been caught and consumed; the eggs of the waterbirds would have also been collected for consumption. The division between hunting and gathering was very much defined by gender, with males responsible for the hunting of larger mammals and birds, while women and children were responsible for the gathering of smaller mammals and birds, reptiles, grubs and plant foods (Presland 1994).

**Mayune balug**

The *Mayune balug* were the *Bun wurrung* clan who occupied the land around Carrum Swamp prior to European Settlement of the area, whose name translates as ‘Mayune People’, which was derived from their occupation of the area around the ‘Mayune’ locality (Clark 1990: 364-367). The list of *Bunurong* clans prepared by Robinson in 1846 identifies ‘Budgery Tom’ as *arweet* (‘head man’) of the *Mayune Balug* at that time (Barwick 1984: 117); the moiety of the clan is identified as *Bunjil* (Clark 1990: 367).

**7.15.2 Post-Contact Aboriginal History**

It is likely that the *Bun wurrung* came into contact with European people from their first explorations of the Port Phillip Bay and Bass Strait coastal areas. Accounts exist for early visits to the area by sealers from the late 18th century resulting in Aboriginal people being taken to live with the sealers, in many cases against their will - observations recorded by William Hovell in his explorations of 1824-25 identified Aboriginal people who were familiar with (and afraid of) guns; he also encountered sealers searching for two Aboriginal women ‘who had escaped’ (Gaughwin 1981: 47). The sealers presence also had an enormously negative effect on the *Bun wurrung* in other ways, with this being the likely cause of smallpox epidemics in the early 19th century that had a disastrous impact on the *Bun wurrung* population (Sullivan 1981: 21-22).

In 1835, John Batman of the Port Phillip Association entered into a ‘treaty’ with the local *Woi Wurrung* peoples from the north of Port Phillip to purchase one million hectares of land in return for provision of items such as axes, knives, shirts, mirrors and flour; it is highly unlikely, however, that the *Ngurungaeta* (Spokespersons) of the *Woi wurrung* understood the terms of the agreement into which they were entering (Goulding 1988: 27). The treaty led to the British government approving development of the new settlement, resulting in a large influx of settlers to the area.

The rapid spread of European settlement around Port Phillip after 1835 saw the displacement of the *Bun wurrung* from their traditional lands, and with it the destruction of their traditional life. The growth of Melbourne sparked a dramatic decline in the numbers of
the *Bun wurrung*, through alcoholism, immunity to European diseases and a reduction to the birth rate; by the latter part of the 1830s and throughout the middle and latter 19th century the local Aboriginal people were seen as a ‘nuisance and disturbing influence’ in the settlement (Presland 1994: 99). The office of the Protector of Aborigines was established in 1839 in order to protect the rights of Aboriginal peoples in the colonies; however the system was not deemed a success and was ended in 1849. The Assistant Protector responsible for the land east of Melbourne, William Thomas, noted the huge impact European settlement had had on the local Aboriginal Peoples stating ‘in the 27 years following the foundation of Melbourne, the number of *Woi wurrung* and *Bunurong* was reduced from 207 to 28’ (Presland 1994: 99-104).

Mission settlements and stations were established in Melbourne during the mid-19th Century, with limited success. A camping ground (reserve) for the benefit of the Western Port and Coast Tribes (*Bun wurrung*) was opened at Mordialloc in 1841, and comprised a triangular area of 822 acres on Mordialloc Creek under the honorary guardian Edward Thomas Newton (Caldere and Goff 1991:7). The Reserve was kept open until 1878, at which point the remaining *Bun wurrung* there were re-located to Coranderrk Aboriginal Reserve near Healesville.

### 7.1.6 Environmental Background

#### 7.1.6.1 Geology and Geomorphology

The Activity Area is located within the Brighton Group (Nb) geological formation, which contains sedimentary (non-Marine Alluvial) materials deposited between the Miocene (up to 23.03 million years ago) and the Pliocene (up to 2.58 million years ago) epochs of the Neogene geological period (Department of State Development, Business and Innovation GeoVic Maps Website). Geomorphologically, the Activity Area is located within the former swamps and lagoonal deposits (Koo-wee-rup, Tobin Yallock, Bass River Delta, Carrum Downs) Geomorphological Unit (GMU 7.13), which is characterised by heavy clay, black Dermasol soils (Department of State Development, Business and Innovation GeoVic Maps Website; VRO Geomorphology Website).

Previous archaeological assessments within the Geographic Region have identified that locations within the boundaries of the former swamp that exhibit the presence of such heavy clay soils are unlikely to feature the presence of Aboriginal cultural heritage places, for the simple reason that such inundated land would be considered unsuitable for camping. In locations where deposits associated with bordering sand dunes have been identified, however, the presence of Aboriginal cultural heritage material has been noted, as such landforms would have offered a more suitable location to camp and take advantage of the resources offered by the swamp.

#### 7.1.6.2 Hydrology

The Activity Area is located in relatively close proximity to several small and medium sized waterways, the nearest of these being Scotchmans Creek located 6.3km to the north and Mordialloc Creek located 6.7 kilometres to the south. In addition, the Activity Area lies near the northern boundary of the former Carrum Carrum Swamp, and this would have been utilised extensively by Aboriginal People living in the Geographic Region. The coastline of Port Phillip Bay is located 7.8 kilometres to the south-west of the Activity Area.

#### 7.1.6.3 Climate

The south-eastern metropolitan area of Melbourne presently has a temperate climate, with mean maximum temperatures in the summer months (with average temperatures of 26.6°C in January) and mean minimum temperatures in the winter months (averaging 5.3°C in July). Average monthly rainfall is highest in May (73.1mm) and lowest in January (48.3mm), with an average of 774.3mm falling annually in the area (Bureau of Meteorology Website).
Throughout the Pleistocene the climate of south-eastern Australia was considerably hotter and wetter than today, becoming cooler and drier from around 25,000 BP. By the Last Glacial Maximum around 18,000 BP, with temperatures 5-10°C lower than today and rainfall 30-50% lower (Morrison 2017). Between 14,000 to 10,000 BP, the global temperature rose significantly resulting in the melting of the polar ice caps and an increase in sea levels, at which time Port Phillip Bay flooded and the likely coastline extended to the sand dunes north and east of Carrum Swamp. Following a peak in temperatures between 6,000 and 8,000 BP, global climatic conditions stabilised at present levels around 5,000 to 4,500 BP, at which time the present coastline of Port Phillip Bay is likely to have been formed (Morrison 2017).

7.1.6.4 Flora and Fauna
The Activity Area is located within the boundaries of two pre-1750 Ecological Vegetation Classes (EVCs).

The Activity Area lies within the Grassy Woodland (GW) EVC, which is characterised by eucalypt large tree species including Black Wattle (Acacia mearnsii), Black Sheok (Allocasuarina littoralis) and Cherry Ballart (Exocarpus cupressiformis), with the understorey dominated by Medium to Small Tufted graminoids including Kangaroo Grass (Themeda triandra) and Wattle Mat-rush (Lomandra filiformis), Medium Shrubs including Common Heath (Epacris impressa), Common Cassinia (Cassinia aculeate) and Prickly Teatree (Leptospermum continentale), and Medium Herbs including Common Raspwort (Gonocarpus tetragynus) and Tall sundew (Drosera peltata ssp. Auriculata) (Department of Environment and Primary Industries EVC Benchmarks Website). The south-eastern corner of the Activity Area lies within the boundaries of the Damp Sands Herb-rich Woodland/Heathy Woodland Mosaic (DSH-RW m), which is characterised by large tree species such as Blackwood (Acacia melanoxylon) and Swamp Paperbark (Melaleuca ericifolia), with the understorey featuring medium shrubs such as Silver Banksia (Banksia marginata) and Heath Tea-tree (Leptospermum myrsinoides), medium herbs such as Austral Cranesbill (Geranium solanderi s.l.) and Tall Sundew (Drosera peltata ssp. auriculata), small herbs including Stinking Pennywort (Hydrocotyle laxiflora) and Variable Stinkweed (Opercularia varia), and ground ferns including Austral Bracken (Pteridium esculentum). A review of 2005 EVCs shows that the native vegetation of the area has been heavily modified since European settlement of the area.

The removal of much of the native vegetation would have also resulted in the destruction of a great deal of habitat for the native fauna that previously inhabited the area. The woodland environments would have provided habitat for large mammals such as kangaroo, as well as many smaller mammal species (including possum and wallaby), birds and reptiles. These would have all been utilised by the local Aboriginal people who would have hunted the mammal species and birds, and collected smaller reptiles and birds eggs for consumption.

7.1.7 Land Use History of the Activity Area

7.1.7.1 Early Settlement of Victoria
The first effort at European settlement in Victoria was in 1803 at Sorrento on the Mornington Peninsula at the so called Collins Settlement (named after the leader of the expedition, David Collins); however due to a number of factors, including lack of fresh water and fear of the local Aboriginal people, this settlement was abandoned after a few months (Brown-May and Swain 2005).

The next effort at settling the Melbourne area occurred in 1835, when John Batman led another expedition to the area, this time in the north of the Bay near the mouth of the Yarra River. Batman signed treaties with the local Woi wurrung people exchanging supplies for some 600,000 acres of land; this led to the creation of the settlement of the city of Melbourne. Following the signing of the treaty, squatters took up much of the appropriate
land in Victoria for grazing livestock, particularly to the north and west of the Yarra (Spreadborough and Anderson 1983).

7.1.7.2 Early History of Heatherton
Originally included as part of the agricultural district of Cheltenham for much of the 19th Century, Heatherton (or Kingstown or Kingston, reputedly after early settlers to the area, John and Richard King) remained an area of predominantly market gardening for over a century (Barnard 2019). Renamed Heatherton by the postmistress and wife of the local school master in 1880 after a widespread plant that was similar to Scottish Heather, the only major developments in the area until the mid-20th century would be the establishment of a primary school (1870), a post and telegraph station, two churches, a public hall, tennis courts and a gas works (Victorian Places 2015). Additionally, in the early 1910s the Melbourne Benevolent Asylum and a Sanatorium for tuberculosis sufferers opened in the area to take advantage of its rural nature, while in 1925 the Kingston Heath Golf Club was established. In 1949 the Moorabbin airport was established at the southern boundary of Heatherton which ensured much of the area was retained as open space, with several reserves covering much of the former market gardening area today. (Barnard 2019)

7.1.7.3 History of the Activity Area
Early maps show the Activity Area as having been included with the larger Allotment 1, Section X of the Parish of Mordialloc, which was purchased by D. L. Robertson sometime after 1854 (Figure 1) and prior to 1889 (Figure 2). Subsequently, it appears to have undergone very little modification up until at least the mid-20th century, with an aerial photograph taken in 1945 (Figure 3) showing the property apparently unmodified from its natural state. In the years subsequent, the larger property has been subdivided, and the existing structures on the property constructed.

Figure 1 Surveyor General’s Office plan (1854) showing the Parish of Mordialloc; general location of Activity Area highlighted in red (State Library of Victoria)
Conclusions from the Desktop Assessment

The Desktop Assessment has identified that only limited research has been conducted about Aboriginal occupation of the Geographic Region including the Activity Area and its subsequent use following European settlement; however that which has been conducted is useful in assisting to develop a predictive model for Aboriginal cultural heritage within the Activity Area.

Based on the results of previous studies and historical information, the defined Geographic Region in which the Activity Area is located demonstrates limited physical evidence of
Aboriginal occupation in the past, although none has been previously recorded within the boundaries of the Activity Area. The only site recorded, VAHR7922-1204 (Old Dandenong Rd IA1), consists of a single displaced silcrete flake located on the surface in a road reserve, and is located 650m south-east of the Activity Area.

The relative paucity of Aboriginal archaeological sites within the Geographic Region can be partially put down to prior disturbance (such as that exhibited at VAHR7922-1204); however there are other factors likely to have influenced this. Firstly, only very few localised studies have been conducted in the defined Geographic Region (n=6), and many of those were only completed to the level of a survey, often along areas with relatively low ground surface visibility. Clearly this limits the amount of the region that has been thoroughly assessed for the presence of Aboriginal cultural heritage material, which will obviously impact the potential for such places to be identified.

Secondly, the formerly swampy landform which covers much of the Geographic Region, including the Activity Area, is likely to have had an impact on Aboriginal habitation of the area in the past. While, as Ellender (1992) states, the swamp would have been utilised intensively by Aboriginal people in the past and that as a result Aboriginal cultural heritage places are likely to be present within specific contexts within the region, much of the area would have been uninhabitable as it would have been either flooded or prone to inundation, and as such completely unconducive to habitation.

Despite this, Aboriginal Cultural Heritage Places have been recorded within the Geographic Region in the past; as such, although the Activity Area is likely to demonstrate evidence of the high levels of disturbance that have affected much of the Geographic Region, there is still the possibility that Aboriginal Cultural Heritage material will be located within its boundaries and may be impacted by future increased vehicular traffic of the site as a result of the change in use.

### 7.2 Standard Assessment

#### 7.2.1 Standard Assessment Methodology

The Standard Assessment involved the field survey of all accessible areas within the Activity Area; it was conducted utilising extensive random coverage by the field team (Burke and Smith 2004) with the participants never spaced further than five metres apart. As the Activity Area included large sections where the ground surface was covered by extant structures and concrete driveways and paving, it was not possible to survey the ground surface of the entire Activity Area, however the majority of the Activity Area was covered with lawns which provided both relatively easy inspection of the area and included areas of exposure where the ground surface could be observed.

Information recorded during the conduct of the field survey included the levels of surface exposure and Ground Surface Visibility (GSV), and potential disturbances that may have affected the Area in the past; this was then used to identify sections of the Activity Area that were considered to feature potential to contain Aboriginal Cultural Heritage Material.

Several mature native trees were located within the Activity Area, however the species identified were not considered to be those utilised by Aboriginal people in the past and no evidence of cultural scarring was noted on any of the trees. Likewise, no caves or rock shelters were located within the Activity Area.

Field notes recording the conduct and results of the survey, with photographs taken to record the conduct of the survey and the site conditions, and locational data recorded utilising portable GPS technology.
7.2.2 Results of Standard Assessment

7.2.2.1 Field Team

The Standard Assessment was supervised by Ashley Matic (Heritage Advisor, Pragmatic Cultural Heritage Services); the individual participants involved in the conduct of the field survey are listed in Table 6 (below).

<table>
<thead>
<tr>
<th>Date</th>
<th>Participant(s)</th>
<th>Organisation</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>31/01/2019</td>
<td>Ashley Matic</td>
<td>PCHS</td>
<td>Heritage Advisor</td>
</tr>
<tr>
<td></td>
<td>Jason Gay</td>
<td>PCHS</td>
<td>Archaeological Assistant</td>
</tr>
<tr>
<td></td>
<td>Shane Clark</td>
<td>BLCAC</td>
<td>Aboriginal Community Rep.</td>
</tr>
<tr>
<td></td>
<td>Jason O'Leary</td>
<td>BwF</td>
<td>Aboriginal Community Rep.</td>
</tr>
</tbody>
</table>

Table 6 Names of persons who took part in the Standard Assessment field survey

7.2.2.2 Obstacles/Constraints

There were no obstacles encountered to the actual physical conduct of the Standard Assessment by the field team, however the presence of the existing structure on site and the deposition of large amounts of gravel across the remainder of the Activity Area provided a significant obstacle in the assessment of its archaeological potential as no natural ground surface was visible at any time.

7.2.2.3 Field Results

No Aboriginal Cultural Heritage Places were identified during the conduct of the Standard Assessment (Map 3).

The Activity Area consists of an irregularly polygonal shaped area of land, located within an area of light industrial and some residential development within Heatherton. The property is located on a low lying plain landform. Ground Surface Visibility with regards to the natural ground surface was non-existent due to deposition of extensive amounts of gravel fill across the site, and was assessed as being 0%.

The Activity Area is accessed via a gate on Elder Street South on its southern boundary, which leads into a large area of gravelled open space that forms the great majority of the Activity Area (Photographs 1 to 3); a large shed structure is located in the north-west of the Activity Area (Photograph 4). The property is largely devoid of vegetation with the exception of small areas of low grasses and weeds that had established on the gravelled surface in the south-west and east of the Activity Area, and some trees located along the western boundary of the site adjacent to Old Dandenong Road.

The area has been completely covered with a deposit of bluestone gravel to provide a level surface for the site (Photograph 5), this was observed to be between 300 and 400mm deep along the southern boundary of the property where it pressed against the existing fence, and around 900 to 1000mm deep in the south-eastern corner of the Activity Area where it was stopped at the boundary of the adjacent residential property in that location. While some small areas of grey sand mixed with the gravel were found located, particularly in the grassed areas, these were considered to represent deposits introduced to the site after the deposition of the gravel and in no way represented natural soil deposits.

Whilst the Ground Surface Visibility across the Activity Area was good, no natural topsoil was visible at any location surveyed within the Activity Area. Exposures were visible immediately outside of the Activity Area which showed the presence of a greyish brown sandy soil (Photograph 6), which is similar to the material identified in sub-surface testing works conducted nearby (McAllister and Dugay-Grist 2012).
Photograph 1  View to south-west over the Activity Area from its centre

Photograph 2  View to north-east over the Activity Area from its centre

Photograph 3  View to south over the Activity Area from the north-western corner

Photograph 4  The existing shed structure, photographed from the north-eastern corner of the Activity Area

Photograph 5  Bluestone gravel ground surface within the Activity Area

Photograph 6  Sandy soil exposure in Elder Street South road reserve immediately south of the Activity Area
7.2.3 Conclusions from the Standard Assessment
Due to the level of Ground Surface Visibility and relative lack of natural soil exposures, it was not possible to make any definitive conclusions with regards to the potential (or lack thereof) for the Activity Area to contain Aboriginal Cultural Heritage. However, it was possible to determine, however, is that the entire Activity Area has been covered with a thick deposit of gravel ranging from 300mm to 1000mm in thickness and presumably introduced to provide an elevated, stable ground surface upon which to construct the existing shed structure. This material has completely obscured the existing ground surface across the site, making it completely impossible to determine if a buried natural soil profile exists anywhere within the Activity Area boundaries, or if any Aboriginal cultural heritage material was located on the ground surface.

It was discussed between the field team at the time that this would mean the proposed Activity would have no impact on any buried former natural ground surfaces and no associated Aboriginal cultural heritage material, as no earthworks of any kind are proposed for the Activity. It was determined, however, that the conduct of a limited program of subsurface testing should be undertaken to find if the gravel material was present in depth across the site, including in the areas where it had been mixed with sandy soil, so as to avoid potential impacts to the site that would result from increased vehicular traffic in the property associated with the change in use of the land.

7.3 Complex Assessment

7.3.1 Aims of the Complex Assessment
The aims of the sub-surface testing works undertaken as the Complex Assessment for this CHMP were to-

- a) Identify the soil profile located within the Activity Area; and
- b) If natural soil material was identified, if any Aboriginal Cultural Heritage was present within the Activity Area in a sub-surface context

7.3.2 Methodology of the Complex Assessment
The Complex Assessment followed the procedure outlined below

- Surface inspection of locations within Activity Area deemed suitable for testing works to ensure avoidance of prior disturbance (i.e. structural foundation trenches, services, vegetation);
- A single one metre by one metre Test Pit was excavated manually (by shovel and trowel) in spits of 10cm to both determine if Aboriginal Cultural Heritage was present on site and to accurately record the soil profile;
- A single Shovel Test Pit (STP) (50 centimetres by 50 centimetres) was also excavated in another location within the Activity, to provide presence or absence information on the consistency of the soil profile across the property.
- The location of each excavation unit was recorded with GPS technology utilising GDA94 Zone 55 Coordinates, with each pit recorded with photography and/or stratigraphic illustration;
- Excavated soil was sieved through 5mm gauge sieves;
- Any suitable material for dating was to be collected should it be present, however none suitable for this purpose was recovered; and
- Any identified artefact material, if present, would be recorded following guidelines issued by AV.
7.3.3 Results of the Complex Assessment

7.3.3.1 Field Team
The Complex Assessment was supervised by Ashley Matic (Pragmatic Cultural Heritage Services); the other members of the field team involved are presented in Table 7 (below).

<table>
<thead>
<tr>
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</tr>
</tbody>
</table>

Table 7 Names of persons who took part in the Complex Assessment field program

7.3.3.2 Limitations and Constraints
Excavation in both locations was halted by extremely compact deposits of gravel encountered at between 100 – 150mm depth, which prevented the excavations proceeding beyond that depth. This was discussed between the field team at the time, and as no earthworks are proposed for the Activity it was not considered to be an issue in understanding the nature of underlying natural ground surfaces in relation to the proposed potential impacts from the conduct of the Activity (which were assessed as nil).

7.3.3.3 Summary of Excavations
A summary of the excavations undertaken for the Complex Assessment is presented in Table 8 (below).

<table>
<thead>
<tr>
<th>ID</th>
<th>Excavation Size</th>
<th>Easting (GDA94 Zone 55)</th>
<th>Northing (GDA94 Zone 55)</th>
<th>Cultural Heritage</th>
<th>Representative Landform</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Pit #</td>
<td>100 x 100cm</td>
<td>332951</td>
<td>5798227</td>
<td>N</td>
<td>Low Lying Plain</td>
</tr>
<tr>
<td>STP #</td>
<td>50 x 50cm</td>
<td>332977</td>
<td>5798284</td>
<td>N</td>
<td>Low Lying Plain</td>
</tr>
</tbody>
</table>

Table 8 Summary of Excavations
HEATHERTON

Test Pit 1

PO Box 2004, Belgrave VIC 3160
Phone: (03) 8782 6090
Email: ashley@pragmaheritage.com

Drawn By: A. Mac
Date: 15/02/2019
Original: A3
Datum: GDA94 Zone 55

PROPOSED PLACE OF ASSEMBLY
236-242 CLARINDA ROAD, HEATHERTON
CHMP 16271
MAP 4: Complex Assessment

KEY
- 1m Test Pit (No Finds)
- Shovel Test Pit (No Finds)
7.3.3.4 Excavation Descriptions

7.3.3.4.1 1m x 1m Test Pit Description
A single 1 metre by 1 metre test pit was excavated during the conduct of the Complex Assessment (Photograph 7); it was located within the large area of gravelled open space in the south of the Activity Area on the low-lying plain landform upon which it lies (Map 4). The pit was excavated manually in controlled spits of ten centimetres depth.

The topsoil identified in the pit consisted of loosely packed dark greyish brown sandy gravel (C). This material became increasingly more firmly packed with depth, until a maximum depth of 150mm was reached at which point manual excavation became physically impossible. While this did not allow for the identification of the depth of this material or if there was underlying natural soil deposits to be determined, the representatives of the local Aboriginal community were happy that it demonstrated the proposed future use of the site would not cause disturbance to any such soil deposits (Photograph 7).

No Aboriginal cultural heritage was identified in the excavation of this test pit.

7.3.3.4.2 Shovel Test Pit (STP) Descriptions
Following the completion of Test Pit 1, the field team discussed the requirement for additional testing to occur given the fact no earthworks were proposed for the Activity and the presence of the gravel deposits would eliminate the potential for any future increase in vehicular traffic to impact on any natural ground surfaces. It was determined a single STP in the east of the site should be excavated, as the presence of a higher concentration of sand in the material observed on the ground surface could have potentially indicated a different depth of the gravel material in that location.

STP1

This STP was excavated 125 metres to the north-north-east of Test Pit 1, again in the large area of gravelled open space that forms the bulk of the property (Map 4). Excavation
identified the dark greyish brown sandy gravel (C) which was more compact than noted in
Test Pit 1; this extended to a depth of 100mm at which point excavation could not physically
proceed. No Aboriginal Cultural Heritage was identified in this Shovel Test Pit.

7.3.3.5 Stratigraphy
The stratigraphic profile identified within each of the Test Pits and Shovel Test Pits excavated
in the conduct of the Complex Assessment have been discussed in detail in the preceding
sections of this document; a complete summary of the soil contexts identified within the
Activity Area and an illustrated depiction of the profile identified in Test Pit 1 are presented in
Table 9 and Figure 4 (below), respectively.

<table>
<thead>
<tr>
<th>Context</th>
<th>Munsell Rating</th>
<th>Colour</th>
<th>Texture</th>
<th>pH</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>10YR 5/2</td>
<td>Dark greyish brown</td>
<td>Sandy gravel</td>
<td>6.0-6.5</td>
<td>Introduced fill material</td>
</tr>
</tbody>
</table>

Table 9 Summary of Stratigraphic Information

Photograph 8 Northern profile of Test Pit 1

7.3.4 Conclusions from the Complex Assessment
Based on the results of the Complex Assessment, as well as those of the Desktop and
Standard Assessments, the proposed Activity will have no impact on any natural soil deposits
or associated deposits of Aboriginal cultural heritage material.

The primary reason for this conclusion is twofold. Firstly, and most significantly, there are no
earthworks proposed for the Activity. The high impact activity that has triggered the
requirement for this CHMP is a change of use requiring statutory approval and not
construction works, there will be no excavation required at all as any works will be limited to
modification of the existing structure on site. The gravelled open space around the structure
will be utilised for car parking, but it will not be modified in any way from its existing physical
condition.

Secondly, and somewhat related, the deposition of the large amounts of gravel on the site to
provide the existing ground surface have completely covered any underlying natural ground
surface that had been located there, effectively capping any such surface and/or associated
Aboriginal cultural heritage material. This means that the increased use of the space for car
parking as a result of the change in use will have no impact on any underlying natural soil
deposits, and the high level of compaction of the material noted during the complex
assessment provides further weight to this.

Therefore, based on the results of the desktop and field assessments undertaken for this
CHMP, it is possible to conclude that the proposed Activity will have no impact on deposits of
Aboriginal cultural heritage material or buried land surfaces that may feature such material.
8 Details of Aboriginal Cultural Heritage in the Activity Area

No Aboriginal Cultural Heritage places were identified within the Activity Area during the assessments undertaken in the preparation of this Cultural Heritage Management Plan.
9 Consideration of Section 61 Matters (Impact Assessment)

No Aboriginal Cultural Heritage Places have been identified within the Activity Area; therefore, Section 61 matters do not apply to this Cultural Heritage Management Plan and the proposed Activity.
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Websites


APPENDICES
Appendix A – Glossary

The following glossary provides definitions for terms commonly used in Cultural Heritage Management Plans and Archaeological Studies in Australia that may have been used within this report.

**Aboriginal**: The indigenous peoples of Australia

**Aboriginal Archaeology**: The study of material evidence from past activities by the Aboriginal peoples of Australia; this can cover the period both before and after European contact with Aboriginal people

**Activity**: The proposed works/project that require the preparation of a Cultural Heritage Management Plan

**Activity Area**: The area of land in which the proposed activity for a cultural heritage management plan will occur.

**Adze**: Stone tool formed by steep flaking on lateral margins, hafted for wood working use.

**Angular Fragment**: A piece of stone that has angular characteristics that may or may not have been altered by human activity

**Anvil**: A stone used as a base on which other stones are knapped

**Archaeology**: Broadly defines the study of past human activity through the analysis of material remains

**Artefact**: Any object created or modified by human activity

**Artefact Scatter**: a collection of artefacts dispersed across the ground surface

**Assemblage**: Archaeologically, a collection of artefacts that can be assessed as having at least one set of attributes that can see them grouped together

**Australian Small Tool Tradition**: The classification for stone artefact manufacture techniques demonstrated across Australia from around 8,000 years Before Present (BP), which include backed artefacts, points, geometric microliths, blades and hafted implements. Discernible from earlier technologies through lack of larger, core-based tools.

**Axe**: A stone artefact where one margin has been ground to produce a sharp edge, commonly hafted

**Backed Blade**: A blade that has undergone retouch to create a flat surface on at least one of its margins

**Basalt**: Igneous rock deposited from lava flows, sometimes used in stone tool production

**Biface**: a flaked stone artefact featuring flake scars on both its ventral and dorsal surface

**Bipolar**: A flake or core created by resting the core on an anvil and force applied to the top of the core

**Blade**: In lithic analysis, refers to a flake that is twice as long as it is wide

**Burial**: a pit or other formation containing human remains

**Core**: a piece of stone from which flakes have been struck to create stone artefacts

**Core Tool**: A utilised core

**Cortex**: The weathered outer surface of a stone

**Dating**: the process of identifying the date when an artefact or soil strata was deposited, usually through scientific analysis of materials recovered from the site

**Debitage**: Waste material produced in the manufacture of stone tools

**Deposit**: an accumulation of soil or other material in a sub-surface context

**Distal**: Margin of a stone artefact furthest from the platform; opposite of proximal

**Dorsal**: ‘Rear’ side of a stone artefact, defined by being the surface of a core before the flake was struck from it; opposite of ventral

**Excavation (Archaeological)**: systematic digging of deposited soil contexts and
features using controlled archaeological techniques.

**Exposure**: Term used to describe clearings on the ground where topsoil is visible and can be inspected.

**Feature**: An archaeological description for an object on a site that has been manufactured or created by human activity.

**Flake**: Small piece of stone struck from a larger stone (core), the first step in the manufacture of stone artefacts; a term used to describe stone that has been worked by human activity rather than natural processes.

**Formal Tool**: A stone artefact that has been modified to create a recognised stone tool type that has been defined in the past.

**Geometric Microlith**: A blade which has been worked on two margins to create a trapezoid form.

**Grinding**: The process of rubbing two stones together to modify one; commonly involves the rough flaking of a margin being ground to produce a sharp edge in axes and adzes.

**Grind Stone**: A stone utilised for abrading other stone or food stuff.

**Ground Surface Visibility**: The measure of the physical ground surface that is visible during a field survey.

**Hafted**: The attachment of a stone tool to a wooden handle, usually through the use of binding and an adhesive agent.

**Hammer Stone**: A stone utilised for striking flakes from a core.

**Hearth**: The remains of a fireplace, usually identifiable by deposits of charcoal, stones and occasionally fired clay balls.

**Hunter-gatherer**: A person whose subsistence is based on food derived from the wild through hunting or foraging.

**Knapping**: The process of striking stones together for the production of stone artefacts.

**Lateral**: The long sides of a stone flake.
Salvage: Archaeological excavation to recover as much as possible of an archaeological site prior to impacts through development.

Scarred Tree: Tree which has had a section of bark removed for use by Aboriginal people in the past, leaving a ‘scar’ on the trunk of the tree

Scraper: Stone artefact with retouch along one or more margins

Silcrete: Metamorphic rock created by replacement of parent stone (often sandstone) by silica in a solution

Spit: Arbitrary quantity of soil excavated archaeologically

Strata: an individual layer within a stratigraphic profile

Stratigraphy: Geological term utilised in archaeology to describe the layering of soil deposits

Stone Artefact: Artefact made from the flaking or grinding of a piece

Survey: The visual inspection of an area to assess it for specific qualities or features

Transect: A controlled unit of survey, usually a straight line, traversed by members of a field team

Use-wear: Damage to the margins of a stone artefact, commonly through utilisation of the object

Unidirectional: A core where flakes were struck from one angle

Ventral: The ‘front’ side of a flake, determined by having been the created surface when a flake is struck from a core; opposite of Dorsal
Appendix B – Notice of Intent to Prepare a Cultural Heritage Management Plan
Notice of Intent to prepare a Cultural Heritage Management Plan for the purposes of the Aboriginal Heritage Act 2006

This form can be used by the Sponsor of a Cultural Heritage Management Plan to complete the notification provisions pursuant to s.54 of the Aboriginal Heritage Act 2006 (the “Act”).

For clarification on any of the following please contact Victorian Aboriginal Heritage Register (VAHR) enquiries on 1800-726-003.

SECTION 1 - Sponsor information

Sponsor: Messianic Ministries Inc.
ABN/ACN: 289 109 76306
Contact Name: Dr Ammish Adu
Postal Address: PO Box 1325, Woden ACT 2606
Business Number: 0430041736
Email Address: pastor@messianicministries.org

Sponsor’s agent (if relevant)

Company: Change of Plan Pty. Ltd.
Contact Name: Nina Marshallsea
Postal Address: Unit 14, 261-273 Wells Road, Chelsea Heights VIC 3196
Business Number: (03) 8595 4337
Email Address: nina.marshallsea@changeofplan.com.au

SECTION 2 - Description of proposed activity and location

Project Name: 236-242 Clarinda Road, Heatherton: Place of Assembly Development
Municipal district: Kingston City Council

Clearly identify the proposed activity for which the cultural heritage management plan is to be prepared (ie. Mining, road construction, housing subdivision)

Place of assembly

SECTION 3 - Cultural Heritage Advisor

Ashley Matic
Pragmatic Cultural Heritage Services
ashley@pragmaticheritage.com

SECTION 4 - Expected start and finish date for the cultural heritage management plan

Start Date: 17-Dec-2018
Finish Date: 19-Apr-2019
SECTION 5 - Why are you preparing this cultural heritage management plan?

- A cultural heritage management plan is required by the Aboriginal Heritage Regulations 2007
- Place of assembly
- Is any part of the activity an area of cultural heritage sensitivity, as listed in the regulations? Yes
- Other Reasons (Voluntary)
- An Environment Effects Statement is required
- A Cultural Heritage Management Plan is required by the Minister for Aboriginal Affairs.
- An Impact Management Plan or Comprehensive Impact Statement is required for the activity

SECTION 6 - List the relevant registered Aboriginal parties (if any)

This section is to be completed where there are registered Aboriginal parties in relation to the management plan.

SECTION 7A - List the relevant Aboriginal groups or Aboriginal people with whom the Sponsor intends to consult (if any)

This section is to be completed only if the proposed activity in the management plan is to be carried out in an area where there is no Registered Aboriginal Party.

- Boon Wurrung Foundation Limited
- Bunurong Land Council Aboriginal Corporation

SECTION 7B - Describe the intended consultation process (if any)

This section is to be completed only if the proposed activity in the management plan is to be carried out in an area where there is no Registered Aboriginal Party.

The relevant TO group(s) will be invited to participate in the assessment process, specifically the field components. They will also be invited to provide comment relating to the cultural significance of the geographic region, the Activity Area, and any Aboriginal cultural heritage material identified during the CHMP process.

SECTION 8 – State who will be evaluating this plan (mandatory)

The plan is to be evaluated by:

- A Registered Aboriginal Party AND / OR
- The Secretary AND / OR
- The Council

SECTION 9 – Preliminary Aboriginal Heritage Tests (PAHTs)

List the Reference Number(s) of any PAHTs conducted in relation to the proposed activity:

SECTION 10 - Notification checklist

Submitted on: 13 Dec 2018
Ensure that any relevant registered Aboriginal party/ies is also notified. A copy of this notice with a map attached may be used for this purpose.

(A registered Aboriginal party is allowed up to 14 days to provide a written response to a notification specifying whether or not it intends to evaluate the management plan.)

In addition to notifying the Deputy Director and any relevant registered Aboriginal party/ies, a Sponsor must also notify any owner and/or occupier of any land within the area to which the management plan relates. A copy of this notice with a map attached may be used for this purpose.

Ensure any municipal council, whose municipal district includes an area to which the cultural heritage management plan relates, is also notified. A copy of this notice, with a map attached, may also be used for this purpose.
On Thu, 13 Dec 2018 at 15:27, <VAHR@dpc.vic.gov.au> wrote:

To whom it may concern,

This is a formal automated response indicating that, on 13-Dec-2018, the Secretary, Department of Premier and Cabinet received a Notice of Intent to Prepare a Cultural Heritage Management Plan (CHMP) for:

Messianic Ministries Inc. - 236-242 Clarinda Road, Heatherton: Place of Assembly Development

The notification has been allocated the AV Project Number:

CHMP Plan ID. 16271

Please quote this number when making any future enquiries to AV regarding this project.

If your activity lies within the boundaries of a registered Aboriginal party you must also notify this organisation of your intention to prepare the CHMP (if you have not already done so). Further information about registered Aboriginal parties can be found at:


THE INFORMATION RELATING TO YOUR DEVELOPMENT HAS BEEN ENTERED BY YOUR HERITAGE ADVISOR. If you detect an error in the information, please email VAHR@dpc.vic.gov.au with the correct information and quoting the CHMP five digit number.

Please provide additional notification provisions (as set out below) to VAHR@dpc.vic.gov.au.

Additional Notification Provisions:

1. Ensure any municipal council, whose municipal district includes an area to which the cultural heritage management plan relates, is notified. You may provide a copy of your Notice of Intent for this CHMP, to the relevant municipal council, for this purpose.

2. List the relevant Aboriginal groups or Aboriginal people with whom the Sponsor intends to consult (if any). This section is to be completed only if the proposed activity in the management plan is to be carried out in an area where there is no Registered Aboriginal Party. Consultation is for the purpose of obtaining an adequate assessment of the existence and significance of Aboriginal cultural heritage. Traditional Owner groups, inclusively representing individual Traditional Owners, are more likely to be the relevant bodies with which to consult in preparing a CHMP. Sponsors should endeavour to consult accordingly. This information may also assist the Secretary in determining whether to appoint an Activity Advisory Group for the activity and who to appoint to that group.
On Fri, 15 Feb 2019 at 16:54, Ashley Matic <ashley@pragmaticheritage.com> wrote:

Hi Timur

This email is to notify council under Section 54 of the *Aboriginal Heritage Act* 2006, that a CHMP is in preparation for the proposed change of use for part of the property located at 236-242 Clarinda Road, Heatherton, which is located within your municipal area; your name was forwarded to me by Melanie Ellis of Change of Plan, who advised that you have some knowledge of this project.

Please find attached the Notification of Intent to prepare this CHMP, as well as a map showing the location of the Activity Area for the project as required by the *Act*.

Please do not hesitate to contact me if you have any queries in relation to this matter.

Ash

---

**Ashley Matic** BArchaeol(Hons), MA *Flin*, MAACAI  
**Principal Archaeologist/Heritage Advisor**

PO Box 2004, Belgrave VIC 3160  
P: (03) 8782 6090 / M: 0418 144 445 / E: ashley@pragmaticheritage.com
### Contingency Checklist

<table>
<thead>
<tr>
<th>CONTINGENCY</th>
<th>Y/N</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ensuring Compliance</strong></td>
<td></td>
</tr>
<tr>
<td>Copy of CHMP kept on site during works (Section 1.2)?</td>
<td></td>
</tr>
<tr>
<td><strong>Contingency Plans for Discovery of Aboriginal Heritage During Works</strong></td>
<td></td>
</tr>
<tr>
<td>Procedure followed for discovery of Human Remains (Section 2.2.1)?</td>
<td></td>
</tr>
<tr>
<td>Procedure followed for discovery of Isolated or Dispersed Cultural Heritage (Section 2.2.2)?</td>
<td></td>
</tr>
<tr>
<td>Procedure followed for discovery of any other Aboriginal Cultural Heritage (Section 2.2.3)?</td>
<td></td>
</tr>
<tr>
<td><strong>Management of Aboriginal Cultural Heritage identified during works</strong></td>
<td></td>
</tr>
<tr>
<td>Procedure followed for management of Aboriginal Cultural Heritage identified during works (Section 2.3)?</td>
<td></td>
</tr>
</tbody>
</table>

*Note: ADVERTISED PLANS Documentation May Be Subject to Copyright*
PRELIMINARY LANDFILL GAS RISK ASSESSMENT

236 Clarinda Road
Heatherton, Victoria

April 2019
Report No. J1108-R1.0
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APPENDIX IV:
Historical Aerial Photographs

APPENDIX V:
Calibration Certificates

APPENDIX VI:
Landfill Gas Bore Logs

APPENDIX VII:
Landfill Gas Monitoring Sheets
Introduction

1.1 Background

Jet Environmental was requested by Messianic Ministries Inc (the client) to undertake a preliminary landfill gas risk assessment (PLGRA) at the southern portion of 236 Clarinda Road, Heatherton (site).

The location of the site, and nearby current and former landfills, is presented in the attached Site & Landfill Location Plan (Figure 1 - Appendix I).

It is understood that proposed use of the site is as a place of worship. In light of the presence of former landfilling activity less than 500 m from the site, it is also understood Kingston City Council has requested an assessment into the potential for landfill gas to pose a risk to the development as part of the planning permit process (Application No. KP-2018/676). A copy of the proposed development plan is provided in Appendix II.

1.2 Objective

The objective of the assessment was to investigate the potential for landfill gas, sourced from former landfill/s in the vicinity, to be present at the site.

1.3 Scope of Works

To achieve the assessment objective the following works were undertaken:

- **Desktop Study:** A desktop study reviewing documentation relating to:
  - Former environmental investigations performed at, or nearby, the site;
  - Underground service plans at, and in close proximity to the site;
  - Topographical, geological and hydrogeological maps and information;
  - Historical aerial photographs to identify the location and boundaries of the former quarries and landfills; and
  - Council records and EPA Victoria publications.

- **Site Inspection:** An inspection conducted at, and in close proximity to the site, to identify potential sources and/or pathways of landfill gas generation and migration.

- **Landfill Gas Investigation:** A landfill gas survey including measurements collected with gas analysers from onsite and offsite surface locations and installation and monitoring of four landfill gas bores.

- **Data Assessment & Reporting:** Preparation of a written report detailing the findings of the site investigations and recommendations for further assessment where required.
2 Site Condition & Surrounding Environment

2.1 Site Identification

The location of the site is depicted on the Site & Landfill Location Plan (refer Figure 1 - Appendix I) and relevant site details are tabulated in Table 2-1.

Table 2-1: Summary of Site Details

<table>
<thead>
<tr>
<th>Address</th>
<th>Southern portion of 236 Clarinda Road, Heatherton</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lot/Plan Description</td>
<td>Southern portion of Lot 1 PS405579</td>
</tr>
<tr>
<td>Local Government Authority</td>
<td>Kingston City Council</td>
</tr>
<tr>
<td>Site Zoning</td>
<td>Green Wedge A Zone (GWAZ)</td>
</tr>
<tr>
<td></td>
<td>Road Zone (RDZ1)</td>
</tr>
<tr>
<td>Site Area</td>
<td>~7,200 m²</td>
</tr>
<tr>
<td>Elevation</td>
<td>~36 m AHD</td>
</tr>
<tr>
<td>Planning Overlay</td>
<td>Environmental Audit Overlay (EAO)</td>
</tr>
<tr>
<td></td>
<td>Environmental Significance Overlay (ESO)</td>
</tr>
<tr>
<td></td>
<td>Public Acquisition Overlay (PAO)</td>
</tr>
</tbody>
</table>

2.2 Site Inspection

At the time of the inspection by Jet Environmental on 13 February 2019, the following features and conditions were noted as presented in Table 2-2.

Table 2-2: Site Inspection Summary

<table>
<thead>
<tr>
<th>Site occupant/s</th>
<th>The site appeared to be occupied by several ministry members conducting administrative duties.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buildings &amp; structures</td>
<td>A large warehouse with several internal storerooms and office areas was present in the northern portion of site. Two shipping containers were observed near the eastern site boundary.</td>
</tr>
<tr>
<td>Topography</td>
<td>The site was noted to slope gently down towards the south.</td>
</tr>
<tr>
<td>Surface type and condition</td>
<td>External surface covering comprised mostly gravel road base near the main building structure and grass with exposed soil elsewhere. Concrete surfacing was present inside the building structure and was noted to be in good condition.</td>
</tr>
<tr>
<td>Staining / odours</td>
<td>No surface staining or odorous soils were noted at site.</td>
</tr>
<tr>
<td>Chemical storage</td>
<td>No chemical storage was observed at site.</td>
</tr>
<tr>
<td>Fuel storage infrastructure</td>
<td>No evidence was noted of any underground storage tanks or associated structures at the site.</td>
</tr>
</tbody>
</table>
2.3 Underground Services

A review of plans sourced via the Dial Before You Dig service was undertaken to identify any potential underground infrastructure which may be acting as a conduit between former landfills and the site. The following underground services were identified in the vicinity of the site, as listed in Table 2-3.

<table>
<thead>
<tr>
<th>Service</th>
<th>Asset Holder</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sewer</td>
<td>South East Water</td>
<td>No sewer assets are depicted near the site.</td>
</tr>
<tr>
<td>Water</td>
<td>South East Water</td>
<td>Town water assets are depicted south and west of site beneath the southern side of Elder Street South and eastern side of Old Dandenong Road respectively. A South East Water easement of unknown use is also depicted near the eastern boundary north of the property at 2 Elder Street South.</td>
</tr>
<tr>
<td>Gas</td>
<td>EDL Gas</td>
<td>The Henry Street to Clayton landfill gas pipeline is depicted south of site beneath the eastern side of Old Dandenong Road and the southern side of Elder Street South.</td>
</tr>
<tr>
<td></td>
<td>United Energy</td>
<td>A high pressure gas main is depicted northwest of site beneath the eastern side of Clarinda Road.</td>
</tr>
<tr>
<td>Oil</td>
<td>Viva Energy</td>
<td>A high pressure crude oil pipeline is depicted west of site beneath the western side of Old Dandenong Road.</td>
</tr>
<tr>
<td>Stormwater</td>
<td>Kingston City Council</td>
<td>Stormwater drainage is depicted south of site on the northern side of Elder Street South and eastern side of Old Dandenong Road. Further drainage not connected to that south of site is located northwest of site near the corner of Clarinda Road and Old Dandenong Road.</td>
</tr>
<tr>
<td>Electricity</td>
<td>United Energy</td>
<td>An underground high voltage electrical cable is depicted southeast of site beneath the Dingley Bypass.</td>
</tr>
<tr>
<td>Communications</td>
<td>Telstra</td>
<td>Telstra conduits are depicted south and west of site beneath the northern side of Elder Street South and western side of Old Dandenong Road respectively.</td>
</tr>
<tr>
<td></td>
<td>NBN Co</td>
<td>NBN conduits are depicted to be present west and south of site beneath the western side of Old Dandenong Road and the northern side of Elder Street South.</td>
</tr>
</tbody>
</table>

Copies of the underground service plans are provided in Appendix III.
2.4 Surrounding Land Use

Surrounding land uses were noted at the time of the site inspection and are summarised in Table 2.4.

Table 2.4: Surrounding Land Use Summary

<table>
<thead>
<tr>
<th>Location</th>
<th>Site Use / Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td>Open space (formerly commercial greenhouses), Clarinda Road and Dingley Bypass</td>
</tr>
<tr>
<td>East</td>
<td>Dingley Bypass, low density residential dwellings.</td>
</tr>
<tr>
<td>South</td>
<td>Elder Street South, Lantrak soil handling depot.</td>
</tr>
<tr>
<td>West</td>
<td>Old Dandenong Road, Heatherton Sands (former Henry Street Landfill).</td>
</tr>
</tbody>
</table>

2.5 Hydrogeological Information

Hydrogeological features at, and in the vicinity of the site as reviewed on 20 March 2019 are described in Table 2.5.

Table 2.5: Hydrogeological Information

<table>
<thead>
<tr>
<th>Feature</th>
<th>Source</th>
<th>Site Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geology</td>
<td>VVG</td>
<td>Quaternary-aged inland dune deposits comprising silt, sand and clay.</td>
</tr>
<tr>
<td>Surface Water</td>
<td>Land</td>
<td>None onsite. Numerous water bodies, comprising golf course lakes and ponds or water-filled former sand quarries are present southwest and southeast of site. Karkarook Lake, also a former sand quarry, is located approximately 1 km northwest of site.</td>
</tr>
<tr>
<td>Regional Groundwater</td>
<td>Quality</td>
<td>VVG</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>VVG</td>
</tr>
<tr>
<td></td>
<td>Flow Direction</td>
<td>GHD 2018</td>
</tr>
</tbody>
</table>

Land – Land Channel Department of Environment, Land, Water and Planning
VVG – Visualising Victoria’s Groundwater Federation University

2.6 Nearby Landfill Summary

Several former landfills were identified to be within a 500 m radius of the subject site, with their locations depicted on the Site & Landfill Location Plan (Figure 1 - Appendix I).

Publicly available information from the EPA Victoria Landfill Register and Environmental Audit Database relevant to potential landfill sourced contamination at and near the site was reviewed from 20 March to 3 April 2019 and is summarised in Table 2.6 below.
<table>
<thead>
<tr>
<th>Landfill</th>
<th>Distance &amp; Direction from Site</th>
<th>Period of Landfill Operation</th>
<th>Backfill Material</th>
<th>Landfill Gas Monitoring</th>
<th>Landfill Cap &amp; Liner Construction</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Henry Road Landfill</td>
<td>40 m west</td>
<td>1993 – 2013</td>
<td>Solid inert waste, shredded tyres, clean fill</td>
<td>Monthly monitoring of gas bores west of site along the western side of Old Dandenong Road (HG-25 to HG-29) did not identify detectable methane concentrations. Carbon dioxide concentrations were measured ranging from 0.2 to 4.7 % v/v and very low to negative flow rates ranging from -0.2 to 0.2 L/hr were recorded.</td>
<td>The majority of the 21 cells had a one metre compacted clay base liner and also included compacted clay sideliners. A Google Earth image dated 26 December 2018, indicates the landfilled areas at site have been capped, however composition of the capping layer is unknown.</td>
<td>GHD 2018, Tonkin &amp; Taylor 2018, EPA Victoria VLR, Google Earth</td>
</tr>
<tr>
<td>Elder Street Landfill</td>
<td>180 m east</td>
<td>Mid 1970s – 1998</td>
<td>Waste water, inert waste</td>
<td>Monitoring of gas bores along the western boundary did not identify methane or carbon dioxide concentrations greater than 1% v/v.</td>
<td>No base or wall liner is understood to have been constructed prior to backfilling of the former sand quarry by Whelan Kartaway.</td>
<td>GHD 2018, EPA Victoria VLR, EHS Support 2019</td>
</tr>
<tr>
<td>Delta Group Landfill</td>
<td>390 m south</td>
<td>2011 – current</td>
<td>Clean fill</td>
<td>No landfill gas monitoring is understood to have been performed.</td>
<td>No base or wall liner is understood to have been constructed prior to backfilling of the former Pioneer sand quarry.</td>
<td>GHD 2018, Tonkin &amp; Taylor 2018, Kingston City Council 2011</td>
</tr>
</tbody>
</table>

VLR: Victorian Landfill Register
2.7 Previous Site Investigations

No records of previous environmental, geotechnical or hazardous materials investigations at the site were made available to Jet Environmental, and no physical evidence of previous soil boreholes or monitoring wells were observed.

2.8 Site History

A brief chronological history of the site and surrounding areas relating to quarrying and landfilling activities is presented in Table 2-7 below.

<table>
<thead>
<tr>
<th>Date</th>
<th>Site Information</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1945</td>
<td>Land at and near the site is vacant and appears likely used for farming and livestock grazing. No quarrying or landfill activity in the nearby area is evident.</td>
<td>Aerial photograph (Appendix IV)</td>
</tr>
<tr>
<td>1966</td>
<td>No quarrying or landfilling activity is depicted at the site or nearby areas. The City of Brighton Rubbish Disposal Area is depicted near the western boundary of the current Delta Group Landfill.</td>
<td>Melway Publishing, 1966</td>
</tr>
<tr>
<td>1974</td>
<td>The site remains vacant. Numerous greenhouse structures are apparent immediately north and other surrounding areas appear to be utilised for small scale farming and grazing. No quarrying or landfilling activity is evident.</td>
<td>Aerial photograph (Appendix IV)</td>
</tr>
<tr>
<td>1981</td>
<td>The main building has been constructed at site. Sand quarrying is evident at the Henry Street Landfill. Land disturbance is evident at the eastern end of the Elder Street Landfill and the Delta Group Landfill appears to be still undisturbed grazing or farming land.</td>
<td>Aerial photograph (Appendix IV)</td>
</tr>
<tr>
<td>1988</td>
<td>No significant change appears to have occurred at site since the 1981 aerial photograph. Further sand quarrying is evident in the western portion of the Henry Street Landfill and the north eastern portion of the Elder Street Landfill. The Delta Group Landfill appears to be still undisturbed grazing or farming land.</td>
<td>Aerial photograph (Appendix IV)</td>
</tr>
<tr>
<td>2005</td>
<td>No significant change appears to have occurred at site since the 1988 aerial photograph. Extensive sand quarrying and some landfilling has been undertaken at the Henry Road Landfill. Elder Street Landfill appears to have been capped and is covered with grass. Extensive water filled quarried areas are evident at the Delta Group Landfill.</td>
<td>Aerial photograph (Appendix IV)</td>
</tr>
<tr>
<td>2013</td>
<td>No significant change appears to have occurred at site since the 2005 aerial photograph. Further landfilling and some rehabilitation and capping is evident at the Henry Street Landfill. An entire grass coverage is still evident at the Elder Street Landfill and extensive landfilling of quarried areas has occurred at the Delta Group Landfill.</td>
<td>Aerial photograph (Appendix IV)</td>
</tr>
</tbody>
</table>
2.9 Initial Conceptual Site Model

Based on information obtained from the site inspection and desktop assessment, a conceptual model relating to landfill gas contamination issues was prepared.

Landfill Gas Sources

Desktop review confirmed landfiling of numerous former sand quarries has occurred within a 500 m buffer zone of the site. Material confirmed to have been disposed of at the landfills included a mixture of inert and non-putrescible material (refer Section 2.6). Such material typically includes amounts of timber, paper, green waste and other biodegradable materials which decompose to generate methane, albeit at lower rates compared with putrescible waste.

Based on the time since closure of the nearby landfills of six and 21 years for the Henry Road Landfill and the Elder Street Landfill respectively, and the continuing operation of the Delta Group Landfill, the gas generation potential from these landfills is considered to continue for at least several decades in accordance with US EPA modelling for typical landfills as depicted in Figure 2-1 below.

![Figure 2-1: Typical landfill gas generation curve (after US EPA, 2005).](image_url)

Potential Landfill Gas Receptors

Potential landfill gas receptors to be considered at the site include:
- current and future site occupants and visitors;
- site workers during construction works performed as part of the proposed development; and
- maintenance workers conducting intrusive works in underground utility pits, landscaped garden beds, etc.
Potential Landfill Gas Pathways

Potential pathways for exposure of the above receptors potentially affected by accumulation within enclosed spaces and inhalation of landfill gas are listed below:

- landfill gas generated from the current and former landfill migrating vertically and horizontally through soils underlying the landfilled and surrounding areas;
- preferential migration of landfill gas via utility services and associated backfilled trenches; and
- dissolution of methane from landfill leachate into groundwater and subsequent migration of the methane away from landfilled areas.

No direct underground utility services or associated trenches between the site and the nearby current or former landfills were identified (refer Section 2.3), suggesting gas migration via these pathways is unlikely.

The regional flow direction of groundwater underlying the site is likely to be in a general southerly direction. As such, potentially dissolved methane in groundwater originating from the landfills is unlikely to migrate to site.

Based on the relative topography of the site with respect to the nearby landfills, potential exists for subsurface migration of landfill gas potentially generated by these landfills via underlying soil to site.
3 Risk Appraisal

3.1 Risk Appraisal Methodology


The appraisal adopted a multi-criteria analysis approach as an initial screening measure to guide decisions. Multi-criteria analysis begins with the identification of the prominent risk compartments that would influence the potential for an undesirable outcome. A consensus rating indicating the severity of the compartmental risk is allocated for each compartment.

An outcome is derived by combining each compartment to give an overall ‘risk score’. This score is then compared against pre-derived risk descriptors to guide the decision-making process. The use of multi-criteria analysis therefore provides for a semi-quantitative outcome that is designed to remove some of the subjectivity biases that can inadvertently arise from an opinion-based risk assessment.

The outcome of the risk assessment for landfill gas and amenity issues is provided in Sections 3.2 and 3.3.

3.2 Landfill Gas Risk Appraisal

The following items were used during the landfill gas risk appraisal to derive the descriptors within Table 3-1 with respect to the proposed development:

- Distance to landfill/s;
- Age of landfill, period of filling or time since closure;
- Material used for landfilling;
- Natural pathways for landfill gas migration and local geology;
- Artificial pathways for landfill gas migration and underground utilities;
- Results of landfill gas monitoring at and/or near site; and
- Site land use or development design considerations.
Table 3-1: Landfill Gas Multi-Criteria Risk Appraisal

<table>
<thead>
<tr>
<th>Specifics</th>
<th>Distance to Landfill</th>
<th>Landfill Age</th>
<th>Landfill Material</th>
<th>Natural Pathways / Geology</th>
<th>Artificial Pathways / Utilities</th>
<th>Monitoring Results</th>
<th>Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 m – Henry Road Landfill</td>
<td>~6 years since closure</td>
<td>Solid inert waste, shredded tyres, waste water, clean fill</td>
<td>Silt, sand and clay</td>
<td>No direct pathways from landfills present</td>
<td>methane from boundary monitoring, very low to negligible flow rates</td>
<td>Concrete slab in enclosed proposed main church building</td>
<td></td>
</tr>
<tr>
<td>180 m – Elder Street Landfill</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>390 m – Delta Group Landfill</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Risk Rating Descriptor</strong></td>
<td>High</td>
<td>High</td>
<td>Low</td>
<td>Moderate</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td><strong>Numerical Score</strong></td>
<td>5</td>
<td>5</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Overall Score</strong></td>
<td>17</td>
<td></td>
<td>(Moderate risk)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Risk Descriptor:**

Numerical score allocation based on subjective ‘risk rating descriptor’:
- Extreme (10); High (5); Moderate (3); Low (1); Not present / insignificant (0)

**Risk Response Criteria (Overall Score):**

- **Negligible risk** (no further action or discussion warranted)
- **Low risk** (site specific monitoring not necessary to assist risk decision making process)
- **Moderate risk** (site specific monitoring is required to aid risk decision process)
- **High risk** (a comprehensive site-specific risk assessment is warranted based on a range of studies and evaluation by a multi-discipline team of specialists)

The risk of adverse impact from landfill gas to the site is deemed to be moderate based on a ‘lines of evidence’ approach as presented in Table 3-1 and site-specific monitoring is required to assist the risk decision making process.
3.3 Amenity Issues Risk Appraisal

The following items were used during the environmental amenity risk appraisal to derive the descriptors within Table 3-2 with respect to the proposed development:

- Distance to nearest landfill;
- Site impact from landfill generated noise, odour and dust;
- Visual amenity of landfill including windblown and surface litter; and
- Other issues including consideration of landfill traffic, vibration, vermin and pests.

<table>
<thead>
<tr>
<th>Table 3-2: Amenity Issues Multi-Criteria Risk Appraisal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Specifics</strong></td>
</tr>
<tr>
<td>Distance to Nearest Landfill</td>
</tr>
<tr>
<td>40 m (Henry Road Landfill)</td>
</tr>
<tr>
<td>Risk Rating Descriptor</td>
</tr>
<tr>
<td>Numerical Score</td>
</tr>
<tr>
<td>Overall Score</td>
</tr>
</tbody>
</table>

Risk Descriptor:

Numerical score allocation based on subjective ‘risk rating descriptor’:

- Extreme (10); High (5); Moderate (3); Low (1); Not present / insignificant (0)

Risk Response Criteria (Overall Score):

- **0 – 7** Negligible risk (no further action or discussion warranted)
- **7 – 14** Low risk (site specific monitoring not necessary to assist risk decision making process)
- **15 – 20** Moderate risk (site specific monitoring is required to aid risk decision process)
- **> 20** High risk (a comprehensive site-specific risk assessment is warranted based on a range of studies and an evaluation by a multi-discipline team of specialists)

The risk of adverse impact from the nearest landfill (i.e. Henry Road Landfill) to amenity issues to the site in consideration of the proposed place of worship is deemed to be negligible based on a ‘lines of evidence’ approach as presented in Table 3-2.
4 Landfill Guidelines & Assessment Criteria

4.1 Landfill Guidelines

General information and guidelines for landfills in Victoria are detailed in:

- EPA Victoria (2015) Publication 788.3 - Best Practice Environmental Management – Siting, Design, Operation, and Rehabilitation of Landfills (Landfill BPEM);
- EPA Victoria (2018) Publication 1684 - Landfill gas fugitive emissions monitoring guideline; and

According to the Landfill BPEM, a specific zone called a buffer zone is required to protect the public from any impacts resulting from a failure of landfill design or management or abnormal weather conditions. The failures might be in the form of discharge from the site of potentially explosive gas, offensive odours, noise, litter and dust.

Default buffer distances are set to reflect the potential impacts from landfilling activities. The post-closure buffers are set to manage landfill gas impacts, including the risk of explosion and/or asphyxiation. Buffer distances are measured from sensitive land use (i.e. residential area) to the edge of the closest cell or premises boundary, whichever is more practicable. The distances vary from 200 m for Type 3 landfill (inert materials) to 500 m for Type 2 landfill (putrescibles / municipal waste).

Buffer distances apply to closed landfill sites until the site has stabilised to the point where the potential for subsurface landfill gas migration has largely ceased, which can be in excess of 30 years.

Additional reference was made to interstate and international guidelines including:

- NSW EPA (2012) Guidelines for the assessment and management of sites impacted by hazardous ground gases; and

4.2 Landfill Gas Assessment Criteria

To investigate risk posed by fugitive landfill gas emissions, reference was made to the action levels within Landfill BPEM as listed in Table 4-1 below.

<table>
<thead>
<tr>
<th>Location</th>
<th>Parameter</th>
<th>Action level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subsurface services on and adjacent to landfill site</td>
<td>Methane</td>
<td>10,000 ppm (1% v/v)</td>
</tr>
<tr>
<td>Buildings/structures on and adjacent to the landfill site</td>
<td>Methane</td>
<td>5,000 ppm (0.5% v/v)</td>
</tr>
<tr>
<td>Subsurface geology at the landfill boundary</td>
<td>Methane &amp; carbon dioxide</td>
<td>1% v/v methane or 1.5% v/v carbon dioxide above background</td>
</tr>
</tbody>
</table>
5 Landfill Gas Investigations

5.1 Landfill Gas Assessment Methodology

To investigate for the presence of landfill gas a combination of surface and sub-surface gas bore monitoring was performed at and near site on 16 February 2019. Monitoring locations are presented on Figure 2 – Landfill Gas Sampling Location Plan (refer Appendix I).

5.1.1 Surface Monitoring

Monitoring of surface methane emissions at the site was conducted along approximately 10 m to 20 m grid-based transects oriented approximately north-south and east-west across the surface. Monitoring was also performed along single transect on the nature strips on the southern side of Elder Street South and the western side of Old Dandenong Road.

Spot surface monitoring for methane emissions was also performed at locations inside or externally adjacent to the main warehouse building.

Surface emissions were monitored continuously within 50 mm of the ground surface using an Inspectra Laser gas monitor which was calibrated prior to use (refer calibration certificate presented in Appendix V). Where practicable, cracks in the surface or depressions where methane may be emitted or accumulate were targeted. Locations and results of the surface monitoring are provided in Table 5-2 and Table 5-3.

5.1.2 Utility Monitoring

Monitoring of landfill gas emissions (inclusive of methane and carbon dioxide) from accessible underground service utility pits and drains was performed along both sides of Old Dandenong Road and Elder Street South using Inspectra Laser and GTI GA500 landfill gas monitors (refer calibration certificates presented in Appendix V). Monitoring at each utility or drain location continued for two minutes or until stabilised readings were obtained. Descriptions and results of the landfill gas monitoring utility locations are presented in Table 5-4.

5.1.3 Landfill Gas Bore Installation & Monitoring

Four onsite landfill gas bores, LFG01 to LFG04, were installed on 13 February 2019. Following advancement of a soil borehole to the target depth at each location using a hand auger, the gas bores were constructed using a 50 mm diameter PVC (Class 18) casing and factory slotted screen (3 mm wide slots). Upon placing the casing into the borehole, a 7 mm washed and graded gravel packing was installed, extending for up to 0.1 m above the slotted screen interval. A seal of 0.3 m thick of moistened bentonite was placed above the gravel pack. The PVC casing extended up beyond the surface with an approximate ‘stick up’ of 0.7 m and was sealed with a gas-tight TriCap Gas cap.

The locations of the landfill gas bores are depicted on Figure 2 – Landfill Gas Sampling Location Plan (refer Appendix I). Construction details of the bores and descriptions of the material encountered during excavation of the bores are provided in the borehole log sheets (refer Appendix VI).

Monitoring of gas emissions into subsurface geology was undertaken on 16 February 2019 via the onsite landfill gas bores in accordance with EPA Victoria (2018) Publication 1684 – Landfill gas fugitive emissions.
monitoring guideline. Measurements were collected with a calibrated GTI GA5000 gas analyser and included peak and stabilised methane, carbon dioxide and oxygen concentrations.

Supplementary parameters including relative and atmospheric pressure, stabilisation time and flow rate were also measured and recorded for each gas bore using the GA5000, and comments on each bore’s general condition were noted. Results of the landfill gas bore monitoring are provided in Table 5-5 and copies of the field sheets are provided in Appendix VII.

5.2 Field Odour Observations

No potentially offensive odours were noted at or nearby the site during the site inspections or throughout the duration of the landfill gas monitoring.

5.3 Meteorological Conditions

Meteorological conditions as recorded by the Bureau of Meteorology (at nearby Moorabbin weather station) before and after landfill gas measurement on 16 February 2019 are summarised in Table 5-1.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Temperature (°C)</th>
<th>Relative Humidity (%)</th>
<th>Wind Direction</th>
<th>Wind Speed (km/h)</th>
<th>Atmospheric Pressure (hPa)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 February 2019</td>
<td>3:00pm</td>
<td>22.3</td>
<td>63</td>
<td>SSW</td>
<td>26</td>
<td>1021.9</td>
</tr>
<tr>
<td>16 February 2019</td>
<td>9:00am</td>
<td>19.5</td>
<td>74</td>
<td>NW</td>
<td>13</td>
<td>1018.9</td>
</tr>
<tr>
<td>16 February 2019</td>
<td>3:00pm</td>
<td>22.4</td>
<td>68</td>
<td>SSW</td>
<td>20</td>
<td>1016.3</td>
</tr>
<tr>
<td>17 February 2019</td>
<td>9:00am</td>
<td>18.9</td>
<td>85</td>
<td>NNE</td>
<td>7</td>
<td>1012.7</td>
</tr>
</tbody>
</table>

High winds may cause dilution of landfill gases during measurement, however only gentle wind conditions were observed at the time of assessment performed during generally decreasing or stable atmospheric pressure.

It is considered that monitoring was completed under satisfactory meteorological conditions for the purposes of the assessment, in general accordance with EPA Victoria guidelines.

5.4 Landfill Gas Monitoring Results

A complete record of all landfill gas concentrations measured, including peak and stabilised readings (where applicable), is provided on the Landfill Gas Monitoring Sheets presented in Appendix VII.

5.4.1 Surface Monitoring

A summary of the surface measurement locations and methane concentration ranges is presented in Table 5-2.
### Table 5-2: Surface Landfill Gas Monitoring Results

<table>
<thead>
<tr>
<th>Location</th>
<th>Transect / Grid Location</th>
<th>Methane Concentration Range (ppm)</th>
<th>Maximum Methane Concentration Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Onsite</td>
<td>A1 – A3</td>
<td>2.1 – 2.2</td>
<td>A2</td>
</tr>
<tr>
<td></td>
<td>B1 – B3</td>
<td>2.2 – 2.3</td>
<td>B3</td>
</tr>
<tr>
<td></td>
<td>C1 – C4</td>
<td>2.1 – 2.4</td>
<td>C4</td>
</tr>
<tr>
<td></td>
<td>D1 – D2</td>
<td>2.1</td>
<td>D1, D2</td>
</tr>
<tr>
<td></td>
<td>E1 – E4</td>
<td>2.1 – 2.3</td>
<td>E3</td>
</tr>
<tr>
<td></td>
<td>F1 – F2</td>
<td>2.2</td>
<td>F1, F2</td>
</tr>
<tr>
<td>Offsite</td>
<td>G1 – G5</td>
<td>2.1 – 2.5</td>
<td>G2</td>
</tr>
<tr>
<td></td>
<td>H1 – H5</td>
<td>2.1 – 2.3</td>
<td>H3</td>
</tr>
</tbody>
</table>

### 5.4.2 Spot Surface Monitoring

A summary of the surface spot measurement locations and methane concentrations is presented in Table 5-3.

<table>
<thead>
<tr>
<th>Location ID</th>
<th>Location Description</th>
<th>Methane Concentration (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SM1</td>
<td>Concrete surface inside western end of building</td>
<td>2.2</td>
</tr>
<tr>
<td>SM2</td>
<td>Exposed soil outside western end of building</td>
<td>2.2</td>
</tr>
<tr>
<td>SM3</td>
<td>Concrete surface inside southern side of building</td>
<td>2.3</td>
</tr>
<tr>
<td>SM4</td>
<td>Concrete surface inside eastern end of building</td>
<td>2.1</td>
</tr>
<tr>
<td>SM5</td>
<td>Exposed soil and gravel outside northern side of building</td>
<td>2.1</td>
</tr>
</tbody>
</table>

### 5.4.3 Utility Monitoring

A summary of the utility measurement location types, including maximum methane and carbon dioxide concentrations recorded, is presented in Table 5-4.

<table>
<thead>
<tr>
<th>Location</th>
<th>Utility Type</th>
<th>Maximum Methane Concentration (ppm)</th>
<th>Maximum Carbon Dioxide Concentration (% v/v)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW1</td>
<td>Stormwater drain</td>
<td>2.2</td>
<td>0.1</td>
</tr>
<tr>
<td>SW2</td>
<td>Stormwater drain</td>
<td>2.3</td>
<td>0.1</td>
</tr>
</tbody>
</table>
5.4.4 Landfill Gas Bore Monitoring

Results of landfill gas monitoring of LFG01 to LFG04 performed on 16 February 2019 are presented in Table 5-5.

Table 5-5: Landfill Gas Bore Monitoring Results

<table>
<thead>
<tr>
<th>Bore</th>
<th>Flow Rate (L/hr)</th>
<th>Peak Methane (% v/v)</th>
<th>Peak Carbon Dioxide (% v/v)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LFG01</td>
<td>-0.1</td>
<td>0.0</td>
<td>1.3</td>
</tr>
<tr>
<td>LFG02</td>
<td>-0.1</td>
<td>0.0</td>
<td>2.5</td>
</tr>
<tr>
<td>LFG03</td>
<td>0.0</td>
<td>0.0</td>
<td>2.2</td>
</tr>
<tr>
<td>LFG04</td>
<td>0.0</td>
<td>0.0</td>
<td>0.6</td>
</tr>
</tbody>
</table>

5.5 Interpretation of Results

5.5.1 Surface & Utility Monitoring

The landfill gas measurement results presented in Table 5-2 to Table 5-4 demonstrate that detected surface methane concentrations at and near site, including within the main site building, were below the landfill gas action levels adopted in Section 4.2.

Methane concentrations detected during surface monitoring are likely to be representative of background conditions, as the global average atmospheric methane concentration is 1.8 ppm (NSW EPA, 2015).
5.5.2 Landfill Gas Bore Monitoring

Results of landfill gas monitoring of LFG01 to LFG04 performed on 16 February 2019 are presented in Table 5-5. The gas bore monitoring did not identify the presence of detectable methane concentrations above the adopted action levels sourced from EPA Victoria Publication 788.3 (refer Section 4.2).

Given detected peak carbon dioxide exceeded EPA Victoria action levels of 1.5 % v/v above background levels, gas screening values (GSV) were calculated in accordance with methodology outlined in NSW EPA (2012) Guidelines for the Assessment and Management of Sites Impacted by Hazardous Ground Gases and are included in Table 5-6.

### Table 5-6 Landfill Gas Bore Monitoring Results & Screening Values

<table>
<thead>
<tr>
<th>Bore</th>
<th>Flow Rate (L/hr)</th>
<th>Peak Methane (% v/v)</th>
<th>Methane GSV (L/hr)</th>
<th>Peak Carbon Dioxide (% v/v)</th>
<th>Carbon Dioxide GSV (L/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LFG01</td>
<td>-0.1*</td>
<td>0.0</td>
<td>0.0</td>
<td>1.3</td>
<td>0.0013</td>
</tr>
<tr>
<td>LFG02</td>
<td>-0.1*</td>
<td>0.0</td>
<td>0.0</td>
<td>2.5</td>
<td>0.0025</td>
</tr>
<tr>
<td>LFG03</td>
<td>0.0*</td>
<td>0.0</td>
<td>0.0</td>
<td>2.2</td>
<td>0.0022</td>
</tr>
<tr>
<td>LFG04</td>
<td>0.0*</td>
<td>0.0</td>
<td>0.0</td>
<td>0.6</td>
<td>0.0006</td>
</tr>
</tbody>
</table>

GSV – Gas screening value = maximum bore flow rate (L/hr) x maximum gas concentration (% v/v)
* – Positive flow rate of 0.1 L/hr conservatively utilised for GSV calculation

Comparison of the GSVs presented in Table 5-6 against a Modified Wilson and Card classification (refer Table 6 of NSW EPA 2012 publication), results in a ‘characteristic gas situation’ of 1 (i.e. GSV is less than 0.07 L/hr). In accordance with the NSW EPA 2012 publication, a characteristic gas situation (CS) of 1 is classified as ‘very low risk’ and ‘no further action is required’ with respect to gas protection measures.
6 Conclusions & Recommendations

6.1 Conclusions

A summary of pertinent findings of the preliminary landfill gas risk assessment is provided below:

- Three former sand quarries were located within the 500 m buffer zone of the site as specified in the EPA Victoria Landfill BPEM.
- A review indicated the Henry Road Landfill (approximately 40 m west of site) and the Elder Street Landfill (approximately 180 m east of site) accepted waste until 2013 and 1998 respectively and were predominantly filled with a mix of solid inert waste, shredded tyres, waste water and clean fill. The Delta Group Landfill, approximately 390 m south of site, is currently accepting ‘clean fill’ material.
- Due to the likely presence of timber, paper, green waste and other biodegradable materials within the inert waste, potential exists for landfill gas generation at these nearby landfills as these materials decompose to generate methane, albeit at a low rate.
- Perimeter monitoring performed on or near the landfill boundaries closest to the site did not identify elevated methane concentrations greater than 1% v/v.
- The regional flow direction of groundwater underlying the site and nearby landfills is likely to be in a general southerly direction. As such, potentially dissolved methane in groundwater originating from the landfills is unlikely to migrate to site.
- No direct underground utility services or associated trenches between the site and the nearby landfills were identified, suggesting gas migration via these pathways is unlikely.
- No offensive odours were noted at or nearby the site during inspection and monitoring works.
- Results of landfill gas bore monitoring and surface monitoring performed by Jet Environmental did not report elevated concentrations of methane on or near the site.
- Based on the assessment findings, it is considered that the risk of subsurface landfill gas migration from the landfills adversely impacting the proposed place of worship is very low. It is also considered risk of adverse impact to amenity issues to the proposed development resultant from the nearby landfills is negligible.

6.2 Recommendations

Based on the findings of the assessment:

- No ongoing management or monitoring of landfill gas is recommended for the site with respect to the proposed place of worship; and
- Further assessment of landfill gas risk via an environmental audit under Section 53V of the Environment Protection Act 1970 is not recommended for the site.

Should further information pertaining to nearby landfills, environmental reports or gas monitoring be provided, or the proposed development change, the findings of this report may need to be reviewed, and further assessment works may be required.
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Areas that were unable to be assessed due to access restrictions (e.g. buildings, overhead utilities, underground structures etc.) and/or a limited scope of works do not form part of this report.

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EHS Support (2019) Personnel communication on 3 April 2019 with project manager (Raghava Dasika) for Environmental Auditor appointed to Elder Street Landfill.


https://nationalmap.gov.au/#share=s-f5r5qq5cdnrnyxzCDJYBPk4422I


GHD Pty Ltd (2018) *Henry Street Landfill, s53V Audit 2018 – Aftercare Management (EPA CARMS 64784-16).*

Kingston City Council (2011) *Planning Committee Meeting minutes,* dated 23 March 2011.
http://www.kingston.vic.gov.au/files/095cc094-7fe4-42ff-b20e-a1b000c9035a/Minutes_Planning_Committee_Meeting_230311.pdf


NSW EPA (2012) *Guidelines for the assessment and management of sites impacted by hazardous ground gases.*


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APPENDIX II:

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Heatherton

Arda Sander
Architect ARBV (19189)
0403 364 967
www.draftpoint.com.au

PRELIMINARY

Revision P1
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Date 04/04/2018
Issue PRELIMINARY

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You must immediately report any damage to nbn™ network that you are/become aware of. Notification may be by telephone - 1800 626 329.
WARNING - Due to the nature of Telstra underground plant and the age of some cables and records, it is impossible to ascertain the precise location of all Telstra plant from Telstra's plans. The accuracy and/or completeness of the information supplied can not be guaranteed as property boundaries, depths and other natural landscape features may change over time, and accordingly the plans are indicative only.

Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy shown on the plans.

It is your responsibility to locate Telstra's underground plant by careful hand pot-holing prior to any excavation in the vicinity and to exercise due care during that excavation.

Please read and understand the information supplied in the duty of care statement attached with the Telstra plans. TELSTRA WILL SEEK COMPENSATION FOR LOSS CAUSED BY DAMAGE TO ITS PLANT.

Telstra plans and information supplied are valid for 60 days from the date of issue. If this timeframe has elapsed, please reapply for plans.

For all Telstra DBYD plan enquiries - email - Telstra.Plans@team.telstra.com
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For urgent onsite contact only - ph 1800 653 935 (bus hrs)

CAUTION: Fibre optic and/ or major network present in plot area. Please read the Duty of Care and contact Telstra Plan Services should you require any assistance.

WARNING - Due to the nature of Telstra underground plant and the age of some cables and records, it is impossible to ascertain the precise location of all Telstra plant from Telstra's plans. The accuracy and/or completeness of the information supplied can not be guaranteed as property boundaries, depths and other natural landscape features may change over time, and accordingly the plans are indicative only. Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy shown on the plans.

It is your responsibility to locate Telstra's underground plant by careful hand pot-holing prior to any excavation in the vicinity and to exercise due care during that excavation.

Please read and understand the information supplied in the duty of care statement attached with the Telstra plans. TELSTRA WILL SEEK COMPENSATION FOR LOSS CAUSED BY DAMAGE TO ITS PLANT.

Telstra plans and information supplied are valid for 60 days from the date of issue. If this timeframe has elapsed, please reapply for plans.
<table>
<thead>
<tr>
<th>DBYD Sequence Number:</th>
<th>WAG 400mm High Pressure Oil Pipeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity Type:</td>
<td>WAG 600mm High Pressure Oil Pipeline</td>
</tr>
<tr>
<td>Start Date:</td>
<td>WOPF 200mm High Pressure Oil Pipeline</td>
</tr>
<tr>
<td>Location:</td>
<td>BOPL 200mm High Pressure Oil Pipeline</td>
</tr>
<tr>
<td></td>
<td>LARA 100mm LPG Pipeline</td>
</tr>
<tr>
<td></td>
<td>Dixon 100mm High Pressure Oil Pipeline</td>
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<tr>
<td></td>
<td>Chd/Plant 200mm High Pressure Oil Pipeline</td>
</tr>
<tr>
<td></td>
<td>Newport Industry High Pressure Oil Pipeline</td>
</tr>
<tr>
<td></td>
<td>GPOPCO 200mm High Pressure Oil Pipeline</td>
</tr>
<tr>
<td></td>
<td>WETLINE 290mm High Pressure Oil Pipeline</td>
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<tr>
<td></td>
<td>Old Pipe in Situ</td>
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</table>

<table>
<thead>
<tr>
<th>Location:</th>
<th>Scale: 1:2</th>
</tr>
</thead>
<tbody>
<tr>
<td>24/12/2018</td>
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<table>
<thead>
<tr>
<th>Contact:</th>
<th>Scale: 1:2</th>
</tr>
</thead>
<tbody>
<tr>
<td>24/12/2018</td>
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</tr>
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© Viva Energy Australia Pty Ltd  PIP-006-W  Unrestricted  Issue date: 07-Nov-2018  Page 2 of 9
APPENDIX IV:

Historical Aerial Photographs
ADVERTISED PLANS
Documentation May
Be Subject to Copyright
APPENDIX V:

Calibration Certificates
Equipment Calibration Check
Inspectra Laser

Enqip #: 8463
Company: Jet Environmental
Consultant: Matt Simmenauer
PO #: J1115
Certificate #: 11491

UNIT IDENTIFICATION

Model Number: Inspectra Laser
Serial Number: CH46031014
Unit Type: Methane Analyser

INSPECTION RECORD/CONDITION REPORT

Flow Rate: PASS
Alarms: PASS

CALIBRATION DETAILS

<table>
<thead>
<tr>
<th>Gas</th>
<th>Reading</th>
<th>Traceability Lot #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrogen UHP</td>
<td>.9 ppm</td>
<td>901331</td>
</tr>
<tr>
<td>Methane 100 ppm</td>
<td>103 ppm</td>
<td>977870</td>
</tr>
<tr>
<td>Methane 2.5 %</td>
<td>2.5 %</td>
<td>977872</td>
</tr>
</tbody>
</table>

Calibration Successful: YES

Calibrated By: Doyle Schapendonk
Test Date: 12/02/2019
**Equipment Calibration Form**

**GA5000**

**Enqip #:** 8463  
**Company:** Jet Environmental  
**Consultant:** Matt Simmenauer  
**PO #:** J1115  
**Certificate #:** 11490

### INSTRUMENT IDENTIFICATION

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Serial Number</th>
<th>Instrument Type</th>
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</thead>
<tbody>
<tr>
<td>GA5KAOF-100</td>
<td>GA500129</td>
<td>GTI - GA5000</td>
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</tbody>
</table>

### INSPECTION RECORD

**Date & Time:** PASS  
**Flow Rate:** 603 mL/min

### CALIBRATION DETAILS

<table>
<thead>
<tr>
<th>Sensor</th>
<th>Standard</th>
<th>Reading</th>
<th>Traceability Lot #</th>
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</thead>
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<tr>
<td>CH₄</td>
<td>N₂ UHP</td>
<td>0 %</td>
<td>901331</td>
</tr>
<tr>
<td></td>
<td>2.5 %</td>
<td>2.5 %</td>
<td>998692</td>
</tr>
<tr>
<td></td>
<td>60 %</td>
<td>60.0 %</td>
<td>923048</td>
</tr>
<tr>
<td>CO₂</td>
<td>5 %</td>
<td>5.0 %</td>
<td>815306</td>
</tr>
<tr>
<td></td>
<td>40 %</td>
<td>40.0 %</td>
<td>923048</td>
</tr>
<tr>
<td>O₂</td>
<td>N₂ UHP</td>
<td>0 %</td>
<td>901331</td>
</tr>
<tr>
<td></td>
<td>20.9 %</td>
<td>20.9 %</td>
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</tr>
<tr>
<td>CO</td>
<td>N₂ UHP</td>
<td>0 ppm</td>
<td>901331</td>
</tr>
<tr>
<td></td>
<td>100 ppm</td>
<td>100 ppm</td>
<td>998692</td>
</tr>
<tr>
<td>H₂S</td>
<td>N₂ UHP</td>
<td>0 ppm</td>
<td>901331</td>
</tr>
<tr>
<td></td>
<td>25 ppm</td>
<td>25 ppm</td>
<td>972407</td>
</tr>
</tbody>
</table>

**Calibration Successful:** YES

**Calibrated By:** Doyle Schapendonk  
**Test Date:** 12/02/2019

---

**engqip**  
116 Thistelthwaite St, South Melbourne 3205  
P 1300 218 987  
E info@enqip.com.au | W www.enqip.com.au
APPENDIX VI:

Landfill Gas Bore Logs
### Gas Bore: LFG01

**Job No:** J1108  
**Client:** Messianic Ministries Inc  
**Site:** 236 Clarinda Rd, Heatherton  
**Date:** 13 February 2019  
**Logged:** MS  
**Driller:** MS  
**Method:** Hand auger  
**Screen Interval (mbgl):** 0.4 - 1.3  
**Bore Casing Diameter (mm):** 50  
**Bore Depth (mbgl):** 1.3

<table>
<thead>
<tr>
<th>Depth (m)</th>
<th>Graphic</th>
<th>Description</th>
<th>Sample</th>
<th>PID</th>
<th>Bore Details</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0</td>
<td>FILL</td>
<td>dry, brown, gravel, coarse sand, trace grass rootlets</td>
<td>-</td>
<td>0.0</td>
<td></td>
<td>No odour</td>
</tr>
<tr>
<td>0.0</td>
<td>FILL</td>
<td>dry, brown, gravelly clay, trace fine to coarse sand</td>
<td>-</td>
<td>0.0</td>
<td></td>
<td>No odour</td>
</tr>
<tr>
<td>1.0</td>
<td>SAND</td>
<td>slightly moist, grey to dark grey, fine to coarse grained</td>
<td>-</td>
<td>0.0</td>
<td></td>
<td>No odour</td>
</tr>
</tbody>
</table>

- Bentonite seal  
- Gravel pack  
- No odour
<table>
<thead>
<tr>
<th>Depth (m)</th>
<th>Graphic</th>
<th>Description</th>
<th>Sample</th>
<th>PID</th>
<th>Bore Details</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0</td>
<td></td>
<td>FILL: dry, brown, gravel, coarse sand, trace grass rootlets</td>
<td>-</td>
<td>0.0</td>
<td>-</td>
<td>No odour</td>
</tr>
<tr>
<td>0.0</td>
<td></td>
<td>FILL: dry, brown, gravelly clay, trace fine to coarse sand</td>
<td>-</td>
<td>0.0</td>
<td>-</td>
<td>No odour</td>
</tr>
<tr>
<td>1.0</td>
<td></td>
<td>sandy CLAY: slightly moist, orange with brown mottling, firm, fine to coarse grained sand</td>
<td>-</td>
<td>0.0</td>
<td>-</td>
<td>No odour</td>
</tr>
<tr>
<td>2.0</td>
<td></td>
<td>SAND: slightly moist, dark grey, fine to coarse grained</td>
<td>-</td>
<td>0.0</td>
<td>-</td>
<td>No odour</td>
</tr>
</tbody>
</table>
### Gas Bore: LFG03

**Job No:** J1108  
**Client:** Messianic Ministries Inc  
**Site:** 236 Clarinda Rd, Heatherton  
**Bore Casing Diameter (mm):** 50  
**Bore Depth (mbgl):** 1.3

<table>
<thead>
<tr>
<th>Depth (m)</th>
<th>Graphic</th>
<th>Description</th>
<th>Sample</th>
<th>PID</th>
<th>Bore Details</th>
<th>Comments</th>
</tr>
</thead>
</table>
| 0.0       |         | **FILL**  
dry, brown, gravel, coarse sand, trace grass rootlets | -      | 0.0 | | No odour |
| 1.0       |         | **FILL**  
dry, brown, clay, fine to coarse sand, trace gravel | -      | 0.0 | | No odour |
| 2.0       |         | **SAND**  
slightly moist, grey to dark grey, fine to coarse grained | -      | 0.0 | | No odour |

**Date:** 13 February 2019  
**Logged:** MS  
**Driller:** MS  
**Method:** Hand auger  
**Screen Interval (mbgl):** 0.4 - 1.3

---

**Issue:** 22 February 2017  
**Document Control Number:** OP-002-4.0
## Gas Bore: LFG04

**Job No:** J1108  
**Client:** Messianic Ministries Inc  
**Site:** 236 Clarinda Rd, Heatherton  
**Bore Casing Diameter (mm):** 50  
**Bore Depth (mbgl):** 1.3  
**Date:** 13 February 2019  
**Logged:** MS  
**Driller:** MS  
**Method:** Hand auger  
**Screen Interval (mbgl):** 0.4 - 1.3

<table>
<thead>
<tr>
<th>Depth (m)</th>
<th>Graphic</th>
<th>Description</th>
<th>Sample</th>
<th>PID</th>
<th>Bore Details</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0</td>
<td></td>
<td>FILL, dry, brown, gravel, coarse sand, trace grass rootlets</td>
<td>-</td>
<td>0.0</td>
<td></td>
<td>No odour</td>
</tr>
<tr>
<td>1.0</td>
<td></td>
<td>FILL, dry, brown, clay, gravel, trace fine to coarse sand, suspected disturbed natural soil</td>
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<td>0.0</td>
<td></td>
<td>No odour</td>
</tr>
<tr>
<td>2.0</td>
<td></td>
<td>SAND, slightly moist, grey to dark grey, fine to coarse grained</td>
<td>-</td>
<td>0.0</td>
<td></td>
<td>No odour</td>
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APPENDIX VII:

Landfill Gas Monitoring Sheets
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<tr>
<th>Location ID</th>
<th>Start Time</th>
<th>Flow Rate (L/min)</th>
<th>Relative Pressure (mb)</th>
<th>Atmospheric Pressure (mb)</th>
<th>Peak concentrations (% v/v)</th>
<th>Stabilised concentrations (% v/v)</th>
<th>Stabilisation Time (sec)</th>
<th>Comments (e.g. Location/bore condition, direction &amp; rate of change if unstabilised)</th>
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</thead>
<tbody>
<tr>
<td>LF_G_01</td>
<td>13:22</td>
<td>-0.1</td>
<td>0.1</td>
<td>1008</td>
<td>0.0</td>
<td>1.3</td>
<td>19.6</td>
<td>0.0 1.3 19.6 79.2 120 Good Condition</td>
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<tr>
<td>LF_G_02</td>
<td>13:28</td>
<td>-0.1</td>
<td>0.02</td>
<td>1008</td>
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<td>2.5</td>
<td>12.2</td>
<td>0.0 2.3 14.4 82.6 120</td>
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<td>LF_G_03</td>
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<td>1008</td>
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<td>15.9</td>
<td>0.0 2.1 15.9 91.9 120</td>
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<td>0.0 0.1 21.7 78.2 120 Stormwater Drain</td>
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<tr>
<td>Location ID</td>
<td>Start Time</td>
<td>Flow Rate (L/min)</td>
<td>Relative Pressure (mb)</td>
<td>Atmospheric Pressure (mb)</td>
<td>Peak concentrations (% v/v)</td>
<td>Stabilised concentrations (% v/v)</td>
<td>Stabilisation Time (sec)</td>
<td>Comments (e.g. Location/bore condition, direction &amp; rate of change if unstabilised)</td>
</tr>
<tr>
<td>-------------</td>
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<td>----------------------------------</td>
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<tr>
<td>T1</td>
<td>15.03</td>
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<td>1008</td>
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<td>Traffic Signal Catic</td>
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Issue: 13 March 2017
Control Document Number: GP-005-1.0
## Landfill Gas Survey Field Sheet

**Site:** 236 Clarenda Rd, Heatherton  
**Project No:** J108  
**Date:** 16/2/9

**Conditions:** Gentle Breeze / Partly Cloudy

<table>
<thead>
<tr>
<th>Location ID</th>
<th>Easting</th>
<th>Northing</th>
<th>CH₄ (ppm)</th>
<th>Comments (e.g. ground cover/vegetation, surface penetrations, defects, etc.)</th>
<th>Photo</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td></td>
<td>2.1</td>
<td></td>
<td>Grass / Exposed Soil &amp; Gravel</td>
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</tr>
<tr>
<td>A2</td>
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<tr>
<td>A3</td>
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</tr>
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<td>B1</td>
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<td></td>
<td></td>
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<tr>
<td>B2</td>
<td></td>
<td>2.2</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>B3</td>
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<td>E2</td>
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<td>2.1</td>
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<td>F1</td>
<td></td>
<td>2.2</td>
<td></td>
<td>Grass / Exposed Soil &amp; Gravel</td>
<td></td>
</tr>
<tr>
<td>F2</td>
<td></td>
<td>2.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G1</td>
<td></td>
<td>2.1</td>
<td></td>
<td>Grasped Nature Strip</td>
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</tr>
<tr>
<td>G2</td>
<td></td>
<td>2.5</td>
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<td></td>
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<td>G4</td>
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<tr>
<td>G5</td>
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<td>2.2</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>H1</td>
<td></td>
<td>2.2</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Location ID</td>
<td>Easting</td>
<td>Northing</td>
<td>CH₄ (ppm)</td>
<td>Comments (e.g. ground cover/vegetation, surface penetrations, defects, etc.)</td>
<td>Photo</td>
</tr>
<tr>
<td>------------</td>
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