SUBJECT LAND:

Property Map

Zoning Map

North

Subject Site
Attachment 2 - PLN17/0474 - 122 Dover Street Cremorne - Planning Permit

PLANNING PERMIT

Permit No.: PLN17/0474
Planning Scheme: Yarra
Responsible Authority: City Of Yarra

ADDRESS OF THE LAND:
122 Dover Street Cremorne VIC 3121

THE PERMIT ALLOWS:
The use of the land for an industry (food production) and a reduction in the car parking requirement.

THE FOLLOWING CONDITIONS APPLY TO THIS PERMIT:

Amended Plans
1. Before the use commences, amended plans to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the plans will be endorsed and will then form part of this permit. The plans must be drawn to scale with dimensions, and three copies must be provided. The plans must be generally in accordance with the advertised plans (received by Council on 13 June 2017) but modified to show:
   a. A minimum of one bicycle parking space.

2. The use as shown on the endorsed plans must not be altered (unless the Yarra Planning Scheme specifies that a permit is not required) without the prior written consent of the Responsible Authority.

Use
3. Except with the prior written consent of the Responsible Authority, the uses authorised by this planning permit may only operate between the hours of 7:00am and 6:00pm, Monday to Friday.

4. Except with the prior written consent of the Responsible Authority, no more than six (6) staff are permitted on the land at any one time.

Date: 16 October 2017

Signature for the Responsible Authority

For more information call 9205 5555 or visit www.yarracity.vic.gov.au
The amenity of the area must not be detrimentally affected by the use, including through:
(a) the transport of materials, goods or commodities to or from land;
(b) the appearance of any buildings, works or materials;
(c) the emission of noise, artificial light, vibration, smell, fumes, smoke, vapour, steam, soot, ash, dust, waste water, waste products, oil, or fuel;
(d) the presence of vermin.

6. Prior to the commencement of the use, external lighting on the land must be designed, baffled and located to the satisfaction of the Responsible Authority to prevent any adverse impact on any adjoining property. External lighting must be:
(a) located;
(b) directed;
(c) shielded and;
(d) of limited intensity.

7. The loading and unloading of vehicles and the delivery of goods to and from the land must be conducted either entirely within the land or within designated on-street loading bays to the satisfaction of the Responsible Authority.

8. Except with the prior written consent of the Responsible Authority, delivery and collection of goods to and from the land may only occur between 7:00 am and 6:00 pm, Monday to Friday.

Environment Protection Authority (conditions 9-13).

9. All development and use of the premises involving the emission of dust and other air quality indicators must comply with the State Environment Protection Policy (Air Quality Management).

10. Effective noise levels from the use of the premises must comply with the requirements of the State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade) No. N1.

11. Offensive odour must not be discharged beyond the boundaries of the premises.

12. Stormwater contaminated with liquid or solid waste, including food or oil waste, must not be discharged beyond the boundaries of the premises.

13. No litter is to be deposited beyond the boundary of the premises.

Permit Expiry

14. This permit will expire if the use is not commenced within two years from the date of the permit. The Responsible Authority may extend the period referred to if a request is made in writing before the permit expires or within six months afterwards for commencement.

Date: 10 October 2017

Signature for the Responsible Authority.
NOTES

A building permit may be required before the use is commenced. Please contact Council's Building Services on 9205 5095 to confirm.

These premises will be required to comply with the Food Act 1984. The use must not commence until registration, or other approval, has been granted by Council's Health Protection Unit.

All future property owners, business owners and employees within the uses approved under this permit will not be permitted to obtain resident, employee or visitor parking permits.
PLANNING PERMIT

IMPORTANT INFORMATION ABOUT THIS PERMIT

WHAT HAS BEEN DECIDED?
The Responsible Authority has issued a permit.
(Note: This is not a permit granted under Division 5 or 6 of Part 4 of the Planning and Environment Act 1987.)

WHEN DOES A PERMIT BEGIN?
A permit operates:
• from the date specified in the permit, or
• if no date is specified, from—
  (i) the date of the decision of the Victorian Civil and Administrative Tribunal, if the permit was issued at the direction of the Tribunal, or
  (ii) the date on which it was issued, in any other case.

WHEN DOES A PERMIT EXPIRE?
A permit for the development of land expires if—
• the development or any stage of it does not start within the time specified in the permit, or
• the development or any stage of it is not completed within the time specified in the permit, or
• if no time is specified, within two years after the issue of the permit, or
• in the case of a consolidation within 5 years of the certification of the plan of subdivision or consolidation under the Subdivision Act 1988.

A permit for the use of land expires if—
• the use does not start within the time specified in the permit, or if no time is specified, within two years after the issue of the permit, or
• the use is discontinued for a period of two years.

A permit for the development and use of land expires if—
• the development or any stage of it does not start within the time specified in the permit, or
• the development or any stage of it is not completed within the time specified in the permit, or
• if no time is specified, within two years after the issue of the permit, or
• the use does not start within the time specified in the permit, or if no time is specified, within two years after the completion of the development, or
• the use is discontinued for a period of two years.

If a permit for the use of land or the development and use of land or relating to any of the circumstances mentioned in section 89(2) of the Planning and Environment Act 1987, or to any combination of use, development, or any of those circumstances requires the certification of a plan under the Subdivision Act 1988, unless the permit contains a different provision—
• the use or development of any stage, or the use of the land, is to be taken to have started when the plan is certified, and
• the permit expires if the plan is not certified within two years of the issue of the permit.

The expiry of a permit does not affect the validity of anything done under that permit before the expiry.

WHAT ABOUT REVIEWS?
• The person who applied for the permit may apply for a review of any condition in the permit unless it was granted at the direction of the Victorian Civil and Administrative Tribunal, in which case no right of review exists.
• An application for review must be lodged within 60 days after the permit was issued, unless a notice of decision to grant a permit has been issued previously, in which case the application for review must be lodged within 60 days after the giving of that notice.
• An application for review is lodged with the Victorian Civil and Administrative Tribunal.
• An application for review must be made on relevant form which can be obtained from the Victorian Civil and Administrative Tribunal, and be accompanied by the applicable fee.
• An application for review must state the grounds upon which it is based.
• A copy of an application for review must be served on the responsible authority.
• Details about applications for review and the fees payable can be obtained from the Victorian Civil and Administrative Tribunal.

Planning and Environment Regulations 2015 No. 32/2015 Form 4 Sections 63, 64, 66A and 68.
Ned's Bake Pty Ltd

122 Dover Street, Cremorne

Town Planning Acoustic Report

Final Report

Issue | 31 October 2018
## Document Verification

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Yarra City Council – Internal Development Approvals Committee Agenda – Wednesday 30 January 2019
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- Figure 2 – Street view of the nearest sensitive receiver (118 Dover St) (image from Google Maps)

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- Appendix B
Planning Zone Map
1 Introduction

Ned’s Bake Pty Ltd (Ned’s Bake) proposes to use the land situated at 122 Dover Street, Cremorne for a food production (wholesale bakery) industry (hereafter the Project Site or the Site).

We understand that the current Permit restricts the hours to 07:00 hrs – 18:00 hrs (7:00 am to 6:00 pm) Monday to Friday, corresponding to the Day time period of EPA State Environment Protection Policy (Control of noise from Industry, Commerce and Trade) No. N-1 (SEPP N-1) for noise. The facility proposes to extend their operating hours from 05:00 hrs – 22:00 hrs (5:00 am to 10:00 pm), Monday to Sunday. As a result, compliance with Evening and Night time periods of SEPP N-1 are to be demonstrated with the proposed extended hours of operation.

This report presents the findings of the noise assessment conducted for the Project Site for the extended evening and night-time period operation, and its compliance with the SEEP N-1 noise limits. This report also addresses the EPA Response (Ref. 5008709, dated 14 September 2018) – Use of the land as an industry (food production). Amend conditions 5 and 8 to change operating and delivery hours, for Planning Permit Application PLN17/0474.

Acoustic terminology used throughout this report is presented in Appendix A.
2 Subject Site

2.1 Site Description

The Project Site, located at 122 Dover Street, Cremorne is 860 square metres of land zoned as Commercial 2 Zone (C2Z) and is surrounded by a range of uses including industry, warehouse and commercial uses. The immediate adjacent interface to the Project Site are as below:

- To the north of the Project Site is a single residential dwelling located in the Commercial 2 Zone.
- To the south of the Project Site is automotive retail premises, sharing the same building with common partition.
- Land to the south of the automotive retail premises is occupied by a single storey brick warehouse used for the storing of coffee machinery.
- To the east and west buildings are used for various commercial and light industrial purposes.

A copy of the relevant Planning Map is presented in Appendix B.

The Project Site is an existing warehouse building with a total net floor area of 852 square metres and a 6-metre front setback to Dover Street. The front setback area accommodates six car parking spaces accessed directly from Dover Street frontage. The Project Site building has a mezzanine floor to accommodate office space and a storage area.

The Project Site building is constructed of single brick wall, with automated roller door on the eastern façade for delivery activity. External access to the mezzanine office space is through the entrance on Dover Street, via glazed double door. Windows serving the mezzanine office space and ground floor ancillary spaces are also located along the eastern façade, facing Dover Street. The building roof is constructed of sheet metal material. A new ceiling tile was being installed during Arup’s site inspection on 25 October 2018. Noise sources associated with the Project Site, and their locations, have been identified and detailed in Section 2.3 of this report.

2.2 Proposed Project Site Activities

The Project Site is a light food production industry involving preparation of fruit products, including the cutting, preparing and packaging, as well as preparing light meals such as sandwiches, wraps, salads, pastries and other savoury items. The end-product will be stored on-site and delivered to retail premises elsewhere.

The ground floor consists of cool rooms, food preparation area, storage areas, administrative space and amenities, while the mezzanine areas consists of office space, services and storage.
The Project Site is proposed to operate between 05:00 hrs - 22:00 hrs (5:00 am to 10:00 pm), Monday to Sunday.

The following detailed activities have been noted based on discussion with owner and occupier Mr. Ned Radiojic (Ned’s Bake):

- Loading and unloading is expected to occur within the Project Site building. For health regulations we understand the roller to remain as far as practicable in the closed position.
- All deliveries will utilise van-type vehicle.
- Out-going delivery will occur between 05:00 hrs - 07:00 hrs (5:00 am and 7:00 am), during the weekdays, with maximum of 3 deliveries during the any half-hour period.
- Incoming deliveries will only occur on weekdays, during the daytime period between 07:00 hrs – 18:00 hrs (7:00 am and 6:00 pm).
- No incoming or outgoing deliveries during the weekend period.
- Flour truck delivery will occur only on weekdays, during the daytime period between 07:00 hrs – 18:00 hrs (7:00 am and 6:00 pm). Flour truck delivery will occur within the building with roller door closed, and for up to 15 minutes duration.
- Two Carrier refrigeration units will be running continuously inside the building.
- Two roof-top extraction fans will be installed at a distance of not less than 6 m from the boundary and will be running continuously.
- All loading and unloading of goods will be undertaken via manual handling.
- A maximum of six staff is expected to be on-site at any one time.

2.3 Noise Sources

Arup had undertaken a site inspection on 25 October 2018 to determine the potential major noise sources associated with activities and equipment on-site. These noise sources have been identified to be:

- Two new rooftop fans to be installed not less than 6 metres from the property boundary.
- Entry roller door located on the eastern façade.
- Two containerised Carrier refrigeration units, located indoor at the north-west side of the building.
- Vehicular noise during staff arrival/departure, and goods delivery and collection via Dover Street.
2.4 Nearby Noise Sensitive Receivers

The residential dwelling at 110 to 118 Dover Street, shown in Figure 1, are the nearest noise sensitive receivers to the Project Site. It is acknowledged that these dwellings are located within commercially zoned areas. SEPP N-1 definition of *noise sensitive area*\(^1\) is not limited to dwelling located within residential zoned area.

It is expected that demonstrating compliance at these dwellings will result in compliance at other noise sensitive residential dwellings within the vicinity of the *Project Site*.

![Figure 1 – Location of nearest noise sensitive receivers (image from Google Maps)](image)

The dwelling at 118 Dover Street is single storey with windows to the east. The dwelling does not have any window to the south, facing to the *Project Site*. Based on desktop assessment, the dwelling has a skylight located adjacent to the *Project Site* northern boundary.

The property boundary separating the dwelling to the *Project Site* is constructed of approximately 3.5 m high solid masonry brick construction, fully extended to the eastern property boundary, providing acoustic shielding from the *Project Site* carpark area (refer to Figure 2). Taking into account the *Project Site*’s building wall construction, this makes the separating wall between the two properties to be double brick construction with airgap.

---

\(^{1}\) *State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade) No. N-1 (SEPP N-1)*

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Attachment 3 - PLN17/0474.01 - 122 Dover Street Cremorne - Acoustic Report Prepared by Arup Australia

Figure 2 – Street view of the nearest sensitive receiver (118 Dover St) (image from Google Maps)
3 Noise Legislation

3.1 Background Noise Measurements

Attended noise measurements were undertaken on Thursday, 25 October 2018, at 110 Dover Street, Cremorne. This location is considered to be representative of the background noise levels at the nearest noise sensitive receivers.

The measured background noise levels were used to inform noise limits, discussed in Section 0.

Measurements were conducted according to State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade) No. N-1 (SEPP N-1) measurement procedure.

Background noise measurements were conducted during each of the proposed extended evening and night operating periods. The measurements were conducted during:

- 05:30 hrs – 06:03 hrs (5:30 am – 6:03 am) on Thursday, 25 October 2018 (‘Night Measurement’)
- 20:18 hrs – 20:52 hrs (8:18 pm – 8:52 pm) on Thursday, 25 October 2018 (‘Evening Measurement’)

All equipment used to conduct the noise measurement was within calibration and was checked for calibration using field calibrator before and after the measurements. No significant drift in calibration was observed. The equipment used for the measurement is indicated in Table 1.

Table 1 – Noise Measurement Equipment

<table>
<thead>
<tr>
<th>Sound Level Meter</th>
<th>Serial Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brue &amp; Kjaer Sound Level Meter, Model 2250</td>
<td>263667</td>
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<tr>
<td>Brue &amp; Kjaer Field Calibrator, Model 4231</td>
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3.1.1 Noise Measurement Results

The measured noise levels have been summarised and detailed in Table 2.

Table 2 – Measured Background Noise Measurements

<table>
<thead>
<tr>
<th>Period</th>
<th>Average Measured Background Noise Level, dBA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evening</td>
<td>41</td>
</tr>
<tr>
<td>Night (representative of 5:00 am – 7:00 am)</td>
<td>39</td>
</tr>
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</table>

Note that Amp had previously undertaken long-term unattended noise monitoring within the vicinity of the Project Site in July 2017. The above noise measurement results (Table 2) were checked against Arup’s previous noise monitoring results (July 2017) and good data correlation were found.
3.2 SEPP N-1 Noise Criteria

For urban areas, noise from commercial operations is governed by State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade) No. N-1 (SEPP N-1). It is appropriate to assess operational noise associated with the commercial activity on the Project Site in accordance with the requirements of SEPP N-1.

The objective of SEPP N-1 is to protect noise sensitive receivers from commercial, industrial or trade noise that may affect the use of noise sensitive areas, while recognising the importance of the commercial activity in the metropolitan region.

The assessment of noise emission under SEPP N-1 is based on the calculation of a noise limit at a receiver position, taking into account the land in the surrounding area and the background noise level. Under SEPP N-1 the noise limit is the maximum allowable ‘level of noise emitted from the commercial, industrial or trade premise’, in a “noise sensitive area” as defined by the Policy.

The noise emission from commercial or industrial premises, when corrected for duration and character, is referred to as the ‘effective noise level’ (Leq). The Leq is the adjusted LAeq of the noise source or sources measured over a 30-minute period.

The calculation of noise limits requires the calculation of a zoning level that is based on land use in the surrounding area. The zoning level is then adjusted appropriately, depending on the background noise level.

SEPP N-1 separates the day into three different time periods – day, evening and night, as presented in Table 3.

Table 3 – SEPP N-1 time periods

<table>
<thead>
<tr>
<th>Period</th>
<th>Day of week</th>
<th>Time period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day</td>
<td>Monday – Friday</td>
<td>07:00 – 18:00 hrs</td>
</tr>
<tr>
<td></td>
<td>Saturday</td>
<td>07:00 – 13:00 hrs</td>
</tr>
<tr>
<td>Evening</td>
<td>Monday – Friday</td>
<td>18:00 – 22:00 hrs</td>
</tr>
<tr>
<td></td>
<td>Saturday</td>
<td>13:00 – 22:00 hrs</td>
</tr>
<tr>
<td></td>
<td>Sunday, Public Holidays</td>
<td>07:00 – 22:00 hrs</td>
</tr>
<tr>
<td>Night</td>
<td>Monday – Sunday</td>
<td>22:00 – 07:00 hrs</td>
</tr>
</tbody>
</table>

The most sensitive time for noise exposure is the SEPP N-1 night time period, i.e. 22.00 – 07.00 hrs (10:00 pm – 7:00 am). However, it is noted that the operation of the Project Site during the night-time period is to occur between 05:00 hrs - 07:00 hrs (5:00 am and 7:00 am). The early morning operation from the Site is assessed in accordance with the noise limits derived for the night-time period.

The measured background noise level in Section 3.1, zoning levels and the noise limit derived in accordance with policy for both the proposed extended evening and night time operations are presented in Table 4.
Table 4 – SEPP N-1 Noise Limits

<table>
<thead>
<tr>
<th>Time period</th>
<th>Site background noise levels, dBLn</th>
<th>Zoning Level dB(A)</th>
<th>Background (Low/Neutral/High)</th>
<th>Noise Limit, dBLAeq</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evening time</td>
<td>41</td>
<td>52</td>
<td>Low</td>
<td>49</td>
</tr>
<tr>
<td>Night time (3:00am – 7:00am)</td>
<td>39</td>
<td>47</td>
<td>Neutral</td>
<td>47</td>
</tr>
</tbody>
</table>

The SEPP N-1 noise limit is applied externally at the nearest noise sensitive receiver located 118 Dover Street, Cremorne. Compliant at this receiver will result in compliance at other nearby sensitive receivers.
4 Noise Assessment and Recommendation

4.1 SEPP N-1 Noise Assessment

4.1.1 Roller Door

Arup undertook attended noise measurements of the roller door operations on 25 October 2018. The roller door travels to the open or closed position in approximately 30 seconds. Most likely 1 minute for a complete operation cycle of the roller door to open and close. The noise from the roller door operation have been measured and indicated a Sound Power Level of 89 dB(A).

Ned’s Bake have advised that there will not be any deliveries during the evening period or weekends (refer to Section 2.2). Deliveries will occur during the daytime period weekdays. Some deliveries may occur during the night-time period of between 05:00 – 07:00 hrs (3:00 am – 7:00 am). A maximum of three (3) deliveries during any half-hour period.

SEPP N-1 makes provision of duration and intermittency adjustments for non-continuous noise sources. A duration adjustment is applicable to the operational noise from the roller door, as the noise is not audible for a continuous 30-minute period. Intermittency does not apply to roller operations.

Based on the above, the operational noise emission from the roller door at 118 Dover Street residential property was calculated to be 38 dB(A), taking into consideration the duration adjustment and the acoustic shielding from the receiver brick wall boundary. The calculated noise level of 38 dB(A) complies with the with the SEPP N-1 night-time noise limit of 47 dB(A).

4.1.2 Rooftop Fans

It is proposed to installed roof mounted fans not less than 6 m from the northern boundary northern. It is recommended that rooftop fan to have sound power level of not greater than 78 dB(A) (or sound pressure level of not more than 58 dB(A) at 3 m distance) to comply with SEPP N-1 criteria. Mechanical services equipment shall be reviewed by a suitably qualified acoustic consultant during the appropriate design phase to ensure the noise emissions comply with SEPP N-1 limits.

4.1.3 Carrier Refrigeration Unit

There are two containerised Carrier refrigeration units within the Project Site building. Attended noise measurement was undertaken at 118 Dover Street (nearest receiver) eastern property boundary during the operation of the refrigeration units, with the roller door closed. Noise level of 42 dB(A) was recorded at this location, which indicates compliance with the more stringent SEPP N-1 night-time noise criterion of 47 dB(A).

Arup’s site inspection indicated that a new ceiling tile grid is being installed within the main production area. Arup calculations demonstrates that mechanical
noise associated Carrier units to comply with the night-time SEPP N-1 noise limits.

4.1.4 Loading/Unloading Activity

Ned’s Bake have advised that all loading and unloading activities will occur within the building with the roller door closed and vehicle engine switched off. The loading and unloading activities will be undertaken via manual handling into/out of a van, with no forklift involved. It is expected that noise emission from this manual handling will be minimal and contained within the building. The activity will comply with the SEPP N-1 noise criteria.

In addition, the external noise impact from the delivery van during arrival into or departure from the Site is expected to be insignificant as it will occur over a short period of time (approximately 3 minutes). Taking into consideration the SEPP N-1 duration adjustment, the noise impact at the nearest sensitive receiver is expected to comply with the SEPP N-1 noise limits.

4.2 EPA Response

A noise assessment have been undertaken to address EPA Response (Ref. 5008709, dated 14 September 2018) to the amendment proposed for a change of operation and delivery hours of Planning Permit Application PLN17/0474.

Arup has reviewed EPA Response (Ref. 5008709, dated 14 September 2018) and provides the following comments:

1. The proposal does not meet a purpose within Clause 34.02 Commercial 2 Zone which is to ensure that uses do not affect the safety and amenity of adjacent, more sensitive uses. Noise from arrival, departure, loading and unloading will adversely impact the nearby existing residential use.

   Noise from arrival, departure, loading and unloading from the Project Site have been assessed in Section 4.1 and complies with the SEPP N-1 noise criteria.

2. The proposal is contrary to Clause 34.02-2 Commercial 2 Zone – Use of Land as it will detrimentally affect the amenity of the neighbourhood through the transport of materials, goods or commodities to and from the land and emissions of noise.

   The noise emissions associated with the transport of materials, goods or commodities to and from the Project Site have been assessed in Section 4.1, which indicates compliance with the SEPP N-1 noise criteria. It is our understanding that compliance with EPA SEPP N-1 noise limits provides appropriate noise amenity to the nearby noise sensitive community.

3. The proposal does not meet a decision guideline within Clause 34.02-7 Commercial 2 Zone as noise it will adversely impact the nearby existing residential areas.
The nearby existing residential areas have been identified in this report. Noise impact from the Project Site onto the nearby residential areas have been assessed in Section 4.1 and complies with the SEPP N-1 noise criteria.

4. *The proposal does not comply with Clause 65.01 Decision Guideline – Approval of an Application or Plan as it does not meet the purpose of the zone, represent an orderly planning of the area and will affect the amenity of the area via noise emissions.*

As previously mentioned above, the operational noise from the Project Site has been assessed and comply with the SEPP N-1 noise criteria (refer to Section 4.1).
5 Conclusions

Arup has undertaken a noise impact assessment of the proposed extended operational hours of the food production industry situated at 122 Dover Street, Cremorne.

The nearest affected noise sensitive receivers are residential properties situated between 110 to 118 Dover Street, directly to the north of the Project Site.

Site inspection and background noise measurements were undertaken on 25 October 2018, during the evening and night-time periods. SEPP N-1 noise criteria for these extended operational periods have been derived in Section 3.2 of this report.

Identified potential major noise sources associated with the Project Site include rooftop mechanical plant and equipment, indoor Carrier refrigeration units, roller door and delivery activities.

The above noise sources and the associated impact to the surrounding sensitive receivers have been assessed and comply with the SEPP N-1 noise criteria. Arup have provided comments to the EPA Response (Ref. 5008709, dated 14 September 2018) in Section 4.2.

In our opinion the proposed extension to operational hours will not adversely impact the nearby noise sensitive community.
Appendix A

Acoustic Terminology
‘A’-Weighted Sound Level dB(A)

The unit generally used for measuring environmental, traffic or industrial noise is the A-weighted sound pressure level in decibels, denoted dB(A). An A-weighting network can be built into a sound level measuring instrument such that sound levels in dB(A) can be read directly from a meter. The weighting is based on the frequency response of the human ear and has been found to correlate well with human subjective reactions to various sounds. An increase or decrease of approximately 10 dB corresponds to a subjective doubling or halving of the loudness of a noise. A change of 2 to 3 dB is subjectively barely perceptible.

Ambient Noise Level

The ambient noise level is the overall noise level measured at a location from multiple noise sources. When assessing noise from a particular development, the ambient noise level is defined as the remaining noise level in the absence of the specific noise source being investigated. For example, if a fan located on a city building is being investigated, the ambient noise level is the noise level from all other sources without the fan running. This would include sources such as traffic, birds, people talking and other nearby fans on other buildings.

Background Noise Level

The background noise level is the noise level that is generally present at a location at all or most times. Although the background noise may change over the course of a day, over shorter time periods (e.g. 15 minutes) the background noise is almost-constant. Examples of background noise sources include steady traffic (e.g. motorways or arterial roads), constant mechanical or electrical plant and some natural noise sources such as wind, foliage, water and insects.

Decibel (dB)

The ratio of sound pressures which we can hear is a ratio of $10^6$:1 (one million : one). For convenience, therefore, a logarithmic measurement scale is used. The resulting parameter is called the ‘sound level’ (L) and the associated measurement unit is the decibel (dB). As the decibel is a logarithmic ratio, the laws of logarithmic addition and subtraction apply.

Some typical noise levels are given below:

<table>
<thead>
<tr>
<th>Noise Level dB(A)</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>130</td>
<td>Threshold of pain</td>
</tr>
<tr>
<td>120</td>
<td>Jet aircraft take-off at 100 m</td>
</tr>
<tr>
<td>110</td>
<td>Chain saw at 1 m</td>
</tr>
<tr>
<td>100</td>
<td>Inside disco</td>
</tr>
<tr>
<td>90</td>
<td>Heavy trucks at 5 m</td>
</tr>
<tr>
<td>80</td>
<td>Kerbside of busy street</td>
</tr>
</tbody>
</table>
Equivalent Continuous Sound Level ($L_{Aeq}$)

Another index for assessment for overall noise exposure is the equivalent continuous sound level, $L_{Aeq}$. This is a notional steady level, which would, over a given period of time, deliver the same sound energy as the actual time-varying sound over the same period. Hence fluctuating levels can be described in terms of a single figure level.

$L_{90}$

The $L_{90}$ statistical level is often used as the “average minimum” or “background” level of a sound level that varies with time.

Mathematically, $L_{90}$ is the sound level exceeded for 90% of the measurement duration. As an example, 45 dB $L_{Aeq,15 min}$ is a sound level of 45 dB(A) or higher for 90% of the 15-minute measurement period.

$L_{eq}$

The ‘equivalent continuous sound level’, $L_{eq}$, is used to describe the level of a time-varying sound or vibration measurement.

$L_{eq}$ is often used as the “average” level for a measurement where the level is fluctuating over time. Mathematically, it is the energy-average level over a period of time (i.e. the constant sound level that contains the same sound energy as the measured level). When the dB(A) weighting is applied, the level is denoted dB $L_{Aeq}$. Often the measurement duration is quoted, thus $L_{Aeq,15 min}$ represents the dB(A) weighted energy-average level of a 15-minute measurement.

$L_{max}$

The $L_{max}$ statistical level can be used to describe the “absolute maximum” level of a sound or vibration level that varies with time.

Mathematically, $L_{max}$ is the highest value recorded during the measurement period. As an example, 94 dB $L_{Aeq}$ is a highest value of 94 dB(A) during the measurement period.
Since $L_{max}$ is often caused by an instantaneous event, $L_{max}$ levels often vary significantly between measurements.

**Frequency**

The rate of repetition of a sound wave. The subjective equivalent in music is pitch. The unit of frequency is the Hertz (Hz), which is identical to cycles per second. A thousand hertz is often denoted kilohertz (kHz), eg $2 \text{ kHz} = 2000 \text{ Hz}$. Human hearing ranges from approximately 20 Hz to 20 kHz. The most commonly used frequency bands are octave bands, in which the mid frequency of each band is twice that of the band below it. For design purposes, the octave bands between 63 Hz to 8 kHz are generally used. For more detailed analysis, each octave band may be split into three one-third octave bands or, in some cases, narrow frequency bands.

**Sound Power and Sound Pressure**

The sound power level ($L_{w}$) of a source is a measure of the total acoustic power radiated by a source. The sound pressure level ($L_{p}$) varies as a function of distance from a source. However, the sound power level is an intrinsic characteristic of a source (analogous to its mass), which is not affected by the environment within which the source is located.
Appendix B
Planning Zone Map
14/09/2018

Reference: 5008709

Dear Mr. Muhlechner

RE: PLANNING PERMIT APPLICATION: PLN17/0474

PROPOSAL: Use of the land as an industry (food production).

Amend conditions 3 and 8 to change operating and delivery hours

PREMISES ADDRESS: 122 DOVER ST, CREMORNE VIC 3121

Thank you for your correspondence in relation to the above planning permit application, referred to EPA on 30/07/2018.

EPA is a statutory referral authority under Section 55 of the Planning and Environment Act 1997.

EPA objects to Council issuing a planning permit for the above application, given the following consideration:

1. The proposal does not meet a purpose within Clause 34.02 Commercial 2 Zone which is to ensure that uses do not affect the safety and amenity of adjacent, more sensitive uses. Noise from arrival, departure, loading and unloading will adversely impact the nearby existing residential use.

2. The proposal is contrary to Clause 34.02-2 Commercial 2 Zone - Use of Land as it will detrimentally affect the amenity of the neighbourhood through the transport of materials, goods or commodities to and from the land and emissions of noise.

3. The proposal does not meet a decision guideline within Clause 34.02-7 Commercial 2 Zone as noise it will adversely impact the nearby existing residential areas.

4. The proposal does not comply with Clause 65.01 Decision Guideline - Approval of an Application or Plan as it does not meet the purpose of the zone, represent an orderly planning of the area and will affect the amenity of the area via noise emissions.

Noise

The main concern is that the proposal does not comply with EPA Publication 1254 'Noise Control Guidelines' 2008 or as amended (Publication 1254). The proposal has not
demonstrated how it will comply with SEPP N-1.

Noise sources from the proposal will be from:
• The arrival of staff and their vehicles, closing of vehicle doors
• The roller door
• The delivery and collection of goods, standing vehicles, closing of vehicle doors
• Potentially external mechanical plant or unit

Section 9 of Publication 1254 recommends that deliveries to shops, supermarkets and service stations to occur between the following hours and all ancillary motors or trucks must be turned off while making the delivery:
• 7am – 10 pm Monday to Saturday
• 9am – 10pm Sunday and public holidays

The premises for food manufacturing can be considered similar to the above categories. Publication 1254 also recommends that if a residential area will be impacted by noise from deliveries, then deliveries must be inaudible in a habitable room of any residential premises (regardless of whether any or door giving access to the room is open) outside the above those hours.

However, the proposal has not demonstrated that the delivery or collection of goods from the premises outside the above hours will be inaudible to the adjoining and nearby residential premises.

The proposal has also not demonstrated that the arrival of staff, food preparation and noise from any mechanical plant or unit between 5 am - 7am will meet SEPP N-1 night hours between 2200 and 0700 hours.

Additionally, the proposal has also not demonstrated how the extended evening hours will comply with SEPP N-1.

Odour
The risk of odour is considered low for this proposal. However, the following must be managed to limit odour from the premises:
• The review and maintenance of extraction system to ensure that cooking and baking odours are vented efficiently.
• The use of odour control equipment such as carbon filters and scrubbers.

If you need additional information or assistance, please contact our Assessing Officer, Julia Lam on 1300 EPA VIC (1300 372 842).

Yours sincerely

Viranga Abeywickrema
Team Leader
Metro Field 1
EPA Victoria
Yarra City Council – Internal Development Approvals Committee Agenda – Wednesday 30 January 2019

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Attachment 5 - PLN17/0474.01 - 122 Dover Street Cremorne - Support from the EPA

Dear Mr Multidakas,

Re: PLN17/0474.01

Proposal: Use of the land for industry (food manufacturing / catering) - amendment to operating hours

Premises: 122 Dover Street, Cremorne

We refer to the acoustic report dated 31 October 2018 forwarded by the proponent on 1 November 2018.

EPA has reviewed the acoustic report which includes best practices for noise mitigation and is of the opinion that it complies with SEPP N1. EPA does not object to the proposal subject to the following conditions:

1. Odours offensive to the senses of human beings must not be discharged, emitted or released beyond the boundaries of the premises.
2. There must be no emissions of noise and/or vibrations from the premises which are detrimental to either of the following:
   a. the environment in the area around the premises, and
   b. the wellbeing of persons and/or their property in the area around the premises.
3. The permit holder must not contaminate land or groundwater.

Noise:

It is our opinion that the proposed best practice in the acoustic report meets SEPP N1 due to the nature of the SEPP N1 assessment for non-continuous noise sources for a 30 minute period. It is noted the roller door may potentially impact the nearby residents during the night time period as defined in SEPP N1. The Responsible Authority needs to consider the risk of noise impacts from the roller door and take every effort to control this risk when the necessary EPA Publication 9254 - Noise Control Guidelines; October 2003. A guideline for best practice to address noise, Section 9 of this guideline recommends that deliveries to shops, supermarkets and service stations (applicable to this food manufacturing premises) are inaudible in residential areas outside the following hours:

- Schedule: Deliveries to shops, supermarkets and service stations
  - 9 am — 10 pm Monday to Saturday
  - 9 am — 10 pm Sunday and public holidays

Note: All deliveries in trucks or trucks should be turned off whilst making the delivery.

Odour:

The risk of odour is considered low for this proposal. However, the following best practices can be put in place to limit odour from the premises:

a. The review and maintenance of extraction system to ensure that odour is emitted efficiently
b. The use of odour control equipment such as carbon filters and scrubbers.
If you need additional information or assistance, please contact our Senior Planning Assessment Officer, Julia Lam on 1300 EPA VIC (1300 372 842).

Your sincerely,

Nikki Lowes
Team Leader - Compliance Strategy and Support
Metropolitan Region
EPA Victoria.
19 November 2018
640.10860.05880 122 Dover St Cremorne 20181118.docx

Yarra City Council
PO Box 168
RICHMOND 3121

Attention:  Nikolas Muhilechner

Dear Nikolas

122 Dover Street, Cremorne
Development Application Acoustic Review

SLR Consulting Pty Ltd (SLR) has been retained by the City of Yarra to provide a review of the acoustic assessment report for the changes proposed for the bakery at 122 Dover Street, Cremorne.

Details of the report are as follows:

- **Title:** 122 Dover Street, Cremorne, Town Planning Acoustic Report
- **Date:** 31 October 2018
- **Prepared for:** Ned’s Bake Pty Ltd
- **Prepared by:** Arup

The report was prepared to support the application and to respond to issues raised in the EPA letter advising against the extension of hours (Reference. 5008709, dated 14 September 2018).

1 Background Information

*(Sections 1 and 2 of the acoustic report)*

The application is for the existing bakery at 122 Dover Street, Cremorne to extend its operating hours. The current operating hours are 7 am to 6 pm Monday to Friday. The proposed operating hours are 5 am to 10 pm 7 days a week. The bakery currently operates during the SEPP N-1 defined ‘day’ period only. The changes would result in operations during the ‘evening’ and ‘night’ periods, when lower SEPP N-1 limits apply.

The nearest noise sensitive receiver is identified as being the residential dwelling to the north (118 Dover Street). The dwelling is single storey and does not have any windows to the south. There is a skylight in the roof of the dwelling, in close proximity to the subject development.

The bakery building is described as a brick building with metal deck roof with a suspended tile ceiling.

Details of site activities and potential noise sources are provided in the report. The acoustically significant information is summarised below:

- Loading and unloading is to take place as far as practicable within the bakery building.
• (Outgoing) delivery vehicles will typically be vans and deliveries will take place between 5 am and 7 am weekdays. There will be up to three outgoing deliveries in any 30 minute period.

• Incoming deliveries, including truck deliveries of flour, are proposed to occur between 7 am and 6 pm only, weekdays [i.e. no change to current practice].

• Two new roof mounted extraction fans are proposed to be installed.

• Two containerised refrigeration units will operate continuously inside the building.

• A maximum of 6 staff members will be on site at any one time.

• The bakery site is separated from the dwelling at 118 Dover Street by a 3.5 m high masonry wall. [From our understanding of the sites the bakery building does not abut this wall].

**SLR Comments:** The proposal, the nearest noise sensitive receivers and potential noise impacts form the use have been identified.

2 Background Noise Monitoring

*(Section 3 of the acoustic report)*

Attended measurements of background noise were conducted outside 10 Dover Street Cremorne between 5:30 and 6 am (the 'night' period) and between 8:18 and 8:52 pm (the 'evening' period) on Thursday 25 October 2018. The measured levels were 41 dBA L\text{eq} (evening) and 39 dBA L\text{eq} (night). The data is compared with long term monitoring conducted by Arup in 2017 for another project and noted to be reasonably consistent.

**SLR Comments:** The measurements were undertaken at an appropriate location and at appropriate times. The comparison of the short term measurements with historical data in the area provides further assurance that the data is representative of noise in the vicinity of the dwelling.

3 Noise Limits

*(Section 3 of the acoustic report)*

Noise from the bakery is proposed to be assessed to SEPP N-1. The SEPP N-1 zoning levels and noise limits, which take into consideration the measured background noise levels, are presented in Table 4 of the report. The identified limits are 49 dBA for the evening period and 47 dBA for the night period (i.e. 5 am to 7 am).

**SLR Comments:** We agree that noise from the bakery is assessable to SEPP N-1. For noise that is likely to occur during the night period (i.e. before 7 am), we would also expect assessment to swap disturbance targets of 45 dBA L\text{eq} in bedrooms which corresponds to approximately 60 dBA L\text{max} outside a partly open windows.

Arup's SEPP N-1 zoning levels are lower than we have determined for the nearest dwelling. This may be due to the classification of land zoned Commercial 2 / 'C2'. The EPA have confirmed to us on another occasion that land zoned C2 is classified as 'Type 3', rather than 'Type 2' for SEPP N-1 assessment purposes. Due to our higher zoning levels, our calculated SEPP N-1 noise limits for both the day and evening periods are several decibels higher than Arup have identified.

We note that the dwellings are also located on Commercial 2 / 'Type 3' land.
4 Assessments

4.1 Roller door

*(Section 4.1.1 of the acoustic report)*

Noise transmission from the roller door to the premises was measured and calculated to have a sound power level of 89 dBA. Noise from the door has been predicted to the nearest residential receiver at 118 Dover Street, and corrected for duration, in accordance with SEPP N-1 procedure. The predicted level is 38 dB at L eq

**SLR Comments:** Based on the measured level we agree that noise from the roller door is likely to comply with SEPP N-1, provided that it has a sound power level of 89 dBA. However, noise from this source should also be assessed to Local Sleep disturbance targets if there are any short term sources.

4.2 Rooftop fans

*(Section 4.1.2 of the acoustic report)*

An acoustic specification is provided for the proposed new exhaust fans. The fans are to have a sound power level of no greater than 78 dBA and are to be installed at least 5 m from the northern boundary of the bakery roof.

**SLR Comments:** If the fans meet the acoustic specification they can be expected to comply with SEPP N-1 at the nearest dwelling.

4.3 Carrier Refrigeration Unit

*(Section 4.1.3 of the acoustic report)*

Measurements have been undertaken of the Carrier refrigeration units at the subject site. The measured noise level with the roller door closed was 42 dBA, which is noted to comply with the SEPP N-1 night noise limit.

**SLR Comments:** Generally agreed. Measurements are not provided with the door open, however we understand that the bakery does not leave the roller door open unless it is in use for access / egress.

4.4 Loading / Unloading

*(Section 4.1.4 of the acoustic report)*

Loading and unloading of goods is proposed to be undertaken inside the bakery, with the roller door closed and the delivery vehicle engine switched off. Arup note that all goods are manually loaded (i.e. no forklift).

Consideration is also given in the report to noise from vehicles arriving and departing from the loading bay. Arup observe that the duration of this activity is expected to be short (approximately 3 minutes), and that the activity can be expected to comply with SEPP N-1.

**SLR Comments:** Delivery vehicles used during the night period is the main potential source of nuisance noise on this project. An explicit assessment of this noise to SEPP N-1 is not provided in the Arup report. We also note that a tonal penalty of 5 dB would apply to noise from reversing beepers if they are used at the site.
Nevertheless, given that most loading dock noise is proposed to occur within the loading dock with the roller door closed, we agree that the premises is likely to comply with SEPP N-1.

However, noise from this and related activities should also be assessed to sleep disturbance targets. The following sources have potential to exceed the sleep disturbance target of 60 dBA $L_{max}$ that we recommend for non-vehicle sources:

- Reversing beepers
- Voice noise
- Roller door (see also Section 4.1 of this review)

We recommend that these sources be assessed to sleep disturbance targets and that management practices or noise control measures are identified if exceedances are predicted.

5 Other Matters – EPA Response

(Section 4.2 of the acoustic report)

This section of the report addresses issues raised by the EPA in respect to the proposed extension of hours.

Items 1 to 4 in the EPA letter effectively raise concerns around the issue of noise from deliveries and its potential to negatively impact the amenity of nearby residents.

Arup argues that these matters are addressed via the SEPP N-1 assessment provided in the acoustic report. In our opinion, a sleep disturbance assessment should also be provided to address amenity impacts.

Other issues raised in the EPA letter include:

- Noise from the arrival of staff and from staff vehicles, including noise from car doors closing. In our opinion this noise should be addressed in a noise management plan for the bakery.
- Compliance with Section 9 of Publication 1254. This section of the guideline pertains to deliveries to shops, supermarkets and service stations and recommends that deliveries take place between 7 am and 10 pm most days. In our opinion it is not clear that Publication 1254 applies to deliveries to or from the bakery. All bakery deliveries will take place on commercially owned land and are therefore subject to SEPP N-1. We would typically apply Publication 1254 to situations where SEPP N-1 does not apply, for instance when the delivery takes place on public land.

6 Summary

Our review of the acoustic report prepared to address noise impacts from the proposed extension of hours of the bakery at 122 Dover Street, Cremorne is provided above. The report provides assessments of noise emissions to SEPP N-1, and advice for noise control. The advice includes:

- Roller door to be kept closed except when used for access.
- The proposed two new roof mounted exhaust fans are to have a sound power level of no more than 78 dBA and are to be located at least 6 m from the north side of the roof.
- The only deliveries to take place between 5 am and 7 am are to be van deliveries of bakery produce from the bakery (i.e. no incoming deliveries).
• No incoming or outgoing deliveries on the weekend.
• All loading and unloading of goods is to take place inside the loading dock with the roller door closed. All loading is to be manual (no forklifts and reversing beepers).

Based on the information provided and the proposed noise controls we agree that the use is likely to comply with SEPP N-1 during the extended hours of operation.

However, in our opinion an assessment to sleep disturbance targets should also be provided. Any predicted exceedance of sleep disturbance targets should be addressed through managerial or other noise controls.

Given the potential for staff activity to cause nuisance to neighbouring residents, it would be desirable for the business to develop and implement a noise management plan. This may address issues such as:

• Arrival and departure from the work during the early morning and late evening periods
• Voice noise from staff breaks taken outside (this should not be permitted to occur before 7 am Monday to Saturday or before 9 am Sundays)

We note that both the bakery and the nearest noise sensitive receiver are located in a Commercial 2 zone, which is classified as ‘Type 3’ in SEPP N-1. Higher noise limits, and audible noise from commercial uses can be expected in land classified as Type 3.

Regards,

Dianne Williams
Associate – Acoustics