# Noise Impact Assessment

## Westgate Estate - 253-267 Aldington Road, Kemps Creek NSW

Prepared for Icon Oceania

February 2025

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Icon Oceania

E230916 RP1

February 2025

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# 1 Introduction

EMM Consulting Pty Limited (EMM) has been engaged by RP Infrastructure (RPI) to prepare a noise impact assessment (NIA) for an industrial site at Kemps Creek NSW (Figure 1.1). This report accompanies a State Significant Development Application (SSDA) for the construction and operation of an industrial estate comprising four warehouse buildings at 253-267 Aldington Road, Kemps Creek, NSW 2178 (SSD-23480429) for submission to the NSW Department of Planning, Housing and Infrastructure (DPHI). This report (v5) has been further updated following extensive correspondence and discussions with NSW Department of Planning, Housing and Infrastructure (DPHI) during the Response to Submissions (RtS) phase of application review.

The application seeks consent for:

- Site establishment:
  - demolition and removal of existing rural residential structures including removal of farm dams
  - remediation as required
  - bulk earthworks (193,100 $m^3$ of fill) and retaining walls.
- Staged construction and operation of an industrial estate with a total gross floor area of 34,254 $m^2$, maximum FSR of 0.34:1, maximum height of 17.2 metres (m), split over four warehouses contained within three buildings with ancillary hardstand and office spaces:
  - Stage 1
    - Warehouse 1A: 7,189 $m^2$ with 318 $m^2$ office space (total GFA - 7,507 $m^2$)
    - Warehouse 1B: 7,060 $m^2$ with 307 $m^2$ office space (total GFA - 7,367 $m^2$)
    - Warehouse 1C: 6,480 $m^2$ with 307 $m^2$ office space (total GFA - 6,787 $m^2$)
  - Stage 2
    - Warehouse 2 (temperature controlled): 11,959 $m^2$ with 625 $m^2$ office space (total GFA – 12,584 $m^2$).
- Use of the buildings for warehouse and distribution purposes 24 hours per day 7 days per week.
- Ancillary development including:
  - signage (a pylon estate sign approximately 5 m high and individual tenant signage adjacent to each office)
  - car parking (149 vehicular spaces):
    - Warehouse 1A: 32 spaces
    - Warehouse 1B/ 1C: 61 spaces
    - Warehouse 2: 56 spaces
  - landscaping

- retaining walls
- utility infrastructure and services connection
- stormwater management including naturalised open channel drainage as well as below ground on-site detention of stormwater
- construction and dedication of new local roads (south of Lot 1 and separating Lot 1 and Lot 2) and an interim intersection with Aldington Road
- subdivision of the site into two Torrens title allotments along with a road reserve lot for the widening of Aldington Road.

This report has been prepared to address the Secretary's Environmental Assessment Requirements (SEARs) issued for the project (SSD-23480429) dated 30 July 2021 and additional SEARs issued on 25 March 2022. It also addresses the Test of Adequacy comments received on 1 October 2021. The report also considers a number of RtS related correspondence and discussions with DPHI.

This NIA has been prepared to respond to the SEARs and additional DPHI requirements listed in Table 1.1.

**Table 1.1 SEARs and additional DPHI requirements**

| Item | Description of requirement | Section reference / Comment |
|---|---|---|
| Noise and Vibration | A quantitative noise and vibration impact assessment undertaken by a suitably qualified acoustic consultant in accordance with the relevant Environment Protection Authority guidelines and Australian Standards which includes: | |
| | • the identification of impacts associated with construction, site emission and traffic generation at noise affected sensitive receivers, including the provision of operational noise contours and a detailed sleep disturbance assessment | Sections 3, 4 and 5.1 |
| | • details of noise monitoring survey, background noise levels, noise source inventory and 'worst case' noise emission scenarios | Sections 2 and 4 |
| | • consideration of annoying characteristics of noise and prevailing meteorological conditions in the study area | Section 4 |
| | • a cumulative impact assessment inclusive of impacts from other developments | Section 3 |
| | • details and analysis of the effectiveness of proposed management and mitigation measures to adequately manage identified impacts, including a clear identification of residual noise and vibration following application of mitigation these measures and details of any proposed compliance monitoring programs. | Section 6 |

| Item | Description of requirement | Section reference / Comment |
|---|---|---|
| Noise and Vibration (DPE Additional) | • The operational noise assessment must consider the development of a Noise Management Precinct (see section 2.8 of the Noise Policy for Industry (2017) (NPfI)) and the method for deriving amenity noise levels in areas near an existing or proposed cluster of industry (see section 2.4.2 of the NPfI (2017)). All developable industrial zoned land within the Mamre Road Precinct and any existing/approved industrial sites near the precinct must be considered when using section 2.4.2 of the NPfI to derive project amenity noise levels. | Section 3 |
| | • Operational noise assessment must be accompanied by a sensitivity analysis of the likely noise emissions from the range of anticipated tenants and industries. A worst-case source emission inventory need to be established from verifiable data to describe how noise would be generated by each operational activity (e.g. internal, external), each type of truck (e.g. rigid truck, semi-trailer, B-double, A-double), the specific vehicle manoeuvre (e.g. up ramp, down ramp, reversing, general forward movement) that would be performed, and any incidental noise that would be generated by the goods handling process. Contingency factors adopted must be identified in the Environmental Impact Assessment (EIS), or reasons for not incorporating contingency factors provided. Any attempts to omit the consideration of internal breakout noise must be well informed and appropriately justified in the EIS. | Section 6 |

| Item | Description of requirement | Section reference / Comment |
|---|---|---|
| Noise and Vibration (DPHI Additional – based on previous NVIA by PWNA) | • There are discrepancies between the EIS, Noise and Vibration Impact Assessment (NVIA) and Visual Impact Assessment (VIA) in relation to the height and location of the solid fences and walls. The Applicant is required to update the EIS, NVIA and VIA to resolve the discrepancy. | Appendix A - based on current architectural drawing |
| | • A key requirement of the SEARs is that the NVIA must address cumulative impacts of other existing and proposed developments. For noise associated with the operation of the development, the NVIA should consider the provisions given in section 2.4 (amenity noise levels and project amenity noise levels) and section 2.8 (noise management precincts) of the NPfI. | Section 3 – as above |
| | • For site related traffic operating on public roads, the NVIA should undertake the assessment in accordance with the Road Noise Policy (RNP) and address the change in road function across the immediate and surrounding road network as well as any transitions between road categories when setting noise criteria. For road traffic noise assessment, further guidance can be found in Roads and Maritime's Noise Criteria Guideline | Section 3.4 |
| | • The detail provided on meteorological conditions is not adequate. Section 2 of the NVIA states 'a mild temperature inversion is considered within the ISO 9613-2:1996 algorithm'. Further detail is required on what the prevailing weather conditions for the area are, how the conditions were determined, what impacts the conditions may have on the noise levels at the site and at receivers and whether a 'mild' temperature inversion sufficiently addresses any noise enhancing conditions that may be present in this locality. | Section 4.2.4 |
| | • The modelled scenarios must represent all reasonable worse-case operational activities that may occur. The noise modelling scenario appears to be limited and does not include sources such as heavy vehicle types, vehicle swept paths, trucks accelerating, decelerating and reversing, noise breaking out of the facility, etc. The NVIA should be updated to include a noise emission inventory that accurately describes how noise would be generated by the operation of the development, including the quantities and locations of noise sources that have been assessed. The NVIA must clearly describe (in plain English) the noise emission assumptions (e.g. forward speed, reversing speed, duration of loading/unloading, source path footprint), how noise would be generated by the operations and the characteristics of the noise sources (including the potential for impulsive noise, intermittent noise, low frequency noise, etc). Furthermore, the NVIA should provide references to the input assumptions in Table 6-1. It is also unclear how the maximum noise sources contribute to the assessment of LAeq noise levels. | Section 4.2 and Appendix B |
| | • The NVIA should amended to include the details and analysis of the effectiveness of proposed management and mitigation measures to adequately manage identified impacts, including a clear identification of residual noise and vibration following application of mitigation these measures and details of any proposed compliance monitoring programs. | Section 7 |

Notes: 1. Considering the extent of the WSAP and MRP, potential other noise sources within the precinct and much closer to assessment locations, dynamic nature of surrounding environment and predicted compliance for this site with NPfI amenity criteria, the preparation of noise contours was not considered valid

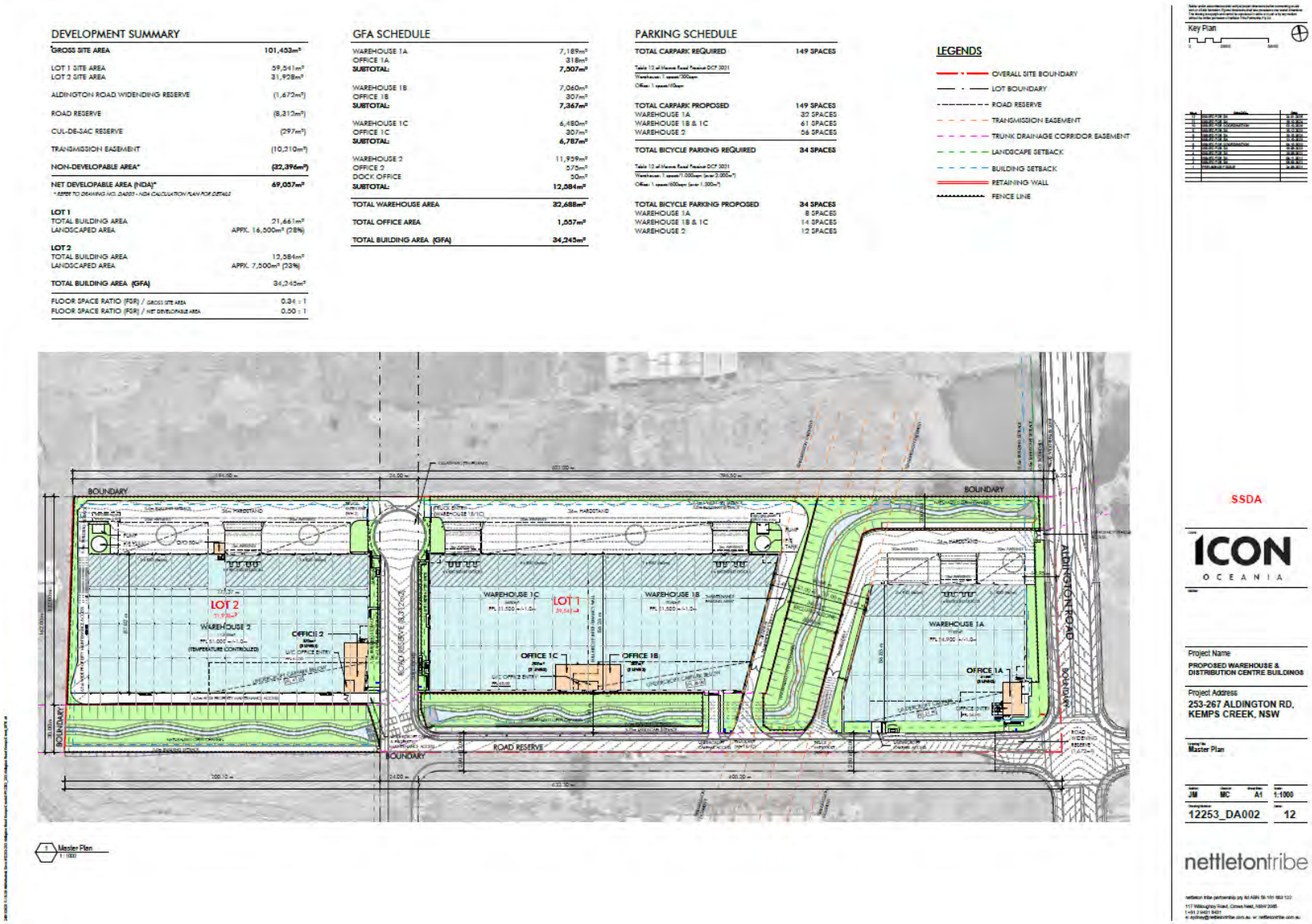



**Figure 1.1 Site Masterplan**

## 1.1 Glossary of acoustic terms

A number of technical acoustic descriptions are used in this report. A list of terms and a brief explanation are provided in Table 1.2.

**Table 1.2 Glossary**

| Abbreviation or term | Definition |
|---|---|
| ABL | The assessment background level (ABL) is defined in the INP as a single figure background level for each assessment period (day, evening and night). It is the tenth percentile of the measured $L_{A90}$ statistical noise levels. |
| Amenity noise criteria | The amenity noise criteria relate to the overall level of industrial noise. Where existing levels of industrial noise (excluding the subject development) approach the acceptable amenity noise criteria, then noise levels from new industries need to demonstrate that they will not be an additional contributor to existing industrial noise. |
| A-weighting | There are several different weightings utilised for describing noise, the most common being the 'A-weighting'. This attempts to closely approximate the frequency response of the human ear. |
| C-weighting | There are several different weightings utilised for describing noise, with the 'C-weighted' scale typically used to assess low frequency noise and is also utilised in the assessment of occupational noise. |
| Day period | Monday–Saturday: 7.00 am to 6.00 pm, on Sundays and public holidays: 8.00 am to 6.00 pm. |
| dB | Noise is measured in units called decibels (dB). |
| DPHI | Department of Planning, Housing and Infrastructure |
| EPA | The NSW Environment Protection Authority (formerly the Department of Environment, Climate Change and Water). |
| Evening period | Monday–Saturday: 6.00 pm to 10.00 pm, on Sundays and public holidays |
| Intrusive noise criteria | The intrusive noise criteria refers to noise that intrudes above the background level by more than 5 dB. The intrusiveness criterion is described in detail in Section 3.1.1. |
| $L_{A1}$ | The A-weighted noise level exceeded for 1% of the time. |
| $L_{A90}$ | The A-weighted noise level which is exceeded 10% of the time. It is roughly equivalent to the average of maximum noise level. |
| $L_{A90}$ | The A-weighted noise level that is exceeded 90% of the time. Commonly referred to as the background noise level. |
| $L_{Aeq}$ | The A-weighted energy average noise level. This is the equivalent continuous sound pressure level over a given period. The $L_{Aeq(15\text{-minute})}$ descriptor refers to an $L_{Aeq}$ noise level measured over a 15 minute period. |
| $L_{Amax}$ | The maximum A-weighted sound pressure level received during a measurement interval. |
| Night period | Monday–Saturday: 10.00 pm to 7.00 am, on Sundays and public holidays: 10.00 pm to 8.00 am. |
| RBL | The rating background level (RBL) is an overall single value background level representing each assessment period over the whole monitoring period. The RBL is used to determine the intrusiveness criteria for noise assessment purposes and is the median of the average background levels. |
| RtS | Response to Submissions |
| SEARs | Secretary's environmental assessment requirements |
| Sound power level ($L_w$) | A measure of the total power radiated by a source. The sound power of a source is a fundamental property of the source and is independent of the surrounding environment. |

| Abbreviation or term | Definition |
|---|---|
| Temperature inversion | A meteorological condition where the atmospheric temperature increases with altitude. |

## 1.2 Common noise levels

It is useful to have an appreciation of decibels (dB), the unit of sound measurement when reading this assessment. Table 1.3 gives some practical indication of what an average person perceives about changes in noise levels.

**Table 1.3 Perceived change in noise**

| Change in sound level (dB) | Perceived change in noise |
|---|---|
| 3 | Just perceptible |
| 5 | Noticeable difference |
| 10 | Twice (or half) as loud |
| 15 | Large change |
| 20 | Four times as loud (or quarter) as loud |

Examples of common noise levels are provided in Figure 1.2.

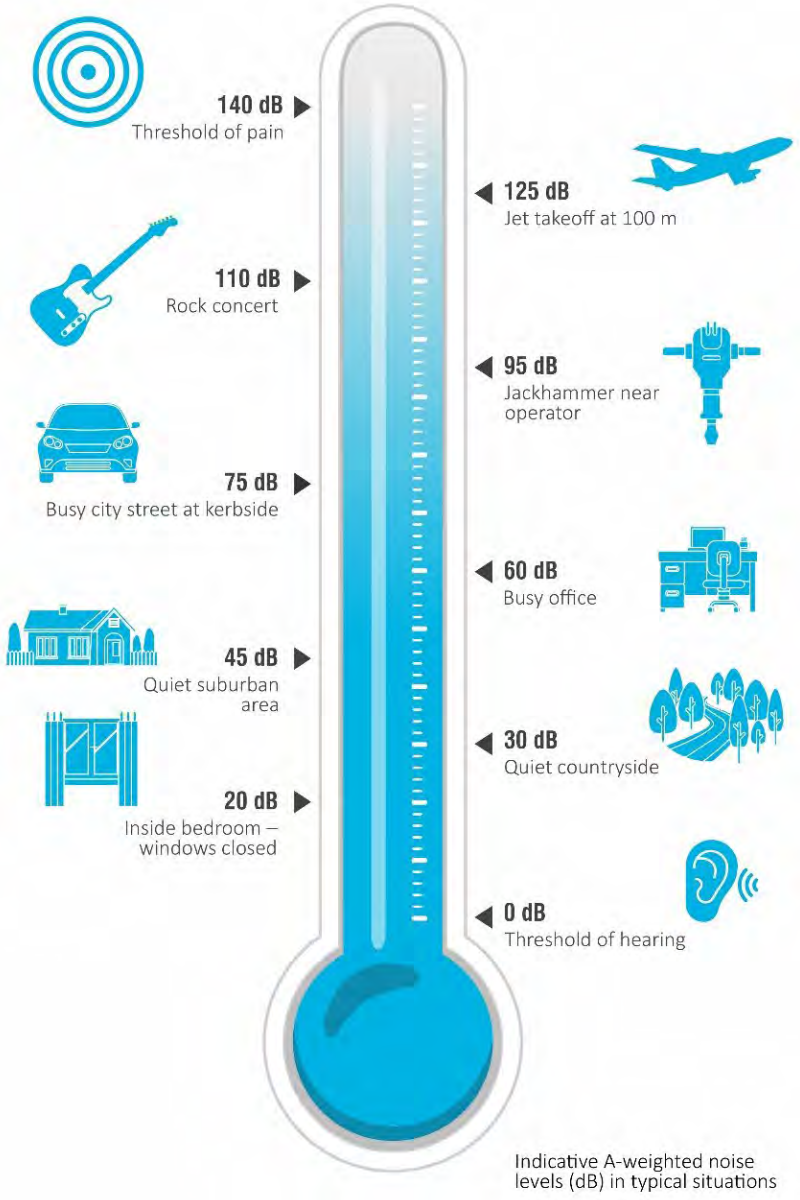



**Figure 1.2** **Common noise levels**

# 2 Site and surrounding area

## 2.1 The site

The site is known as 253–267 Aldington Road, Kemps Creek NSW and is legally described as Lot 9 in Deposited Plan (DP) 253503. The site is rectangular in shape with an area of approximately 10 hectares (ha).

The site has a primary frontage along its eastern boundary to Aldington Road of 160 m and a depth of 630 m. The site is currently occupied by a dwelling house, sheds and agricultural land.

The site is undulating in parts but longitudinally falls slightly from Aldington Road at an RL 54.00 to the western boundary with an RL 44.00 which equates to an average grade of 1.5%. The site also falls across the site from north to south at an average grade of 4.3%.

The site is burdened by a 60.96 m wide Transgrid easement which runs north–south through the site. The easement is known as 'Dapto – Sydney West 330 kV Easement' and there is presently no high voltage transmission line infrastructure.

The site is approximately 5 kilometres (km) north-east of the Western Sydney International (Nancy-Bird Walton) Airport currently under construction, 14 km south-east of Penrith CBD and 38 km west of the Sydney CBD.

The site is located within the suburb of Kemps Creek, which falls within the Penrith Local Government Area (LGA). It is in the Mamre Road Precinct (MRP) within the broader Western Sydney Employment Area (WSEA) and is surrounded by rural residential land uses that are rapidly transitioning to commercial and industrial premises in accordance with the zoning and proposed land uses permitted within that zone. The MRP falls within the greater Western Sydney Aerotropolis Precinct. (WSAP).

Multiple state significant developments (SSDs) and local development applications (DAs) are currently being progressed for industrial and warehouse development within the MRP which will substantially change the nature of the surrounding area.

The surrounding land uses include:

- **north**: Pastoral/farmland extends towards the elevated Bakers Lane. Several properties have been purchased by developers for industrial development; these include Frasers and Fife Stockland with construction commencing. In addition, the BAPS Swaminarayan Hindu Temple located north of the site at 230-242 Aldington Road, Kemps Creek is currently under construction.
- **South**: Farm and pastoral lands with rural residential properties scattered within the landscape. The Mamre Road precinct extends further beyond Abbotts Road. A locally listed heritage item is located at 282 Aldington Road to the south-east.
- **East**: The site is bound to the east by Aldington Road. On the opposite side of Aldington Road several properties have been purchased in seeking approval for industrial development. Land rises to the east to the residential E4 Environmental Living zone beyond at Mount Vernon.
- **West**: Farm and pastoral lands to Mamre Road and beyond. Sites on Mamre Road have been purchased for industrial uses. Further to the west is Twin Lakes Estate at Luddenham providing for rural residential properties.

All land in the immediate surrounding context to the north, east and south is zoned for industrial uses and wholly contained within the MRP and WSAP.

## 2.2 Assessment locations

The sensitive receiver areas surrounding the project site have been selected and used for the purpose of assessing noise from the project to the residences outside of the MRP and WSAP that will remain following the development of these precincts. The assessment has also considered the BAPS Temple currently under construction. These are described and summarised in Table 2.1 and shown in Figure 2.1.

This approach has been taken by EMM following a review of a number of current development consents within the MRP and greater WSAP and consents granted by NSW Department of Planning, Housing and Infrastructure (DPHI) that demonstrate whilst residences within these precincts have existing use rights to occupy the land as residential dwellings, they are not entitled to a residential noise amenity that would result in the sterilisation of the industrial rezoned land and not permit development for its intended use.

Examples of recent applications and consents from the Department of Planning within the Aerotropolis Precinct (including Mamre Road) confirm that noise limits are no longer applied to residences within the precincts. For example:

- 754-786 Mamre Road, Kemps Creek – SSD-10272349
- 788-882 Mamre Road, Kemps Creek – SSD-10448
- 106-228 Aldington Road, Kemps Creek – SSD-10479
- Westlink Industrial Estate – SSD-9138102.

Notwithstanding that normal residential noise limits are not applied to residences within MRP and WSAP or applied to isolated residences within an industrial area under the NPfI, this was not accepted by DPHI in this instance. DPHI has requested the assessment to consider existing residual residences located within the MRP and determine their noise exposure. Subject to noise exposure and adopted noise assessment goals, DPHI has indicated that negotiated agreements for the purpose of the provision of noise controls for the dwelling may be required in the short to medium term for retained residential receivers until they are either vacant and/or subject to a development application for industrial/commercial use. Receivers within the MRP or greater Aerotropolis are identified in Table 2.2 and Figure 2.2.

The assessment has considered the three key noise catchment areas (NCAs) surrounding the site, comprising:

- NCA1 – West / north-west - Residential
  - Twin Lakes Estate at Luddenham providing for rural residential properties specifically Medinah Avenue, Pennard Crescent, Woodhall Place and Ganton Way.
- NCA2 – north-east
  - BAPS Swaminarayan Hindu Temple site and built form as documented here .
    - Adopting the central Temple Building Terrace at FFL 74.5m (existing RL 60.0m)
    - Adopting Mandir western forecourt FFL 86.5m existing RL 82.0m)
- NCA3 – east / south-east – Residential
  - existing rural properties located at Mount Vernon specifically Mount Vernon Road and Kerrs Road.

## Table 2.1 Assessment locations – outside MRP / Aerotropolis

| Assessment location | NCA | Zone | Coordinates | |
|---|---|---|---|---|
| | | | Eastings | Northings |
| R1 | NCA1 – west / north-west | MGA Grid 56 | 293211.4 | 6253579.5 |
| R2 | NCA1 – west / north-west | MGA Grid 56 | 293337.6 | 6253398.0 |
| R3 | NCA1 – west / north-west | MGA Grid 56 | 293271.2 | 6253227.5 |
| R4 | NCA1 – west / north-west | MGA Grid 56 | 293273.5 | 6253090.2 |
| R5 | NCA1 – west / north-west | MGA Grid 56 | 292879.5 | 6253034.6 |
| R6 | NCA1 – west / north-west | MGA Grid 56 | 292874.9 | 6252692.7 |
| R7 | NCA1 – west / north-west | MGA Grid 56 | 292827.6 | 6252520.9 |
| R8 | NCA1 – west / north-west | MGA Grid 56 | 292865.3 | 6252429.4 |
| R9 | NCA1 – west / north-west | MGA Grid 56 | 292746.9 | 6252119.8 |
| R10 | NCA1 – west / north-west | MGA Grid 56 | 292626.7 | 6251863.3 |
| T1 | NCA2 – north-east – BAPS Temple | MGA Grid 56 | 296410.5 | 6252216.6 |
| T2 | NCA2 – north-east – BAPS Mandir | MGA Grid 56 | 296661.0 | 6252197.0 |
| R11^ | NCA3 – east / south-east | MGA Grid 56 | 295796.7 | 6250699.1 |
| R12 | NCA3 – east / south-east | MGA Grid 56 | 296097.4 | 6250682.7 |
| R13 | NCA3 – east / south-east | MGA Grid 56 | 296330.8 | 6250663.2 |
| R14 | NCA3 – east / south-east | MGA Grid 56 | 296495.4 | 6250651.3 |
| R15 | NCA3 – east / south-east | MGA Grid 56 | 296645.0 | 6250821.8 |
| R16 | NCA3 – east / south-east | MGA Grid 56 | 296688.4 | 6251055.2 |
| R17 | NCA3 – east / south-east | MGA Grid 56 | 296864.9 | 6251164.4 |
| R18 | NCA3 – east / south-east | MGA Grid 56 | 297114.7 | 6251330.5 |
| R19 | NCA3 – east / south-east | MGA Grid 56 | 297193.5 | 6251481.2 |
| R20 | NCA3 – east / south-east | MGA Grid 56 | 297354.1 | 6251667.1 |
| R21 | NCA3 – east / south-east | MGA Grid 56 | 297358.3 | 6251862.9 |
| R22 | NCA3 – east / south-east | MGA Grid 56 | 297418.8 | 6252051.6 |
| R23 | NCA3 – east / south-east | MGA Grid 56 | 297525.7 | 6252226.7 |
| R24 | NCA3 – east / south-east | MGA Grid 56 | 297688.9 | 6252383.3 |

Notes: ^ within WSAP

## Table 2.2 Assessment locations – within MRP / WSAP

| Assessment location | Address | Zone | Coordinates | |
|---|---|---|---|---|
| | | | Eastings | Northings |
| R_MRP_1 | 269 Aldington Road, Kemps Creek | MGA Grid 56 | 296002 | 6251791 |
| R_MRP_2 | 284-288 Aldington Road, Kemps Creek | MGA Grid 56 | 296083 | 6251770 |
| R_MRP_3 | 282 Aldington Road, Kemps Creek | MGA Grid 56 | 296235 | 6251763 |
| R_MRP_4 | 272 Aldington Road, Kemps Creek | MGA Grid 56 | 296671 | 6251752 |
| R_MRP_5 | 287 Aldington Road, Kemps Creek | MGA Grid 56 | 295979 | 6251650 |
| R_MRP_6 | 1016-1028 Mamre Road, Kemps Creek | MGA Grid 56 | 296118 | 6251382 |
| R_MRP_7 | 1016-1028 Mamre Road, Kemps Creek | MGA Grid 56 | 296173 | 6251303 |
| R_MRP_8 | 1005-1023 Mamre Road, Kemps Creek | MGA Grid 56 | 295516 | 6251542 |
| R_MRP_9 | 983 Mamre Road, Kemps Creek | MGA Grid 56 | 295489 | 6251606 |
| R_MRP_10 | 983B Mamre Road, Kemps Creek | MGA Grid 56 | 295452 | 6251717 |
| R_MRP_11 | 967-981 Mamre Road, Kemps Creek | MGA Grid 56 | 295415 | 6251798 |
| R_MRP_12 | 967-981B Mamre Road, Kemps Creek | MGA Grid 56 | 295361 | 6251914 |
| R_MRP_13 | 949-965 Mamre Road, Kemps Creek | MGA Grid 56 | 295346 | 6251940 |
| R_MRP_14 | 930B Mamre Road, Kemps Creek | MGA Grid 56 | 295443 | 6252037 |
| R_MRP_15 | 930-966 Mamre Road, Kemps Creek | MGA Grid 56 | 295436 | 6252115 |
| R_MRP_16 | 949-965B Mamre Road, Kemps Creek | MGA Grid 56 | 295231 | 6252041 |
| R_MRP_17 | 930A Mamre Road, Kemps Creek | MGA Grid 56 | 295357 | 6252349 |
| R_MRP_18 | 919-929 Mamre Road, Kemps Creek | MGA Grid 56 | 294773 | 6252059 |
| R_MRP_19 | 901 Mamre Road, Kemps Creek | MGA Grid 56 | 294814 | 6252191 |
| R_MRP_20 | 258-270 Aldington Road, Kemps Creek | MGA Grid 56 | 296545 | 6251931 |

## 2.3 Existing noise environment

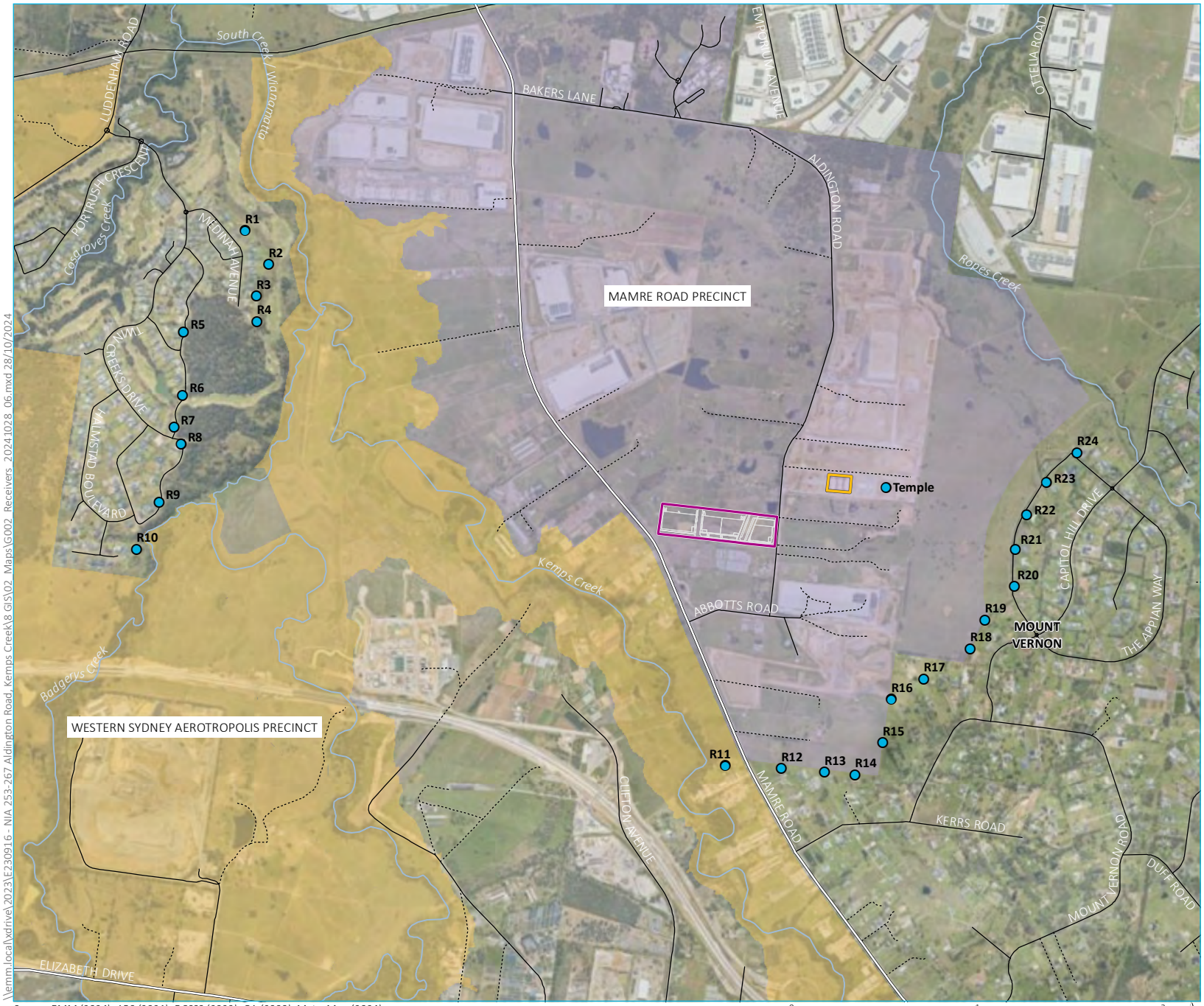
The process of establishing noise criteria for construction and operational activities typically requires the determination of background noise levels. However, it is important to note that area is and will continue to undergo a substantial period of development and that baseline ambient noise levels currently being enjoyed will also change, consistent with this project. The relevant methodology for this process, including siting of noise loggers, calculation of the rating background noise level (RBL) and filtering for meteorological conditions, is outlined in Fact Sheet B of the NPfI.

This is reflected in the SEARs and the Mamre Road Precinct development Control Plan 2021 (November 2021) – Section 4.3, that a NIA should describe the existing acoustic environment surrounding a project. A preliminary noise assessment was prepared for this project in September 2021[1] and confirmed background $L_{A90}$ noise levels in the order of 37-39 dB during the day / evening and 34 dB at night, whilst ambient $L_{Aeq}$ levels were 50-53 dB during the day / evening and 47 dB at night.

Similar historic measurements have been conducted for Westlink Industrial development (SSD-9138102) which confirmed adopted background $L_{A90}$ noise levels of 35 dB, 33 dB and 33 dB for day, evening and night respectively. Measurements contained within the WSA EIS for Mount Vernon confirmed similar background $L_{A90}$ noise levels of 35 dB, 35 dB and 33 dB for day, evening and night respectively Ambient noise levels within the Twin Creeks, Luddenham areas would be expected to be historically quite low.

In terms of considering the intrusive noise goals at the request of DPHI, this assessment has considered the above noise levels and adopted background $L_{A90}$ levels of 35 dB day, 33 dB evening and 33 dB night.

[1] Pulse White Noise Acoustics – Westgate Industrial Estate, Kemps Creek – Noise and Vibration Impact Assessment. Report number: 210256

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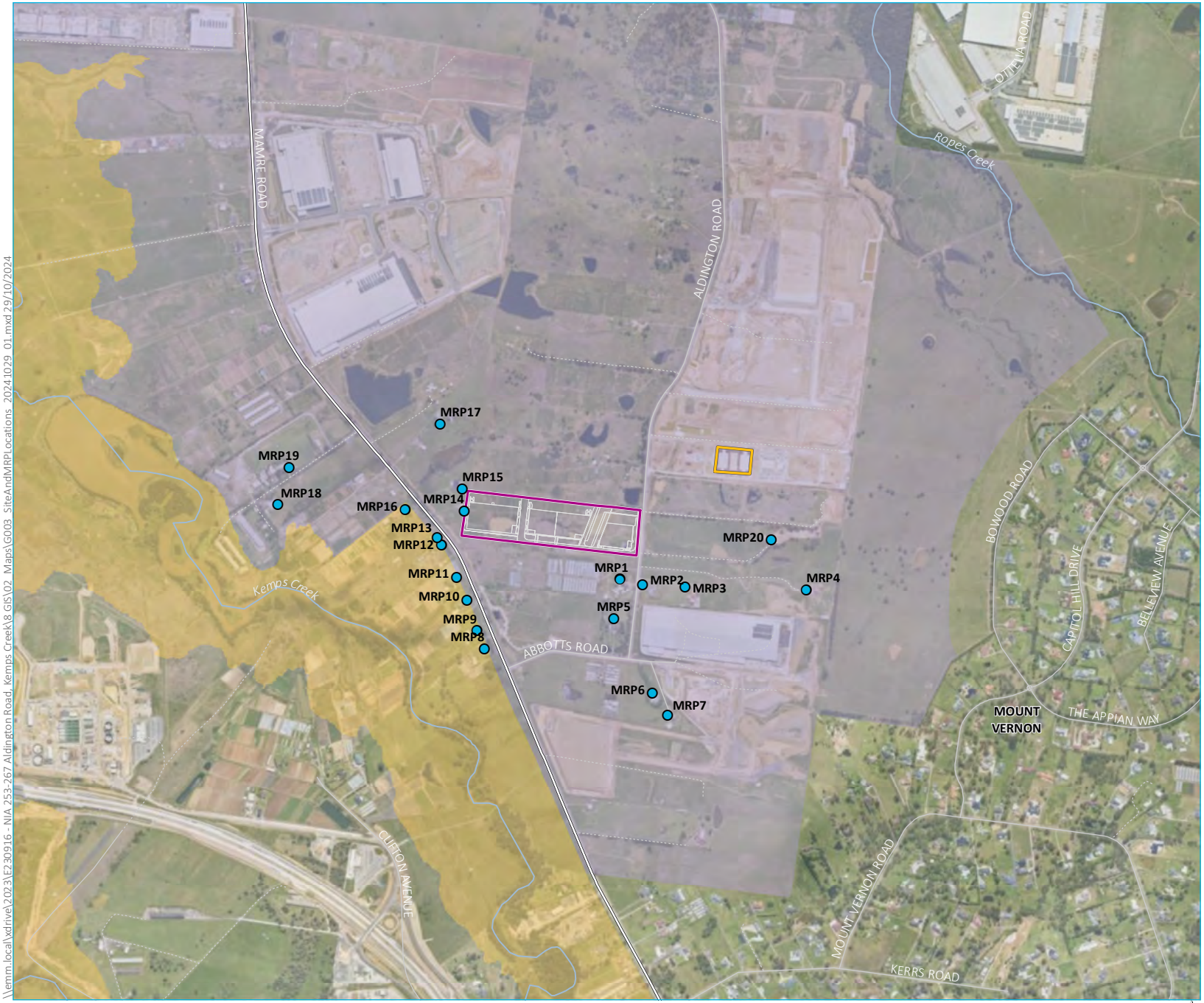
*Source: EMM (2024); ABS (2021); DCSSS (2023); GA (2009); MetroMap (2024)*

## Site and assessment locations

Westgate Estate
253-267 Aldington Road, Kemps Creek NSW
Noise Impact Assessment
Figure 2.1

EMM creating opportunities




KEY

- Noise assessment location
- Site boundary
- Temple site
- Proposed layout

Precinct boundary

- Mamre Road
- Western Sydney Aerotropolis

Existing environment

- Major road
- Minor road
- Vehicular track
- Named watercourse

Source: EMM (2024); ABS (2021); DCSSS (2023); GA (2009); MetroMap (2024)

0 0.5 1 km

GDA2020 MGA Zone 56

N

\\emm.local\xdrive\2023\E230916 - NIA 253-267 Aldington Road, Kemps Creek\8 GIS\02 Maps\G003 SiteAndMRPLocations 20241029 01.mxd 29/10/2024

# Site and MRP assessment locations

Westgate Estate
253-267 Aldington Road, Kemps Creek NSW
Noise Impact Assessment
Figure 2.2

EMM
creating opportunities

# 3 Assessment guidelines

## 3.1 Operational noise

Noise from development in NSW is regulated by the local council, Department of Planning and Environment (DPE) and/or the EPA, and sites generally have a licence and/or development consent conditions stipulating noise limits. These limits are typically derived from project specific trigger or operational noise levels predicted at assessment locations. They are based on EPA guidelines (e.g. NPfI) or noise levels that can be achieved by a specific site following the application of all reasonable and feasible noise mitigation.

The objectives of noise trigger levels established in accordance with the NPfI are to protect the community from excessive intrusive noise and preserve amenity for specific land uses. It should be noted that the audibility of a noise source does not necessarily equate to disturbance at an assessment location.

To ensure these objectives are met, the EPA provides project specific noise trigger levels, namely intrusiveness and amenity.

### 3.1.1 Intrusiveness noise levels

The NPfI intrusiveness noise triggers require that $L_{Aeq,15min}$ noise levels (energy average noise level over a 15-minute period) from the project do not exceed the rated background level (RBL) by more than 5 dB during the relevant operational periods. The intrusiveness noise levels are only applicable at residential assessment locations.

Due to the nature of the rezoning and redevelopment of these precincts adjacent pre-existing residential properties that are also rezoned industrial, the intrusive noise triggers do not typically apply, and noise from projects are normally assessed under the amenity noise level guidelines as outlined in approvals granted by DPHI in MRP and WSAP, in accordance with the NPfI. However further correspondence with DPHI has outlined that they also seek consideration of the intrusive noise levels.

### 3.1.2 Amenity noise levels

The assessment of amenity is based on noise levels specific to the land use. The noise levels relate only to industrial noise and exclude road or rail traffic noise. Where the measured existing industrial noise approaches recommended amenity noise levels, it needs to be demonstrated that noise levels from new developments will not contribute to existing industrial noise such that amenity noise levels are exceeded.

To ensure that industrial noise levels remain within the recommended amenity noise levels for an area and address potential for cumulative noise, the project amenity noise level for a new industrial development is the recommended amenity noise level (outlined in Table 2.2 of the NPfI) minus 5 dB. It is noted that this approach is based on a receiver being impacted by multiple industrial sites (or noise sources), typically three to four of equal noise contribution. It is acknowledged that with the full development of the WSAP and MRP that are significantly closer to the reference assessment locations, noise emissions from this project would not ultimately contribute to received noise levels and closer uses would dominate.

Residential areas potentially affected by the project's operational noise are located to the east and west, whilst a place of worship site (BAPS Temple) is located to the north-east. The project amenity noise levels for the identified assessment locations are presented in Table 2.1 based on a suburban noise amenity area consistent with the definitions of the NPfI. The NPfI defines suburban as an area that has local traffic with characteristically intermittent traffic flows or with some limited commerce or industry. This area often has the following characteristic: evening ambient noise levels defined by the natural environment and human activity.

In reality the acoustic environment of Mount Vernon, Twin Creeks Estate, Luddenham and BAPS Temple shortly will transition to an Urban noise amenity under the definitions of the NPfI, which is an area with an acoustical environment that:

- is dominated by 'urban hum' or industrial source noise, where urban hum means the aggregate sound of many unidentifiable, mostly traffic and/or industrial related sound sources
- has through-traffic with characteristically heavy and continuous traffic flows during peak periods
- is near commercial districts or industrial districts
- has any combination of the above.

Notwithstanding the above, DPHI has advised that a rural amenity noise level should be considered. We note that the adoption of rural amenity recommendations of the NPfI only changes the less sensitive day time period, with evening and night periods remaining consistent between rural and suburban.

**Table 3.1 Amenity noise levels**

| Assessment location | Time period[1] | Indicative area | Project amenity noise level[2] dB, $L_{Aeq,Period}$ |
|---|---|---|---|
| R1-R24 | Day<br>Evening<br>Night | Rural | 45 (50–5)<br>40 (45–5)<br>35 (40–5) |
| BAPS Temple | When in use | Place of worship | 60 (external)[3]<br>40(internal) |

Source: NPfI (EPA 2017)

Notes:

1. Day: 7.00 am to 6.00 pm Monday to Saturday; 8.00 am to 6.00 pm Sundays and public holidays; evening: 6.00 pm to 10.00 pm; night: 10.00 pm to 7.00 am Monday to Saturday; 10.00 pm to 8.00 am Sundays and public holidays.
2. Project amenity noise level is Amenity noise level (Table 2.2 of NPfI) -5 dB in accordance with NPfI Section 2.4.2 assuming three to four industrial sites contributing to noise levels.
3. Internal noise level – equivalent external noise level of 60dB assuming windows closed and 20 dB reduction across building façade.

With respect to the BAPS Temple, it is noted in the Council Assessment Report and the BAPS Temple NIA that windows and doors would be closed during use of the premises in order to control noise emissions from the facility. On this basis it is reasonable to assume that a 20 dB noise reduction could be provided for a closed window / door façade and the equivalent external noise amenity level applied for this place of worship could be $L_{Aeq,period}$ 60 dB external.

### 3.1.3 Project noise goals

With respect to this project, the noise assessment has considered that there could be three to four separate sites that could impact the nearest reference assessment locations, acknowledging in the near future there will be many other commercial and industrial sites between this project and much closer to the assessment locations.

To rationalise the approach adopted by this NVIA in determining the amenity noise goals, EMM in conjunction with Urbis compiled a list of current approved and under review developments within MRP (as required by DPHI's SEARs). The analysis consisted of reviewing the applications and confirming the worst case predicted noise levels for Mount Vernon and/or Twin Creeks Estate, Luddenham under the NVIA submitted for the SSDA to DPHI or DA to Council, and also a review of the noise limits imposed by corresponding CoAs. The outcome of the levels for day, evening and night for each development were analysed and the cumulative $L_{Aeq,15min}$ noise levels for each assessment period determined.

Following analysis, the worst case predicted noise levels for Westgate were applied for Mount Vernon and Twin Creeks Estate, Luddenham locations and confirmed that the cumulative baseline rural amenity noise levels would not be exceeded.

**Table 3.2 Project amenity noise levels**

| Assessment location | Time period[1] | Project intrusive noise level dB,$L_{Aeq,15min}$ | Project amenity noise level[2] dB,$L_{Aeq,15min}$ | Project noise trigger level[3] dB, $L_{Aeq,15min}$ |
|---|---|---|---|---|
| R1-R24 | Day | 40 | 48 (45+3) | 40 |
| | Evening | 38 | 43 (40+3) | 38 |
| | Night | 38 | 38 (35+3) | 38 |
| BAPS Temple | When in use | 60[4] | | 63[4] |

Source: NPfI (EPA 2017)

1. Day: 7.00 am to 6.00 pm Monday to Saturday; 8.00 am to 6.00 pm Sundays and public holidays; evening: 6.00 pm to 10.00 pm; night: 10.00 pm to 7.00 am Monday to Saturday; 10.00 pm to 8.00 am Sundays and public holidays.
2. Project amenity noise level is Amenity noise level (Table 2.2 of NPfI) -5 dB in accordance with NPfI Section 2.4.2 assuming three to four industrial sites contributing to equivalent noise levels.
3. Project amenity $L_{Aeq,15min}$ noise level is the recommended amenity noise level LAeq,period +3 dB as per the NPfI.
4. External noise level – assuming windows closed and 20 dB reduction across building façade.

### 3.1.4 Sleep disturbance

The NPfI suggests that a detailed maximum noise level event assessment should be undertaken where night-time noise levels at a residential location exceed screening levels of:

- $L_{Aeq,15minute}$ 40 dB or the prevailing RBL plus 5 dB (whichever is the greater)
- $L_{Amax}$ 52 dB or the prevailing RBL plus 15 dB (whichever is the greater).

Guidance regarding potential for sleep disturbance is also provided in the RNP. The RNP calls upon numerous studies that have been conducted into the effect of maximum noise levels on sleep. The RNP acknowledges that, at the current (2011) level of understanding, it is not possible to establish absolute noise level criteria that will correlate to an acceptable level of sleep disturbance.

Additional information is outlined in WHO [World Health Organization] Night Noise Guidelines for Europe (WHO 2009) and the Environmental Noise Guidelines for the European Region: A Systematic Review on Environmental Noise and Effects on Sleep (Basner and McGuire 2018). Further guidance is also provided in the NSW RNP with reference to enHealth "as a rule for planning for short-term or transient noise events, for good sleep over 8 hours the indoor sound pressure level measured as a maximum instantaneous value should not exceed approximately 45 dB(A) $L_{Amax}$ more than 10 or 15 times per night". It is commonly accepted by acoustic practitioners and regulatory bodies (i.e. EPA) that a facade including a partially open window will reduce external noise levels by 10 dB. Therefore, external noise levels in the order of 55 dB calculated at the facade of a residence is unlikely to impact sleep according to the RNP.

If noise levels over the screening criteria are identified, then additional analysis will consider factors such as:

- how often the events will occur
- the time the events will occur
- whether there are times of day when there is a clear change in the noise environment (such as during early morning shoulder periods)
- current scientific literature available regarding the impact of maximum noise level events at night.

Table 3.3 provides the noise level event screening criteria for the residential assessment locations that has adopted a night-time background $L_{A90}$ of 33 dB from historic data, acknowledging that current levels are potentially higher than this and future levels with operation of WSA and full development of the Aerotropolis and Mamre Road Precinct's would be significantly higher.

**Table 3.3 Sleep disturbance screening criteria at residences**

| Assessment location | Adopted night RBL, dB | Night-time maximum noise level event screening criteria, dB | |
|---|---|---|---|
| | | $L_{Aeq,15min}$ | $L_{Amax}$ |
| R1-R24 | 33 | 40 | 52 |

### 3.1.5 Mitigating noise

Where noise levels above the PNTLs are predicted, all feasible and reasonable mitigation are to be considered for the project to reduce noise levels towards the PNTLs, before any residual impacts are determined and addressed.

The significance of the residual noise impacts is generally based around the human perception to changes in noise levels as explained in the glossary of the acoustic terms. For example, a change in noise level of 1 to 2 dB is typically indiscernible to the human ear. The characterisation of a residual noise impact of 0 to 2 dB above the PNTL is therefore considered negligible. Table 4.1 of the NPfI provides a characterisation of residual noise impact as outlined in Table 3.4.

**Table 3.4 Significance of residual noise impacts**

| If the predicted noise level minus the project noise trigger level is: | And the total cumulative industrial noise level is: | Then the significance of the residual noise level is: |
|---|---|---|
| ≤2 dB | Not applicable | Negligible |
| ≥3 but ≤5 dB | Less than recommended amenity noise level, or<br>Greater than recommended amenity noise level, but the increase in total cumulative industrial noise level resulting from development is ≤1 dB. | Marginal |
| ≥ 3 but ≤5 dB | Greater than recommended amenity noise level and the increase in total cumulative industrial noise level resulting from the development is >1 dB. | Moderate |
| >5 dB | Less than or equal to recommended amenity noise level. | Moderate |
| >5 dB | Greater than recommended amenity noise level. | Significant |

Source: NPfI (NSW Government 2017)

## 3.2 Construction noise

The *Interim Construction Noise Guideline* (ICNG) (DECC 2009) has been jointly developed by NSW Government agencies, including the NSW Environment Protection Authority (EPA) and Department of Planning (DoP) (now DPHI). The objectives of the guideline relevant to the planning process are to promote a clear understanding of ways to identify and minimise noise from construction and to identify 'feasible' and 'reasonable' work practices. The guideline recommends standard construction hours where noise from construction activities is audible at residential premises (i.e. assessment locations), as follows:

- Monday to Friday 7.00 am to 6.00 pm
- Saturday 8.00 am to 1.00 pm
- no construction work is to take place on Sundays or public holidays.

The ICNG acknowledges that works outside standard hours may be necessary, however, justification should be provided to the relevant authorities.

The ICNG provides two methodologies to assess construction noise emissions. The first is a quantitative approach, which is suited to major construction projects with typical durations of more than three weeks. This method requires noise emission predictions from construction activities at the nearest assessment locations and assessment against ICNG recommended noise levels.

The second is a qualitative approach, which is a simplified assessment process that relies more on noise management strategies. This method is suited to short-term infrastructure and maintenance projects of less than three weeks.

This assessment has adopted a quantitative approach. The qualitative aspects of the assessment include identification of assessment locations, description of works involved including predicted noise levels and proposed management measures that include a complaints handling procedure.

### 3.2.1 Construction noise management levels - residents

Table 3.5 provides ICNG noise management levels (NML) which apply to residential assessment locations.

**Table 3.5 ICNG construction noise management levels for residences**

| Time of day | NML $L_{Aeq,15min}$ | Application |
|---|---|---|
| Recommended standard hours: Monday to Friday 7.00 am to 6.00 pm, Saturday 8.00 am to 1.00 pm, no work on Sundays or public holidays | Noise-affected RBL + 10 dB | The noise-affected level represents the point above which there may be some community reaction to noise.<br>• Where the predicted or measured $L_{Aeq,15min}$ is greater than the noise-affected level, the proponent should apply all feasible and reasonable work practices to meet the noise affected level.<br>• The proponent should also inform all potentially impacted residents of the nature of works to be carried out, the expected noise levels and duration, as well as contact details. |

| Time of day | NML $L_{Aeq,15min}$ | Application |
|---|---|---|
| | Highly noise affected 75 dBA | The highly noise-affected level represents the point above which there may be strong community reaction to noise.<br>• Where noise is above this level, the relevant authority (consent, determining or regulatory) may require respite periods by restricting the hours that the very noisy activities can occur, taking into account:<br>1. times identified by the community when they are less sensitive to noise (such as before and after school for works near schools, or mid-morning or mid-afternoon for works near residences)<br>2. if the community is prepared to accept a longer period of construction in exchange for restrictions on construction times. |
| Outside recommended standard hours | Noise-affected RBL + 5 dB | • A strong justification would typically be required for works outside the recommended standard hours.<br>• The proponent should apply all feasible and reasonable work practices to meet the noise affected level.<br>• Where all feasible and reasonable practices have been applied and noise is more than 5 dBA above the noise-affected level, the proponent should negotiate with the community.<br>• For guidance on negotiating agreements see Section 7.2.2 of the ICNG. |

Source: ICNG (EPA 2009).

### 3.2.2 Construction noise management levels – other noise sensitive land uses

Table 3.6 summarises the ICNG recommendations and provides NML for other land uses.

**Table 3.6 ICNG noise levels at other land uses**

| Land use | Management level, $L_{Aeq,15min}$ dB |
|---|---|
| Industrial premises | External noise level 75 dB (when in use) |
| Offices, retail outlets | External noise level 70 dB (when in use) |
| Hotels[1] | External noise level 65 dB (7 am to 10 pm) 60 dB (10 pm to 7 am) |
| Classrooms at schools and other educational institutions | Internal noise level 45 dB (when in use) |
| Hospital wards and operating theatres | Internal noise level 45 dB (when in use) |
| Places of worship | Internal noise level 45 dB (when in use) |
| Active recreation areas | External noise level 65 dB (when in use) |
| Passive recreation areas | External noise level 60 dB (when in use) |

Source: ICNG (DECC 2009).

1. NML based on AS2017 recommend maximum internal noise level and the premise that windows and doors for such development would typically remain closed, providing 20 dB of outdoor to indoor construction noise level reduction.

### 3.2.3 Project specific construction noise management levels

The project construction NMLs for recommended standard and out of hour periods are presented in Table 3.7 for all assessment locations based conservatively on historic background noise levels referenced in Section 0. Construction activities associated with the project have been assessed based on standard construction hours, however a full range of OOH has been provided for completeness and potential construction activity flexibility.

**Table 3.7 Construction noise management levels – all assessment locations**

| Assessment location | Period | Adopted RBL[1] | NML $L_{Aeq,15min}$ dB |
|---|---|---|---|
| R1-R24 | Day (standard ICNG hours) | 35 | 45 |
| | Day (OOH) | 35 | 40 |
| | Evening (OOH) | 33 | 38 |
| | Night (OOH) | 33 | 38 |
| T1 - Temple | When in use (internal) | n/a | 65 (45 internal)[2] |

Notes:

1. Assuming minimum background noise levels in accordance with NPfI
2. Assuming windows closed during use and minimum 20dB noise reduction

## 3.3 Construction vibration

### 3.3.1 Human perception of vibration

Humans can detect vibration levels which are well below those causing any risk of damage to a building or its contents.

The actual perception of motion or vibration may not in itself be disturbing or annoying. An individual's response to that perception, and whether the vibration is "normal" or "abnormal", depends very strongly on previous experience and expectations, and on other connotations associated with the perceived source of the vibration. For example, the vibration that a person responds to as "normal" in a car, bus or train is considerably higher than what is perceived as "normal" in a shop, office, or dwelling.

Human tactile perception of random motion, as distinct from human comfort considerations, was investigated by Diekmann and subsequently updated in German Standard DIN 4150 Part 2 1999. On this basis, the resulting degrees of perception for humans are suggested by the vibration level categories given in Table 3.8.

Table 3.8 suggests that people will just be able to feel floor vibration at levels of approximately 0.15 millimetres per second (mm/s) and that the motion becomes "noticeable" at a level of approximately 1 mm/s.

**Table 3.8 Peak vibration levels and human perception of motion**

| Approximate vibration level | Degree of perception |
|---|---|
| 0.10 mm/s | Not felt |
| 0.15 mm/s | Threshold of perception |
| 0.35 mm/s | Barely noticeable |
| 1 mm/s | Noticeable |
| 2.2 mm/s | Easily noticeable |

| Approximate vibration level | Degree of perception |
|---|---|
| 6 mm/s | Strongly noticeable |
| 14 mm/s | Very strongly noticeable |

Note: These approximate vibration levels (in floors of building) are for vibration having a frequency content in the range of 8 Hertz (Hz) to 80 Hz.

### 3.3.2 Assessing vibration - a technical guideline

*Environmental Noise Management – Assessing Vibration: a technical guideline* (DEC 2006) (the guideline) is based on BS 6472 – 2008, Evaluation of human exposure to vibration in buildings (1–80 Hz).

The guideline presents preferred and maximum vibration values for the use in assessing human responses to vibration and provides recommendations for measurement and evaluation techniques. At vibration values below the preferred values, there is a low probability of adverse comment or disturbance to building occupants. Where all feasible and reasonable mitigation measures have been applied and vibration values are still beyond the maximum value, it is recommended that the operator negotiate directly with the affected community.

The guideline defines three vibration types and provides direction for assessing and evaluating the applicable criteria. Table 2.1 of the guideline provides examples of the three vibration types and has been reproduced in Table 3.9.

**Table 3.9 Examples of types of vibration**

| Continuous vibration | Impulsive vibration | Intermittent vibration |
|---|---|---|
| Machinery, steady road traffic, continuous construction activity (such as tunnel boring machinery). | Infrequent: Activities that create up to three distinct vibration events in an assessment period, e.g. occasional dropping of heavy equipment, occasional loading and unloading. Blasting is assessed using ANZEC (1990). | Trains, intermittent nearby construction activity, passing heavy vehicles, forging machines, impact pile driving, jack hammers. Where the number of vibration events in an assessment period is three or fewer these would be assessed against impulsive vibration criteria. |

Continuous vibration associated with compaction of road base for new site access road and hard stand areas is most relevant to the construction of the ARC.

Intermittent vibration (as defined in Section 2.1 of the guideline) is assessed using the vibration dose concept which relates to vibration magnitude and exposure time. Intermittent vibration is representative of heavy vehicle pass-bys and construction activities such as impact hammering, rolling, or general excavation work.

Section 2.4 of the guideline provides acceptable values for intermittent vibration in terms of vibration dose values (VDV) which requires the measurement of the overall weighted rms (root mean square) acceleration levels over the frequency range 1 Hz to 80 Hz.

To calculate VDV the following formula is used (refer to Section 2.4.1 of the guideline):

$$VDV = \left[\int_0^T a^4(t)dt\right]^{0.25}$$

Where VDV is the vibration dose value in $m/s^{1.75}$, *a (t)* is the frequency-weighted rms of acceleration in $m/s^2$ and *T* is the total period of the day (in seconds) during which vibration may occur.

The acceptable VDV for intermittent vibration are reproduced in Table 3.10.

**Table 3.10 Acceptable vibration dose values for intermittent vibration**

| Location | Daytime | | Night time | |
|---|---|---|---|---|
| | Preferred value, $m/s^{1.75}$ | Maximum value, $m/s^{1.75}$ | Preferred value, $m/s^{1.75}$ | Maximum value, $m/s^{1.75}$ |
| Critical areas | 0.10 | 0.20 | 0.10 | 0.20 |
| Residences | 0.20 | 0.40 | 0.13 | 0.26 |
| Offices, schools, educational institutions, and places of worship | 0.40 | 0.80 | 0.40 | 0.80 |
| Workshops | 0.80 | 1.60 | 0.80 | 1.60 |

1. Daytime is 7.00 am to 10.00 pm and night time is 10.00 pm to 7.00 am.
2. These criteria are indicative only, and there may be a need to assess intermittent values against continuous or impulsive criteria for critical areas.

There is a low probability of adverse comment or disturbance to building occupants at vibration values below the preferred values. Adverse comment or complaints may be expected if vibration values approach the maximum values. The guideline recommends that activities should be designed to meet the preferred values where an area is not already exposed to vibration.

### 3.3.3 Structural vibration

#### i Australian Standard AS 2187.2 – 2006

In terms of the most recent relevant vibration damage criteria, Australian Standard AS 2187.2 – 2006 *Explosives* – Storage *and Use - Use of Explosives* recommends that the frequency dependent guideline values and assessment methods given in BS 7385 Part 2-1993 *Evaluation and measurement for vibration in buildings Part 2* be used as they are "applicable to Australian conditions".

The standard sets guide values for building vibration based on the lowest vibration levels above which damage has been credibly demonstrated. These levels are judged to give a minimum risk of vibration induced damage, where minimal risk for a named effect is usually taken as a 95% probability of no effect.

Sources of vibration that are considered in the standard include demolition, blasting (carried out during mineral extraction or construction excavation), piling, ground treatments (e.g. compaction), construction equipment, tunnelling, road and rail traffic and industrial machinery.

The recommended limits (guide values) for transient vibration to manage minimal risk of cosmetic damage to residential and industrial buildings are presented numerically in Table 3.11 and graphically in Figure 3.1.

**Table 3.11 Transient vibration guide values - minimal risk of cosmetic damage**

| Line[1] | Type of Building | Peak component particle velocity in frequency range of predominant pulse | |
|---|---|---|---|
| | | 4 Hz to 15 Hz | 15 Hz and above |
| 1 | Reinforced or framed structures Industrial and heavy commercial buildings | 50 mm/s | 50 mm/s |
| 2 | Unreinforced or light framed structures Residential or light commercial type buildings | 15 mm/s at 4 Hz increasing to 20 mm/s at 15 Hz | 20 mm/s at 15 Hz increasing to 50 mm/s at 40 Hz and above |

Note: Refers to the "Line" in Figure 3.1.

The standard notes that the guide values in Table 3.11 relate predominantly to transient vibration which does not give rise to resonant responses in structures and low-rise buildings.

Where the dynamic loading caused by continuous vibration is such as to give rise to dynamic magnification due to resonance, especially at the lower frequencies where lower guide values apply, then the guide values in Table 3.11 may need to be reduced by up to 50%.

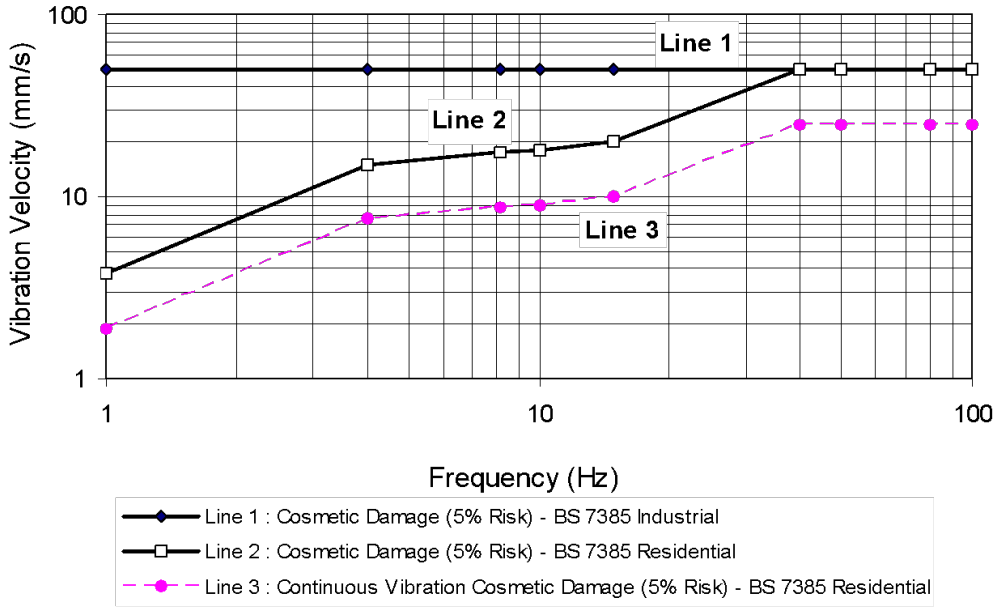



**Figure 3.1 Graph of transient vibration guide values for cosmetic damage**

In the lower frequency region where strains associated with a given vibration velocity magnitude are higher, the guide values for building types corresponding to Line 2 are reduced. Below a frequency of 4 Hz where a high displacement is associated with the relatively low peak component particle velocity value, a maximum displacement of 0.6 mm (zero to peak) is recommended. This displacement is equivalent to a vibration velocity of 3.7 mm/s at 1 Hz (as shown in Figure 3.1).

Fatigue considerations are also addressed in the Standard and it is concluded that unless calculation indicates that the magnitude and number of load reversals is significant (in respect of the fatigue life of building materials) then the guide values in Table 3.11 should not be reduced for fatigue considerations.

In order to assess the likelihood of cosmetic damage due to vibration, AS2187 specifies that vibration measurements should be undertaken at the base of the building and the highest of the orthogonal vibration components (transverse, longitudinal and vertical directions) should be compared with the criteria curves presented in Table 3.11.

It is noteworthy that in addition to the guide values nominated in Table 3.11 the Standard states that:

> Some data suggests that the probability of damage tends towards zero at 12.5 mm/s peak component particle velocity. This is not inconsistent with an extensive review of the case history information available in the UK.

## 3.4 Road traffic noise

The principal guidance to assess the impact of road traffic noise on assessment locations is in the *NSW Road Noise Policy* (RNP) (EPA 2011). Table 3.12 presents the road noise assessment criteria for residential land uses (i.e. assessment locations), reproduced from Table 3 of the RNP for road categories relevant to construction and use of the site.

All traffic would access or depart the site via Aldington Road either coming from Mamre Road and M12 (under construction) to the south or rejoin Mamre Road to the north prior to travelling to the M4 motorway.

Mamre Road, M12 and M4 would all be considered arterial roads, whilst under the definitions of the NSW RNP, Aldington Road is a sub-arterial road.

**Table 3.12 Road traffic noise assessment criteria for residential land uses**

| Road category | Type of project/development | Assessment criteria – dBA | |
|---|---|---|---|
| | | Day (7 am to 10 pm) | Night (10 pm to 7 am) |
| Freeway/arterial/sub-arterial roads | Existing residences affected by additional traffic on existing freeway/arterial/sub-arterial roads generated by land use developments. | $L_{eq,15hr}$ 60 (external) | $L_{eq,9hr}$ 55 (external) |
| Local roads | Existing residences affected by additional traffic on existing local roads generated by land use developments. | $L_{eq,1hr}$ 55 (external) | $L_{eq,1hr}$ 50 (external) |

Additionally, the RNP states that where existing road traffic noise criteria are already exceeded, any additional increase in total traffic noise level should be limited to an increase of up to 2 dB.

In addition to meeting the assessment criteria in Table 3.12 any significant increase in total traffic noise at the relevant residential assessment locations must be considered. Residential assessment locations experiencing increases in total traffic noise levels above those presented in Table 3.13 should be considered for mitigation.

**Table 3.13 Road traffic relative increase criteria for residential land uses**

| Road category | Type of project/development | Total traffic noise level increase – dBA | |
|---|---|---|---|
| | | Day (7 am to 10 pm) | Night (10 pm to 7 am) |
| Freeway/arterial/sub-arterial roads and transit ways | New road corridor/redevelopment of existing road/land use development with the potential to generate additional traffic on existing road. | Existing traffic $L_{eq(15\text{-}hr)}$+12 dB (external) | Existing traffic $L_{eq(9\text{-}hr)}$+ 12 dB (external) |

Appendix B of the RNP, states that noise levels shall be rounded to the nearest integer, whilst difference between two noise levels are to be rounded to a single decimal place.

The project comprises a relatively small site within the context of the total greater precinct where all traffic from WSAP and MRP was considered[2]. Traffic from this site will travel to and from the site via Aldington Road, wholly within an industrial zoned precinct, prior to joining Mamre Road, M12 or M4 that are highly trafficked arterial roads. In addition, all roads connecting to the WSA and MRP will be significantly upgraded including existing and new roads within the precinct. A review of projected traffic movements for future traffic for the development of the precinct for 2036[3] has confirmed the following projected annual average daily traffic (AADT) traffic volumes:

- Aldington Road 23,015
- Abbott Road 15,227
- Mamre Road (south) 56,746
- Mamre Road (north) 48,747
- Bakers Lane 22,734.

Any potential impacts from the project, comprising a forecast total 995 movements (light and heavy vehicles) per day and a peak one hour comprising 81 movements of which 63 are light vehicles and 18 are heavy vehicles would be suitably diluted within existing traffic volumes to not result in any perceivable noise impact.

Accordingly, public road traffic has not been considered further in this assessment.

[2] Ason Group. Transport Management & Accessibility Plan. 253-267 Aldington Road, Kemps Creek Report P1730r01 dated 3 November 2023 - File reference 1730r01v12 TMAP_259-263 Aldington Road, Kemps Creek, Issue and Westgate Industrial Estate, 253-267 Aldington Road, Kemps Creek [SSD-23480429] - Transport Assessment Addendum dated 1 November 2024 - File reference P17310v4 RFI_Westgate Aldington Rd, Kemps Creek

[3] Ason Group – Collaboration with TfNSW, DPE and LOG to establish the DCP road network

# 4 Noise assessment approach

## 4.1 Overview

This section presents the methods and base parameters used to model operational and construction noise and vibration emissions from the construction and operation of the project.

Operational and construction noise levels were predicted using DGMR Software proprietary modelling software, iNoise 2024.1. The model allows prediction under the ISO9613-2 "*Acoustics – Attenuation of Sound during Propagation Outdoors – general method"* algorithm. It was selected acknowledging the general terms of accuracy of 1,000 m (currently under review) on the basis that the closest and most exposed sensitive receivers (Mount Vernon and BAPS Temple) are in the order of this 1,000 m zone, accounts for building reflections and considers adverse meteorological effects. Features which affect the predicted noise level that are considered in the noise modelling include:

- equipment sound power levels and locations
- screening from structures
- receiver locations
- ground topography
- noise attenuation due to geometric spreading
- ground absorption
- atmospheric absorption.

The model was populated with 3-D topography of the project and surrounding area, extending past the nearest assessment locations. In accordance with discussion with DPHI, two model configurations were considered:

1. Existing configuration – for assessment of residual residences within MRP (and construction) - The model adopted concrete hardstand around the buildings and roadways on the site and grassland for remaining areas with absorption coefficients of 0 and 0.7, respectively.

2. Full envisaged MRP development – for assessment of residences outside of MRP - The model adopted concrete hardstand around the buildings and roadways for all MRP developable area and an absorption coefficient of 0 with assumed building locations and heights of 15 m (consistent with DNVR provided by DPHI – SSD-9138102) and grassland for remaining areas outside of MRP with absorption coefficient of 0.7.

The model also adopted the future building heights of the terrace on central building and Mandir for the BAPS Temple as documented here.

Plant and equipment representing the range of proposed operation and construction scenarios was modelled at locations representing the worst-case noise levels for assessment locations. For construction, the whole site was considered as an area source, whilst for operation the model was a little more complicated and considered traffic generation outlined in the traffic impact assessment (TIA) by Ason Group[4].

[4] Ason Group. Transport Management & Accessibility Plan. 253-267 Aldington Road, Kemps Creek Report P1730r01 dated 3 November 2023 – File reference 1730r01v12 TMAP_259-263 Aldington Road, Kemps Creek, Issue and Westgate Industrial Estate, 253-267 Aldington Road, Kemps Creek [SSD-23480429] - Transport Assessment Addendum dated 1 November 2024 - File reference P17310v4 RFI_Westgate Aldington Rd, Kemps Creek

## 4.2 Operational noise

The NIA was based on the layout (Figure 1.1), plant and equipment (Section 4.2) and truck movements outlined in the TIA (Ason Group). The site is proposed to operate 24 hours per day, seven days per week.

### 4.2.1 Warehouse designs

The assessment of noise emissions from within the warehouse building assumes the following based on construction and design materials outlined in the architectural drawings package prepared by Nettleton Tribe[5] and reproduced in Appendix A. The buildings are complex and include areas of sheet metal cladding and transparent sheeting both on walls and roof. In terms of Warehouse 1a, b and c, they are proposed as ambient warehouses. However, Warehouse 2 is proposed as a potential climate controlled warehouse and building materials are adjusted accordingly. A full summary of the insertion loss, percentage of building surface areas and total sound power levels adopted are provided in Appendix B.

*Warehouses 1 a, b and c:*

- Metal skin
  - outer skin of 0.48 mm base metal thickness (BMT) sheet metal
  - 60 mm internal insulation lining walls with perforated foil facing inwards.

The sound transmission loss of the proposed metal skin portion of walls/roof is presented in Table 4.1. This table also presents the anticipated reduction in performance due to detailing leaks at junctions.

**Table 4.1 Minimum sound transmission loss of shed walls/roof - metal**

| Shed wall | Description | Octave band centre frequency, minimum transmission loss, dB | | | | | | | Rw | Rw + Ctr |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 63 | 125 | 250 | 500 | 1 k | 2 k | 4 k | | |
| Metal skin | In principle performance | 6 | 12 | 16 | 21 | 27 | 30 | 40 | 24 | 23 |

- Transparent panels
  - Danpalon 16 (reduced to 8 mm).

The sound transmission loss of the proposed transparent portion of walls/roof is presented in Table 4.2.

**Table 4.2 Minimum sound transmission loss of shed walls/roof - transparent**

| Shed wall | Description | Octave band centre frequency, minimum transmission loss, dB | | | | | | | Rw | Rw + Ctr |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 63 | 125 | 250 | 500 | 1 k | 2 k | 4 k | | |
| Transparent | In principle performance | 5 | 5 | 7 | 11 | 16 | 20 | 24 | 15 | 12 |

[5] Nettleton Tribe – Proposed Warehouse & Distribution Centre Buildings. 253-267 Aldington Road, Kemps Creek – 12253-ARCH. COMBINED_241023

- In terms of doors for Warehouse 1 a, b and c the assessment has adopted the areas of the architectural drawings and assumed they are open with the exception of the recessed docks where trucks are butted and coupled to the building.

*Warehouse 2 (potential climate controlled):*

- Metal skin
  - outer skin of 0.42 mm BMT sheet metal
  - an air gap (with structure) of min 200 mm with 50 mm minimum 32 kg/m$^3$ insulation
  - inner skin of 0.48 mm BMT sheet metal.

*All Warehouse buildings:*

- 20m external awnings that extend north for portions of the warehouse buildings as identified in the architectural drawings (Appendix A) were incorporated into the noise model.

The sound transmission loss of the proposed metal skin portion of walls/roof is presented in Table 4.3. This table also presents the anticipated reduction in performance due to detailing leaks at junctions.

**Table 4.3 Minimum sound transmission loss of shed walls/roof - metal**

| Shed wall | Description | Octave band centre frequency, minimum transmission loss, dB | | | | | | | Rw | Rw + Ctr |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 63 | 125 | 250 | 500 | 1 k | 2 k | 4 k | | |
| Metal skin | In principle performance | 6 | 9 | 21 | 31 | 31 | 33 | 35 | 38 | 28 |

Notwithstanding Warehouse 2 being a climate controlled building, this assessment has conservatively considered that there would be transparent panels in walls.

- Transparent panels
  - Danpalon 16 (reduced to 8 mm).

The sound transmission loss of the proposed transparent portion of walls is presented in Table 4.4.

**Table 4.4 Minimum sound transmission loss of shed walls - transparent**

| Shed wall | Description | Octave band centre frequency, minimum transmission loss, dB | | | | | | | Rw | Rw + Ctr |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 63 | 125 | 250 | 500 | 1 k | 2 k | 4 k | | |
| Transparent | In principle performance | 5 | 5 | 7 | 11 | 16 | 20 | 24 | 15 | 12 |

- In terms of doors for Warehouse 2 and acknowledging that it is potentially a climate controlled environment, the assessment has assumed either trucks are butted and coupled to the building and sealed – or there are fast acting PVC roller doors or equivalent. The acoustic performance adopted for the fast acting roller doors is provided in Table 4.5.

**Table 4.5 Minimum sound transmission loss of doors - PVC**

| Shed wall | Description | Octave band centre frequency, minimum transmission loss, dB | | | | | | | Rw | Rw + Ctr |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 63 | 125 | 250 | 500 | 1 k | 2 k | 4 k | | |
| Doors | In principle performance | 5 | 4 | 6 | 10 | 15 | 20 | 26 | 15 | 12 |

Warehouse 2 also incorporates a refrigeration plantroom. For assessment purposes this was considered as a plantroom on the roof of the building with a minimum of 100 $m^2$ open area utilised for ventilation and a total foot print of 15 m L x 10 m W x 2.5 m H. Plantroom would be constructed of wall and roof materials providing an acoustic performance of not less than Rw 35. This is a conceptual design only and for the purpose of demonstrating that it is feasible to meet noise goals. Final details will consider selection and design based on acoustic performance to meet noise goals and would be subject to a separate application for proposed use.

### 4.2.2 Plant and equipment

Plant and equipment of acoustic significance and associated sound power levels for the project are associated with heavy vehicles (semi-trailers and b-doubles) entering and traversing the site, fork trucks around the hardstand adjacent the loading docks and truck manoeuvring area on the north side of buildings, light vehicles for staff, air-conditioning plant for servicing offices and refrigeration plant for Warehouse 2 climate controlled building. The list is based on EMM experience on similar logistic facilities and a review of a number of recent NIA submitted to support projects within the MRP and WSAP and represent the total sound power level (Lw) per item.

| | | |
|---|---|---|
| Heavy vehicles (including semi-trailers and B-doubles) | $L_{Aeq}$ | 106 dB |
| | $L_{Aeq}$ | 120 dB |
| Refrigerated truck idle | $L_{Aeq}$ | 88 dB |
| Fork trucks (gas) loading / unloading | $L_{Aeq}$ | 90 dB |
| | $L_{Aeq}$ | 120 dB |
| Light vehicles | $L_{Aeq}$ | 74 dB |
| Air conditioning condensers | $L_{Aeq}$ | 88 dB |
| Chiller plantroom (space averaged) | $L_{Aeq}$ | 85 dB |

In terms of heavy vehicles, the adopted sound power level incorporated the full expected activity of a vehicle, accelerating on site (20 km/h), moving, idling, manoeuvring and reversing. For fork truck loading / unloading the assessment considered continuous use.

From experience and a review of source data, the plant and equipment listed do not present tonal characteristics as defined by the NPfI. A review of the A weighted and C weighted noise levels of mobile plant confirmed that they exhibit no low frequency or tonal characteristics. Review of the internal warehouse noise as an unattenuated level and attenuated level through the façade confirmed level differences greater than 15 dB threshold for assessment of low frequency noise (LFN). Accordingly, a review of the noise levels at the assessment locations was considered and confirmed that the low frequency noise level contributions from the buildings were significantly below the thresholds outlined in NPfI Fact Sheet C Table C2 and, accordingly, a low frequency penalty was not applied to the noise level contributions from the project at assessment locations.

From extensive discussions and correspondence with DPHI, truck movement noise for the future public road along the southern portion of the site below Lot 1 and the public road running north / south between Lot 1 and Lot 2 were excluded from the updated v5 noise modelling as instructed.

A review of the TIA by Ason Group[6] enabled an evaluation of the peak hour traffic volumes for the day, evening and night assessment periods. These values were used and spread over the four warehouses (1 a, b and c and 2) to provide a worst case impact for each assessment period. A review of Appendix A of the TIA confirmed the following peak one hour site traffic movements for each assessment period considering maximum heavy vehicles (HV), whilst for light vehicles (LV) the noise assessment assumed a full changeover of proposed car parks to provide a conservative assessment and consider potential shift changeover:

- Day HV 23 LV 263 (9-10am)
- Evening HV 8 LV 263 (6-7pm)
- Night HV 15 LV 263 (6-7am)

A summary of the number of vehicles and items of plant are provided in Table 4.6 accounting for 15 minute assessment period and distribution of trucks over the four warehouses (1a, b, c and 2). It is noted that the HV movements represent a discrete peak hour within each assessment period and average trucks movements are significantly lower. During the evening and night for example the next highest movements are only 5 trucks and 11 trucks during the evening and night respectively. In terms of LV the assessment has considered a worst case of full carpark changeover that potentially overstates noise impacts from LV, however the results of noise modelling confirmed that LV do not control total site related noise levels at any sensitive receiver location.

[6] Ason Group. Transport Management & Accessibility Plan. 253-267 Aldington Road, Kemps Creek Report P1730r01 dated 3 November 2023 – File reference 1730r01v12 TMAP_259-263 Aldington Road, Kemps Creek and Westgate Industrial Estate, 253-267 Aldington Road, Kemps Creek [SSD-23480429] - Transport Assessment Addendum dated 1 November 2024 - File reference P17310v4 RFI_Westgate Aldington Rd, Kemps Creek (Attachment 4)

## Table 4.6 Plant and equipment

| Item No. | Equipment / Activity | Comments | Notes | Sound Power Level, dB | | Quantity by period | | |
|---|---|---|---|---|---|---|---|---|
| | | | | $L_{Aeq}$ | $L_{Amax}$ | Day | Evening | Night |
| 1 | Warehouse 1a trucks | 2m source height loop and manoeuvring | 2 m source height | 106.0 | 120.0 | 2 | 1 | 1 |
| 2 | Warehouse 1a fork trucks | General area around docks - assume 90dBA - awning area - account for 4 fork trucks (+6dB) | 1.5 m source height | 90.0 | | 4 | 4 | 4 |
| 3 | Warehouse 1b trucks | 2m source height loop and manoeuvring | 2 m source height | 106.0 | 120.0 | 1 | 1 | 1 |
| 4 | Warehouse 1b fork trucks | General area around docks - assume 90dBA - awning area - account for 4 fork trucks (+6dB) | 1.5 m source height | 90.0 | | 4 | 4 | 4 |
| 5 | Warehouse 1c trucks | 2m source height loop and manoeuvring | 2 m source height | 106.0 | 120.0 | 1 | 1 | 1 |
| 6 | Warehouse 1c fork trucks | General area around docks - assume 90dBA - awning area - account for 4 fork trucks (+6dB) | 1.5 m source height | 90.0 | | 4 | 4 | 4 |
| 7 | Warehouse 2 trucks - refrigerated | 2m source height loop and manoeuvring | 2 m source height | 106.0 | 120.0 | 2 | 1 | 1 |
| 8 | Warehouse 2 trucks - refrigerated | parked along dock area - account for 4 parks and running refrigeration | 3 m source height | 87.9 | - | 4 | 4 | 4 |
| 9 | Warehouse 2 fork trucks | General area around docks - assume 90dBA - awning area - account for 4 fork trucks (+6dB) | 1.5 m source height | 90.0 | 120- | 4 | 4 | 4 |
| 10 | Carpark breakout (Warehouse 1a - 65 spaces) | southern façade as shown DA011 - breakout from under croft parking | taken from WCX - 74dB/15min per vehicle then 50% utilisation assuming full car pack changeover in each period | 92.2 | 95.0 | 65 | 65 | 65 |

| Item No. | Equipment / Activity | Comments | Notes | Sound Power Level, dB | | Quantity by period | | |
|---|---|---|---|---|---|---|---|---|
| | | | | $L_{Aeq}$ | $L_{Amax}$ | Day | Evening | Night |
| 11 | Carpark breakout (Warehouse 1b/c 113 car spaces) | southern façade as shown DA012 - breakout from under croft parking | taken from WCX - 74dB/15min per vehicle then 50% utilisation assuming full carpark changeover in each period | 94.6 | 95.0 | 113 | 113 | 113 |
| 12 | Carpark breakout (Warehouse 1b/c 85 car spaces) | southern façade as shown DA013 - breakout from under croft parking | taken from WCX - 74dB/15min per vehicle then 50% utilisation assuming full carpark changeover in each period | 93.3 | 95.0 | 85 | 85 | 85 |
| 13 | Office AC/HVAC - Warehouse 1a | Office AC/HVAC - Warehouse 1a - 4 x Temperzone OSA950 or eq. | roof above offices | 87.9 | - | 4 | 4 | 4 |
| 14 | Office AC/HVAC - Warehouse 1b | Office AC/HVAC - Warehouse 1b - 4 x Temperzone OSA950 or eq. | roof above offices | 87.9 | - | 4 | 4 | 4 |
| 15 | Office AC/HVAC - Warehouse 1c | Office AC/HVAC - Warehouse 1c - 4 x Temperzone OSA950 or eq. | roof above offices | 87.9 | - | 4 | 4 | 4 |
| 16 | Office AC/HVAC - Warehouse 2 | Office AC/HVAC - Warehouse 2 - 4 x Temperzone OSA950 or eq. | roof above offices | 87.9 | - | 4 | 4 | 4 |
| 17 | Condensers - Warehouse 2 | Condensers for Warehouse 2 x 6 Lw89 each | roof centrally | 94.9 | - | 1 | 1 | 1 |
| 18 | Chiller Plantroom - Warehouse 2 | Chillers plantroom Box on roof 10m W x 15m L x 2.5m H central (SA) | 85 dBA internal and assume 100 $m^2$ opening - roof centrally – 25 $m^2$ opening on each side | 85.0 | - | 1 | 1 | 1 |
| 19 | Warehouse 1a - composites | north façade | 14% open doors | 83.5 | - | 1 | 1 | 1 |
| 20 | | east façade | 3% transparent | 68.5 | - | 1 | 1 | 1 |
| 21 | | south façade | 3% transparent | 71.3 | - | 1 | 1 | 1 |
| 22 | | west façade | 5% transparent | 70.6 | - | 1 | 1 | 1 |
| 23 | | roof | 2% transparent | 78.6 | - | 1 | 1 | 1 |

| Item No. | Equipment / Activity | Comments | Notes | Sound Power Level, dB | | Quantity by period | | |
|---|---|---|---|---|---|---|---|---|
| | | | | $L_{Aeq}$ | $L_{Amax}$ | Day | Evening | Night |
| 24 | Warehouse 1b/c - composites | north façade | 15% open doors | 86.8 | - | 1 | 1 | 1 |
| 25 | | east façade | 5% transparent | 70.0 | - | 1 | 1 | 1 |
| 26 | | south façade | 13% transparent | 74.5 | - | 1 | 1 | 1 |
| 27 | | west façade | 5% transparent | 70.0 | - | 1 | 1 | 1 |
| 28 | | roof | 2% transparent | 81.7 | - | 1 | 1 | 1 |
| 29 | Warehouse 2 - composites | north façade | 15% doors – PVC closed | 75.5 | - | 1 | 1 | 1 |
| 30 | | east façade | 15% transparent | 73.1 | - | 1 | 1 | 1 |
| 31 | | south façade | 2% transparent | 70.6 | - | 1 | 1 | 1 |
| 32 | | west façade | nil | 67.3 | - | 1 | 1 | 1 |
| 33 | | roof | nil | 90.8 | - | 1 | 1 | 1 |
| 34 | All docks | $L_{Amax}$ airbrake | All docks | 120.2 | 120.2 | All | All | All |

### 4.2.3 Noise predictions

Noise levels at the assessment locations identified in Table 2.1 were predicted based on the noise sources outlined in Section 4.2.2 and assumptions of Table 4.6. The overall $L_{Aeq,15min}$ noise contribution was modelled for direct assessment against project amenity noise levels.

### 4.2.4 Noise enhancing meteorology

The model considered default noise enhancing meteorological conditions comprising:

- day – 20°C, 60% humidity and 3 m/s wind for all assessment locations
- evening – 10°C, 90% humidity and 3 m/s wind for all assessment locations
- night – 10°C, 90% humidity and 2 m/s wind and temperature inversion for all assessment locations.

## 4.3 Construction noise

### 4.3.1 Times

Construction activities associated with the project have been assessed based standard construction hours.

### 4.3.2 Equipment sound power levels

#### i Continuous

Equipment sound power levels have been taken from EMM database of attended noise measurements and *Update of Noise Database for Prediction of Noise on Construction and Open Sites* (DEFRA 2005), where unavailable.

Acoustically significant fixed and mobile equipment items were considered in the model for the site with 100% utilisation represent a key range of activities likely to be undertaken during the main construction works. A summary of the construction phases, duration, number of plant and cumulative sound power levels (Lw) are presented in Table 4.7. The model considered the cumulative plant and equipment sound power level as an area source across the project providing a potential worst-case scenario.

**Table 4.7 Construction stages and equipment sound power levels**

| Equipment/activity | Number of items (per 15 minutes) | SWL per item, $L_{Aeq}$ | Total SWL, $L_{Aeq}$ | Cumulative SWL per phase, $L_{Aeq}$ |
|---|---|---|---|---|
| ***Stage 1: Initial site preparation works/bulk earthworks*** | | | | |
| Hino (watercart - 16KL) | 2 | 100 | 103 | 116 |
| TANA Compactor TGX450 | 2 | 108 | 111 | |
| Excavator | 2 | 107 | 110 | |
| Dozer Komatsu D375A | 1 | 109 | 109 | |
| FEL CAT972G | 1 | 106 | 106 | |
| Loader | 1 | 105 | 105 | |

| Equipment/activity | Number of items (per 15 minutes) | SWL per item, $L_{Aeq}$ | Total SWL, $L_{Aeq}$ | Cumulative SWL per phase, $L_{Aeq}$ |
|---|---|---|---|---|
| ***Stage 2: Concrete hardstand and roadways*** | | | | |
| Concrete agitator | 3 | 108 | 113 | 117 |
| Concrete pump | 3 | 109 | 114 | |
| Crane 100t | 3 | 99 | 104 | |
| Telehandler (Dieci) | 1 | 105 | 105 | |
| ***Stage 3: Building structure and erection*** | | | | |
| Angle Grinder (Grinding Steel) | 3 | 109 | 113 | 116 |
| Trucks | 2 | 109 | 112 | |
| Crane 100t | 3 | 99 | 104 | |
| Elevated work platform | 1 | 103 | 103 | |

Works associated with commissioning, landscaping and demobilisation will generate significantly lower noise levels than the key construction phases identified in Table 4.7 and have not been considered further in the assessment on the assumption that if the high noise level activities comply with the requirements, then lower intensity activities will also comply.

### 4.3.3 Noise predictions

To assess a potential worst-case construction scenario, the assessment has considered the identified plant and equipment in Table 4.7 operating continuously over a 15-minute period. Construction noise levels were predicted to the assessment locations listed in Table 2.1 and identified in Figure 2.1.

## 4.4 Construction vibration

Safe working distances for typical items of vibration intensive plant are listed in Table 4.8. The safe working distances are quoted for both “Cosmetic Damage” (refer British Standard BS 7385) and “Human Response” Assessing Vibration – a technical guideline.

### Table 4.8 Recommended safe working distances for vibration intensive plant

| Plant item | Rating/description | Safe working distance | |
|---|---|---|---|
| | | Cosmetic damage (BS 7385) | Human Response (AV-atg) |
| Vibratory Rollers | 1–2 tonne | 5 m | 15 to 20 m |
| | 2–4 tonne | 6 m | 20 m |
| | 4–6 tonne | 12 m | 40 m |
| | 7-13 tonne | 15 m | 100 m |
| | 13-18 tonne | 20 m | 100 m |
| | >18 tonne | 25 m | 100 m |

Source: Transport for NSW – Construction Noise and Vibration Strategy – April 2019.

Safe work distances relate to continuous vibration. For most construction activity, vibration emissions are intermittent in nature. The safe working distances are therefore conservative.

The safe working distances presented in Table 4.8 are indicative and will vary depending on the item of plant and local geotechnical conditions. They apply to cosmetic damage of typical buildings under typical geotechnical conditions.

The safe working distances have been used to assess the potential for construction vibration impacts based on proposed activities.

# 5 Impact assessment

## 5.1 Operational noise

### 5.1.1 Receivers external to MRP

#### i Single point predictions

Predicted single point operational noise levels are provided in Table 5.1 for day, evening, and night operations of the project assessed against the project amenity noise goals. The levels presented for each assessment location represents the energy-average noise level over a 15-minute period and assumes all plant and activities operating concurrently in accordance with scenarios outlined in Section 4.2 under noise enhancing conditions.

**Table 5.1 Predicted operational noise levels**

| Assessment location | Period | Amenity noise target[1] $L_{Aeq,15min}$ | Predicted noise level $L_{Aeq,15min}$ | Target met |
|---|---|---|---|---|
| R1 | Day | 48 | 19 | Yes |
| | Evening | 43 | 21 | Yes |
| | Night | 38 | 21 | Yes |
| R2 | Day | 48 | 20 | Yes |
| | Evening | 43 | 22 | Yes |
| | Night | 38 | 22 | Yes |
| R3 | Day | 48 | 20 | Yes |
| | Evening | 43 | 22 | Yes |
| | Night | 38 | 22 | Yes |
| R4 | Day | 48 | 21 | Yes |
| | Evening | 43 | 22 | Yes |
| | Night | 38 | 22 | Yes |
| R5 | Day | 48 | 18 | Yes |
| | Evening | 43 | 20 | Yes |
| | Night | 38 | 20 | Yes |
| R6 | Day | 48 | 19 | Yes |
| | Evening | 43 | 21 | Yes |
| | Night | 38 | 21 | Yes |
| R7 | Day | 48 | 19 | Yes |
| | Evening | 43 | 21 | Yes |
| | Night | 38 | 21 | Yes |

| Assessment location | Period | Amenity noise target[1] $L_{Aeq,15min}$ | Predicted noise level $L_{Aeq,15min}$ | Target met |
|---|---|---|---|---|
| R8 | Day | 48 | 20 | Yes |
| | Evening | 43 | 21 | Yes |
| | Night | 38 | 21 | Yes |
| R9 | Day | 48 | 19 | Yes |
| | Evening | 43 | 21 | Yes |
| | Night | 38 | 21 | Yes |
| R10 | Day | 48 | 18 | Yes |
| | Evening | 43 | 20 | Yes |
| | Night | 38 | 20 | Yes |
| R11^ | Day | 48 | 30 | Yes |
| | Evening | 43 | 31 | Yes |
| | Night | 38 | 31 | Yes |
| R12 | Day | 48 | 26 | Yes |
| | Evening | 43 | 28 | Yes |
| | Night | 38 | 28 | Yes |
| R13 | Day | 48 | 24 | Yes |
| | Evening | 43 | 25 | Yes |
| | Night | 38 | 25 | Yes |
| R14 | Day | 48 | 26 | Yes |
| | Evening | 43 | 27 | Yes |
| | Night | 38 | 27 | Yes |
| R15 | Day | 48 | 26 | Yes |
| | Evening | 43 | 27 | Yes |
| | Night | 38 | 27 | Yes |
| R16 | Day | 48 | 27 | Yes |
| | Evening | 43 | 28 | Yes |
| | Night | 38 | 28 | Yes |
| R17 | Day | 48 | 29 | Yes |
| | Evening | 43 | 30 | Yes |
| | Night | 38 | 30 | Yes |

| Assessment location | Period | Amenity noise target[1] $L_{Aeq,15min}$ | Predicted noise level $L_{Aeq,15min}$ | Target met |
|---|---|---|---|---|
| R18 | Day | 48 | 28 | Yes |
| | Evening | 43 | 29 | Yes |
| | Night | 38 | 29 | Yes |
| R19 | Day | 48 | 20 | Yes |
| | Evening | 43 | 21 | Yes |
| | Night | 38 | 21 | Yes |
| R20 | Day | 48 | 25 | Yes |
| | Evening | 43 | 27 | Yes |
| | Night | 38 | 27 | Yes |
| R21 | Day | 48 | 25 | Yes |
| | Evening | 43 | 27 | Yes |
| | Night | 38 | 27 | Yes |
| R22 | Day | 48 | 26 | Yes |
| | Evening | 43 | 27 | Yes |
| | Night | 38 | 27 | Yes |
| R23 | Day | 48 | 25 | Yes |
| | Evening | 43 | 26 | Yes |
| | Night | 38 | 26 | Yes |
| R24 | Day | 48 | 24 | Yes |
| | Evening | 43 | 25 | Yes |
| | Night | 38 | 25 | Yes |
| T1 – Temple Central Building | When in use | 60[2] | 43 | Yes |
| T2 – Temple Mandir | When in use | 60[2] | 41 | Yes |

Notes: 1. As per Section 3.1.3 assuming three to four sites affecting any one assessment location

2. External noise level – assuming windows closed and 20 dB reduction across building façade

R11^ within WSAP

Results of the modelling confirm compliance with the project amenity level for all reference assessment locations. It is noted that the site is significantly separated from the assessment locations and would be surrounded by adjacent industrial and/or commercial land uses in future. The results also confirm meeting the intrusive noise goals of $L_{Aeq,15min}$ 40 dB, 38 dB and 38 dB for day, evening and night respectively.

A graphical representation of operational noise contours for the site including the envisaged full development of MRP is provided in Appendix C.

### ii Intermittent noise events (sleep disturbance)

Modelling of intermittent maxima noise events at night considered a typical worst-case event for air brake release and a source sound power level of $L_{Amax}$ 120 dB. Potential for these events were considered within truck manoeuvring, driveway and loading / unloading area and predicted to the identified residential assessment locations. The results of the predictions under noise enhancing conditions are presented in Table 5.2.

**Table 5.2 Predicted intermittent noise levels**

| Assessment location | Period | Screening level, dB | Predicted intermittent noise level, dB $L_{Amax}$ | Satisfies screening level |
|---|---|---|---|---|
| R1 | Night | 52 | 35 | Yes |
| R2 | Night | 52 | 36 | Yes |
| R3 | Night | 52 | 34 | Yes |
| R4 | Night | 52 | 35 | Yes |
| R5 | Night | 52 | 33 | Yes |
| R6 | Night | 52 | 33 | Yes |
| R7 | Night | 52 | 33 | Yes |
| R8 | Night | 52 | 35 | Yes |
| R9 | Night | 52 | 34 | Yes |
| R10 | Night | 52 | 33 | Yes |
| R11^ | Night | 52 | 43 | Yes |
| R12 | Night | 52 | 38 | Yes |
| R13 | Night | 52 | 33 | Yes |
| R14 | Night | 52 | 35 | Yes |
| R15 | Night | 52 | 37 | Yes |
| R16 | Night | 52 | 40 | Yes |
| R17 | Night | 52 | 46 | Yes |
| R18 | Night | 52 | 42 | Yes |
| R19 | Night | 52 | 31 | Yes |
| R20 | Night | 52 | 40 | Yes |
| R21 | Night | 52 | 41 | Yes |
| R22 | Night | 52 | 41 | Yes |
| R23 | Night | 52 | 40 | Yes |
| R24 | Night | 52 | 39 | Yes |

Notes: R11^ within WSAP

Despite the adoption of minimum background noise thresholds, results of modelling confirm compliance with the $L_{Amax}$ sleep disturbance screening criterion for all reference residential assessment locations. Removal of the public road sections from the v5 modelling has also resulted in reductions of $L_{Amax}$ for some receiver locations.

In terms of the $L_{Aeq,15min}$ noise level contributions, Table 5.1 confirms all residential assessment locations comply with the strictest night time limit of 40 dB.

### 5.1.2 Receivers within MRP

#### i Single point predictions

Predicted single point operational noise levels are provided in Table 5.1 for day, evening, and night operations of the project against the baseline amenity levels for residual residences in MRP at the request of DPHI. The levels presented for each assessment location represents the energy-average noise level over a 15-minute period and assumes all plant and activities operating concurrently in accordance with scenarios outlined in Section 4.2 under noise enhancing conditions. Where an exceedance of the $L_{Aeq,15min}$ amenity level is identified, under the instruction of DPHI the residence may be eligible for noise mitigation.

**Table 5.3 Predicted operational noise levels**

| Assessment location | Period | Amenity noise goal[1] $L_{Aeq,15min}$ | Predicted noise level $L_{Aeq,15min}$ | Potentially eligible for mitigation |
|---|---|---|---|---|
| R_MRP_1 | Day | 53 | 47 | No |
| | Evening | 48 | 46 | No |
| | Night | 43 | 46 | Yes |
| R_MRP_2 | Day | 53 | 45 | No |
| | Evening | 48 | 45 | No |
| | Night | 43 | 45 | Yes |
| R_MRP_3 | Day | 53 | 43 | No |
| | Evening | 48 | 43 | No |
| | Night | 43 | 43 | No |
| R_MRP_4 | Day | 53 | 37 | No |
| | Evening | 48 | 38 | No |
| | Night | 43 | 38 | No |
| R_MRP_5 | Day | 53 | 43 | No |
| | Evening | 48 | 43 | No |
| | Night | 43 | 43 | No |
| R_MRP_6 | Day | 53 | 37 | No |
| | Evening | 48 | 37 | No |
| | Night | 43 | 37 | No |

| Assessment location | Period | Amenity noise goal[1] $L_{Aeq,15min}$ | Predicted noise level $L_{Aeq,15min}$ | Potentially eligible for mitigation |
|---|---|---|---|---|
| R_MRP_7 | Day | 53 | 35 | No |
| | Evening | 48 | 36 | No |
| | Night | 43 | 36 | No |
| R_MRP_8 | Day | 53 | 40 | No |
| | Evening | 48 | 40 | No |
| | Night | 43 | 40 | No |
| R_MRP_9 | Day | 53 | 41 | No |
| | Evening | 48 | 41 | No |
| | Night | 43 | 41 | No |
| R_MRP_10 | Day | 53 | 42 | No |
| | Evening | 48 | 43 | No |
| | Night | 43 | 43 | No |
| R_MRP_11 | Day | 53 | 43 | No |
| | Evening | 48 | 44 | No |
| | Night | 43 | 44 | Yes |
| R_MRP_12 | Day | 53 | 42 | No |
| | Evening | 48 | 42 | No |
| | Night | 43 | 42 | No |
| R_MRP_13 | Day | 53 | 42 | No |
| | Evening | 48 | 42 | No |
| | Night | 43 | 42 | No |
| R_MRP_14 | Day | 53 | 45 | No |
| | Evening | 48 | 45 | No |
| | Night | 43 | 45 | Yes |
| R_MRP_15 | Day | 53 | 55 | Yes |
| | Evening | 48 | 55 | Yes |
| | Night | 43 | 53 | Yes |
| R_MRP_16 | Day | 53 | 43 | No |
| | Evening | 48 | 43 | No |
| | Night | 43 | 43 | No |

| Assessment location | Period | Amenity noise goal[1] $L_{Aeq,15min}$ | Predicted noise level $L_{Aeq,15min}$ | Potentially eligible for mitigation |
|---|---|---|---|---|
| R_MRP_17 | Day | 53 | 47 | No |
| | Evening | 48 | 45 | No |
| | Night | 43 | 45 | Yes |
| R_MRP_18 | Day | 53 | 38 | No |
| | Evening | 48 | 37 | No |
| | Night | 43 | 37 | No |
| R_MRP_19 | Day | 53 | 40 | No |
| | Evening | 48 | 38 | No |
| | Night | 43 | 38 | No |
| R_MRP_19 | Day | 53 | 41 | No |
| | Evening | 48 | 40 | No |
| | Night | 43 | 40 | No |

Notes: 1. Baseline rural amenity level +3dB for $L_{Aeq,period}$ to $L_{Aeq,15min}$

Normal application of the NPfI would consider these residences as isolated residences within an industrial area and assessed against an industrial or commercial amenity assessment goal and would not be eligible for noise mitigation as they are below the commercial $L_{Aeq}$ 60 dB amenity level.

However as instructed by DPHI an assessment of residual residences within the MRP was required and confirmed six residences potentially eligible for negotiated agreement for the purposes of noise mitigation when assessed against the baseline rural amenity level. The residences identified are listed below and also shown in Figure 2.2:

1. R_MRP_1 - 269 Aldington Road, Kemps Creek
2. R_MRP_2 - 284-288 Aldington Road, Kemps Creek
3. R_MRP_11 - 967-981 Mamre Road, Kemps Creek
4. R_MRP_14 - 930B Mamre Road, Kemps Creek
5. R_MRP_15 - 930-966 Mamre Road, Kemps Creek
6. R_MRP_17 - 930A Mamre Road, Kemps Creek.

Negotiated agreements are proposed only as an interim measure as instructed by DPHI and solely for the purpose of noise mitigation where a residence listed above is still occupied and for residential use and is not subject to a development application for commercial or industrial use either approved or unapproved.

Further to this no residence shall be eligible for negotiated agreement for the purpose of noise mitigation from this project where they have already entered into such agreement with another landholder for equivalent purposes.

### 5.1.3 Feasible and reasonable mitigation

#### i Overview

A noise mitigation measure is considered feasible if it can be engineered and is practical to build and/or implement, given project constraints such as safety, maintenance and reliability requirements.

Reasonableness relates to the application of judgement in arriving at a decision, considering if the overall noise benefits outweigh the overall adverse social, economic and environmental effects, including the cost of the mitigation measure.

The following factors have been considered when evaluating the available noise mitigation options:

- Noise impacts:
  - existing and future noise levels, and projected changes in noise levels
  - the amount by which the NPfI triggers are exceeded
- Noise mitigation benefits:
  - amount of noise reduction expected
  - number of people likely to benefit
- Cost-effectiveness of noise mitigation:
  - total cost of mitigation measures (including capital and maintenance)
  - ongoing operational and maintenance cost borne by the community (e.g. running air conditioners if closing dwelling windows is required to improve noise)
- Community views:
  - aesthetic considerations
  - views of all potentially affected areas determined through community consultation.

#### ii Assessment of mitigation

Consideration of the feasibility and reasonableness of additional noise mitigation measures has been undertaken with reference to the guidance provided in Section 3.4 of the NPfI. Despite confirmation of this NVIA that the predicted noise levels meet the NPfI amenity and intrusive noise goals, DPHI has requested that the proponent consider the potential for additional noise mitigation.

The area of Mount Vernon was identified as a key consideration in terms of mitigation of noise. It is noted that Mount Vernon is significantly elevated above the MRP with elevations ranging from 40-55 metres above the subject site.

Whilst this assessment has not identified exceedances of the NPfI PNTLs at Mount Vernon residences or BAPS Temple, a review of similar assessment and subsequent Conditions of Approval (CoA) in 2022-2023 have indicated that DPHI are imposing noise limits well below the NPfI goals established in noise assessments for development applications. Further to this and discussion with DPHI, EMM has gone through the process of identifying key noise contributors and reviewing of noise mitigation options.

Operational sources contributing to noise levels at Mount Vernon are principally associated with heavy vehicle movements and a lesser extent from Warehouse 2 roof mechanical plant. The operation of fixed mechanical plant and light vehicles is typically 10 dB or more below noise from heavy vehicle movements and Warehouse 2 roof mechanical plant and not contributing to the overall noise levels at residences.

Mitigation options targeting these noise sources have been considered as provided in Table 5.4. Mitigation strategies have been considered in the following hierarchical approach:

1. control of noise source
2. once the feasible and reasonable controls at the source are exhausted, controlling the transmission of noise
3. once source and transmission feasible and reasonable controls are exhausted, considering mitigation measures at the noise-sensitive receivers.

A key measure not outlined above is the application of land-use controls, that is separating noise generating development from other sensitive uses. This approach can avoid conflict of noise and sensitive land-use and potential cost of short-term mitigation measures. The implementation of land use controls could also incorporate measures that restrict the operation of specific sites during more sensitive time periods like evening and night, when considering impacts at residential assessment locations. However, this would generally need to be considered during the initial rezoning and master planning phase of an area and cannot be reasonably accommodated when use and lots are already determined.

**Table 5.4 Mitigation decision-making matrix**

| Mitigation option | Feasible? | Reasonable? | Justification for adopting/disregarding and expected noise benefit |
|---|---|---|---|
| **At-source controls** | | | |
| **Option 1**<br>Orientation of loading docks including fork truck activities and truck manoeuvring away from the closest and most sensitive receivers. | Yes | Yes | Adopted<br>The proposed development has located these areas on the northern side of the proposed buildings providing maximum potential shielding to the majority of the Mount Vernon receiver area.<br>The assessment has also recommended that absorptive treatment be considered within the soffits of awnings over the loading dock areas. |
| **Option 2**<br>Prohibit evening and night truck movements. | No | No | The MRP was rezoned for the purpose of industrial land to support the soon to be operational WSA that will operate 24/7.<br>MRP also forms one of the biggest employment areas in NSW. The option to restrict sites within MRP to day only operation is not feasible or reasonable. |
| **Option 3**<br>Potential for climate control for Warehouse 2 or portion thereof - plant and equipment selected on acoustic performance and installed within acoustic designed enclosure if required. | Yes | Yes | Adopted.<br>The proposed development has considered the option of climate control for Warehouse 2 or a portion thereof and has provide an indicate conceptual option for compliance review.<br>Assessment has recommended that during the detailed design phase, should a climate controlled area be required for Warehouse 2, that it be subject to acoustic review during the selection and design phase to ensure noise goals and any pending noise limits under CoA are satisfied. |

| Mitigation option | Feasible? | Reasonable? | Justification for adopting/disregarding and expected noise benefit |
|---|---|---|---|
| **Option 4**<br>Reduction in truck numbers | No | No | Assessment of truck movements considered the peak one hour heavy vehicles movements projected for each assessment period (day, evening and night).<br>It is noted that average HV movements during evening and night would be significantly lower than predicted resulting in lower overall noise levels. |
| **Control transmission of noise** | | | |
| **Option 5**<br>Provision of acoustic mounds or walls to further provide noise reductions to Mount Vernon receivers | No | No | The subject site is relatively narrow north to south, with its longest boundary running east to west from Aldington Road.<br>Buildings have been provided to the south to provide acoustic shielding to the majority of the Mount Vernon area. Mount Vernon ranges from 40 – 55m higher than the subject site so any additional noise barriers would be redundant, and there is limited opportunity for barriers on the shorter eastern boundary.<br>Modelling has considered the envisaged full development of the MRP with buildings. |
| **Mitigation at the receptor** | | | |
| **Option 6**<br>Mitigation at the receptor | Yes | No – Mount Vernon<br>Yes – Residences in MRP | This NVIA has not predicted noise exceedances of PNTL at sensitive receivers outside of MRP. Further a review of cumulative noise from current approved developments and those under review has confirmed cumulative $L_{Aeq}$ noise levels meet the amenity noise target levels.<br>Accordingly at receiver mitigation is not considered a feasible or reasonable mitigation strategy for Mount Vernon receivers from this project. The Mount Vernon area will be subject to multiple new noise sources over the coming years from the development of MRP, operations of WSA and road upgrades.<br>To impose this requirement on one project seems in this context unreasonable for such a large precinct and it does not also protect the external amenity for this area. In some instances, this mitigation strategy may be appropriate to manage night time noise impacts.<br>Following instruction for assessment by DPHI it has been identified that some residual residences within the MRP may be eligible for negotiated agreements for the purpose of noise mitigation. |

### 5.1.4 Best-achievable noise levels

The site will look to implement a range of best practice noise management design and operational measures including:

- using quietest plant that can perform the required task including constant review of available technology
- minimising number of plant and equipment operating simultaneously while still meeting processing requirements
- switching off idle plant
- consideration of using noisy plant at least sensitive times of the day
- implementing a regular maintenance schedule for all plant and equipment
- providing staff education and tool box talks on impacts of noise and best quiet work practices.

## 5.2 Construction noise

### 5.2.1 Single point predictions

In accordance with procedures outlined in Section 4.3.2, prediction of construction noise levels is provided in Table 5.5 for standard construction hours under noise enhancing conditions. The level presented for each assessment location represents the energy-average noise level over a 15-minute period and assumes all plant operating concurrently. The assessment against the ICNG noise affected NML at each assessment location is also provided.

**Table 5.5 Predicted construction noise levels - Day**

| Assessment location | Period[1] | Noise affected NML, dB | Predicted construction noise level, dB $L_{Aeq,15min}$ | Level above NML[2] |
|---|---|---|---|---|
| ***Stage 1: Initial site preparation works/bulk earthworks*** | | | | |
| R1 | Standard | 45 | 23 | No |
| R2 | Standard | 45 | 24 | No |
| R3 | Standard | 45 | 25 | No |
| R4 | Standard | 45 | 25 | No |
| R5 | Standard | 45 | 25 | No |
| R6 | Standard | 45 | 26 | No |
| R7 | Standard | 45 | 26 | No |
| R8 | Standard | 45 | 26 | No |
| R9 | Standard | 45 | 26 | No |
| R10 | Standard | 45 | 25 | No |
| R11^ | Standard | 45 | 37 | No |

| Assessment location | Period[1] | Noise affected NML, dB | Predicted construction noise level, dB $L_{Aeq,15min}$ | Level above NML[2] |
|---|---|---|---|---|
| R12 | Standard | 45 | 36 | No |
| R13 | Standard | 45 | 33 | No |
| R14 | Standard | 45 | 31 | No |
| R15 | Standard | 45 | 29 | No |
| R16 | Standard | 45 | 35 | No |
| R17 | Standard | 45 | 37 | No |
| R18 | Standard | 45 | 34 | No |
| R19 | Standard | 45 | 33 | No |
| R20 | Standard | 45 | 32 | No |
| R21 | Standard | 45 | 33 | No |
| R22 | Standard | 45 | 32 | No |
| R23 | Standard | 45 | 31 | No |
| R24 | Standard | 45 | 30 | No |
| T1 | When is use | 65 (45 internal) [3] | 48 | No |
| ***Stage 2: Concrete hardstand and roadways*** | | | | |
| R1 | Standard | 45 | 24 | No |
| R2 | Standard | 45 | 25 | No |
| R3 | Standard | 45 | 26 | No |
| R4 | Standard | 45 | 26 | No |
| R5 | Standard | 45 | 26 | No |
| R6 | Standard | 45 | 27 | No |
| R7 | Standard | 45 | 27 | No |
| R8 | Standard | 45 | 27 | No |
| R9 | Standard | 45 | 27 | No |
| R10 | Standard | 45 | 26 | No |
| R11^ | Standard | 45 | 38 | No |
| R12 | Standard | 45 | 37 | No |
| R13 | Standard | 45 | 34 | No |
| R14 | Standard | 45 | 32 | No |
| R15 | Standard | 45 | 30 | No |
| R16 | Standard | 45 | 36 | No |

| Assessment location | Period[1] | Noise affected NML, dB | Predicted construction noise level, dB $L_{Aeq,15min}$ | Level above NML[2] |
|---|---|---|---|---|
| R17 | Standard | 45 | 38 | No |
| R18 | Standard | 45 | 35 | No |
| R19 | Standard | 45 | 34 | No |
| R20 | Standard | 45 | 33 | No |
| R21 | Standard | 45 | 34 | No |
| R22 | Standard | 45 | 33 | No |
| R23 | Standard | 45 | 32 | No |
| R24 | Standard | 45 | 31 | No |
| T1 | When is use | 65 (45 internal) [3] | 49 | No |
| ***Stage 3: Building structure and erection*** | | | | |
| R1 | Standard | 45 | 23 | No |
| R2 | Standard | 45 | 24 | No |
| R3 | Standard | 45 | 25 | No |
| R4 | Standard | 45 | 25 | No |
| R5 | Standard | 45 | 25 | No |
| R6 | Standard | 45 | 26 | No |
| R7 | Standard | 45 | 26 | No |
| R8 | Standard | 45 | 26 | No |
| R9 | Standard | 45 | 26 | No |
| R10 | Standard | 45 | 25 | No |
| R11^ | Standard | 45 | 37 | No |
| R12 | Standard | 45 | 36 | No |
| R13 | Standard | 45 | 33 | No |
| R14 | Standard | 45 | 31 | No |
| R15 | Standard | 45 | 29 | No |
| R16 | Standard | 45 | 35 | No |
| R17 | Standard | 45 | 37 | No |
| R18 | Standard | 45 | 34 | No |
| R19 | Standard | 45 | 33 | No |
| R20 | Standard | 45 | 32 | No |
| R21 | Standard | 45 | 33 | No |

| Assessment location | Period[1] | Noise affected NML, dB | Predicted construction noise level, dB $L_{Aeq,15min}$ | Level above NML[2] |
|---|---|---|---|---|
| R22 | Standard | 45 | 32 | No |
| R23 | Standard | 45 | 31 | No |
| R24 | Standard | 45 | 30 | No |
| T1 | When is use | 65 (45 internal) [3] | 48 | No |

1. Standard hours (7.00 am to 6.00 pm Monday to Friday, 8.00 am to 1.00 pm Saturday and no work on Sunday or public holidays.
2. Level above NML for standard hours only.
3. Assuming windows closed during use and minimum 20dB noise reduction

R11^ within WSAP

A review of the predicted levels in Table 5.5, confirm that the standard day NML of 45 dB based on 35 dB background noise will be satisfied for all anticipated phases of construction works and will not result in any adverse noise impacts at any reference assessment locations.

## 5.3 Construction vibration

In relation to human comfort response, the safe working distances in Table 4.8 relate to continuous vibration and apply to residential assessment locations. For most construction activities, vibration emissions are intermittent in nature and for this reason, higher vibration levels occurring over shorter periods are acceptable, as discussed in BS 6472-1.

The nearest assessment locations are more than 800 m to the closest proposed construction activities. This assessment location is well beyond the safe working distances for human response (Table 4.8). Vibration impacts from construction at residential assessment locations are therefore highly unlikely.

# 6 Noise mitigation and management

## 6.1 Operation

### 6.1.1 Receivers external to MRP

Noise modelling has predicted that operational noise contributions from the project satisfy the project amenity and intrusive noise levels for all reference assessment locations (Table 5.1).

Assessment of potential sleep disturbance from operation of the project has confirmed compliance for all residential assessment locations in terms of $L_{Amax}$ 52 dB (Table 5.2) and $L_{Aeq,15min}$ 40 dB (Table 5.1) under the procedures of the NPfI. No additional mitigation measures are therefore required to satisfy noise targets.

The project will need to be constructed in accordance with the general assumptions and modelling parameters outlined in Section 4.2 and Table 4.6. Table 6.1 provides proposed mitigation measures during operations. Where site or building design changes are made, these must be assessed. Alternative designs are permitted but should be assessed and noise modelled to confirm noise goals can be satisfied.

**Table 6.1 Proposed mitigation measures during operation**

| Requirement | Mitigation measure | Responsibility | Timing |
|---|---|---|---|
| Internal design noise levels | Space averaged internal noise levels to satisfy the assumptions presented in 4.2.1. | End User / Contractor | Pre-construction / design / Operation |
| Building construction | Building construction materials and acoustic requirements in general accordance with the assumptions presented in Section 4.2.1 or equivalent – including design and specification of refrigeration plantroom^ | Contractor / Designer | Pre-construction / design |
| Selection of plant and equipment | Specification for all plant and equipment to be in accordance with the noise levels presented in Section 4.2.2 or equivalent | Contractor | Design / operation |
| Maintenance | Plant and equipment to be maintained to satisfy the ongoing noise levels referenced in Section 4.2.2. | Operator | Operation |

Note: ^ conceptual design only – so final details subject to detailed design based on acoustic performance and use of Warehouse 2 for climate controlled facility is likely to require a further application

It should be noted that noise from the site to sensitive receivers is largely controlled by HV movements and logistics activities, minor changes to fixed plant and equipment and building design and material specifications is unlikely to significantly alter the overall noise level emission.

In terms of Warehouse 2 and potential for climate controlled building or part thereof, the assessment has considered a typical system and final details would be subject to design and specification based on acoustic performance to ensure that project noise goals can be satisfied. Furthermore, the use of Warehouse 2 is likely to require a separate application that will ensure that any additional fixed mechanical plant is suitably selected, installed and designed to meet noise goals.

### 6.1.2 Residual residences within MRP

Under the instruction of DPHI, this assessment conducted an assessment of residual residences within the MRP. The assessment has identified six potential residences eligible for negotiated agreement for the purpose of noise mitigation (Section 5.1.2).

Negotiated agreements are proposed only as an interim measure as instructed by DPHI and solely for the purpose of noise mitigation where a residence listed herein is still occupied and for residential use and is not subject to a development application for commercial or industrial use either approved or unapproved.

Further to this no residence shall be eligible for negotiated agreement for the purpose of noise mitigation from this project where they have already entered into such agreement with another landholder for equivalent purposes.

## 6.2 Construction

### 6.2.1 General

The EPA's NSW ICNG requires that construction noise levels are assessed against NMLs.

Compliance with NMLs has been predicted for all refence assessment locations. No noise exceedances of $L_{Aeq,15min}$ are predicted for any reference assessment location.

### 6.2.2 Work practices

Feasible and reasonable mitigation measures to reduce construction noise levels will be reviewed and implemented where complaints are received and validated by exceedance of NML.

Work practice methods may include:

- regular reinforcement (such as at toolbox talks) of the need to minimise noise and vibration
- avoiding the use of portable radios, public address systems or other methods of site communication that may unnecessarily impact upon nearby residents
- develop routes for the delivery of materials and parking of vehicles to minimise noise
- where possible, avoid the use of equipment that generates impulsive noise
- notify residents prior to the commencement of intensive and OOH works (fi required).

### 6.2.3 Plant and equipment

Additional measures for plant and equipment may include:

- where possible, choose quieter plant and equipment based on the optimal power and size to most efficiently perform the required task
- operate plant and equipment in the quietest and most efficient manner
- minimise the number of plant and equipment operating simultaneously while still meeting processing requirements
- switch off idle plant
- regularly inspect and maintain plant and equipment to minimise noise and vibration level increases, to ensure that all noise and vibration reduction devices are operating effectively.

### 6.2.4 Noise management levels

As discussed in Section 6.2.2, residents will be notified prior to works commencing. Noise monitoring during the initial stages of construction will be undertaken to confirm actual construction noise levels. If NMLs are exceeded, Contractor will identify feasible and reasonable mitigation measures that reduce construction noise levels to at or below NMLs where practical.

### 6.2.5 Quantifying noise reductions

Approximate noise reductions provided by some of these measures are provided in Table 6.2.

**Table 6.2 Relative effectiveness of various forms of noise control**

| Noise control | Nominal noise reduction possible, in total A-weighted sound pressure level, dB |
|---|---|
| Increase source to receiver distance[1] | approximately 6 dB for each doubling of distance |
| Reduce equipment operating times or turn off idling machinery[2] | approximately 3 dB per halving of operating time |
| Operating training on quiet operation[2] | up to 3 to 5 dB |
| Screening (e.g. noise barrier)[1] | normally 5 dB to 10 dB, maximum 15 dB |
| Enclosure (e.g. shed/building)[1] | normally 15 dB to 25 dB, maximum 50 dB |
| Silencing (e.g. exhaust mufflers) [1] | normally 5 dB to 10 dB, maximum 20 dB |

1. Sourced from AS2436-2010
2. Based on EMM's measurement experience at construction and mining sites

# 7 Conclusion

This assessment has been prepared to consider the noise and vibration impacts of the project on reference residential assessment locations, BAPS Temple (future building heights) and residual residences within the MRP in terms of site operations and construction.

## 7.1 Operations

Assessment of operational noise associated with the project has confirmed adherence with NSW NPfI (EPA 2017) requirements adopting the relevant amenity criteria and accounting for three to four sites of equal noise contribution affecting the same reference residential receiver location for areas outside of MRP. Noise is also predicted to satisfy the NPfI at the place of worship location (BAPS Temple) considering main central temple building roof terrace and Mandir to the east based on design levels.

As instructed by DPHI, an assessment of residual residences within MRP has been conducted and confirmed up to six residences potentially eligible for negotiated agreements for the purpose of noise mitigation.

Night activities from trucks and fork trucks associated with loading / unloading are predicted to satisfy the adopted sleep disturbance screening criteria of $L_{Amax}$ 52 dB and $L_{Aeq,15min}$ 40 dB as defined in the NSW NPfI (EPA 2017) for all reference residential assessment locations adopting a conservative approach of minimum background noise levels.

The project comprises a relatively small site within a total greater precinct where all traffic from WSAP and MRP was considered[7]. Traffic will travel to and from the site via Aldington Road, wholly within an industrial zoned precinct, prior to joining Mamre Road, M12 or M4 that are highly trafficked arterial roads. Any potential impacts from the project, comprising a forecast total 995 movements (light and heavy vehicles) per day and a peak one hour of comprising 81 movements of which 63 are light vehicles and 18 are heavy vehicles and would be suitably diluted within existing traffic volumes to not result in any perceivable impact.

With the effective management and incorporation of mitigation and management measures listed in Section 6.1, operational noise emissions from the project can be managed to minimise impacts.

## 7.2 Construction

Construction noise levels from the project are predicted to comply with noise management levels (NMLs) at all privately owned assessment locations. The assessment has considered standard construction hours under noise enhancing conditions and predicted that the NMLs would be satisfied for all assessment locations, accordingly no adverse noise impacts are anticipated from construction activities based on the assumptions of this assessment.

The potential for vibration impacts on residents and vibration sensitive structures near construction has been assessed. The nearest residence to construction activity is assessment location R2 which is approximately 800 m away from the closest proposed construction activities (new site access). This assessment location is well outside of the safe working distances of likely plant, required to maintain acceptable human response and structural vibration levels. Vibration impacts from construction at all assessment locations are therefore highly unlikely.

With the effective incorporation of mitigation and management measures listed in Section 6.2, construction noise and vibration emissions from the project can be managed to minimise impacts.

[7] Ason Group. Transport Management & Accessibility Plan. 253-267 Aldington Road, Kemps Creek Report P1730r01 dated 3 November 2023 – File reference 1730r01v12 TMAP_259-263 Aldington Road, Kemps Creek and Westgate Industrial Estate, 253-267 Aldington Road, Kemps Creek [SSD-23480429] - Transport Assessment Addendum dated 1 November 2024 - File reference P17310v4 RFI_Westgate Aldington Rd, Kemps Creek

# References


Ason Group. Transport Management & Accessibility Plan. 253-267 Aldington Road, Kemps Creek Report P1730r01 dated 3 November 2023 – File reference 1730r01v12 TMAP_259-263 Aldington Road, Kemps Creek, Issue

Westgate Industrial Estate, 253-267 Aldington Road, Kemps Creek [SSD-23480429] – Transport Assessment Addendum dated 1 November 2024 - File reference P17310v4 RFI_Westgate Aldington Rd, Kemps Creek

Australian Standard AS 1055-2018 - *Acoustics - Description and Measurement of Environmental Noise*.

Australian Standard AS 2187.2-2006 *Explosives* - Storage *and Use - Use of Explosives*.

BS 7385 Part 2-1993 *Evaluation and measurement for vibration in buildings Part 2*.

BS 6472 – 2008 *Evaluation of human exposure to vibration in buildings (1-80Hz).*

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Nettleton Tribe – Proposed Warehouse & Distribution Centre Buildings. 253-267 Aldington Road, Kemps Creek – 12253-ARCH. COMBINED_250124

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# Appendix A
## Architectural drawings

EMM
creating opportunities

ICON OCEANIA

nettletontribe

## DA DRAWING LIST

| No. | SHEET NAME | REV | DATE |
|---|---|---|---|
| DA000 | Cover Page | 13 | 24.01.2025 |
| DA001 | Location Plan | 4 | 13.10.2023 |
| DA001A | Site Analysis | 2 | 13.10.2023 |
| DA002 | Master Plan | 12 | 24.01.2025 |
| DA002A | Stage 1 Works Plan | 9 | 24.01.2025 |
| DA002B | Stage 2 Works Plan | 2 | 23.10.2024 |
| DA003 | NDA Calculation Plan | 5 | 23.10.2024 |
| DA011 | Warehouse 1A Floor Plan | 12 | 23.10.2024 |
| DA012 | Warehouse 1B & 1C Floor Plan | 12 | 24.01.2025 |
| DA013 | Warehouse 2 Floor Plan | 11 | 23.10.2024 |
| DA014 | Warehouse 1A Roof Plan | 11 | 23.10.2024 |
| DA015 | Warehouse 1B & 1C Roof Plan | 10 | 23.10.2024 |
| DA016 | Warehouse 2 Roof Plan | 11 | 23.10.2024 |
| DA017 | Office 1A Floor Plan | 8 | 23.10.2024 |
| DA017A | Office 1B & 1C Floor Plan | 2 | 23.10.2024 |
| DA020 | Office 2 Floor Plan | 8 | 23.10.2024 |
| DA021 | Warehouse 1A Elevations | 10 | 23.10.2024 |
| DA022 | Warehouse 1B & 1C Elevations | 10 | 23.10.2024 |
| DA023 | Warehouse 2 Elevations | 9 | 23.10.2024 |
| DA025 | Office 1A Elevations | 8 | 23.10.2024 |
| DA025A | Office 1B & 1C Elevations | 2 | 23.10.2024 |
| DA028 | Office 2 Elevations | 8 | 23.10.2024 |
| DA031 | Warehouse 1A Sections | 11 | 23.10.2024 |
| DA032 | Warehouse 1B & 1C Sections | 10 | 23.10.2024 |
| DA033 | Warehouse 2 Sections | 9 | 23.10.2024 |
| DA035 | Office 1A Sections | 2 | 23.10.2024 |
| DA036 | Office 1B & 1C Sections | 2 | 23.10.2024 |
| DA037 | Office 2 Sections | 2 | 23.10.2024 |
| DA061 | Signage Strategy Plan | 10 | 24.01.2025 |
| DA090 | 3D Perspective - Office 1A | 6 | 23.10.2024 |
| DA090A | 3D Perspective - Office 1B &1C | 2 | 23.10.2024 |
| DA093 | 3D Perspective - Office 2 | 6 | 23.10.2024 |

# PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS

253 -267 ALDINGTON ROAD, KEMPS CREEK, NSW

DEVELOPMENT APPLICATION

JANUARY 2025




Key Plan

0 100000 250000

| Issue | Description | Date |
|---|---|---|
| 4 | ISSUED FOR DA | 13.10.2023 |
| 3 | ISSUED FOR DA | 10.09.2021 |
| 2 | ISSUED FOR DA | 08.09.2021 |
| 1 | PRELIMINARY ISSUE | 19.08.2021 |

**SSDA**

Client

ICON OCEANIA

Builder

Project Name

**PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS**

Project Address

**253-267 ALDINGTON RD, KEMPS CREEK, NSW**

Drawing Title

**Location Plan**

| Author: | Checker: | Sheet Size: | Scale: |
|---|---|---|---|
| JM | MC | A1 | NTS |

Drawing Number: **12253_DA001**

Issue: **4**

nettleton tribe partnership pty ltd ABN 58 161 683 122

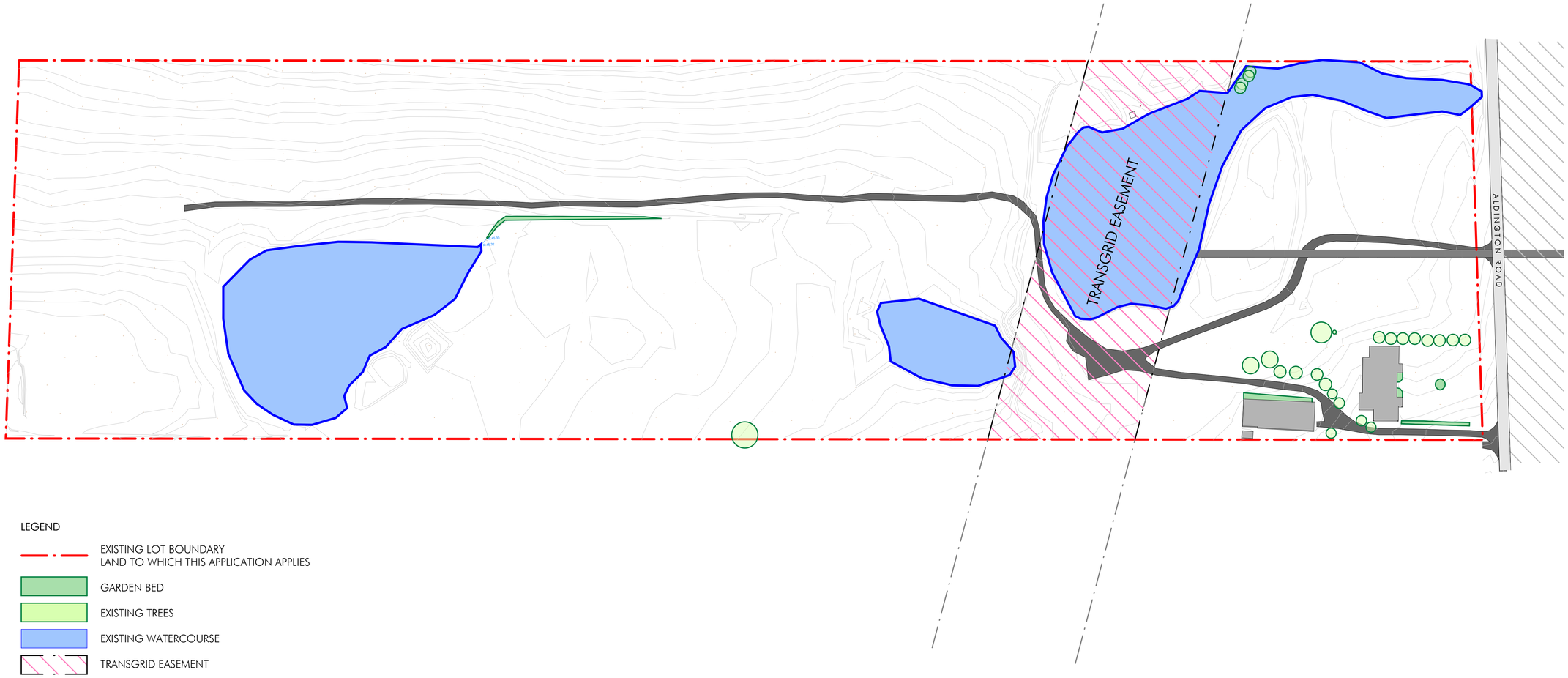
117 Willoughby Road, Crows Nest, NSW 2065
t +61 2 9431 6431
e: sydney@nettletontribe.com.au w: nettletontribe.com.au

## Key Plan

0 20000 50000

| Issue | Description | Date |
|---|---|---|
| 2 | ISSUED FOR DA | 13.10.2023 |
| 1 | ISSUED FOR DA | 10.09.2021 |

NOTE:
REFER TO DESIGN REPORT FOR FURTHER SITE ANALYSIS.




LEGEND

- EXISTING LOT BOUNDARY LAND TO WHICH THIS APPLICATION APPLIES
- GARDEN BED
- EXISTING TREES
- EXISTING WATERCOURSE
- TRANSGRID EASEMENT
- EXISTING BUILDINGS
- EXISTING GRAVEL PATH

DETAIL SURVEY PLAN

DRAWING NUMBER: 2101126-DET-001-A
REVISION: A
DATE: 01.06.2021
PREPARED BY: BEVERIDGE WILLIAMS
LAND DEVELOPMENT CONSULTANTS
REGISTERED SURVEYORS

**SSDA**

Client
ICON OCEANIA

Builder

Project Name
**PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS**

Project Address
**253-267 ALDINGTON RD, KEMPS CREEK, NSW**

Drawing Title
**Site Analysis**

| Author: | Checker: | Sheet Size: | Scale: |
|---|---|---|---|
| JM | MC | A1 | 1:1200 |

Drawing Number: **12253_DA001A** Issue: **2**

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e: sydney@nettletontribe.com.au w: nettletontribe.com.au

## DEVELOPMENT SUMMARY

| | |
|---|---|
| GROSS SITE AREA | 101,453m² |
| LOT 1 SITE AREA | 59,541m² |
| LOT 2 SITE AREA | 31,928m² |
| ALDINGTON ROAD WIDENDING RESERVE | (1,672m²) |
| ROAD RESERVE | (8,312m²) |
| CUL-DE-SAC RESERVE | (297m²) |
| TRANSMISSION EASEMENT | (10,210m²) |
| NON-DEVELOPABLE AREA* | (32,396m²) |
| NET DEVELOPABLE AREA (NDA)* | 69,057m² |

** REFER TO DRAWING NO. DA003 - NDA CALCULATION PLAN FOR DETAILS*

| | |
|---|---|
| LOT 1 | |
| TOTAL BUILDING AREA | 21,661m² |
| LANDSCAPED AREA | APPX. 16,500m² (28%) |
| LOT 2 | |
| TOTAL BUILDING AREA | 12,584m² |
| LANDSCAPED AREA | APPX. 7,500m² (23%) |
| TOTAL BUILDING AREA (GFA) | 34,245m² |
| FLOOR SPACE RATIO (FSR) / GROSS SITE AREA | 0.34 : 1 |
| FLOOR SPACE RATIO (FSR) / NET DEVELOPABLE AREA | 0.50 : 1 |

## GFA SCHEDULE

| | |
|---|---|
| WAREHOUSE 1A | 7,189m² |
| OFFICE 1A | 318m² |
| SUBTOTAL: | 7,507m² |
| WAREHOUSE 1B | 7,060m² |
| OFFICE 1B | 307m² |
| SUBTOTAL: | 7,367m² |
| WAREHOUSE 1C | 6,480m² |
| OFFICE 1C | 307m² |
| SUBTOTAL: | 6,787m² |
| WAREHOUSE 2 | 11,959m² |
| OFFICE 2 | 575m² |
| DOCK OFFICE | 50m² |
| SUBTOTAL: | 12,584m² |
| TOTAL WAREHOUSE AREA | 32,688m² |
| TOTAL OFFICE AREA | 1,557m² |
| TOTAL BUILDING AREA (GFA) | 34,245m² |

## PARKING SCHEDULE

| | |
|---|---|
| TOTAL CARPARK REQUIRED | 149 SPACES |

Table 12 of Mamre Road Precinct DCP 2021
Warehouse: 1 space/300sqm
Office: 1 space/40sqm

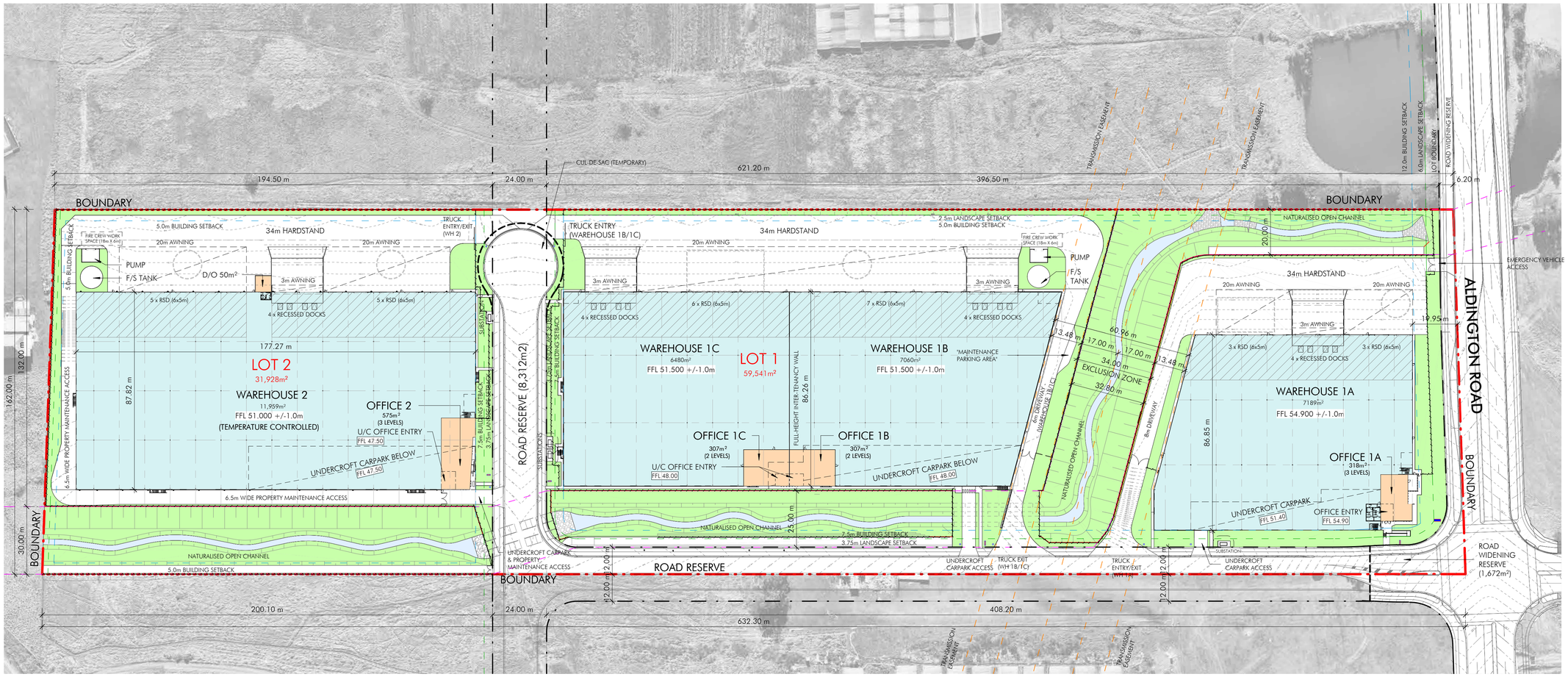
| | |
|---|---|
| TOTAL CARPARK PROPOSED | 149 SPACES |
| WAREHOUSE 1A | 32 SPACES |
| WAREHOUSE 1B & 1C | 61 SPACES |
| WAREHOUSE 2 | 56 SPACES |
| TOTAL BICYCLE PARKING REQUIRED | 34 SPACES |

Table 12 of Mamre Road Precinct DCP 2021
Warehouse: 1 space/1,000sqm (over 2,000m²)
Office: 1 space/600sqm (over 1,200m²)

| | |
|---|---|
| TOTAL BICYCLE PARKING PROPOSED | 34 SPACES |
| WAREHOUSE 1A | 8 SPACES |
| WAREHOUSE 1B & 1C | 14 SPACES |
| WAREHOUSE 2 | 12 SPACES |

## LEGENDS

- OVERALL SITE BOUNDARY
- LOT BOUNDARY
- ROAD RESERVE
- TRANSMISSION EASEMENT
- TRUNK DRAINAGE CORRIDOR EASEMENT
- LANDSCAPE SETBACK
- BUILDING SETBACK
- RETAINING WALL
- FENCE LINE




1 Master Plan
1 : 1000



Key Plan

0 20000 50000

| Issue | Description | Date |
|---|---|---|
| 12 | ISSUED FOR DA | 24.01.2025 |
| 11 | ISSUED FOR DA | 18.10.2024 |
| 10 | ISSUED FOR COORDINATION | 02.10.2024 |
| 9 | ISSUED FOR DA | 15.12.2023 |
| 8 | ISSUED FOR DA | 30.10.2023 |
| 7 | ISSUED FOR DA | 13.10.2023 |
| 6 | ISSUED FOR COORDINATION | 04.10.2023 |
| 5 | ISSUED FOR DA | 16.08.2023 |
| 4 | ISSUED FOR DA | 18.08.2022 |
| 3 | ISSUED FOR DA | 04.11.2011 |
| 2 | ISSUED FOR DA | 08.09.2021 |
| 1 | PRELIMINARY ISSUE | 24.08.2021 |

**SSDA**

Client
ICON OCEANIA

Builder

Project Name
**PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS**

Project Address
**253-267 ALDINGTON RD, KEMPS CREEK, NSW**

Drawing Title
**Master Plan**

| Author: | Checker: | Sheet Size: | Scale: |
|---|---|---|---|
| JM | MC | A1 | 1:1000 |

Drawing Number: **12253_DA002** Issue: **12**

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## DEVELOPMENT SUMMARY

| | |
|---|---|
| GROSS SITE AREA | 101,453m² |
| LOT 1 SITE AREA | 59,541m² |
| LOT 2 SITE AREA | 31,928m² |
| ALDINGTON ROAD WIDENDING RESERVE | (1,672m²) |
| ROAD RESERVE | (8,312m²) |
| CUL-DE-SAC RESERVE | (297m²) |
| TRANSMISSION EASEMENT | (10,210m²) |
| NON-DEVELOPABLE AREA* | (32,396m²) |
| NET DEVELOPABLE AREA (NDA)* | 69,057m² |

| | |
|---|---|
| LOT 1 | |
| TOTAL BUILDING AREA | 21,661m² |
| LANDSCAPED AREA | APPX. 16,500m² (28%) |

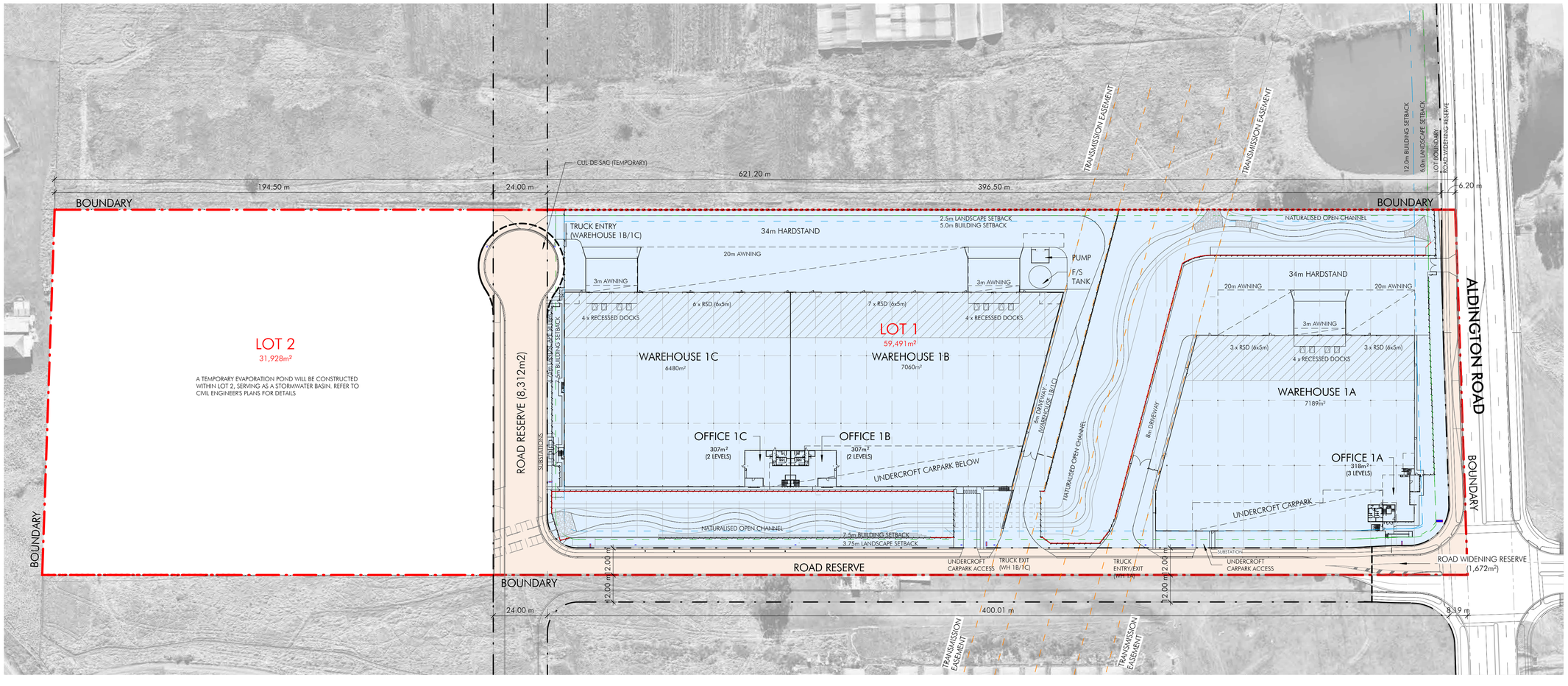
STAGE 1 WORKS

EXTENT OF WORKS INCLUDED ON STAGE 1:

- INTERNAL ROAD WORKS
- BUILDING WORKS ON LOT 1
- BULK EARTHWORKS INCLUDING STORMWATER
& RETAINING WALL PLANS (REFER TO CIVIL ENGINEER'S PLANS)

## LEGENDS

- OVERALL SITE BOUNDARY
- LOT BOUNDARY
- ROAD RESERVE
- TRANSMISSION EASEMENT
- TRUNK DRAINAGE CORRIDOR EASEMENT
- LANDSCAPE SETBACK
- BUILDING SETBACK
- RETAINING WALL
- FENCE LINE




1 Stage 1 Works Plan
1 : 1000



Key Plan

0 20000 50000

| Issue | Description | Date |
|---|---|---|
| 9 | ISSUED FOR DA | 24.01.2025 |
| 8 | ISSUED FOR DA | 23.10.2024 |
| 7 | ISSUED FOR COORDINATION | 02.10.2024 |
| 6 | ISSUED FOR DA | 15.12.2023 |
| 5 | ISSUED FOR DA | 30.10.2023 |
| 4 | ISSUED FOR DA | 13.10.2023 |
| 3 | ISSUED FOR DA | 16.08.2023 |
| 2 | ISSUED FOR DA | 08.09.2021 |
| 1 | PRELIMINARY ISSUE | 24.08.2021 |

LEGEND:

Stage 1
Infrastructure Works

Stage 1
On Site works

**SSDA**

Client
ICON OCEANIA

Builder

Project Name
**PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS**

Project Address
**253-267 ALDINGTON RD, KEMPS CREEK, NSW**

Drawing Title
**Stage 1 Works Plan**

| Author: | Checker: | Sheet Size: | Scale: |
|---|---|---|---|
| JM | MC | A1 | 1:1000 |

Drawing Number: **12253_DA002A** Issue: **9**

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## DEVELOPMENT SUMMARY

| | |
|---|---|
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| ALDINGTON ROAD WIDENDING RESERVE | (1,672m²) |
| ROAD RESERVE | (8,312m²) |
| CUL-DE-SAC RESERVE | (297m²) |
| TRANSMISSION EASEMENT | (10,210m²) |
| NON-DEVELOPABLE AREA* | (32,396m²) |
| NET DEVELOPABLE AREA (NDA)* | 69,057m² |

| | |
|---|---|
| LOT 2 | |
| TOTAL BUILDING AREA | 12,584m² |
| LANDSCAPED AREA | APPX. 7,500m² (23%) |

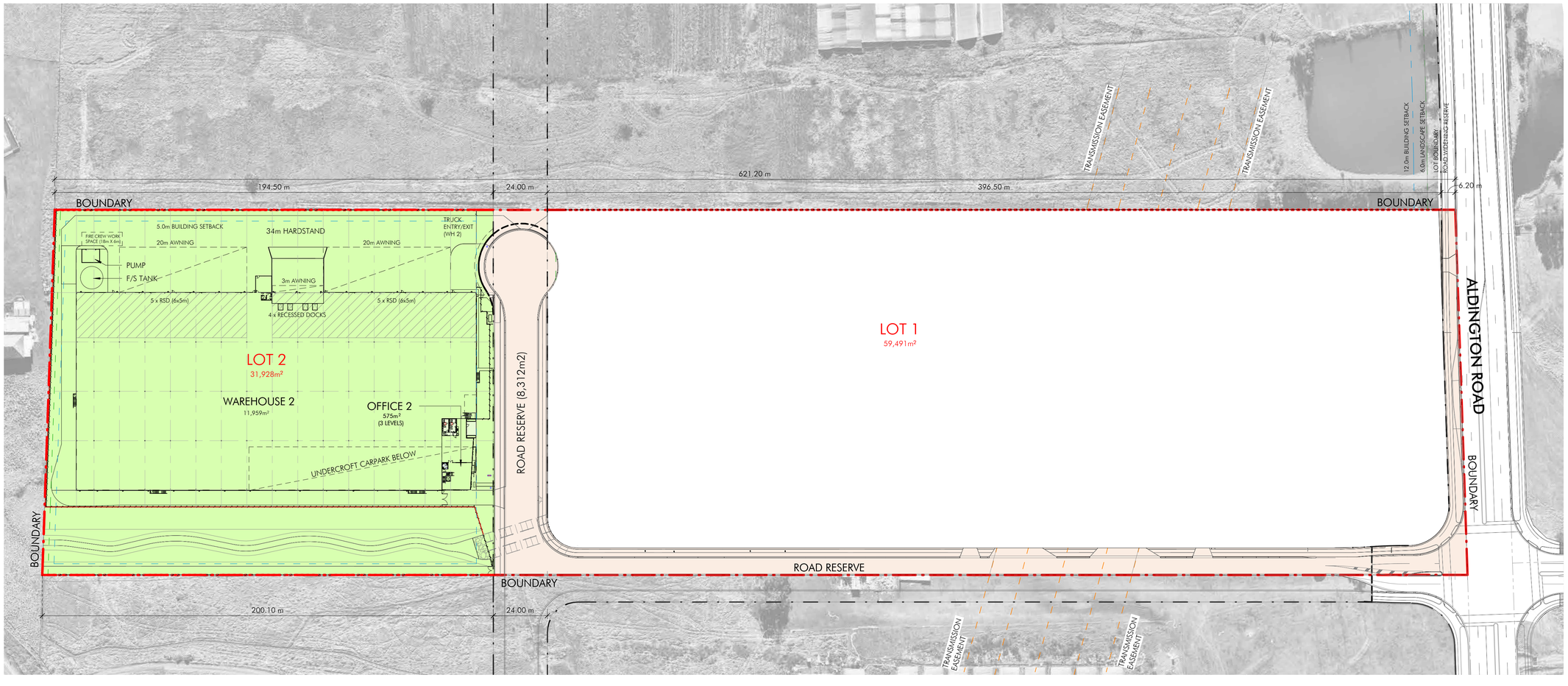
STAGE 2 WORKS

EXTENT OF WORKS INCLUDED ON STAGE 2:

- INTERNAL ROAD WORKS
- BUILDING WORKS ON LOT 2
- BULK EARTHWORKS INCLUDING STORMWATER
& RETAINING WALL PLANS (REFER TO CIVIL ENGINEER'S PLANS)

## LEGENDS

- OVERALL SITE BOUNDARY
- LOT BOUNDARY
- ROAD RESERVE
- TRANSMISSION EASEMENT
- TRUNK DRAINAGE CORRIDOR EASEMENT
- LANDSCAPE SETBACK
- BUILDING SETBACK
- RETAINING WALL
- FENCE LINE




1 Stage 2 Works Plan
1 : 1000



Key Plan

0 20000 50000

| Issue | Description | Date |
|---|---|---|
| 2 | ISSUED FOR DA | 23.10.2024 |
| 1 | ISSUED FOR COORDINATION | 02.10.2024 |

LEGEND:

Stage 1
Infrastructure Works

Stage 2
On Site works

**SSDA**

Client
ICON OCEANIA

Builder

Project Name
**PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS**

Project Address
**253-267 ALDINGTON RD, KEMPS CREEK, NSW**

Drawing Title
**Stage 2 Works Plan**

| Author: | Checker: | Sheet Size: | Scale: |
|---|---|---|---|
| JM | MC | A1 | 1:1000 |

Drawing Number: **12253_DA002B** Issue: **2**

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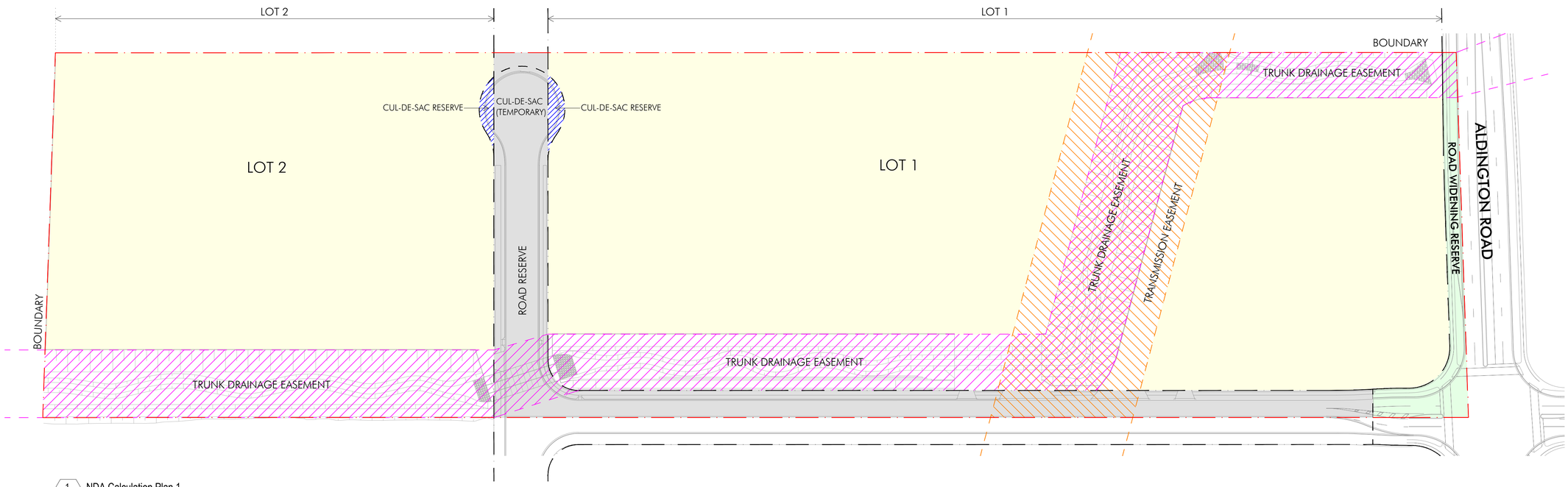
t +61 2 9431 6431
e: sydney@nettletontribe.com.au w: nettletontribe.com.au

Key Plan

0 20000 50000

| Issue | Description | Date |
|---|---|---|
| 5 | ISSUED FOR DA | 23.10.2024 |
| 4 | ISSUED FOR COORDINATION | 02.10.2024 |
| 3 | ISSUED FOR INFORMATION | 17.09.2024 |
| 2 | ISSUED FOR INFORMATION | 26.08.2024 |
| 1 | ISSUED FOR DA | 15.12.2023 |




1 NDA Calculation Plan 1
1 : 1000

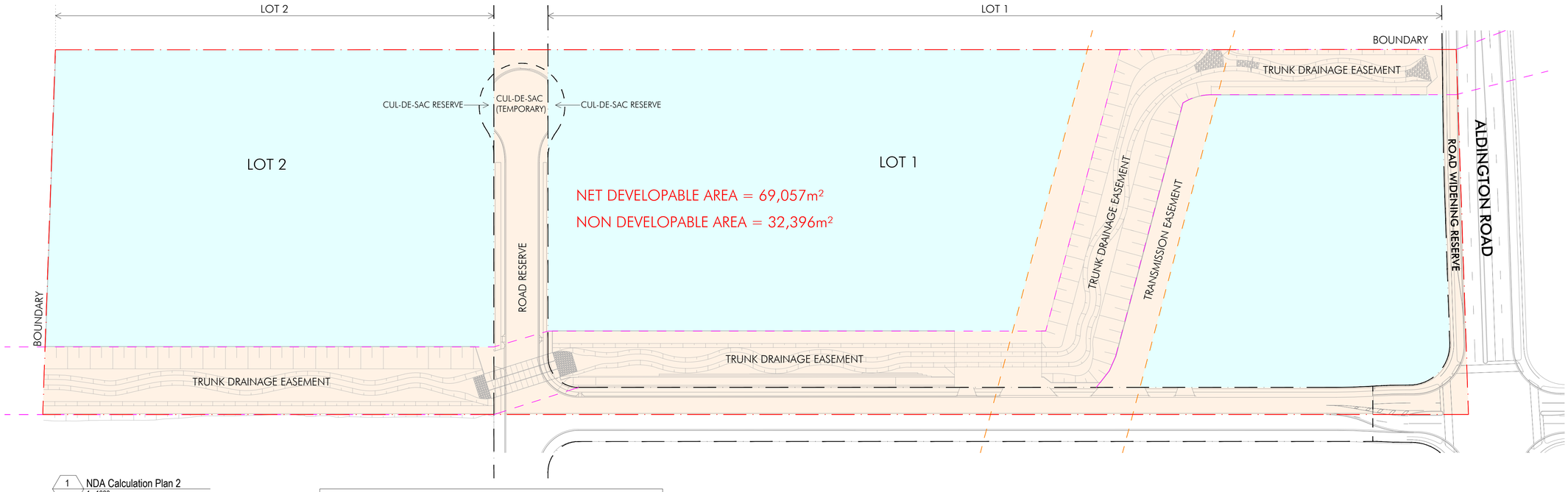
PLAN 1 LEGENDS

NET DEVELOPABLE AREA (NDA)

- LOT DEVELOPABLE AREA
- CUL-DE-SAC RESERVE (38mDIA)

NON-DEVELOPABLE AREA

- ALDINGTON ROAD WIDENING RESERVE
- ROAD RESERVE
- TRANSMISSION EASEMENT (60.96m WIDE)
- TRUNK DRAINAGE EASEMENT




1 NDA Calculation Plan 2
1 : 1000

PLAN 2 LEGENDS

- NET DEVELOPABLE AREA (NDA)
- NON-DEVELOPABLE AREA

**SSDA**

Client

ICON OCEANIA

Builder

Project Name

**PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS**

Project Address

**253-267 ALDINGTON RD, KEMPS CREEK, NSW**

Drawing Title

**NDA Calculation Plan**

| Author: | Checker: | Sheet Size: | Scale: |
|---|---|---|---|
| JM | MC | A1 | 1 : 1000 |

Drawing Number: **12253_DA003** Issue: **5**

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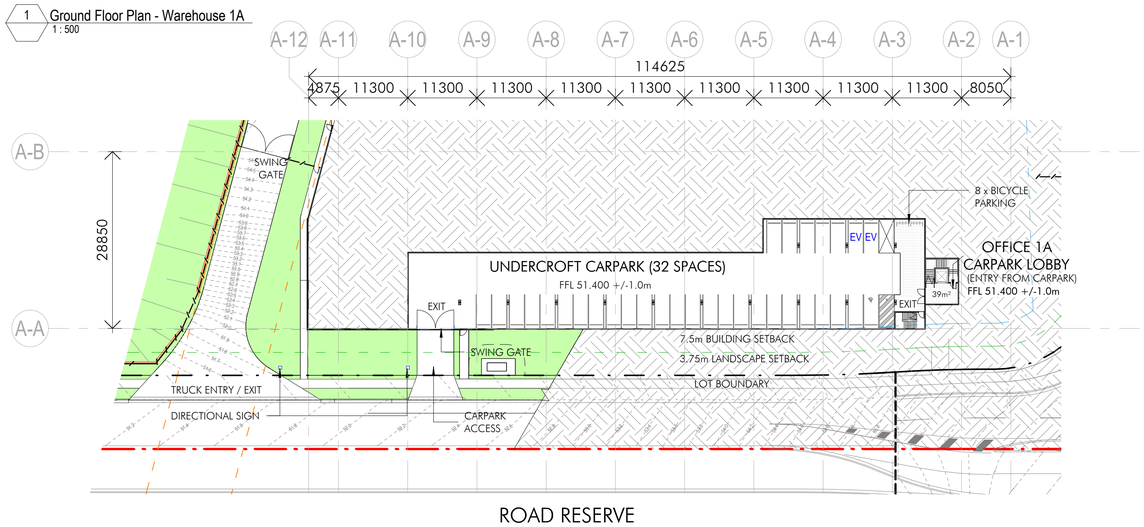
nettleton tribe partnership pty ltd ABN 58 161 683 122

117 Willoughby Road, Crows Nest, NSW 2065
t +61 2 9431 6431
e: sydney@nettletontribe.com.au w: nettletontribe.com.au


1 Ground Floor Plan - Warehouse 1A
1 : 500




2 Undercroft Carpark Plan - Warehouse 1A
1 : 500

## LEGENDS

- OVERALL SITE BOUNDARY
- LOT BOUNDARY
- ROAD RESERVE
- TRANSMISSION EASEMENT
- TRUNK DRAINAGE CORRIDOR EASEMENT
- LANDSCAPE SETBACK
- BUILDING SETBACK
- RETAINING WALL
- FENCE LINE



Key Plan

0 10000 25000

| Issue | Description | Date |
|---|---|---|
| 12 | ISSUED FOR DA | 23.10.2024 |
| 11 | ISSUED FOR COORDINATION | 02.10.2024 |
| 10 | ISSUED FOR DA | 15.12.2023 |
| 9 | ISSUED FOR DA | 30.10.2023 |
| 8 | ISSUED FOR DA | 13.10.2023 |
| 7 | ISSUED FOR COORDINATION | 04.10.2023 |
| 6 | ISSUED FOR DA | 16.08.2023 |
| 5 | ISSUED FOR DA | 19.08.2022 |
| 4 | ISSUED FOR DA | 08.09.2021 |
| 3 | PRELIMINARY ISSUE | 03.09.2021 |
| 2 | PRELIMINARY ISSUE | 24.08.2021 |
| 1 | PRELIMINARY ISSUE | 19.08.2021 |

**SSDA**

Client: ICON OCEANIA

Builder

Project Name
**PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS**

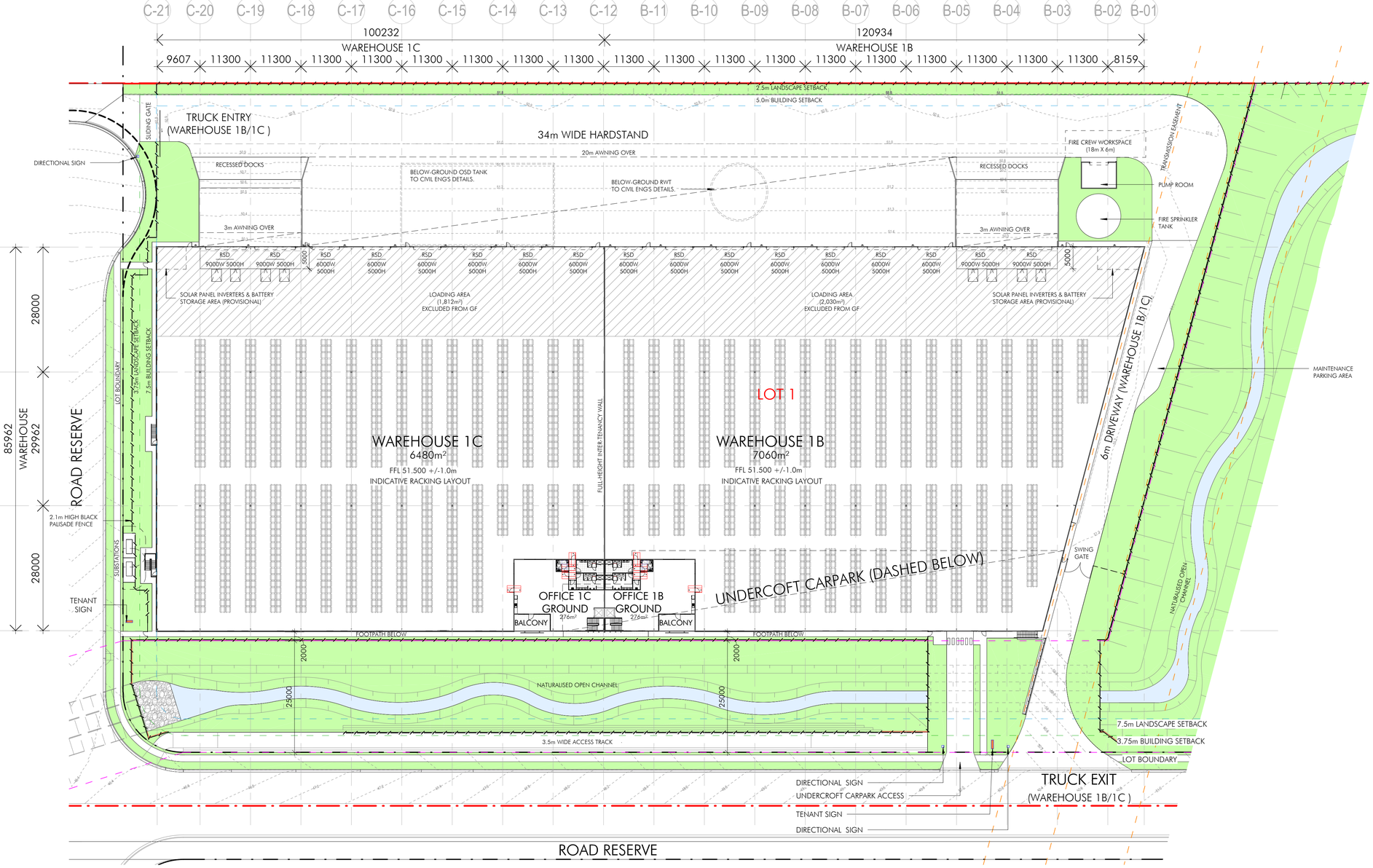
Project Address
**253-267 ALDINGTON RD, KEMPS CREEK, NSW**

Drawing Title
**Warehouse 1A Floor Plan**

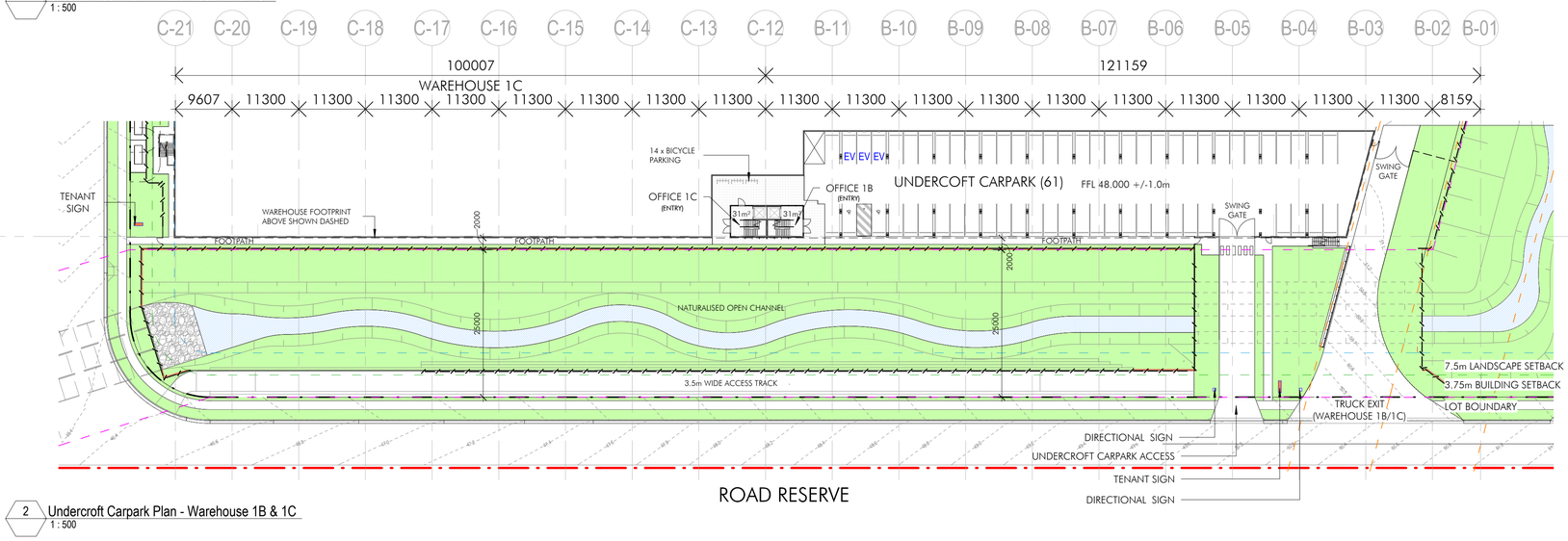
| Author: | Checker: | Sheet Size: | Scale: |
|---|---|---|---|
| JM | MC | A1 | 1:500 |

Drawing Number: **12253_DA011** Issue: **12**

nettleton tribe partnership pty ltd ABN 58 161 683 122
117 Willoughby Road, Crows Nest, NSW 2065
t +61 2 9431 6431
e: sydney@nettletontribe.com.au w: nettletontribe.com.au




1 Ground Floor Plan - Warehouse 1B & 1C
1 : 500




2 Undercroft Carpark Plan - Warehouse 1B & 1C
1 : 500

## LEGENDS

- OVERALL SITE BOUNDARY
- LOT BOUNDARY
- ROAD RESERVE
- TRANSMISSION EASEMENT
- TRUNK DRAINAGE CORRIDOR EASEMENT
- LANDSCAPE SETBACK
- BUILDING SETBACK
- RETAINING WALL
- FENCE LINE



Key Plan

0 10000 25000

| Issue | Description | Date |
|---|---|---|
| 12 | ISSUED FOR DA | 24.01.2025 |
| 11 | ISSUED FOR DA | 23.10.2024 |
| 10 | ISSUED FOR COORDINATION | 02.10.2024 |
| 9 | ISSUED FOR DA | 15.12.2023 |
| 8 | ISSUED FOR DA | 13.10.2023 |
| 7 | ISSUED FOR COORDINATION | 04.10.2023 |
| 6 | ISSUED FOR DA | 16.08.2023 |
| 5 | ISSUED FOR DA | 19.08.2022 |
| 4 | ISSUED FOR DA | 08.09.2021 |
| 3 | PRELIMINARY ISSUE | 03.09.2021 |
| 2 | PRELIMINARY ISSUE | 24.08.2021 |
| 1 | PRELIMINARY ISSUE | 19.08.2021 |

**SSDA**

Client
ICON OCEANIA

Builder

Project Name
**PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS**

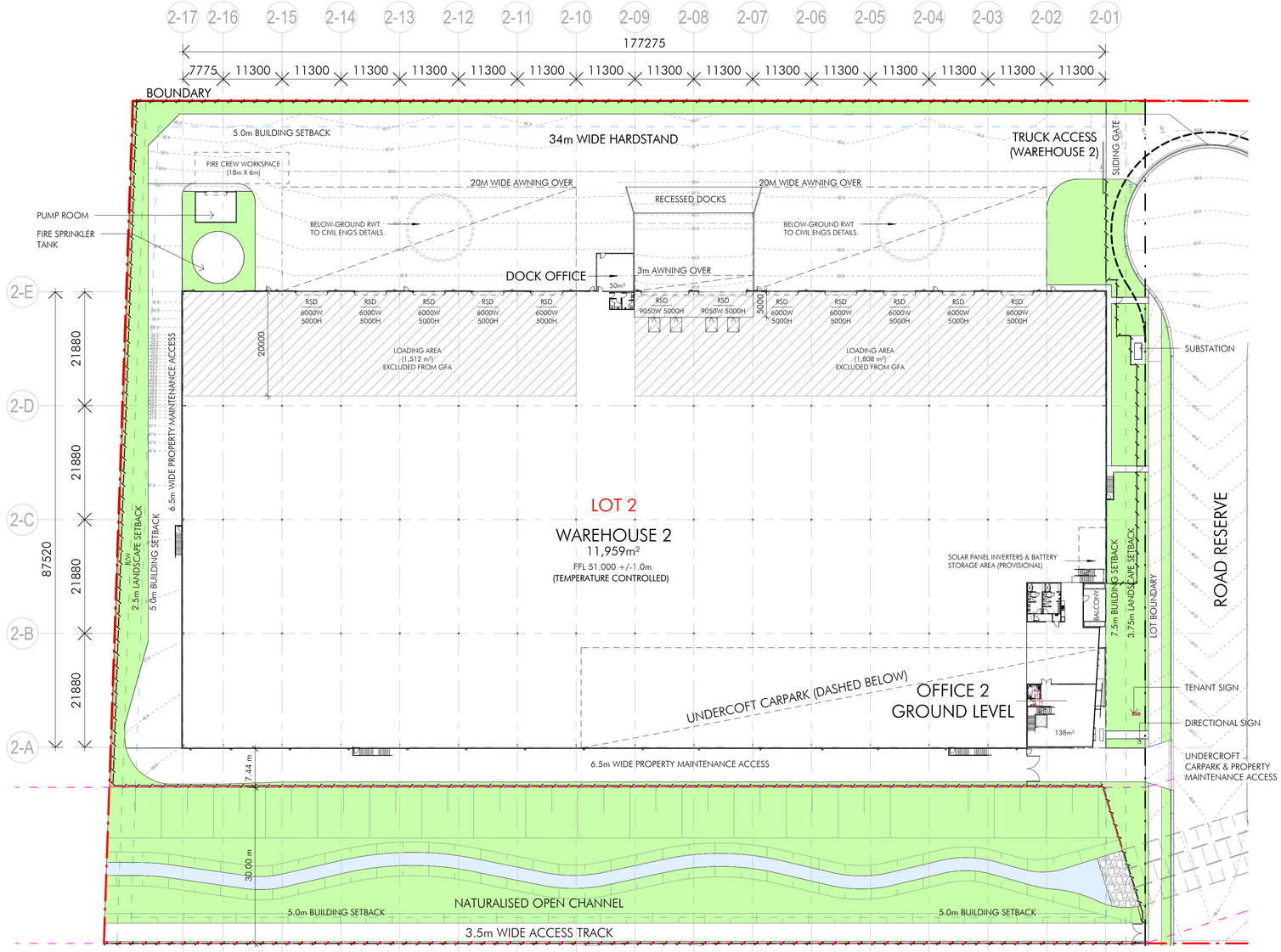
Project Address
**253-267 ALDINGTON RD, KEMPS CREEK, NSW**

Drawing Title
**Warehouse 1B & 1C Floor Plan**

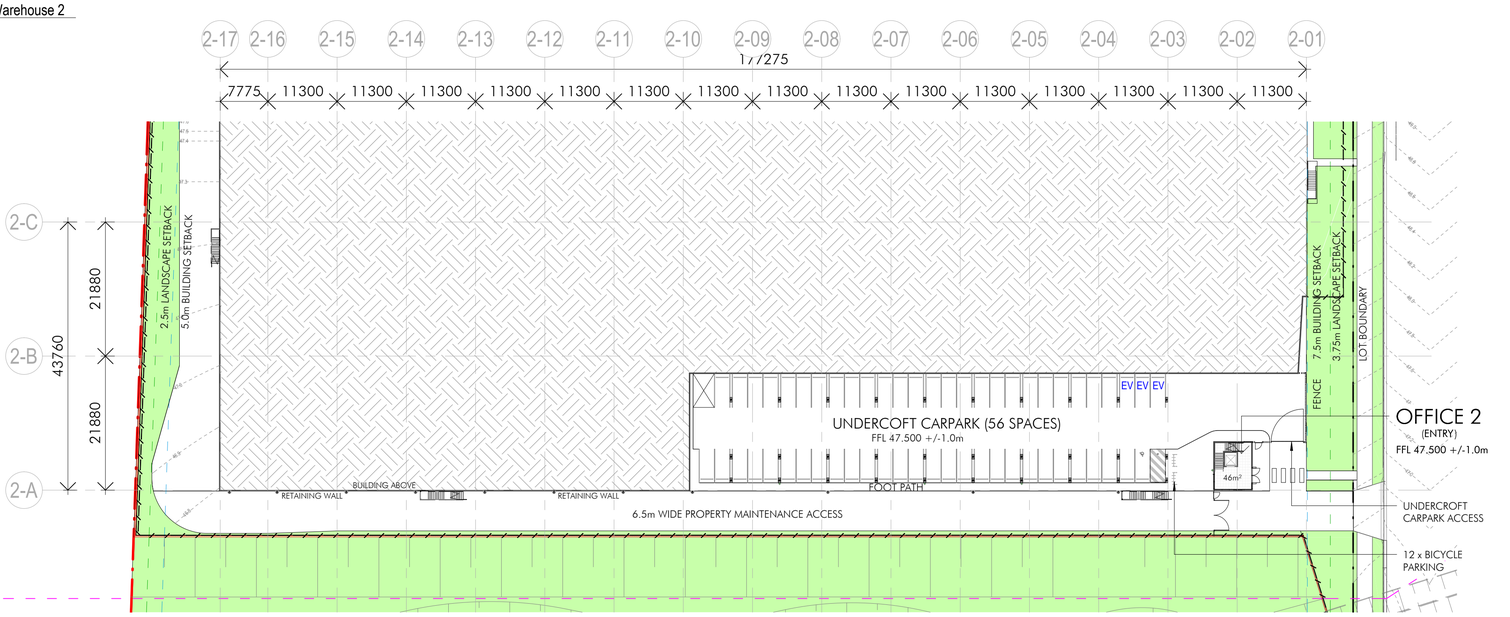
| Author: | Checker: | Sheet Size: | Scale: |
|---|---|---|---|
| JM | MC | A1 | 1:500 |

Drawing Number: **12253_DA012** Issue: **12**

nettleton tribe partnership pty ltd ABN 58 161 683 122
117 Willoughby Road, Crows Nest, NSW 2065
t +61 2 9431 6431
e: sydney@nettletontribe.com.au w: nettletontribe.com.au




1 Ground Floor Plan - Warehouse 2
1 : 500




2 Undercroft Carpark Plan - Warehouse 2
1 : 500

## LEGENDS

- OVERALL SITE BOUNDARY
- LOT BOUNDARY
- ROAD RESERVE
- TRANSMISSION EASEMENT
- TRUNK DRAINAGE CORRIDOR EASEMENT
- LANDSCAPE SETBACK
- BUILDING SETBACK
- RETAINING WALL
- FENCE LINE



Key Plan

0 10000 25000

| Issue | Description | Date |
|---|---|---|
| 11 | ISSUED FOR DA | 23.10.2024 |
| 10 | ISSUED FOR COORDINATION | 02.10.2024 |
| 9 | ISSUED FOR DA | 15.12.2023 |
| 8 | ISSUED FOR DA | 13.10.2023 |
| 7 | ISSUED FOR COORDINATION | 04.10.2023 |
| 6 | ISSUED FOR DA | 16.08.2023 |
| 5 | ISSUED FOR DA | 19.08.2022 |
| 4 | ISSUED FOR DA | 08.09.2021 |
| 3 | PRELIMINARY ISSUE | 03.09.2021 |
| 2 | PRELIMINARY ISSUE | 24.08.2021 |
| 1 | PRELIMINARY ISSUE | 19.08.2021 |

**SSDA**

Client
ICON OCEANIA

Builder

Project Name
**PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS**

Project Address
**253-267 ALDINGTON RD, KEMPS CREEK, NSW**

Drawing Title
**Warehouse 2 Floor Plan**

| Author: | Checker: | Sheet Size: | Scale: |
|---|---|---|---|
| JM | MC | A1 | 1:500 |

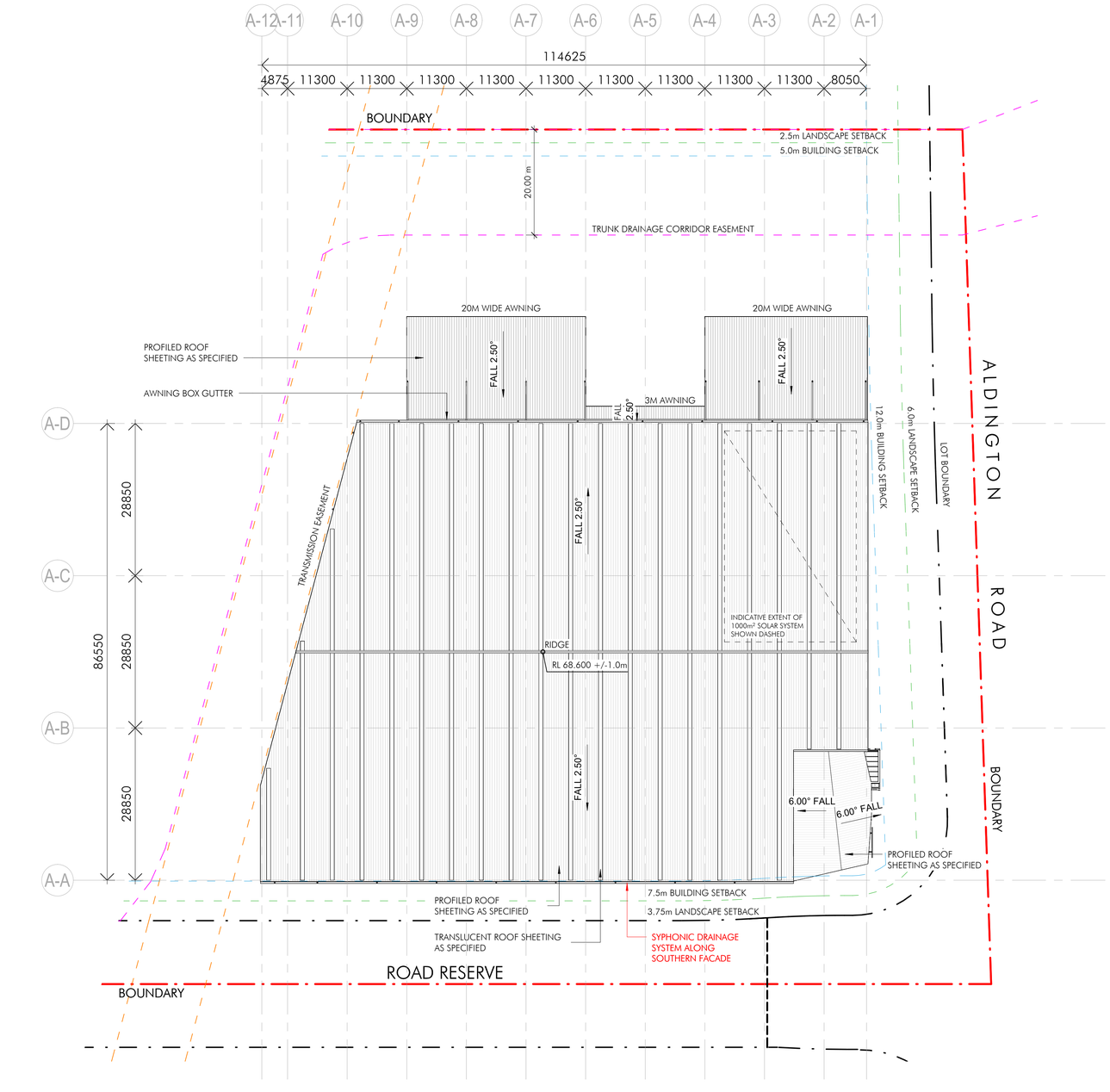
Drawing Number: **12253_DA013** Issue: **11**

nettleton tribe partnership pty ltd ABN 58 161 683 122
117 Willoughby Road, Crows Nest, NSW 2065
t +61 2 9431 6431
e: sydney@nettletontribe.com.au w: nettletontribe.com.au

Key Plan




| Issue | Description | Date |
|---|---|---|
| 11 | ISSUED FOR DA | 23.10.2024 |
| 10 | ISSUED FOR COORDINATION | 02.10.2024 |
| 9 | ISSUED FOR DA | 15.12.2023 |
| 8 | ISSUED FOR DA | 30.10.2023 |
| 7 | ISSUED FOR DA | 13.10.2023 |
| 6 | ISSUED FOR COORDINATION | 04.10.2023 |
| 5 | ISSUED FOR DA | 16.08.2023 |
| 4 | ISSUED FOR DA | 19.08.2022 |
| 3 | ISSUED FOR DA | 08.09.2021 |
| 2 | PRELIMINARY ISSUE | 24.08.2021 |
| 1 | PRELIMINARY ISSUE | 19.08.2021 |




1 Roof Plan - Warehouse 1A
1 : 500

LEGENDS

- OVERALL SITE BOUNDARY
- LOT BOUNDARY
- ROAD RESERVE
- TRANSMISSION EASEMENT
- TRUNK DRAINAGE CORRIDOR EASEMENT
- LANDSCAPE SETBACK
- BUILDING SETBACK
- RETAINING WALL
- FENCE LINE

SSDA

Client
ICON OCEANIA

Builder

Project Name
**PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS**

Project Address
**253-267 ALDINGTON RD, KEMPS CREEK, NSW**

Drawing Title
**Warehouse 1A Roof Plan**

| Author: | Checker: | Sheet Size: | Scale: |
|---|---|---|---|
| JM | MC | A1 | 1:500 |

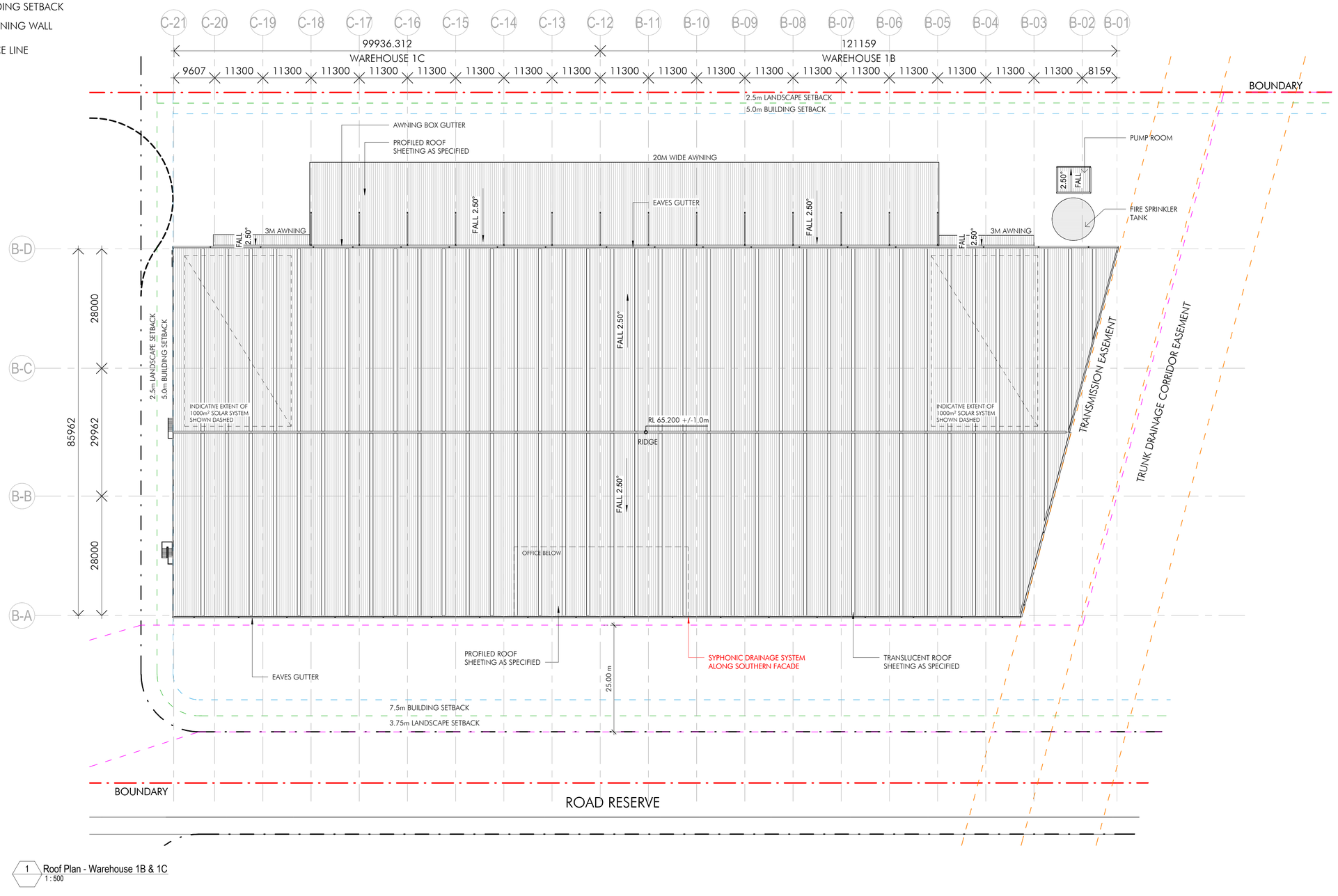
Drawing Number: **12253_DA014**
Issue: **11**

nettletontribe

nettleton tribe partnership pty ltd ABN 58 161 683 122
117 Willoughby Road, Crows Nest, NSW 2065
t +61 2 9431 6431
e: sydney@nettletontribe.com.au w: nettletontribe.com.au

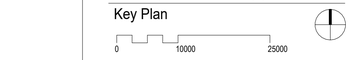
## LEGENDS

- OVERALL SITE BOUNDARY
- LOT BOUNDARY
- ROAD RESERVE
- TRANSMISSION EASEMENT
- TRUNK DRAINAGE CORRIDOR EASEMENT
- LANDSCAPE SETBACK
- BUILDING SETBACK
- RETAINING WALL
- FENCE LINE




1 Roof Plan - Warehouse 1B & 1C
1 : 500

Key Plan




| Issue | Description | Date |
|---|---|---|
| 10 | ISSUED FOR DA | 23.10.2024 |
| 9 | ISSUED FOR COORDINATION | 02.10.2024 |
| 8 | ISSUED FOR DA | 15.12.2023 |
| 7 | ISSUED FOR DA | 30.10.2023 |
| 6 | ISSUED FOR DA | 13.10.2023 |
| 5 | ISSUED FOR COORDINATION | 04.10.2023 |
| 4 | ISSUED FOR DA | 16.08.2023 |
| 3 | ISSUED FOR DA | 08.09.2021 |
| 2 | PRELIMINARY ISSUE | 24.08.2021 |
| 1 | PRELIMINARY ISSUE | 19.08.2021 |

**SSDA**

Client
ICON OCEANIA

Builder

Project Name
**PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS**

Project Address
**253-267 ALDINGTON RD, KEMPS CREEK, NSW**

Drawing Title
**Warehouse 1B & 1C Roof Plan**

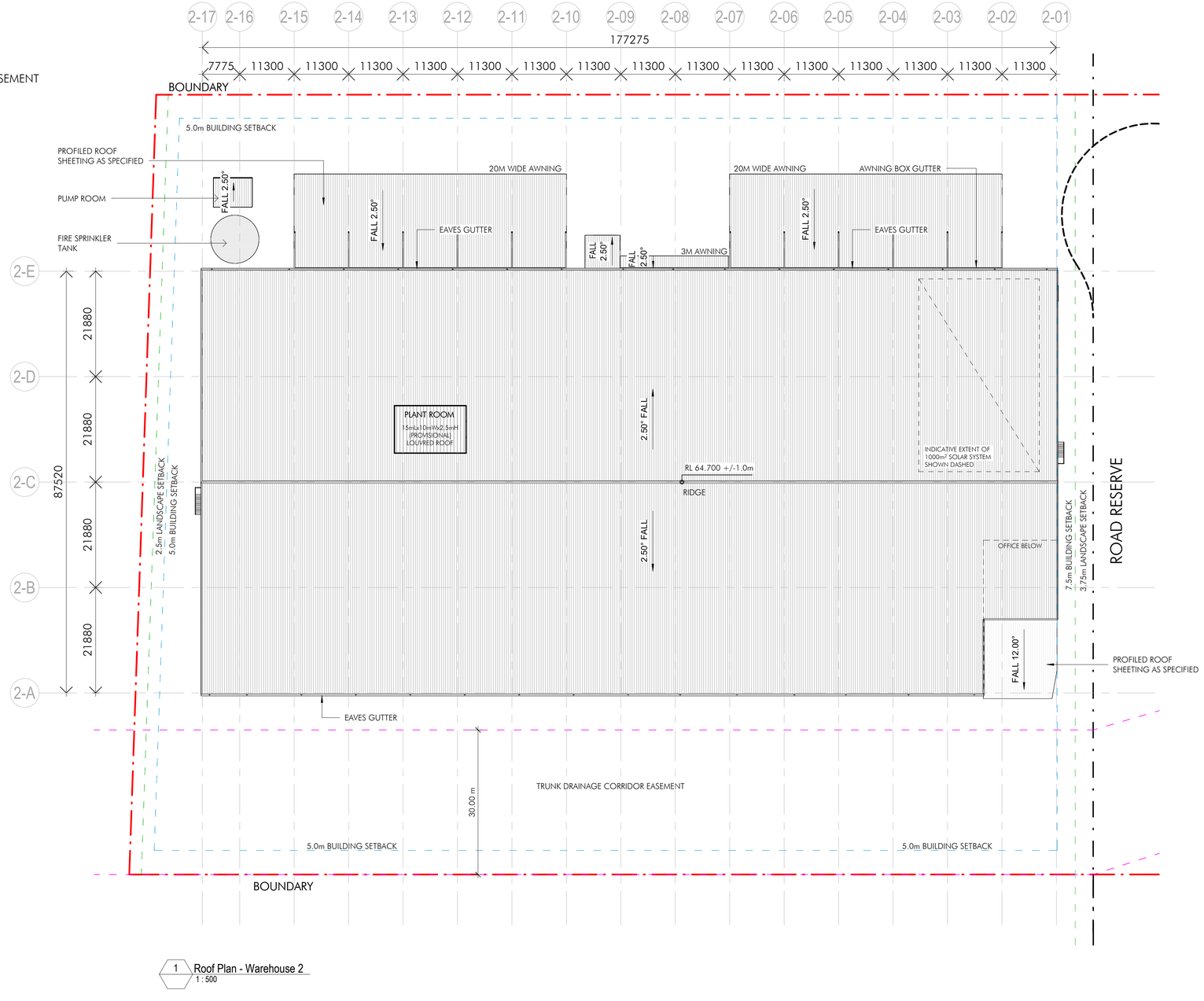
| Author: | Checker: | Sheet Size: | Scale: |
|---|---|---|---|
| TL | MC | A1 | 1:500 |

Drawing Number: **12253_DA015** Issue: **10**

nettleton tribe partnership pty ltd ABN 58 161 683 122
117 Willoughby Road, Crows Nest, NSW 2065
t +61 2 9431 6431
e: sydney@nettletontribe.com.au w: nettletontribe.com.au

## LEGENDS

- OVERALL SITE BOUNDARY
- LOT BOUNDARY
- ROAD RESERVE
- TRANSMISSION EASEMENT
- TRUNK DRAINAGE CORRIDOR EASEMENT
- LANDSCAPE SETBACK
- BUILDING SETBACK
- RETAINING WALL
- FENCE LINE




1 Roof Plan - Warehouse 2
1 : 500



Key Plan

0 10000 25000

| Issue | Description | Date |
|---|---|---|
| 11 | ISSUED FOR DA | 23.10.2024 |
| 10 | ISSUED FOR COORDINATION | 02.10.2024 |
| 9 | ISSUED FOR DA | 15.12.2023 |
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| 7 | ISSUED FOR DA | 13.10.2023 |
| 6 | ISSUED FOR COORDINATION | 04.10.2023 |
| 5 | ISSUED FOR DA | 16.08.2023 |
| 4 | ISSUED FOR DA | 19.08.2022 |
| 3 | ISSUED FOR DA | 08.09.2021 |
| 2 | PRELIMINARY ISSUE | 24.08.2021 |
| 1 | PRELIMINARY ISSUE | 19.08.2021 |

**SSDA**

Client
ICON OCEANIA

Builder

Project Name
**PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS**

Project Address
**253-267 ALDINGTON RD, KEMPS CREEK, NSW**

Drawing Title
**Warehouse 2 Roof Plan**

| Author: | Checker: | Sheet Size: | Scale: |
|---|---|---|---|
| TL | MC | A1 | 1:500 |

Drawing Number: **12253_DA016**
Issue: **11**

nettleton tribe

nettleton tribe partnership pty ltd ABN 58 161 683 122

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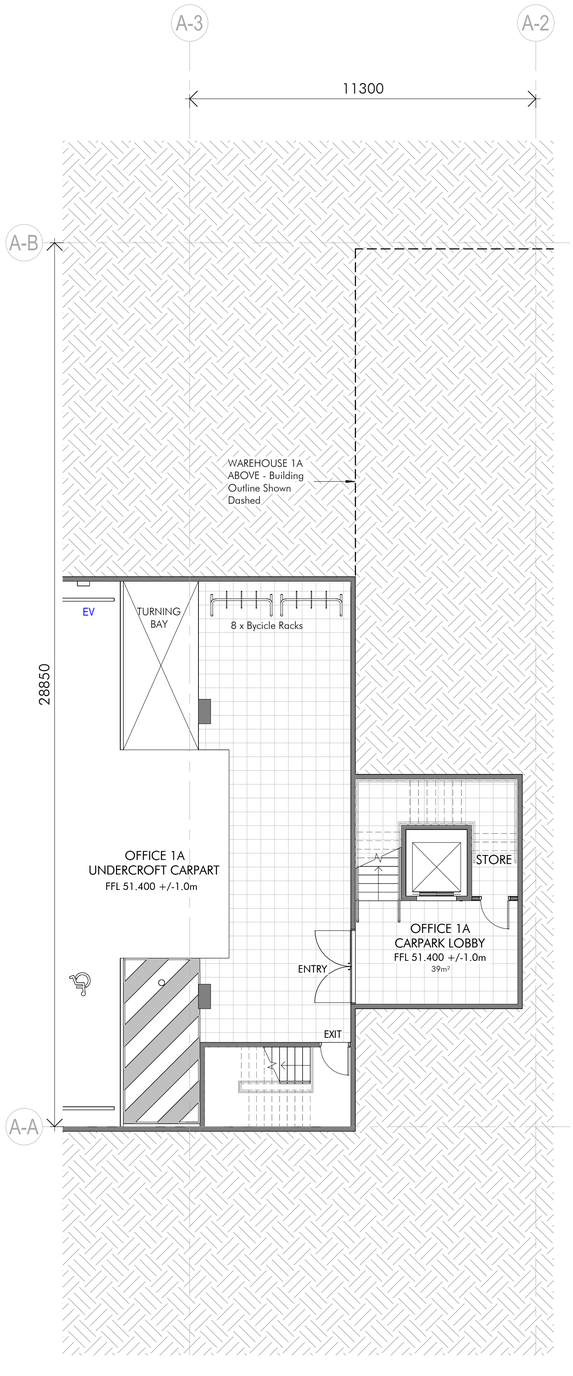
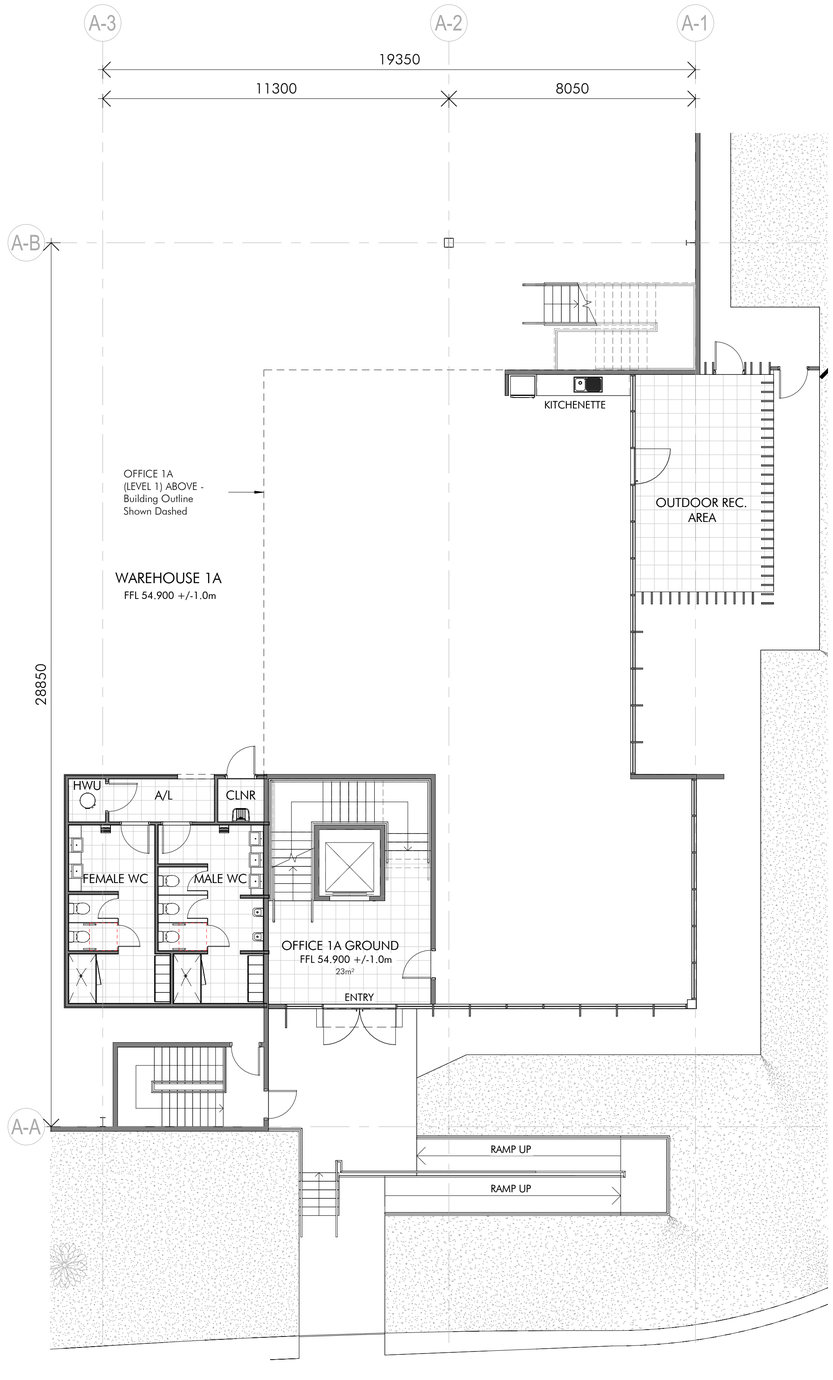
Key Plan



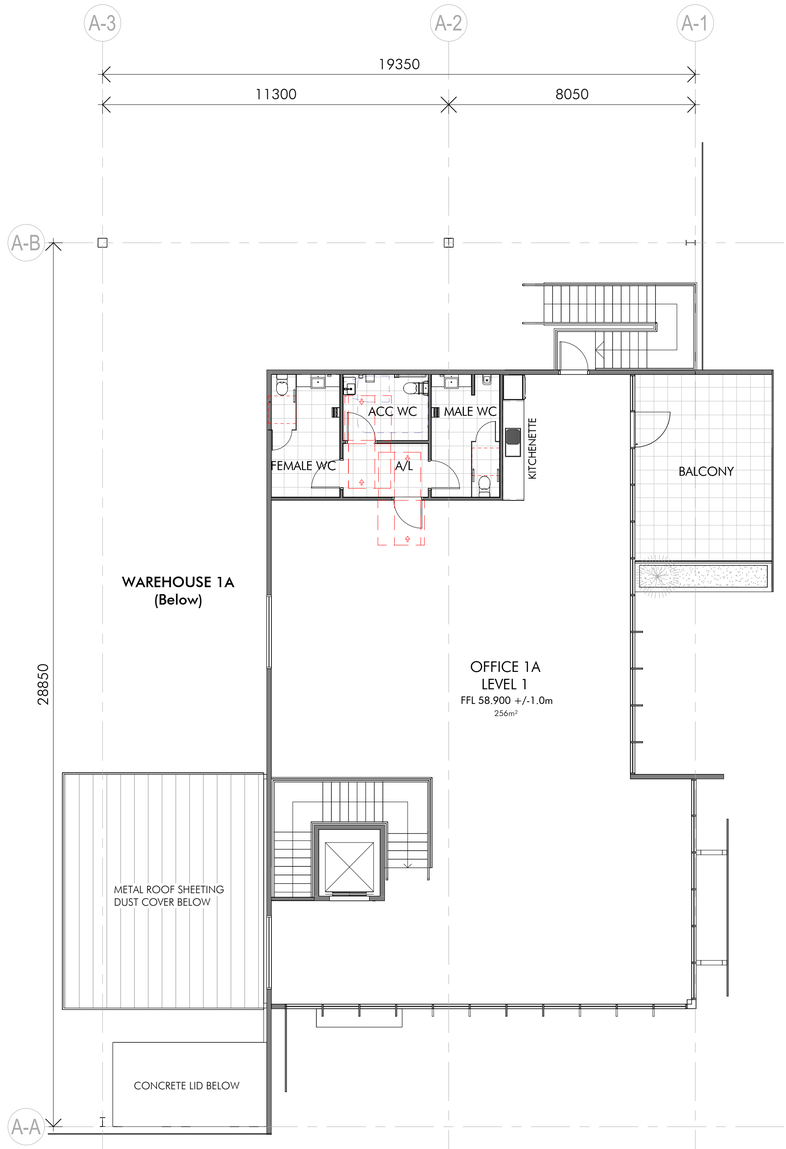

| Issue | Description | Date |
|---|---|---|
| 8 | ISSUED FOR DA | 23.10.2024 |
| 7 | ISSUED FOR COORDINATION | 02.10.2024 |
| 6 | ISSUED FOR DA | 13.10.2023 |
| 5 | ISSUED FOR COORDINATION | 04.10.2023 |
| 4 | ISSUED FOR DA | 16.08.2023 |
| 3 | ISSUED FOR DA | 19.08.2022 |
| 2 | ISSUED FOR DA | 08.09.2021 |
| 1 | PRELIMINARY ISSUE | 24.08.2021 |




1 Office 1A - Undercroft Car Park Floor Plan
1 : 100




2 Office 1A - Ground Floor Plan
1 : 100




3 Office 1A - Level 1 Floor Plan
1 : 100

**SSDA**

Client
ICON OCEANIA

Builder

Project Name
**PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS**

Project Address
**253-267 ALDINGTON RD, KEMPS CREEK, NSW**

Drawing Title
**Office 1A Floor Plan**

| Author: | Checker: | Sheet Size: | Scale: |
|---|---|---|---|
| JM | MC | A1 | 1:100 |

Drawing Number: **12253_DA017**

Issue: **8**

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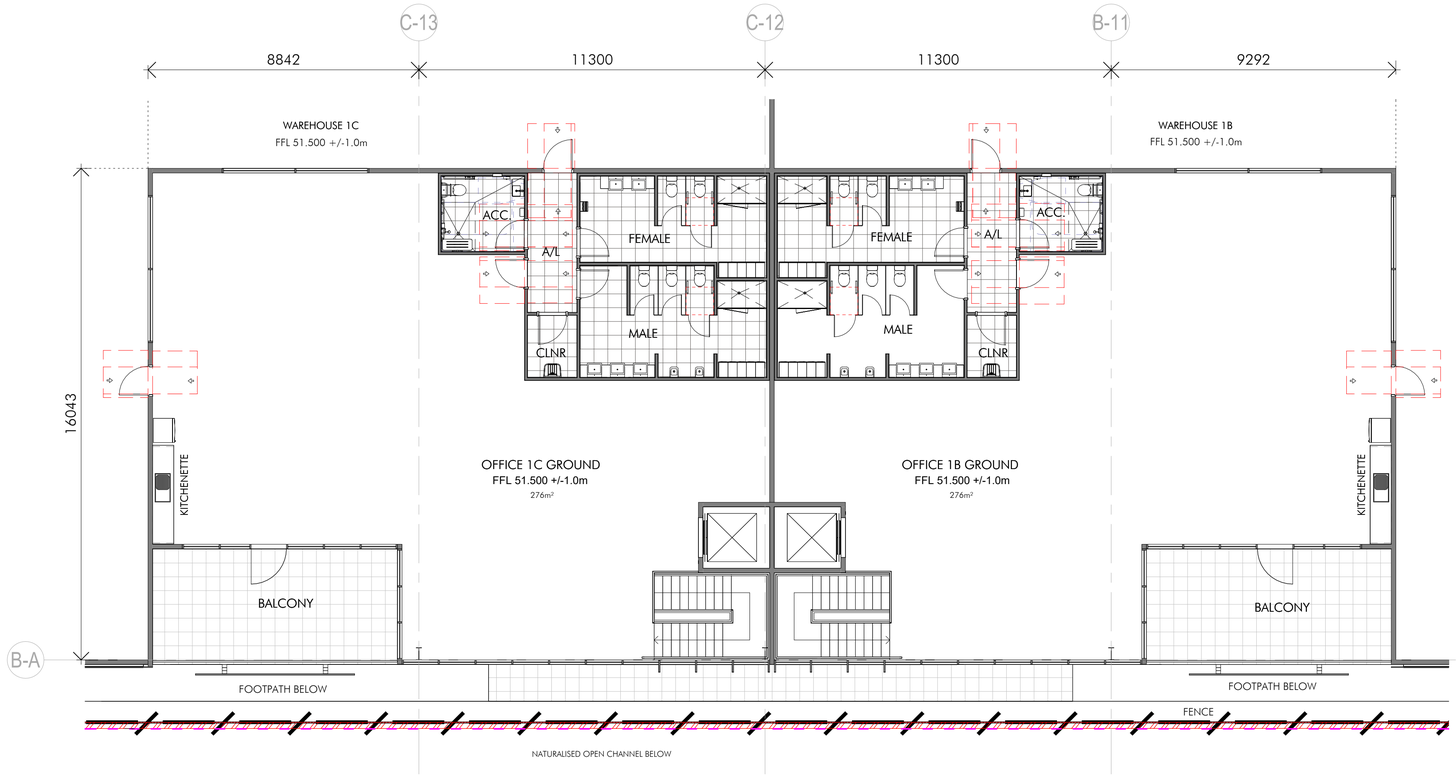
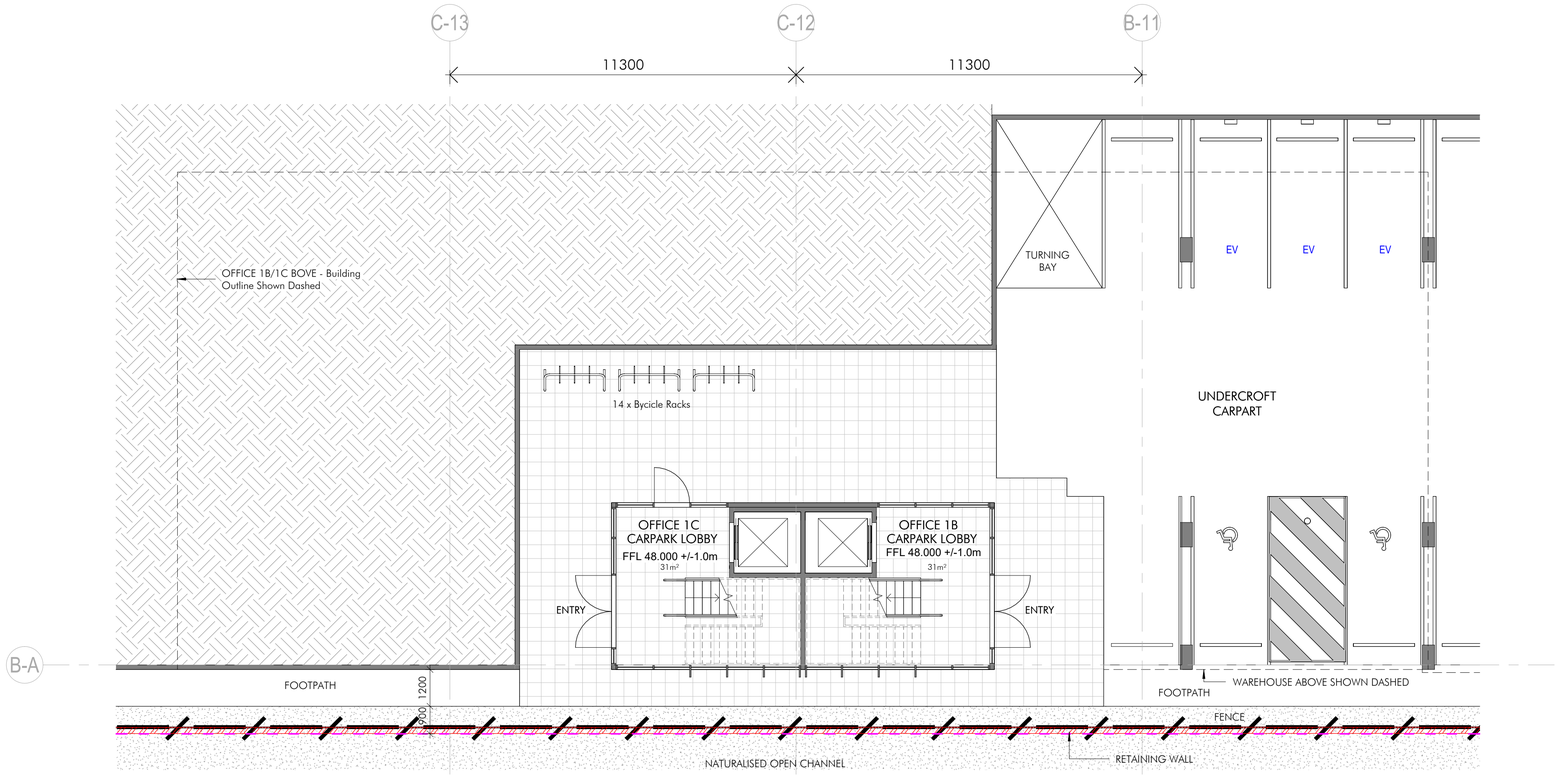
117 Willoughby Road, Crows Nest, NSW 2065
t +61 2 9431 6431
e: sydney@nettletontribe.com.au w: nettletontribe.com.au




2 Office 1B & 1C - Ground Floor Plan
1 : 100




1 Office 1B & 1C - Undercroft Car Park Floor Plan
1 : 100



Key Plan

0 2000 5000

| Issue | Description | Date |
|---|---|---|
| 2 | ISSUED FOR DA | 23.10.2024 |
| 1 | ISSUED FOR COORDINATION | 02.10.2024 |

SSDA

Client
ICON OCEANIA

Builder

Project Name
**PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS**

Project Address
**253-267 ALDINGTON RD, KEMPS CREEK, NSW**

Drawing Title
**Office 1B & 1C Floor Plan**

| Author: | Checker: | Sheet Size: | Scale: |
|---|---|---|---|
| JM | MC | A1 | 1:100 |

Drawing Number: **12253_DA017A**

Issue: **2**

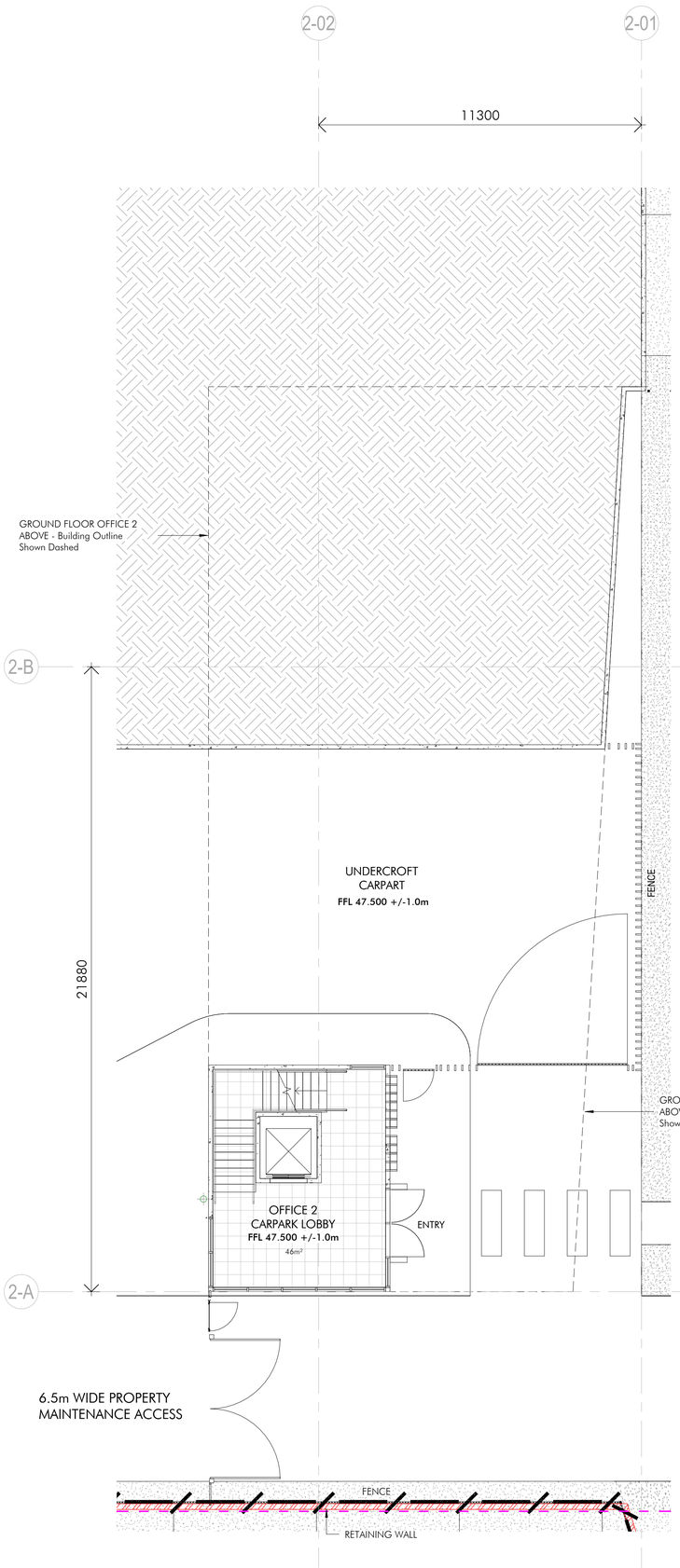
nettleton tribe partnership pty ltd ABN 58 161 683 122

117 Willoughby Road, Crows Nest, NSW 2065
t +61 2 9431 6431
e: sydney@nettletontribe.com.au w: nettletontribe.com.au

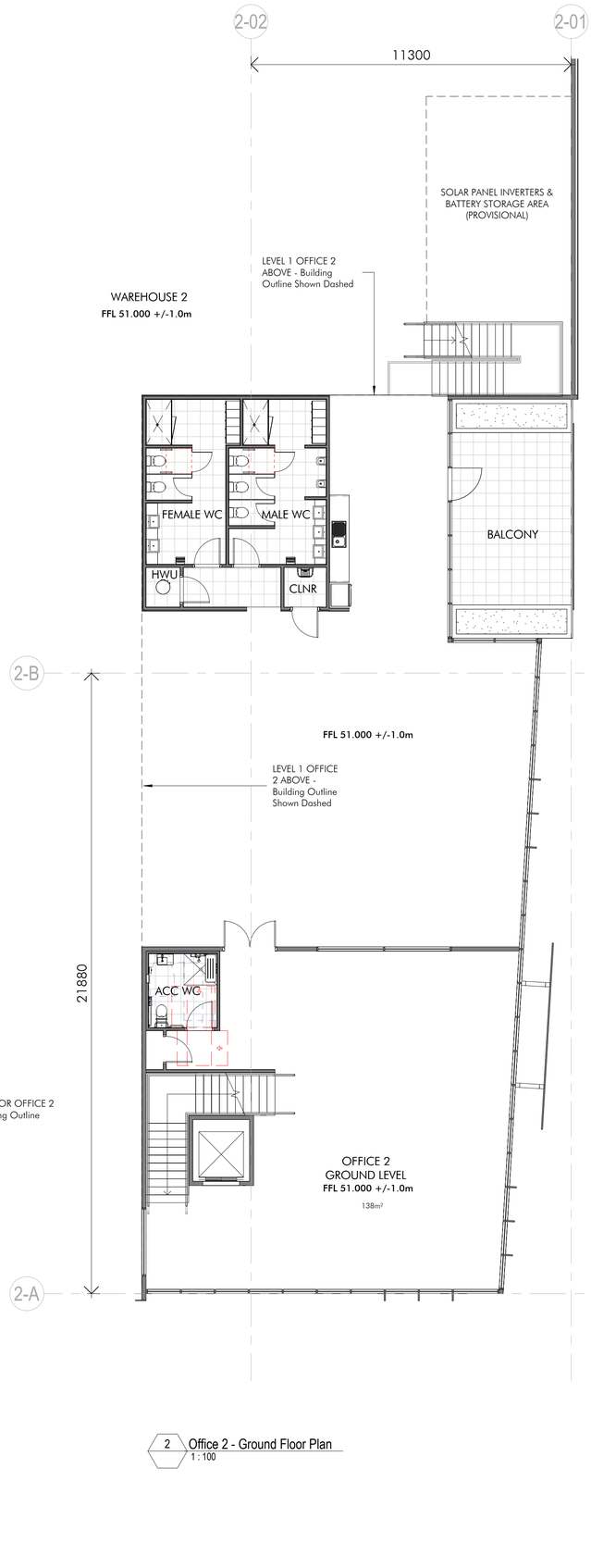
## Key Plan

0 2000 5000

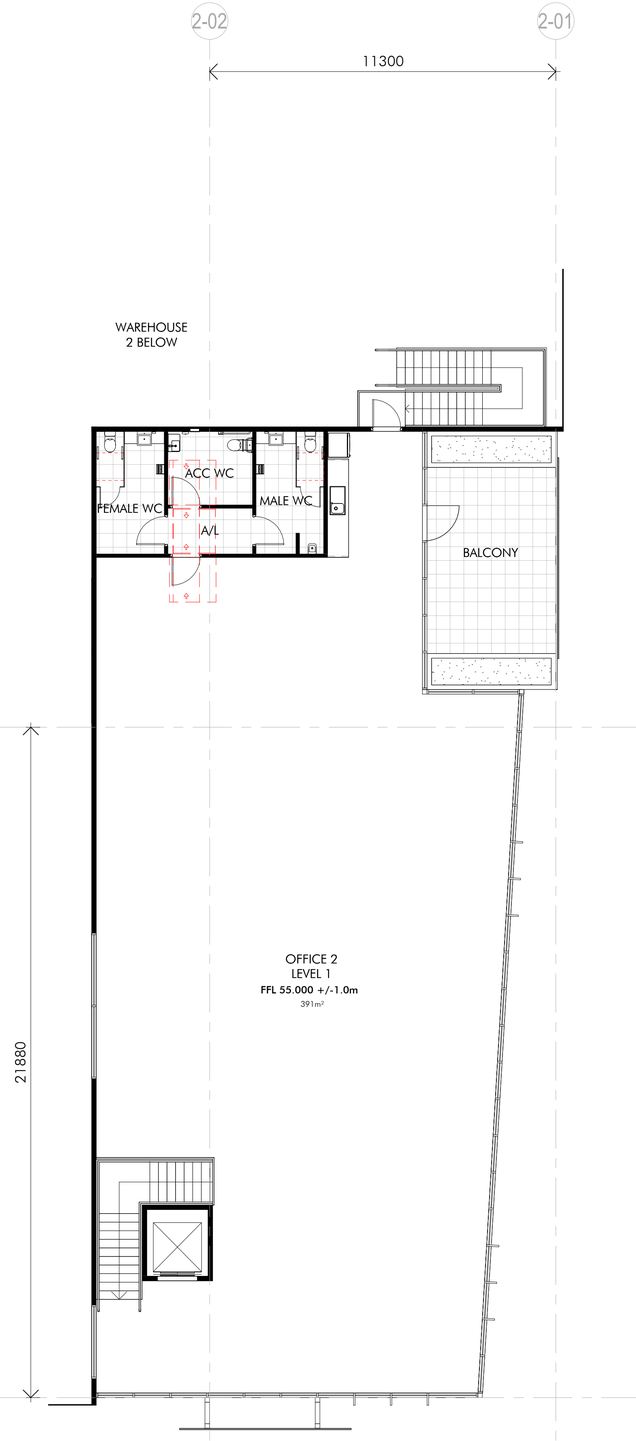
| Issue | Description | Date |
|---|---|---|
| 8 | ISSUED FOR DA | 23.10.2024 |
| 7 | ISSUED FOR COORDINATION | 02.10.2024 |
| 6 | ISSUED FOR DA | 13.10.2023 |
| 5 | ISSUED FOR COORDINATION | 04.10.2023 |
| 4 | ISSUED FOR DA | 16.08.2023 |
| 3 | ISSUED FOR DA | 19.08.2022 |
| 2 | ISSUED FOR DA | 08.09.2021 |
| 1 | PRELIMINARY ISSUE | 24.08.2021 |




1 Office 2 - Undercroft Car Park Floor Plan
1 : 100




2 Office 2 - Ground Floor Plan
1 : 100




3 Office 2 - Level 1 Floor Plan
1 : 100

**SSDA**

Client: ICON OCEANIA

Builder

Project Name
**PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS**

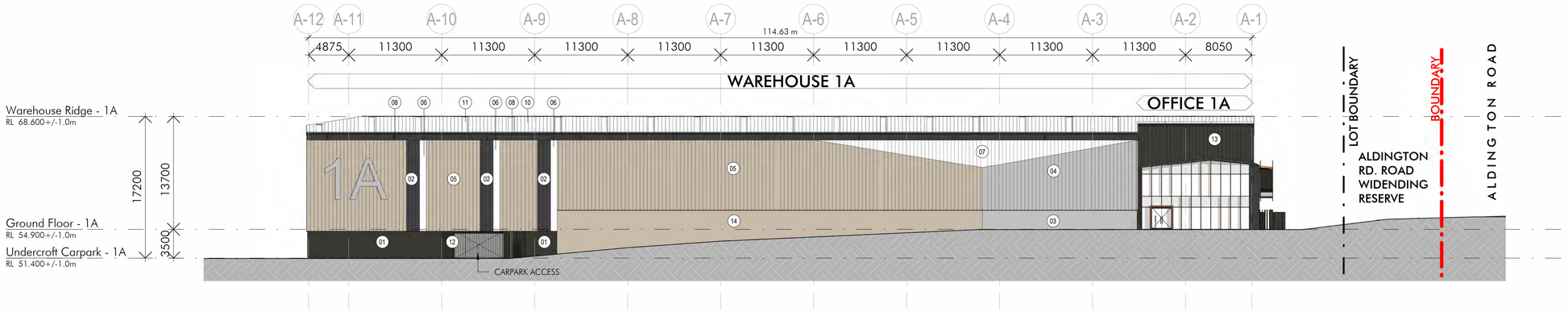
Project Address
**253-267 ALDINGTON RD, KEMPS CREEK, NSW**

Drawing Title
**Office 2 Floor Plan**

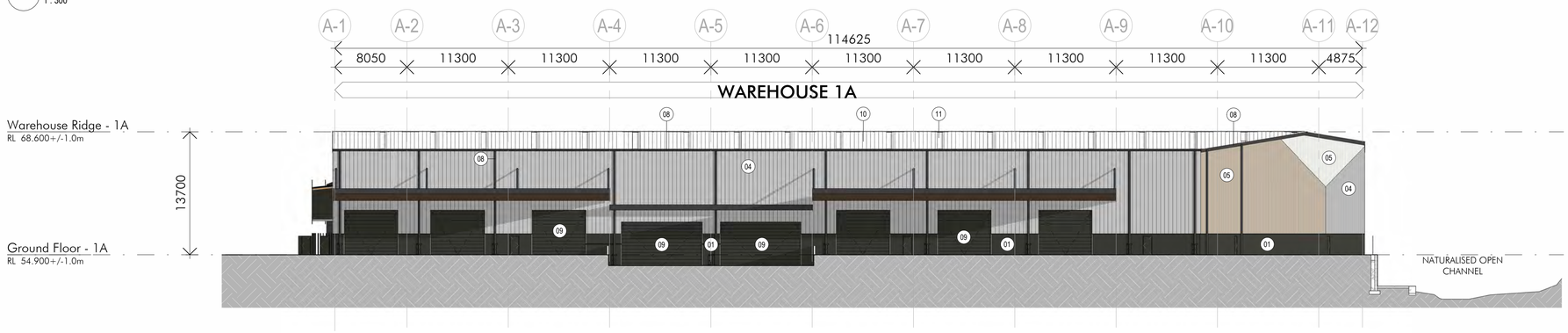
| Author: | Checker: | Sheet Size: | Scale: |
|---|---|---|---|
| JM | MC | A1 | 1:100 |

Drawing Number: **12253_DA020** Issue: **8**

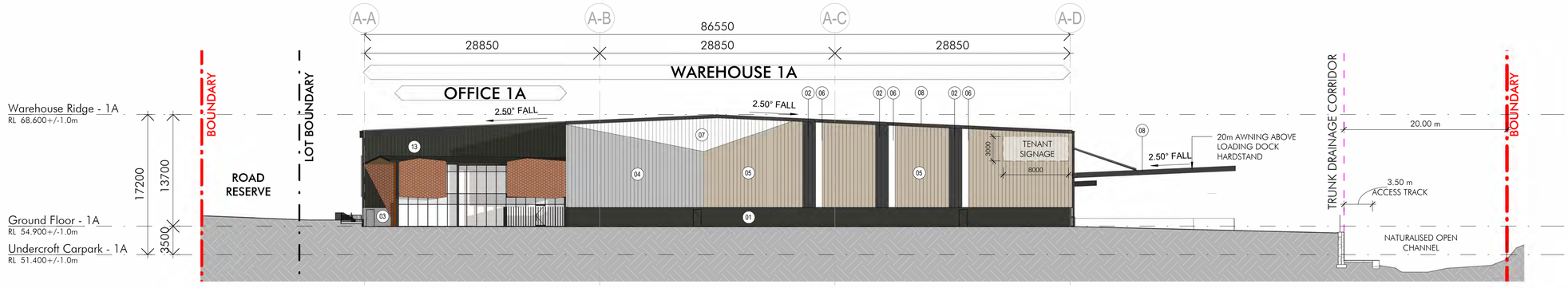
nettleton tribe partnership pty ltd ABN 58 161 683 122
117 Willoughby Road, Crows Nest, NSW 2065
t +61 2 9431 6431
e: sydney@nettletontribe.com.au w: nettletontribe.com.au



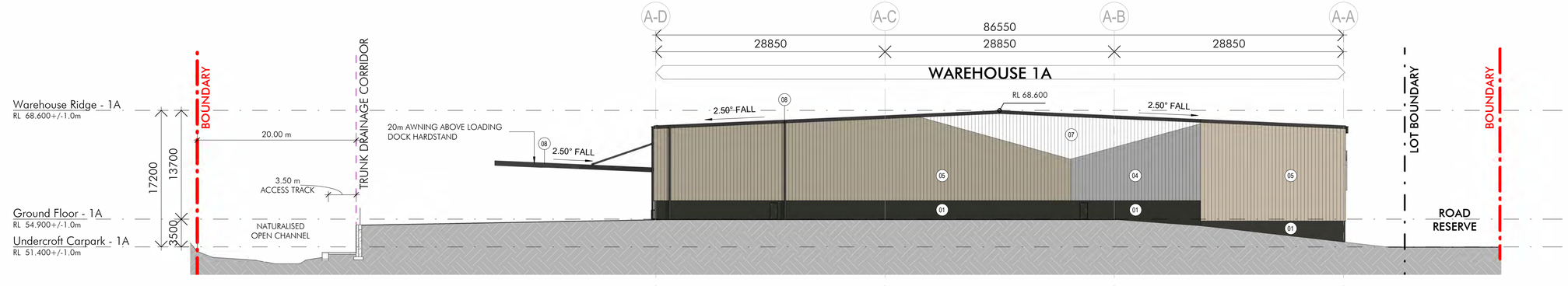

S Warehouse 1A - South Elevation
1 : 300




N Warehouse 1A - North Elevation
1 : 300




E Warehouse 1A - East Elevation
1 : 300




W Warehouse 1A - West Elevation
1 : 300

NOTE: ALL BUILDING LEVELS
TO BE + / - 1.0m



## Key Plan

0 6000 15000

| Issue | Description | Date |
|---|---|---|
| 10 | ISSUED FOR DA | 23.10.2024 |
| 9 | ISSUED FOR COORDINATION | 02.10.2024 |
| 8 | ISSUED FOR DA | 15.12.2023 |
| 7 | ISSUED FOR DA | 13.10.2023 |
| 6 | ISSUED FOR COORDINATION | 04.10.2023 |
| 5 | ISSUED FOR DA | 16.08.2023 |
| 4 | ISSUED FOR DA | 19.08.2022 |
| 3 | ISSUED FOR DA | 25.10.2021 |
| 2 | ISSUED FOR DA | 08.09.2021 |
| 1 | PRELIMINARY ISSUE | 24.08.2021 |

WAREHOUSE FINISHES

01. PRECAST PANEL - PAINTED IN COLORBOND "WOODLAND GREY"
02. PROFILED METAL SHEETING - COLORBOND "MONUMENT"
03. PRECAST PANEL - PAINTED IN COLORBOND "SHALE GREY"
04. PROFILED METAL SHEETING - COLORBOND "SHALE GREY"
05. PROFILED METAL SHEETING - COLORBOND "DUNE"
06. DANPALON / TRANSLUCENT POLYCARBONATE SHEETING
07. PROFILED METAL SHEETING - COLORBOND "DOVER WHITE"
08. GUTTERS, ROOF FASCIA, CAPPING, DOWNPIPES & TOE MOULD - COLORBOND "MONUMENT"
09. ROLLER SHUTTER DOOR - POWDERCOATED "WOODLAND GREY"
10. PROFILED ROOF SHEETING - COLORBOND "DOVER WHITE"
11. TRANSLUCENT PROFILED ROOF SHEETING
12. VERTICAL METAL SLAT FENCING - COLORBOND "JASPER"
13. PROFILED METAL SHEETING - COLORBOND "WOODLAND GREY"
14. PRECAST PANEL - PAINTED IN COLORBOND "DUNE"
15. ALUMINIUM LOUVRE - POWDERCOATED "SHALE GREY"

OFFICE FINISHES

21. FEATURE WALL- PERFORATED ALUMINIUM SCREEN
22. CONCRETE COLUMN - PAINTED IN COLORBOND "WOODLAND GREY"
23. VISION GLAZING - LIGHT GREY
24. SPANDREL GLAZING - LIGHT GREY TO MATCH VISON GLAZING
25. ALUMINIUM FRAMES TO GLAZING - COLORBOND "MONUMENT"
26. ALUMINIUM SUNSHADE ATTACHMENT - TIMBER LOOK
27. TIMBER LOOK SOLID ALUMINIUM PANEL
28. PROFILED ROOF SHEETING - COLORBOND "WOODLAND GREY"
29. GREEN WALL/TENSILE WIRE CLIMBING PLANT STRUCTURE
30. SOLID ALUMINIUM CLADDING - COLOUR TO MATCH COLORBOND "MONUMENT"

**SSDA**

Client
ICON OCEANIA

Builder

Project Name
**PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS**

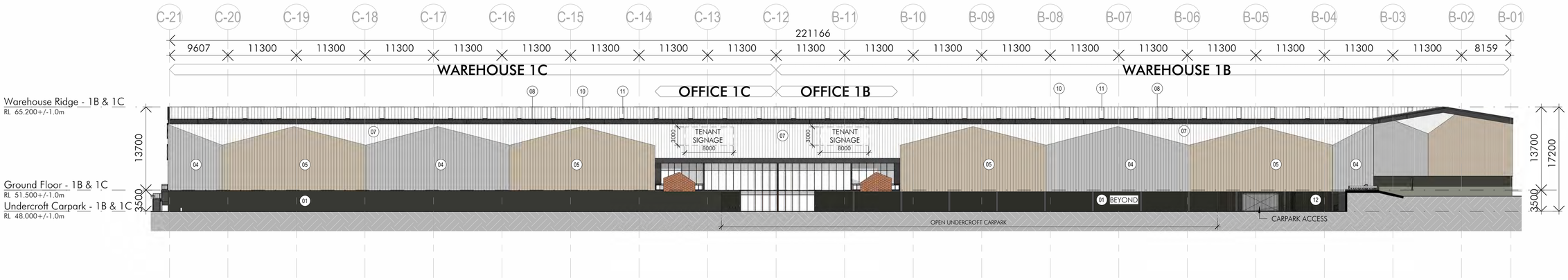
Project Address
**253-267 ALDINGTON RD, KEMPS CREEK, NSW**

Drawing Title
**Warehouse 1A Elevations**

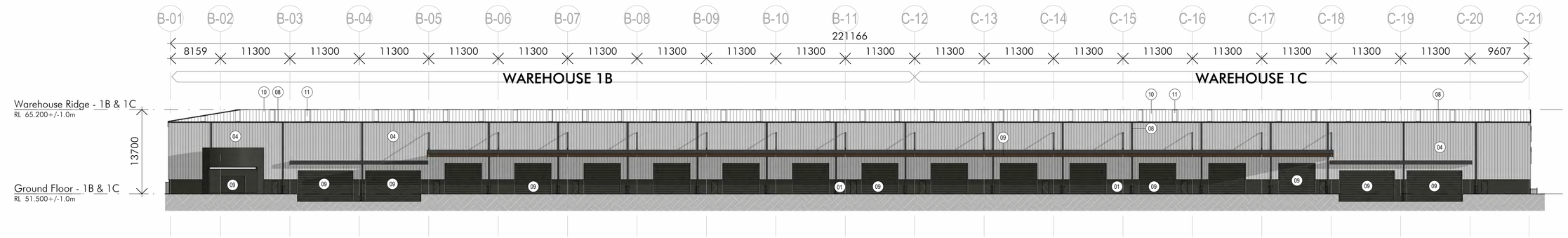
| Author: | Checker: | Sheet Size: | Scale: |
|---|---|---|---|
| JM | MC | A1 | 1:300 |

Drawing Number: **12253_DA021** Issue: **10**

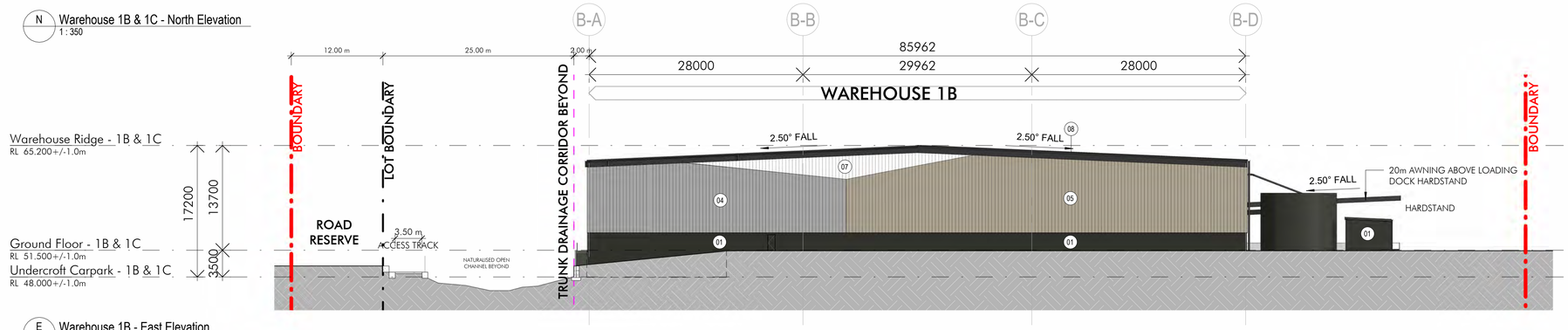
nettleton tribe partnership pty ltd ABN 58 161 683 122
117 Willoughby Road, Crows Nest, NSW 2065
t +61 2 9431 6431
e: sydney@nettletontribe.com.au w: nettletontribe.com.au



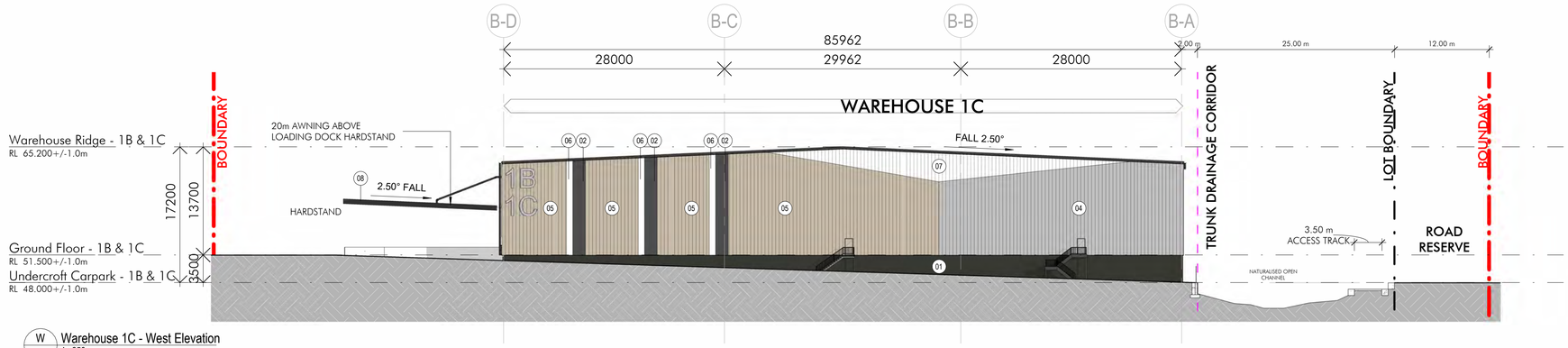

S Warehouse 1B & 1C - South Elevation
1 : 350




N Warehouse 1B & 1C - North Elevation
1 : 350




E Warehouse 1B - East Elevation
1 : 350




W Warehouse 1C - West Elevation
1 : 350

NOTE: ALL BUILDING LEVELS TO BE + / - 1.0m



## Key Plan


| Issue | Description | Date |
|---|---|---|
| 10 | ISSUED FOR DA | 23.10.2024 |
| 9 | ISSUED FOR COORDINATION | 02.10.2024 |
| 8 | ISSUED FOR DA | 15.12.2023 |
| 7 | ISSUED FOR DA | 13.10.2023 |
| 6 | ISSUED FOR COORDINATION | 04.10.2023 |
| 5 | ISSUED FOR DA | 16.08.2023 |
| 4 | ISSUED FOR DA | 25.10.2021 |
| 3 | ISSUED FOR DA | 08.09.2021 |
| 2 | PRELIMINARY ISSUE | 27.08.2021 |
| 1 | PRELIMINARY ISSUE | 24.08.2021 |

WAREHOUSE FINISHES

01. PRECAST PANEL - PAINTED IN COLORBOND "WOODLAND GREY"
02. PROFILED METAL SHEETING - COLORBOND "MONUMENT"
03. PRECAST PANEL - PAINTED IN COLORBOND "SHALE GREY"
04. PROFILED METAL SHEETING - COLORBOND "SHALE GREY"
05. PROFILED METAL SHEETING - COLORBOND "DUNE"
06. DANPALON / TRANSLUCENT POLYCARBONATE SHEETING
07. PROFILED METAL SHEETING - COLORBOND "DOVER WHITE"
08. GUTTERS, ROOF FASCIA, CAPPING, DOWNPIPES & TOE MOULD - COLORBOND "MONUMENT"
09. ROLLER SHUTTER DOOR - POWDERCOATED "WOODLAND GREY"
10. PROFILED ROOF SHEETING - COLORBOND "DOVER WHITE"
11. TRANSLUCENT PROFILED ROOF SHEETING
12. VERTICAL METAL SLAT FENCING - COLORBOND "JASPER"
13. PROFILED METAL SHEETING - COLORBOND "WOODLAND GREY"
14. PRECAST PANEL - PAINTED IN COLORBOND "DUNE"
15. ALUMINIUM LOUVRE - POWDERCOATED "SHALE GREY"

OFFICE FINISHES

21. FEATURE WALL- PERFORATED ALUMINIUM SCREEN
22. CONCRETE COLUMN - PAINTED IN COLORBOND "WOODLAND GREY"
23. VISION GLAZING - LIGHT GREY
24. SPANDREL GLAZING - LIGHT GREY TO MATCH VISON GLAZING
25. ALUMINIUM FRAMES TO GLAZING - COLORBOND "MONUMENT"
26. ALUMINIUM SUNSHADE ATTACHMENT - TIMBER LOOK
27. TIMBER LOOK SOLID ALUMINIUM PANEL
28. PROFILED ROOF SHEETING - COLORBOND "WOODLAND GREY"
29. GREEN WALL/TENSILE WIRE CLIMBING PLANT STRUCTURE
30. SOLID ALUMINIUM CLADDING - COLOUR TO MATCH COLORBOND 'MONUMENT'

**SSDA**

Client
ICON OCEANIA

Builder

Project Name
**PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS**

Project Address
**253-267 ALDINGTON RD, KEMPS CREEK, NSW**

Drawing Title
**Warehouse 1B & 1C Elevations**

| Author: | Checker: | Sheet Size: | Scale: |
|---|---|---|---|
| JM | MC | A1 | 1 : 350 |

Drawing Number: **12253_DA022** Issue: **10**

nettleton tribe

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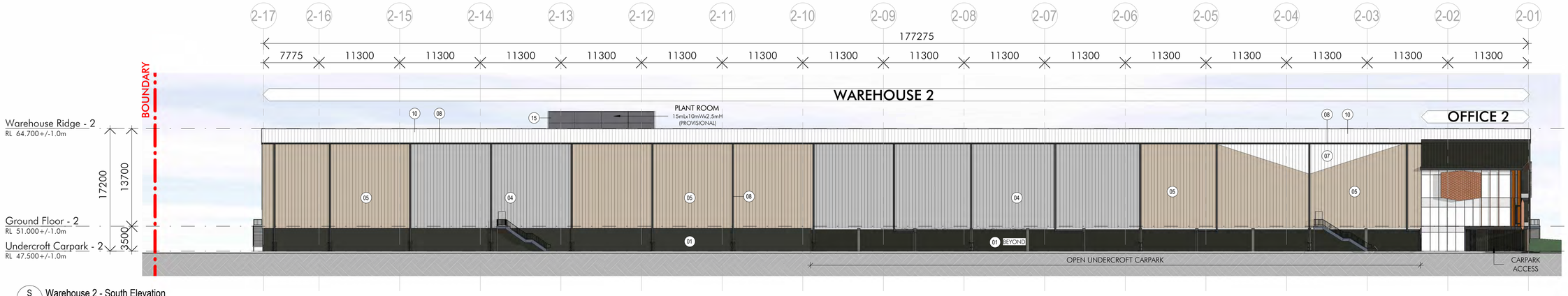
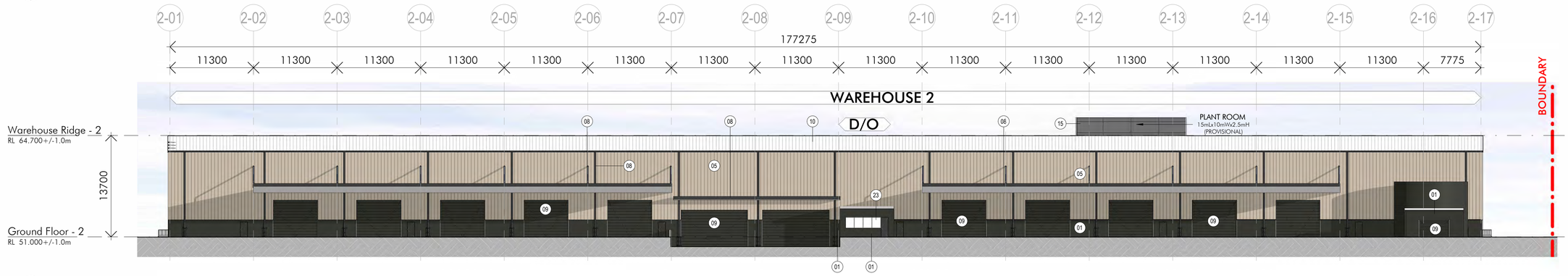
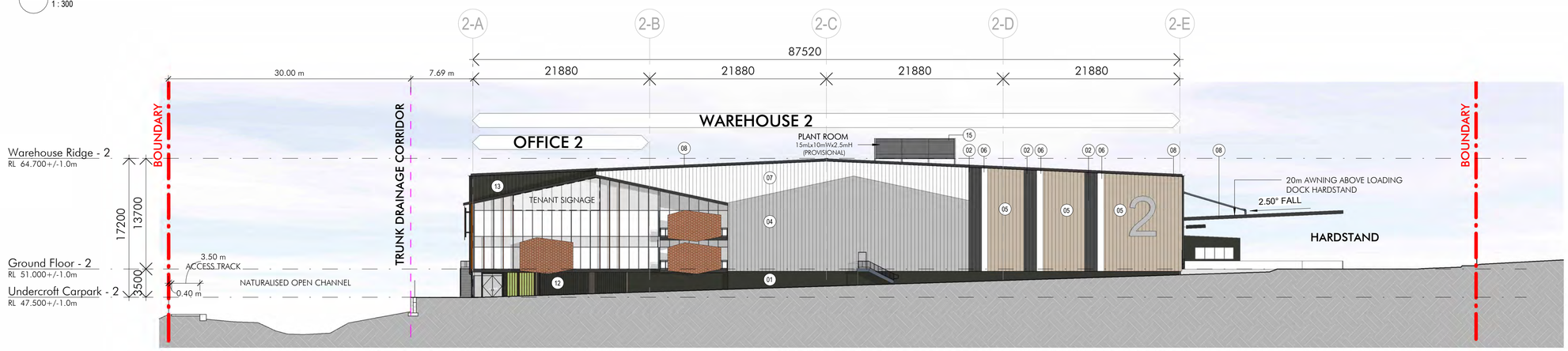
t +61 2 9431 6431
e: sydney@nettletontribe.com.au w: nettletontribe.com.au



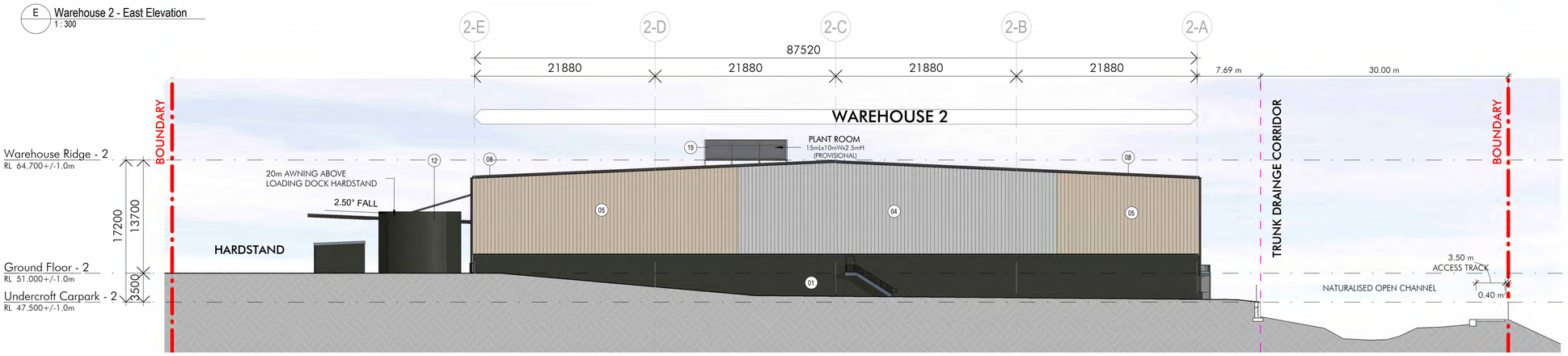

S Warehouse 2 - South Elevation
1 : 300




N Warehouse 2 - North Elevation
1 : 300




E Warehouse 2 - East Elevation
1 : 300




W Warehouse 2 - West Elevation
1 : 300

NOTE: ALL BUILDING LEVELS TO BE + / - 1.0m



## Key Plan


| Issue | Description | Date |
|---|---|---|
| 9 | ISSUED FOR DA | 23.10.2024 |
| 8 | ISSUED FOR COORDINATION | 02.10.2024 |
| 7 | ISSUED FOR DA | 13.10.2023 |
| 6 | ISSUED FOR COORDINATION | 04.10.2023 |
| 5 | ISSUED FOR DA | 16.08.2023 |
| 4 | ISSUED FOR DA | 19.08.2022 |
| 3 | ISSUED FOR DA | 25.10.2021 |
| 2 | ISSUED FOR DA | 08.09.2021 |
| 1 | PRELIMINARY ISSUE | 24.08.2021 |

**WAREHOUSE FINISHES**

01. PRECAST PANEL - PAINTED IN COLORBOND "WOODLAND GREY"
02. PROFILED METAL SHEETING - COLORBOND "MONUMENT"
03. PRECAST PANEL - PAINTED IN COLORBOND "SHALE GREY"
04. PROFILED METAL SHEETING - COLORBOND "SHALE GREY"
05. PROFILED METAL SHEETING - COLORBOND "DUNE"
06. DANPALON / TRANSLUCENT POLYCARBONATE SHEETING
07. PROFILED METAL SHEETING - COLORBOND "DOVER WHITE"
08. GUTTERS, ROOF FASCIA, CAPPING, DOWNPIPES & TOE MOULD - COLORBOND "MONUMENT"
09. ROLLER SHUTTER DOOR - POWDERCOATED "WOODLAND GREY"
10. PROFILED ROOF SHEETING - COLORBOND "DOVER WHITE"
11. TRANSLUCENT PROFILED ROOF SHEETING
12. VERTICAL METAL SLAT FENCING - COLORBOND "JASPER"
13. PROFILED METAL SHEETING - COLORBOND "WOODLAND GREY"
14. PRECAST PANEL - PAINTED IN COLORBOND "DUNE"
15. ALUMINIUM LOUVRE - POWDERCOATED "SHALE GREY"

**OFFICE FINISHES**

21. FEATURE WALL- PERFORATED ALUMINIUM SCREEN
22. CONCRETE COLUMN - PAINTED IN COLORBOND "WOODLAND GREY"
23. VISION GLAZING - LIGHT GREY
24. SPANDREL GLAZING - LIGHT GREY TO MATCH VISON GLAZING
25. ALUMINIUM FRAMES TO GLAZING - COLORBOND "MONUMENT"
26. ALUMINIUM SUNSHADE ATTACHMENT - TIMBER LOOK
27. TIMBER LOOK SOLID ALUMINIUM PANEL
28. PROFILED ROOF SHEETING - COLORBOND "WOODLAND GREY"
29. GREEN WALL/TENSILE WIRE CLIMBING PLANT STRUCTURE
30. SOLID ALUMINIUM CLADDING - COLOUR TO MATCH COLORBOND 'MONUMENT'

**SSDA**

Client
ICON OCEANIA

Builder

Project Name
**PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS**

Project Address
**253-267 ALDINGTON RD, KEMPS CREEK, NSW**

Drawing Title
**Warehouse 2 Elevations**

| Author: | Checker: | Sheet Size: | Scale: |
|---|---|---|---|
| JM | MC | A1 | 1:300 |

Drawing Number: **12253_DA023** Issue: **9**

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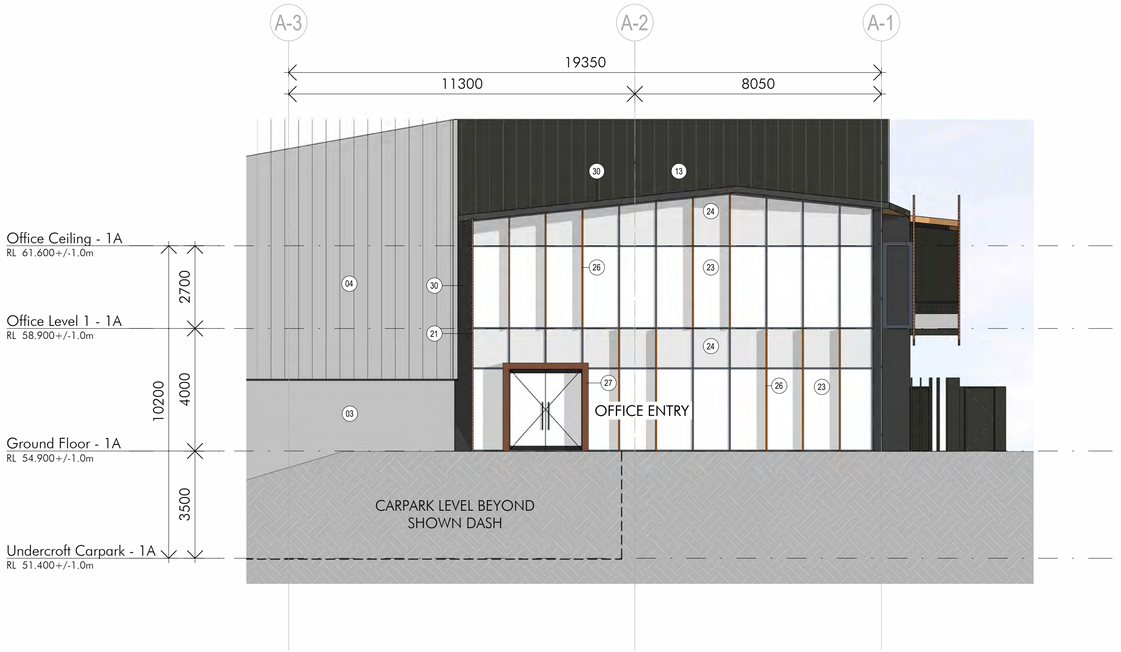
117 Willoughby Road, Crows Nest, NSW 2065
t +61 2 9431 6431
e: sydney@nettletontribe.com.au w: nettletontribe.com.au




S Office 1A - South Elevation
1 : 100


E Office 1A - East Elevation
1 : 100

NOTE: ALL BUILDING LEVELS TO BE + / - 1.0m



## Key Plan

0 2000 5000

| Issue | Description | Date |
|---|---|---|
| 8 | ISSUED FOR DA | 23.10.2024 |
| 7 | ISSUED FOR COORDINATION | 02.10.2024 |
| 6 | ISSUED FOR DA | 13.10.2023 |
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| 4 | ISSUED FOR DA | 16.08.2023 |
| 3 | ISSUED FOR DA | 19.08.2022 |
| 2 | ISSUED FOR DA | 25.10.2021 |
| 1 | ISSUED FOR DA | 08.09.2021 |

**WAREHOUSE FINISHES**

01. PRECAST PANEL - PAINTED IN COLORBOND "WOODLAND GREY"

02. PROFILED METAL SHEETING - COLORBOND "LONGLINE" MONUMENT

03. PROFILED METAL SHEETING - COLORBOND "SURFMIST"

04. PROFILED METAL SHEETING - COLORBOND "SHALE GREY"

05. PROFILED METAL SHEETING - COLORBOND "DUNE"

06. DANPALON / TRANSLUCENT POLYCARBONATE SHEETING

07. PROFILED METAL SHEETING - COLORBOND "DOVER WHITE"

08. GUTTERS, ROOF FASCIA, DOWNPIPES & TOE MOULD - COLORBOND "MONUMENT"

09. ROLLER SHUTTER DOOR - POWDERCOATED "WOODLAND GREY"

10. PROFILED ROOF SHEETING - COLORBOND "DOVER WHITE"

11. TRANSLUCENT PROFILED ROOF SHEETING

12. VERTICAL METAL SLAT FENCING - COLORBOND "JASPER"

13. PROFILED METAL SHEETING - COLORBOND "WOODLAND GREY"

14. PRECAST PANEL - PAINTED IN COLORBOND DUNE

**OFFICE FINISHES**

21. FEATURE WALL- PERFORATED ALUMINIUM SCREEN

22. CONCRETE COLUMN - PAINTED IN COLORBOND "WOODLAND GREY"

23. VISION GLAZING - LIGHT GREY

24. SPANDREL GLAZING - LIGHT GREY TO MATCH VISON GLAZING

25. ALUMINIUM FRAMES TO GLAZING - COLORBOND "MONUMENT"

26. ALUMINIUM SUNSHADE ATTACHMENT - TIMBER LOOK

27. TIMBER LOOK SOLID ALUMINIUM PANEL

28. PROFILED ROOF SHEETING - COLORBOND "WOODLAND GREY"

29. GREEN WALL/TENSILE WIRE CLIMBING PLANT STRUCTURE

30. SOLID ALUMINIUM CLADDING - COLOUR TO MATCH COLORBOND "MONUMENT"

**SSDA**

Client
ICON OCEANIA

Builder

Project Name
**PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS**

Project Address
**253-267 ALDINGTON RD, KEMPS CREEK, NSW**

Drawing Title
**Office 1A Elevations**

| Author: | Checker: | Sheet Size: | Scale: |
|---|---|---|---|
| JM | MC | A1 | 1:100 |

Drawing Number: **12253_DA025** Issue: **8**

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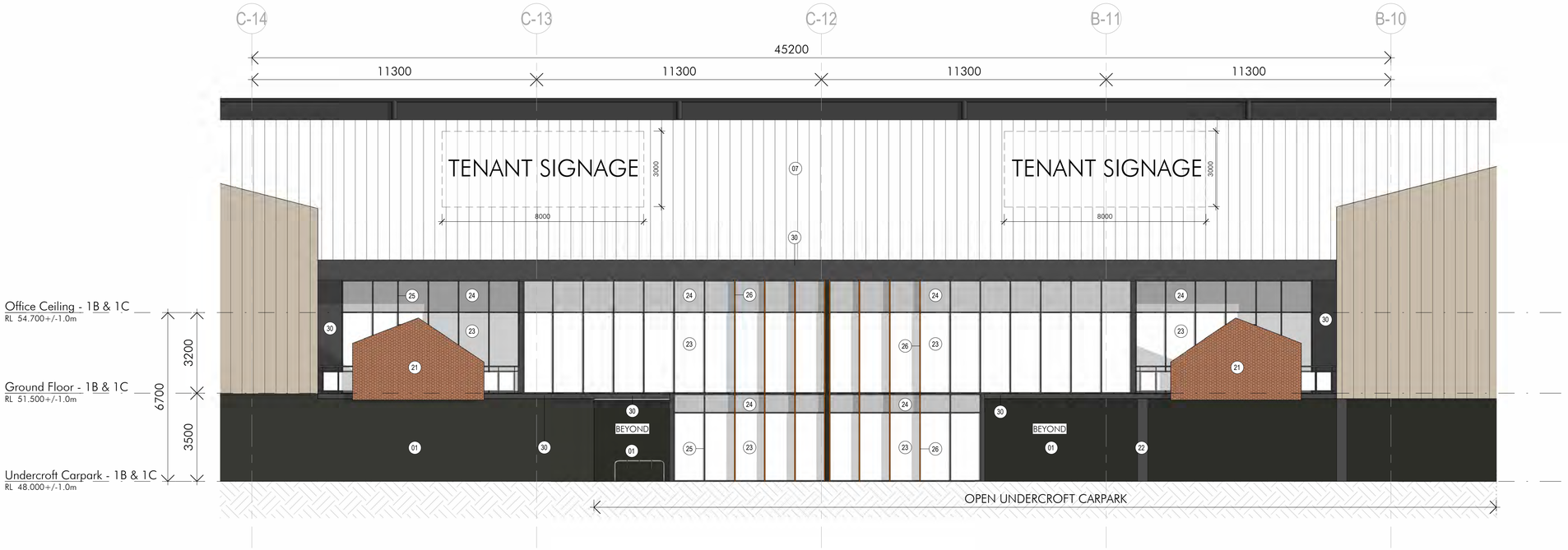
117 Willoughby Road, Crows Nest, NSW 2065
t +61 2 9431 6431
e: sydney@nettletontribe.com.au w: nettletontribe.com.au




1 Office 1B & 1C - South Elevation
1 : 100

NOTE: ALL BUILDING LEVELS TO BE + / - 1.0m



## Key Plan

0 2000 5000

| Issue | Description | Date |
|---|---|---|
| 2 | ISSUED FOR DA | 23.10.2024 |
| 1 | ISSUED FOR COORDINATION | 02.10.2024 |

**WAREHOUSE FINISHES**

01. PRECAST PANEL - PAINTED IN COLORBOND "WOODLAND GREY"
02. PROFILED METAL SHEETING - COLORBOND "LONGLINE" MONUMENT
03. PROFILED METAL SHEETING - COLORBOND "SURFMIST"
04. PROFILED METAL SHEETING - COLORBOND "SHALE GREY"
05. PROFILED METAL SHEETING - COLORBOND "DUNE"
06. DANPALON / TRANSLUCENT POLYCARBONATE SHEETING
07. PROFILED METAL SHEETING - COLORBOND "DOVER WHITE"
08. GUTTERS, ROOF FASCIA, DOWNPIPES & TOE MOULD - COLORBOND 'MONUMENT'
09. ROLLER SHUTTER DOOR - POWDERCOATED "WOODLAND GREY"
10. PROFILED ROOF SHEETING - COLORBOND "DOVER WHITE"
11. TRANSLUCENT PROFILED ROOF SHEETING
12. VERTICAL METAL SLAT FENCING - COLORBOND "JASPER"
13. PROFILED METAL SHEETING - COLORBOND "WOODLAND GREY"
14. PRECAST PANEL - PAINTED IN COLORBOND DUNE

**OFFICE FINISHES**

21. FEATURE WALL- PERFORATED ALUMINIUM SCREEN
22. CONCRETE COLUMN - PAINTED IN COLORBOND "WOODLAND GREY"
23. VISION GLAZING - LIGHT GREY
24. SPANDREL GLAZING - LIGHT GREY TO MATCH VISON GLAZING
25. ALUMINIUM FRAMES TO GLAZING - COLORBOND "MONUMENT"
26. ALUMINIUM SUNSHADE ATTACHMENT - TIMBER LOOK
27. TIMBER LOOK SOLID ALUMINIUM PANEL
28. PROFILED ROOF SHEETING - COLORBOND "WOODLAND GREY"
29. GREEN WALL/TENSILE WIRE CLIMBING PLANT STRUCTURE
30. SOLID ALUMINIUM CLADDING - COLOUR TO MATCH COLORBOND "MONUMENT"

**SSDA**

Client
ICON OCEANIA

Builder

Project Name
**PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS**

Project Address
**253-267 ALDINGTON RD, KEMPS CREEK, NSW**

Drawing Title
**Office 1B & 1C Elevations**

| Author: | Checker: | Sheet Size: | Scale: |
|---|---|---|---|
| JM | MC | A1 | 1:100 |

Drawing Number: **12253_DA025A** Issue: **2**

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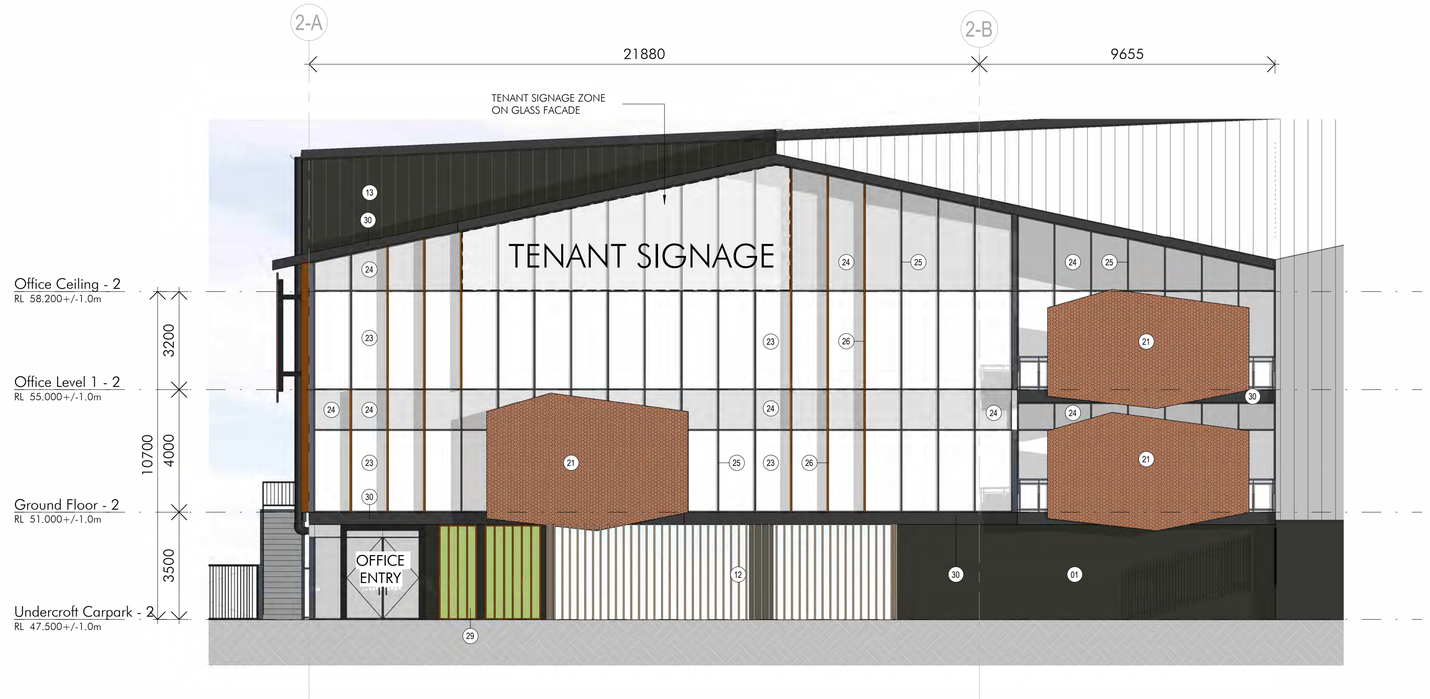
t +61 2 9431 6431
e: sydney@nettletontribe.com.au w: nettletontribe.com.au


S Office 2 - South Elevation
1 : 100




E Office 2 - East Elevation
1 : 100

NOTE: ALL BUILDING LEVELS TO BE + / - 1.0m



## Key Plan

0 2000 5000

| Issue | Description | Date |
|---|---|---|
| 8 | ISSUED FOR DA | 23.10.2024 |
| 7 | ISSUED FOR COORDINATION | 02.10.2024 |
| 6 | ISSUED FOR DA | 13.10.2023 |
| 5 | ISSUED FOR COORDINATION | 04.10.2023 |
| 4 | ISSUED FOR DA | 16.08.2023 |
| 3 | ISSUED FOR DA | 19.08.2022 |
| 2 | ISSUED FOR DA | 25.10.2021 |
| 1 | ISSUED FOR DA | 08.09.2021 |

**WAREHOUSE FINISHES**

01. PRECAST PANEL - PAINTED IN COLORBOND "WOODLAND GREY"

02. PROFILED METAL SHEETING - COLORBOND "LONGLINE" MONUMENT

03. PROFILED METAL SHEETING - COLORBOND "SURFMIST"

04. PROFILED METAL SHEETING - COLORBOND "SHALE GREY"

05. PROFILED METAL SHEETING - COLORBOND "DUNE"

06. DANPALON / TRANSLUCENT POLYCARBONATE SHEETING

07. PROFILED METAL SHEETING - COLORBOND "DOVER WHITE"

08. GUTTERS, ROOF FASCIA, DOWNPIPES & TOE MOULD - COLORBOND "MONUMENT"

09. ROLLER SHUTTER DOOR - POWDERCOATED "WOODLAND GREY"

10. PROFILED ROOF SHEETING - COLORBOND "DOVER WHITE"

11. TRANSLUCENT PROFILED ROOF SHEETING

12. VERTICAL METAL SLAT FENCING - COLORBOND "JASPER"

13. PROFILED METAL SHEETING - COLORBOND "WOODLAND GREY"

14. PRECAST PANEL - PAINTED IN COLORBOND DUNE

**OFFICE FINISHES**

21. FEATURE WALL- PERFORATED ALUMINIUM SCREEN

22. CONCRETE COLUMN - PAINTED IN COLORBOND "WOODLAND GREY"

23. VISION GLAZING - LIGHT GREY

24. SPANDREL GLAZING - LIGHT GREY TO MATCH VISON GLAZING

25. ALUMINIUM FRAMES TO GLAZING - COLORBOND "MONUMENT"

26. ALUMINIUM SUNSHADE ATTACHMENT - TIMBER LOOK

27. TIMBER LOOK SOLID ALUMINIUM PANEL

28. PROFILED ROOF SHEETING - COLORBOND "WOODLAND GREY"

29. GREEN WALL/TENSILE WIRE CLIMBING PLANT STRUCTURE

30. SOLID ALUMINIUM CLADDING - COLOUR TO MATCH COLORBOND "MONUMENT"

**SSDA**

Client
ICON OCEANIA

Builder

Project Name
**PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS**

Project Address
**253-267 ALDINGTON RD, KEMPS CREEK, NSW**

Drawing Title
**Office 2 Elevations**

| Author: | Checker: | Sheet Size: | Scale: |
|---|---|---|---|
| JM | MC | A1 | 1:100 |

Drawing Number: **12253_DA028** Issue: **8**

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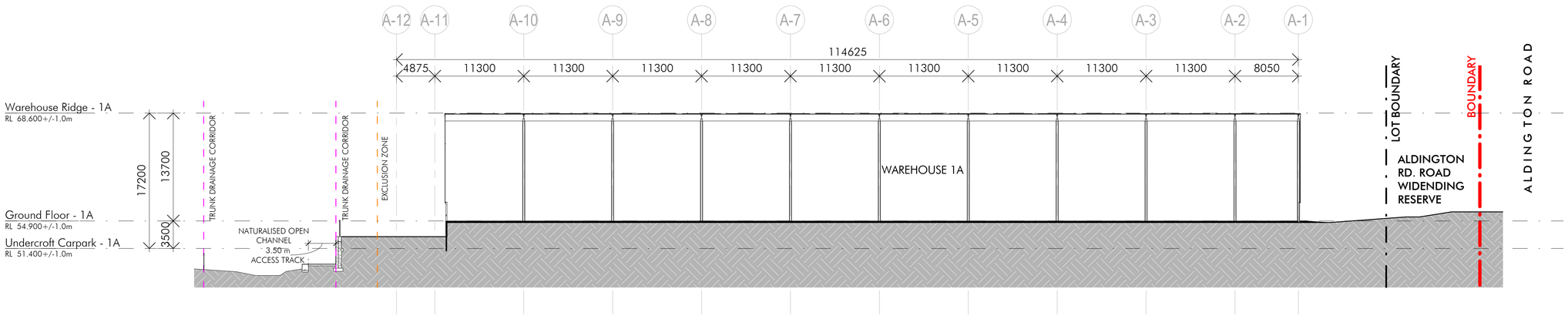
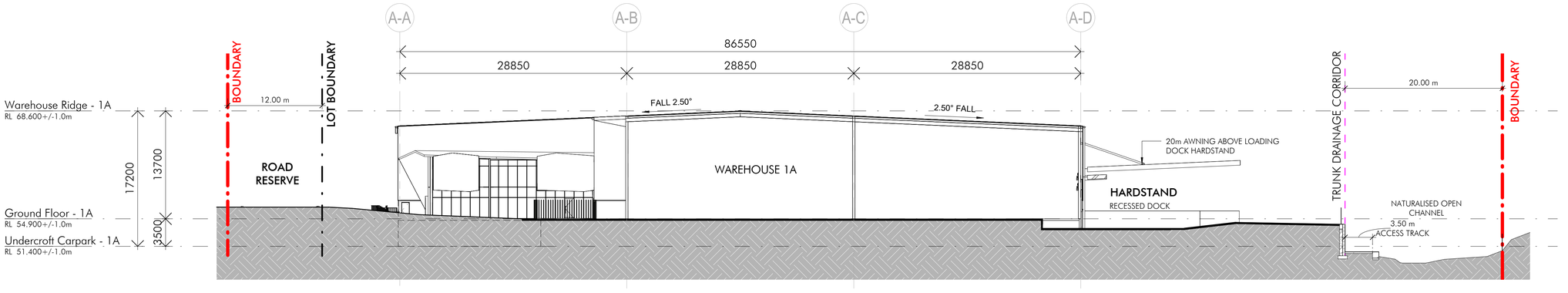
117 Willoughby Road, Crows Nest, NSW 2065
t +61 2 9431 6431
e: sydney@nettletontribe.com.au w: nettletontribe.com.au

## Key Plan


| Issue | Description | Date |
|---|---|---|
| 11 | ISSUED FOR DA | 23.10.2024 |
| 10 | ISSUED FOR COORDINATION | 02.10.2024 |
| 9 | ISSUED FOR DA | 15.12.2023 |
| 8 | ISSUED FOR DA | 13.10.2023 |
| 7 | ISSUED FOR COORDINATION | 04.10.2023 |
| 6 | ISSUED FOR DA | 16.08.2023 |
| 5 | ISSUED FOR DA | 19.08.2022 |
| 4 | ISSUED FOR DA | 25.10.2021 |
| 3 | ISSUED FOR DA | 08.09.2021 |
| 2 | PRELIMINARY ISSUE | 24.08.2021 |
| 1 | PRELIMINARY ISSUE | 19.08.2021 |




1 Warehouse 1A Section
1 : 300




2 Warehouse 1A Cross Section
1 : 300

NOTE: ALL BUILDING LEVELS TO BE + / - 1.0m

**SSDA**

Client
ICON OCEANIA

Builder

Project Name
**PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS**

Project Address
**253-267 ALDINGTON RD, KEMPS CREEK, NSW**

Drawing Title
**Warehouse 1A Sections**

| Author: | Checker: | Sheet Size: | Scale: |
|---|---|---|---|
| JM | MC | A1 | 1:300 |

Drawing Number: **12253_DA031**

Issue: **11**

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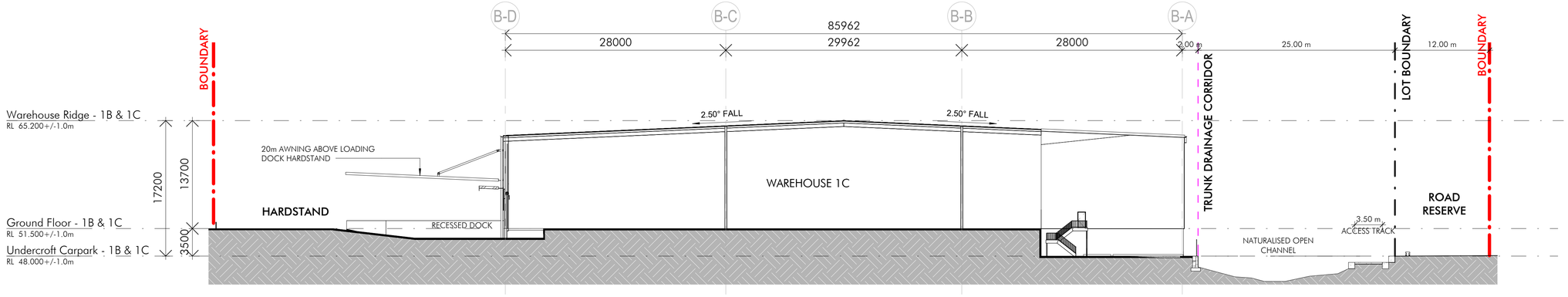
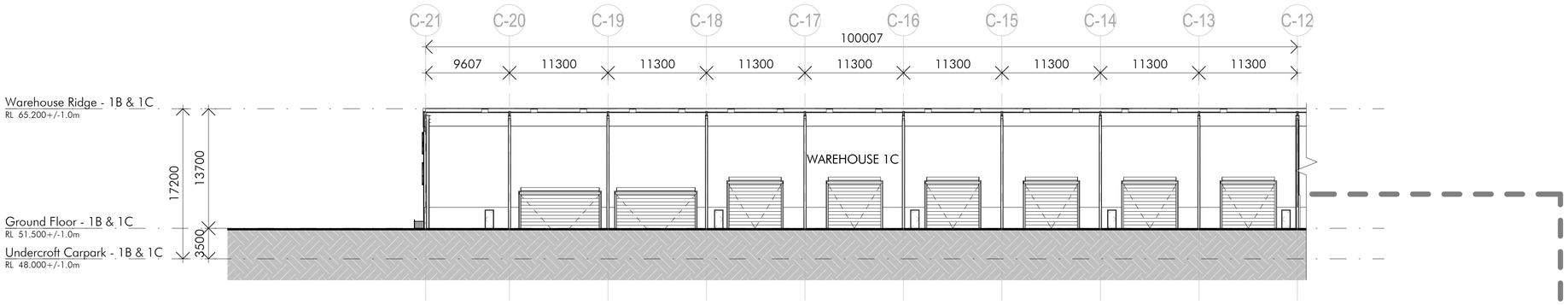
Key Plan

0 6000 15000

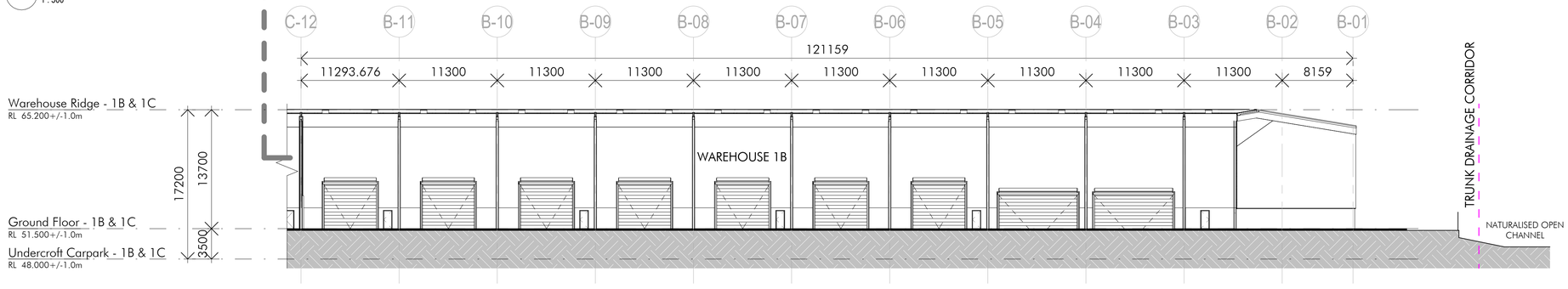
| Issue | Description | Date |
|---|---|---|
| 10 | ISSUED FOR DA | 23.10.2024 |
| 9 | ISSUED FOR COORDINATION | 02.10.2024 |
| 8 | ISSUED FOR DA | 15.12.2023 |
| 7 | ISSUED FOR DA | 13.10.2023 |
| 6 | ISSUED FOR COORDINATION | 04.10.2023 |
| 5 | ISSUED FOR DA | 16.08.2023 |
| 4 | ISSUED FOR DA | 25.10.2021 |
| 3 | ISSUED FOR DA | 08.09.2021 |
| 2 | PRELIMINARY ISSUE | 24.08.2021 |
| 1 | PRELIMINARY ISSUE | 19.08.2021 |



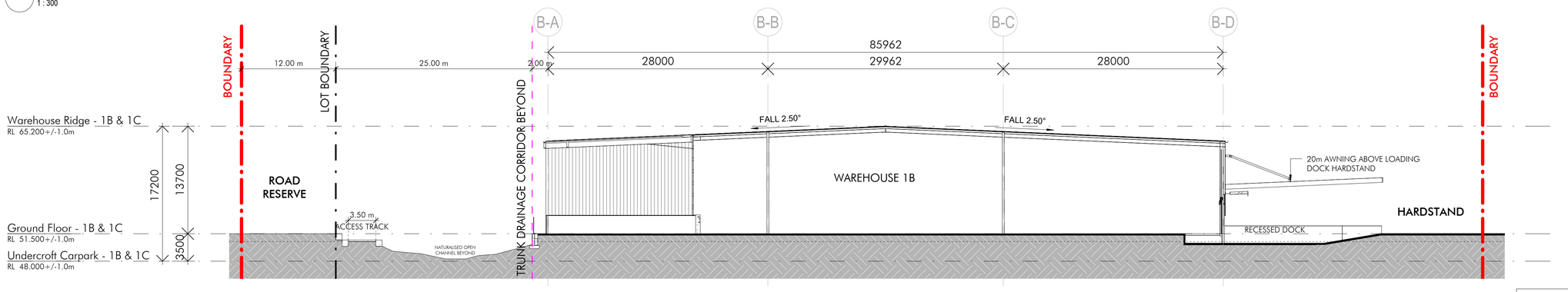

1 Warehouse 1C Cross Section
1 : 300




2 Warehouse 1C Section
1 : 300




3 Warehouse 1B Section
1 : 300




4 Warehouse 1B Cross Section
1 : 300

NOTE: ALL BUILDING LEVELS TO BE + / - 1.0m

SSDA

Client
ICON OCEANIA

Builder

Project Name
**PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS**

Project Address
**253-267 ALDINGTON RD, KEMPS CREEK, NSW**

Drawing Title
**Warehouse 1B & 1C Sections**

| Author: | Checker: | Sheet Size: | Scale: |
|---|---|---|---|
| JM | MC | A1 | 1:300 |

Drawing Number: **12253_DA032**

Issue: **10**

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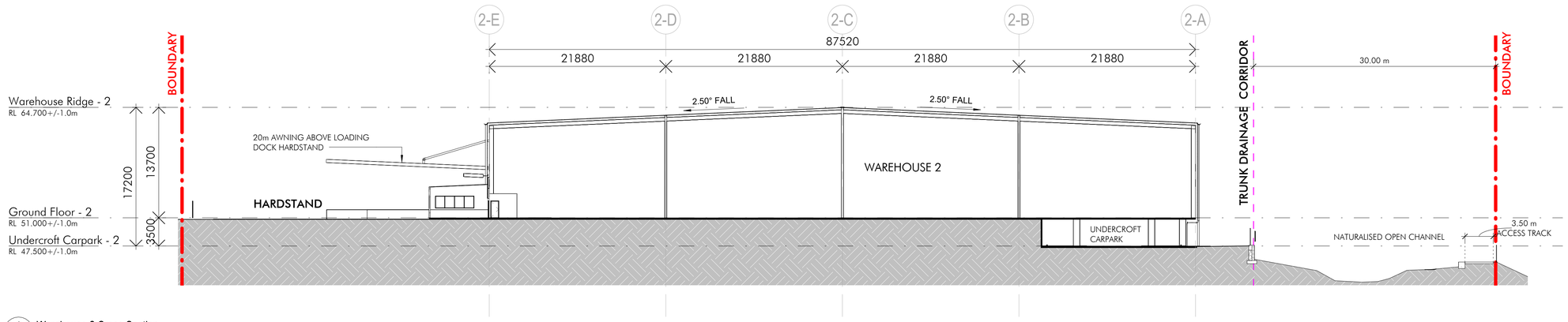
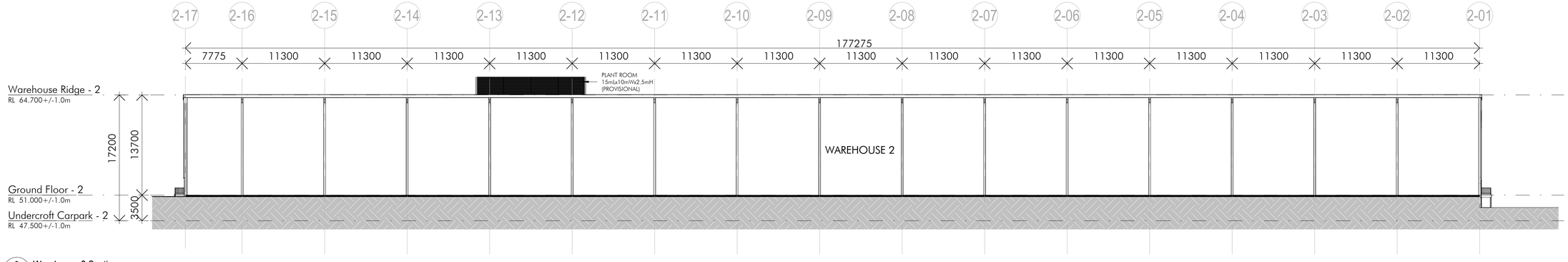
117 Willoughby Road, Crows Nest, NSW 2065
t +61 2 9431 6431
e: sydney@nettletontribe.com.au w: nettletontribe.com.au




1 Warehouse 2 Cross Section
1 : 300




2 Warehouse 2 Section
1 : 300

NOTE: ALL BUILDING LEVELS TO BE + / - 1.0m



## Key Plan

0 6000 15000

| Issue | Description | Date |
|---|---|---|
| 9 | ISSUED FOR DA | 23.10.2024 |
| 8 | ISSUED FOR COORDINATION | 02.10.2024 |
| 7 | ISSUED FOR DA | 13.10.2023 |
| 6 | ISSUED FOR COORDINATION | 04.10.2023 |
| 5 | ISSUED FOR DA | 16.08.2023 |
| 4 | ISSUED FOR DA | 19.08.2022 |
| 3 | ISSUED FOR DA | 25.10.2021 |
| 2 | ISSUED FOR DA | 08.09.2021 |
| 1 | PRELIMINARY ISSUE | 24.08.2021 |

**SSDA**

Client
ICON OCEANIA

Builder

Project Name
**PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS**

Project Address
**253-267 ALDINGTON RD, KEMPS CREEK, NSW**

Drawing Title
**Warehouse 2 Sections**

| Author: | Checker: | Sheet Size: | Scale: |
|---|---|---|---|
| JM | MC | A1 | 1:300 |

Drawing Number: **12253_DA033** Issue: **9**

nettletontribe

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117 Willoughby Road, Crows Nest, NSW 2065
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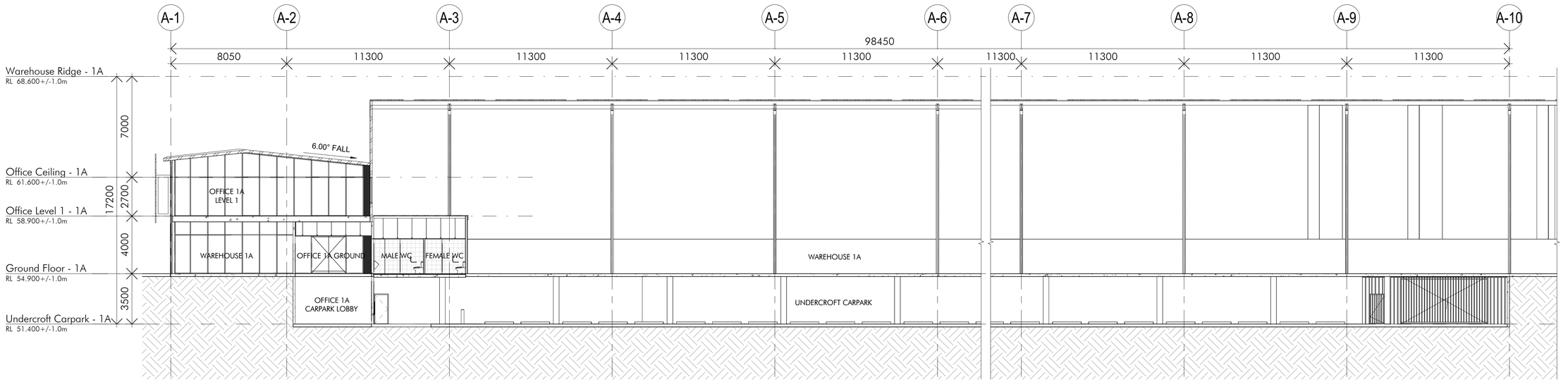
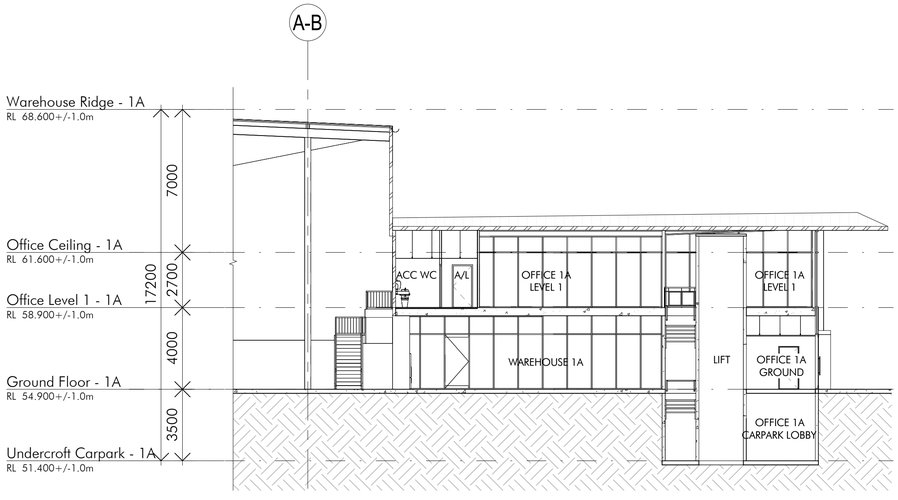
## Key Plan

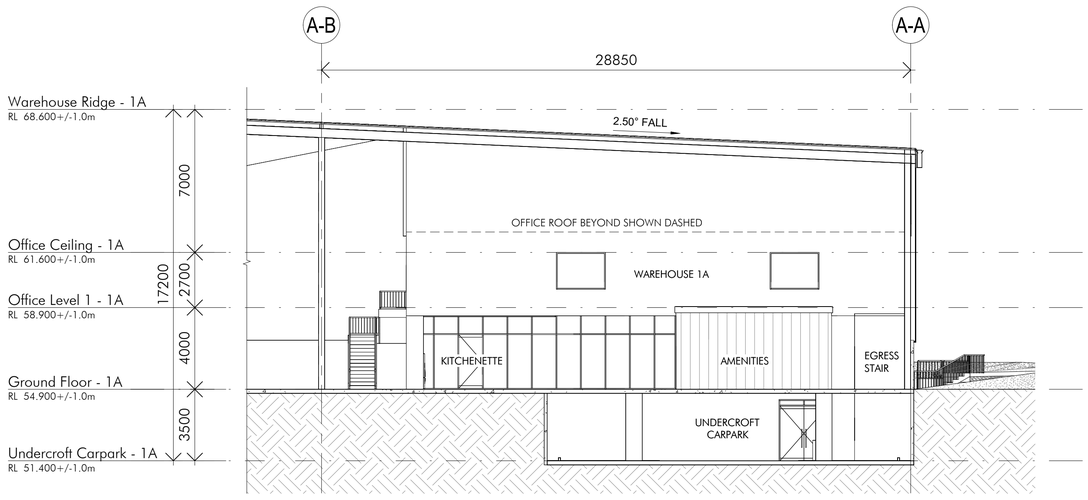

| Issue | Description | Date |
|---|---|---|
| 2 | ISSUED FOR DA | 23.10.2024 |
| 1 | ISSUED FOR COORDINATION | 02.10.2024 |




1 OFFICE 1A_SECTION 1
1 : 150




2 OFFICE 1A_SECTION 2
1 : 150




3 OFFICE 1A_SECTION 3
1 : 150

**SSDA**

Client
ICON OCEANIA

Builder

Project Name
**PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS**

Project Address
**253-267 ALDINGTON RD, KEMPS CREEK, NSW**

Drawing Title
**Office 1A Sections**

| Author: | Checker: | Sheet Size: | Scale: |
|---|---|---|---|
| JM | MC | A1 | 1:150 |

Drawing Number: **12253_DA035**

Issue: **2**

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117 Willoughby Road, Crows Nest, NSW 2065
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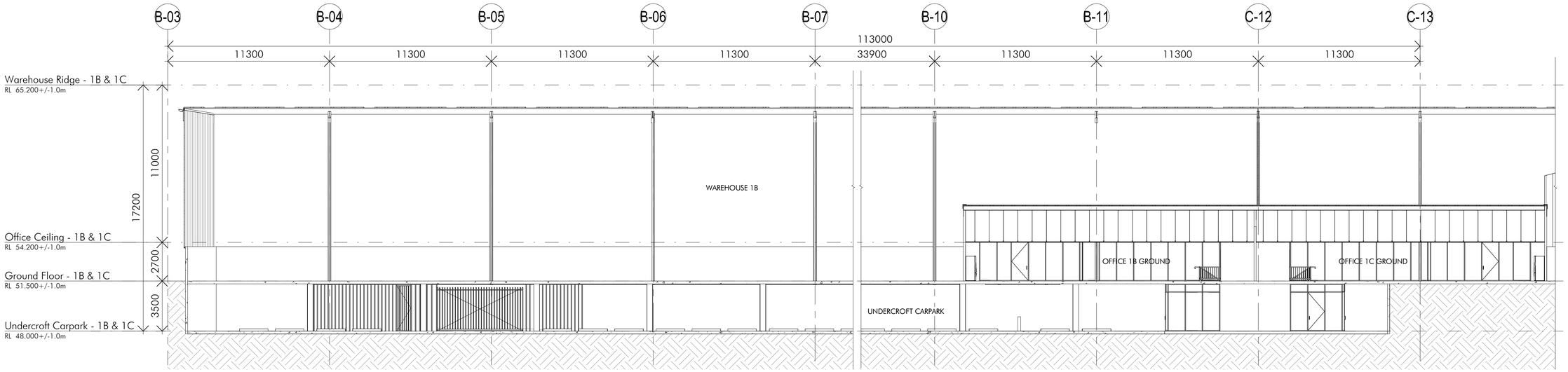
## Key Plan


| Issue | Description | Date |
|---|---|---|
| 2 | ISSUED FOR DA | 23.10.2024 |
| 1 | ISSUED FOR COORDINATION | 02.10.2024 |

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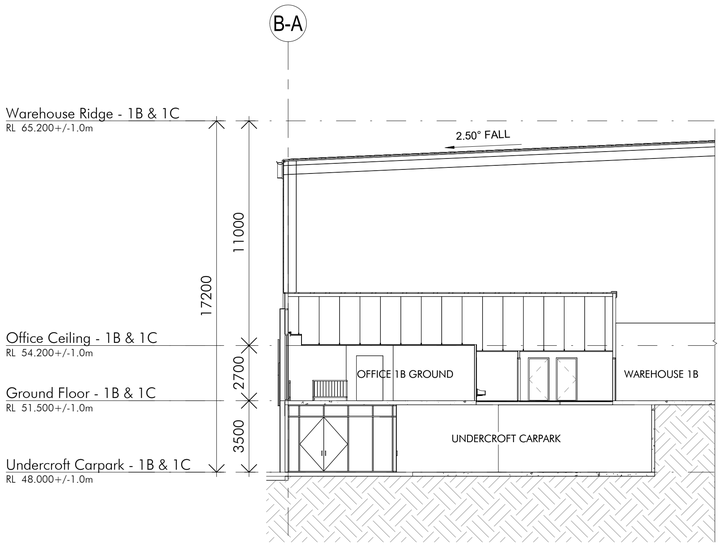
1 : 150

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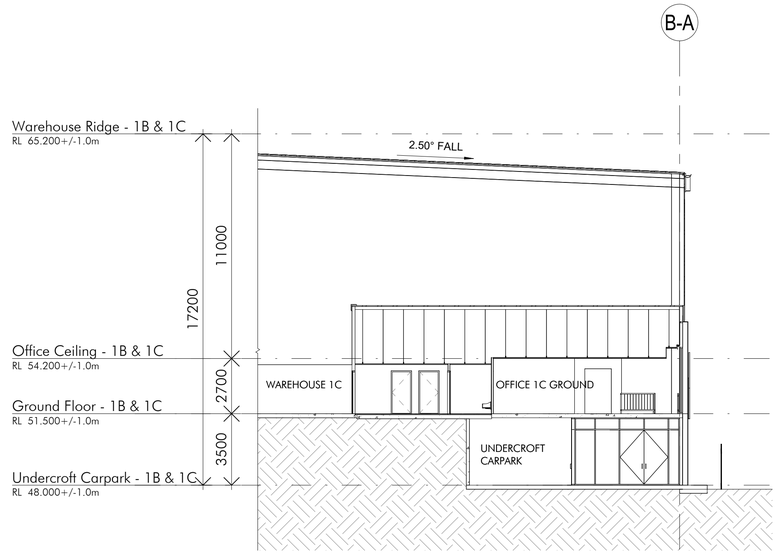


3 OFFICE 1B & 1C_SECTION 3
1 : 150

**SSDA**

Client

ICON OCEANIA

Builder

Project Name

**PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS**

Project Address

**253-267 ALDINGTON RD, KEMPS CREEK, NSW**

Drawing Title

**Office 1B & 1C Sections**

| Author: | Checker: | Sheet Size: | Scale: |
|---|---|---|---|
| JM | MC | A1 | 1:150 |

Drawing Number: **12253_DA036**

Issue: **2**

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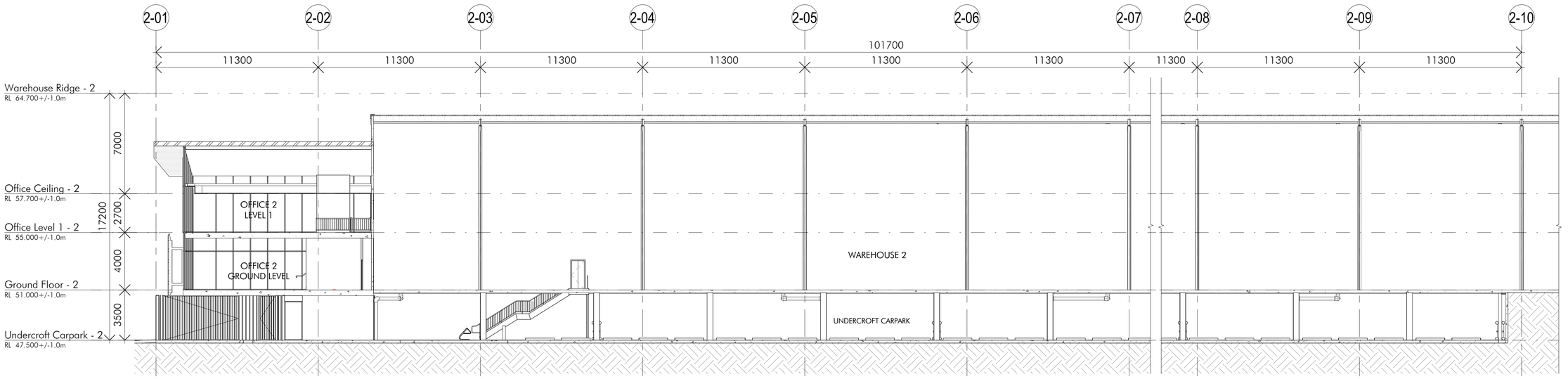
Key Plan


| Issue | Description | Date |
|---|---|---|
| 2 | ISSUED FOR DA | 23.10.2024 |
| 1 | ISSUED FOR COORDINATION | 02.10.2024 |

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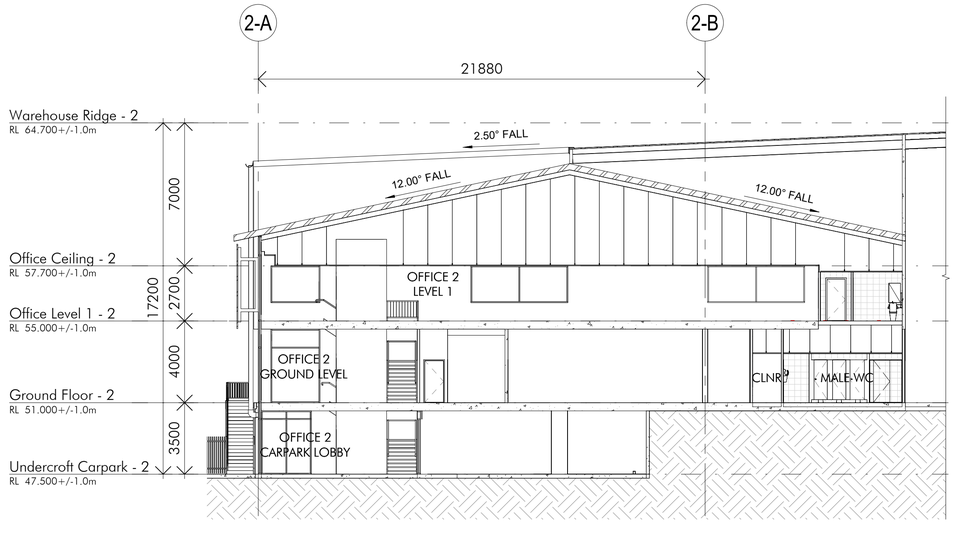


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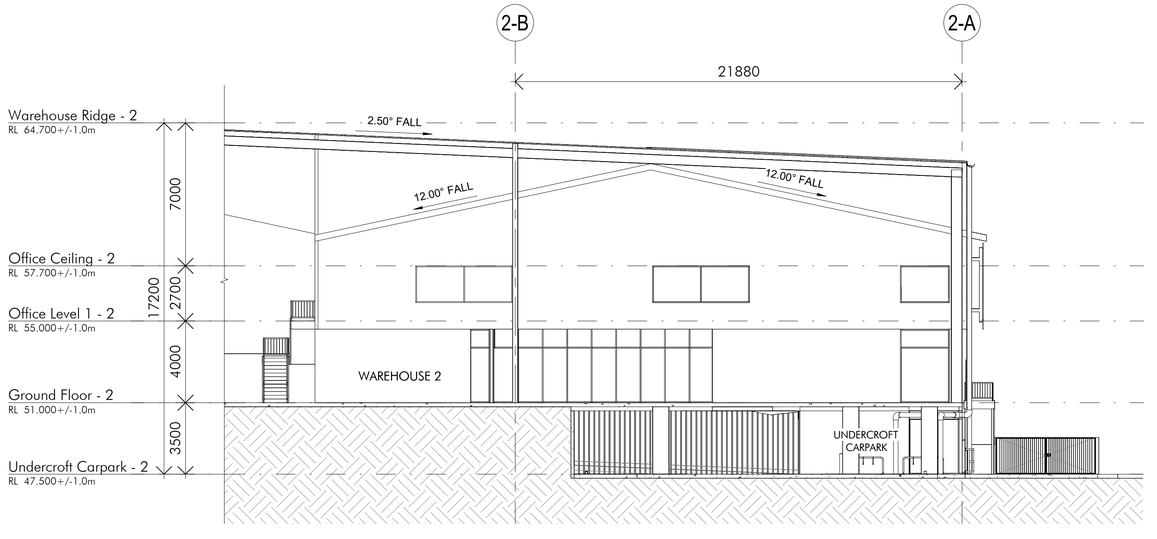


3 OFFICE 2_SECTION 3
1 : 150

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Client
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Builder

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**PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS**

Project Address
**253-267 ALDINGTON RD, KEMPS CREEK, NSW**

Drawing Title
**Office 2 Sections**

| Author: | Checker: | Sheet Size: | Scale: |
|---|---|---|---|
| JM | MC | A1 | 1:150 |

Drawing Number: **12253_DA037**
Issue: **2**

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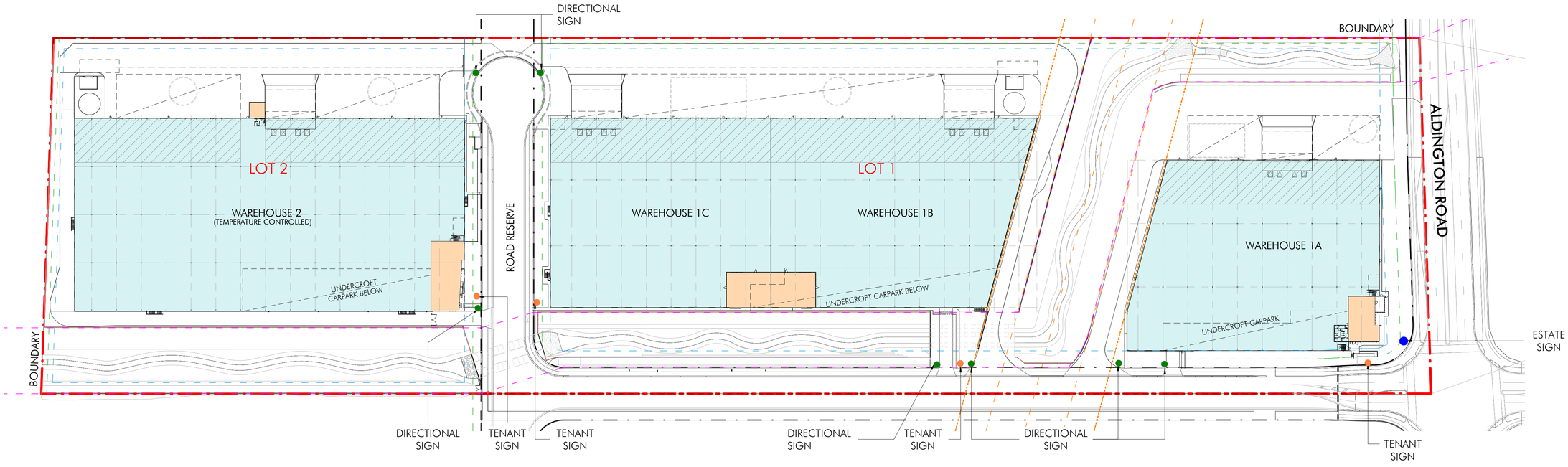


1 Signage Strategy Plan
1 : 1000



Key Plan

0 20000 50000

| Issue | Description | Date |
|---|---|---|
| 10 | ISSUED FOR DA | 24.01.2025 |
| 9 | ISSUED FOR DA | 23.10.2024 |
| 8 | ISSUED FOR COORDINATION | 02.10.2024 |
| 7 | ISSUED FOR DA | 15.12.2023 |
| 6 | ISSUED FOR DA | 30.10.2023 |
| 5 | ISSUED FOR DA | 13.10.2023 |
| 4 | ISSUED FOR DA | 16.08.2023 |
| 3 | ISSUED FOR DA | 19.08.2022 |
| 2 | ISSUED FOR DA | 08.09.2021 |
| 1 | PRELIMINARY ISSUE | 24.08.2021 |

LEGEND:

- ESTATE SIGN
- TENANT SIGN
- DIRECTIONAL SIGN

**SSDA**

Client: ICON OCEANIA

Builder:

Project Name
**PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS**

Project Address
**253-267 ALDINGTON RD, KEMPS CREEK, NSW**

Drawing Title
**Signage Strategy Plan**

| Author: | Checker: | Sheet Size: | Scale: |
|---|---|---|---|
| JM | MC | A1 | 1:1000 |

Drawing Number: **12253_DA061** Issue: **10**

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| Issue | Description | Date |
|---|---|---|
| 6 | ISSUED FOR DA | 23.10.2024 |
| 5 | ISSUED FOR COORDINATION | 02.10.2024 |
| 4 | ISSUED FOR DA | 20.10.2023 |
| 3 | ISSUED FOR DA | 13.10.2023 |
| 2 | ISSUED FOR DA | 08.09.2021 |
| 1 | PRELIMINARY ISSUE | 24.08.2021 |

Office 1A - South-east Corner Perspective from Aldington Road

SSDA

Client

ICON OCEANIA

Builder

Project Name

**PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS**

Project Address

**253-267 ALDINGTON RD, KEMPS CREEK, NSW**

Drawing Title

**3D Perspective - Office 1A**

| Author: | Checker: | Sheet Size: | Scale: |
|---|---|---|---|
| WC | MC | A1 | NTS |

Drawing Number: **12253_DA090**

Issue: **6**

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Office 1B & 1C - Perspective from Internal Road



Key Plan

| Issue | Description | Date |
|---|---|---|
| 2 | ISSUED FOR DA | 23.10.2024 |
| 1 | ISSUED FOR COORDINATION | 02.10.2024 |

**SSDA**

Client

ICON OCEANIA

Builder

Project Name

**PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS**

Project Address

**253-267 ALDINGTON RD, KEMPS CREEK, NSW**

Drawing Title

**3D Perspective - Office 1B &1C**

| Author: | Checker: | Sheet Size: | Scale: |
|---|---|---|---|
| WC | MC | A1 | NTS |

Drawing Number: **12253_DA090A**

Issue: **2**

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## Key Plan

| Issue | Description | Date |
|---|---|---|
| 6 | ISSUED FOR DA | 23.10.2024 |
| 5 | ISSUED FOR COORDINATION | 02.10.2024 |
| 4 | ISSUED FOR DA | 20.10.2023 |
| 3 | ISSUED FOR DA | 13.10.2023 |
| 2 | ISSUED FOR DA | 08.09.2021 |
| 1 | PRELIMINARY ISSUE | 24.08.2021 |

Office 2 - South-east Corner Perspective from Internal Road

**SSDA**

Client

ICON OCEANIA

Builder

Project Name

**PROPOSED WAREHOUSE & DISTRIBUTION CENTRE BUILDINGS**

Project Address

**253-267 ALDINGTON RD, KEMPS CREEK, NSW**

Drawing Title

**3D Perspective - Office 2**

| Author: | Checker: | Sheet Size: | Scale: |
|---|---|---|---|
| WC | MC | A1 | NTS |

Drawing Number: **12253_DA093**

Issue: **6**

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# Appendix B

## Noise modelling assumptions and inputs

EMM
creating opportunities

| Item No. | Equipment/Activity | Comments | Notes | Sound Power Level, dB | | Period | | | 1/3 Octave Sound Power Level, dB LZeq (Hz) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | LAeq | LAmax | Day | Eve | Night | 31.5 | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
| 1 | *Warehouse 1a trucks* | 2m source height loop and manoeuvring | 2m source height | 106.0 | 120.0 | 2 | 1 | 1 | 115.4 | 112.0 | 105.5 | 98.7 | 101.0 | 102.4 | 99.4 | 93.4 | 83.2 |
| 2 | *Warehouse 1a fork trucks* | General area around docks - assume 90dBA - awning area - account for 4 fork trucks (+6dB) | 1.5m source height | 90.0 | | | | | 99.4 | 96.0 | 89.5 | 82.7 | 85.0 | 86.4 | 83.4 | 77.4 | 67.2 |
| 3 | *Warehouse 1b trucks* | 2m source height loop and manoeuvring | 2m source height | 106.0 | 120.0 | 1 | 1 | 1 | 115.4 | 112.0 | 105.5 | 98.7 | 101.0 | 102.4 | 99.4 | 93.4 | 83.2 |
| 4 | *Warehouse 1b fork trucks* | General area around docks - assume 90dBA - awning area - account for 4 fork trucks (+6dB) | 1.5m source height | 90.0 | | | | | 99.4 | 96.0 | 89.5 | 82.7 | 85.0 | 86.4 | 83.4 | 77.4 | 67.2 |
| 5 | *Warehouse 1c trucks* | 2m source height loop and manoeuvring | 2m source height | 106.0 | 120.0 | 1 | 1 | 1 | 115.4 | 112.0 | 105.5 | 98.7 | 101.0 | 102.4 | 99.4 | 93.4 | 83.2 |
| 6 | *Warehouse 1c fork trucks* | General area around docks - assume 90dBA - awning area - account for 4 fork trucks (+6dB) | 1.5m source height | 90.0 | | | | | 99.4 | 96.0 | 89.5 | 82.7 | 85.0 | 86.4 | 83.4 | 77.4 | 67.2 |
| 7 | *Warehouse 2 trucks - refrigerated* | 2m source height loop and manoeuvring | 2m source height | 106.0 | 120.0 | 2 | 1 | 1 | 115.4 | 112.0 | 105.5 | 98.7 | 101.0 | 102.4 | 99.4 | 93.4 | 83.2 |
| 8 | *Warehouse 2 trucks - refrigerated* | parked along dock area - account for 4 parks and running refrigeration | 3m source height | 87.9 | 120.0 | 4 | 4 | 4 | | | 91.0 | 86.0 | 85.0 | 84.0 | 79.0 | 72.0 | |
| 9 | *Warehouse 2 fork trucks* | General area around docks - assume 90dBA - awning area - account for 4 fork trucks (+6dB) | 1.5m source height | 90.0 | | | | | 99.4 | 96.0 | 89.5 | 82.7 | 85.0 | 86.4 | 83.4 | 77.4 | 67.2 |
| 10 | *Carpark breakout (Warehouse 1a - 65 spaces)* | southern façade as shown DA011 - breakout from under croft parking | taken from WCX - 74dB/15min per vehicle then 50% utilisation assuming full carpark changeover in each period | 92.2 | 95.0 | 65 | 65 | 65 | 98.3 | 90.3 | 90.3 | 91.3 | 89.3 | 87.3 | 84.3 | 79.3 | 71.3 |
| 11 | *Carpark breakout (Warehouse 1b/c 113 car spaces)* | southern façade as shown DA012 - breakout from under croft parking | taken from WCX - 74dB/15min per vehicle then 50% utilisation assuming full carpark changeover in each period | 94.6 | 95.0 | 113 | 113 | 113 | 100.7 | 92.7 | 92.7 | 93.7 | 91.7 | 89.7 | 86.7 | 81.7 | 73.7 |
| 12 | *Carpark breakout (Warehouse 1b/c 85 car spaces)* | southern façade as shown DA013 - breakout from under croft parking | taken from WCX - 74dB/15min per vehicle then 50% utilisation assuming full carpark changeover in each period | 93.3 | 95.0 | 85 | 85 | 85 | 99.5 | 91.5 | 91.5 | 92.5 | 90.5 | 88.5 | 85.5 | 80.5 | 72.5 |
| 13 | Office AC/HVAC - Warehouse 1a | Office AC/HVAC - Warehouse 1a - 4 x Temperzone OSA950 or eq. | roof above offices | 87.9 | | 1 | 1 | 1 | | | 91.0 | 86.0 | 85.0 | 84.0 | 79.0 | 72.0 | |
| 14 | Office AC/HVAC - Warehouse 1b | Office AC/HVAC - Warehouse 1b - 4 x Temperzone OSA950 or eq. | roof above offices | 87.9 | | 1 | 1 | 1 | | | 91.0 | 86.0 | 85.0 | 84.0 | 79.0 | 72.0 | |
| 15 | Office AC/HVAC - Warehouse 1c | Office AC/HVAC - Warehouse 1c - 4 x Temperzone OSA950 or eq. | roof above offices | 87.9 | | 1 | 1 | 1 | | | 91.0 | 86.0 | 85.0 | 84.0 | 79.0 | 72.0 | |
| 16 | Office AC/HVAC - Warehouse 2 | Office AC/HVAC - Warehouse 2 - 4 x Temperzone OSA950 or eq. | roof above offices | 87.9 | | 1 | 1 | 1 | | | 91.0 | 86.0 | 85.0 | 84.0 | 79.0 | 72.0 | |
| 17 | Condensers - Warehouse 2 | Condensers for Warehouse 2 x 6 Lw89 each | roof centrally | 94.9 | | 1 | 1 | 1 | | | 98.0 | 93.0 | 92.0 | 91.0 | 86.0 | 79.0 | |

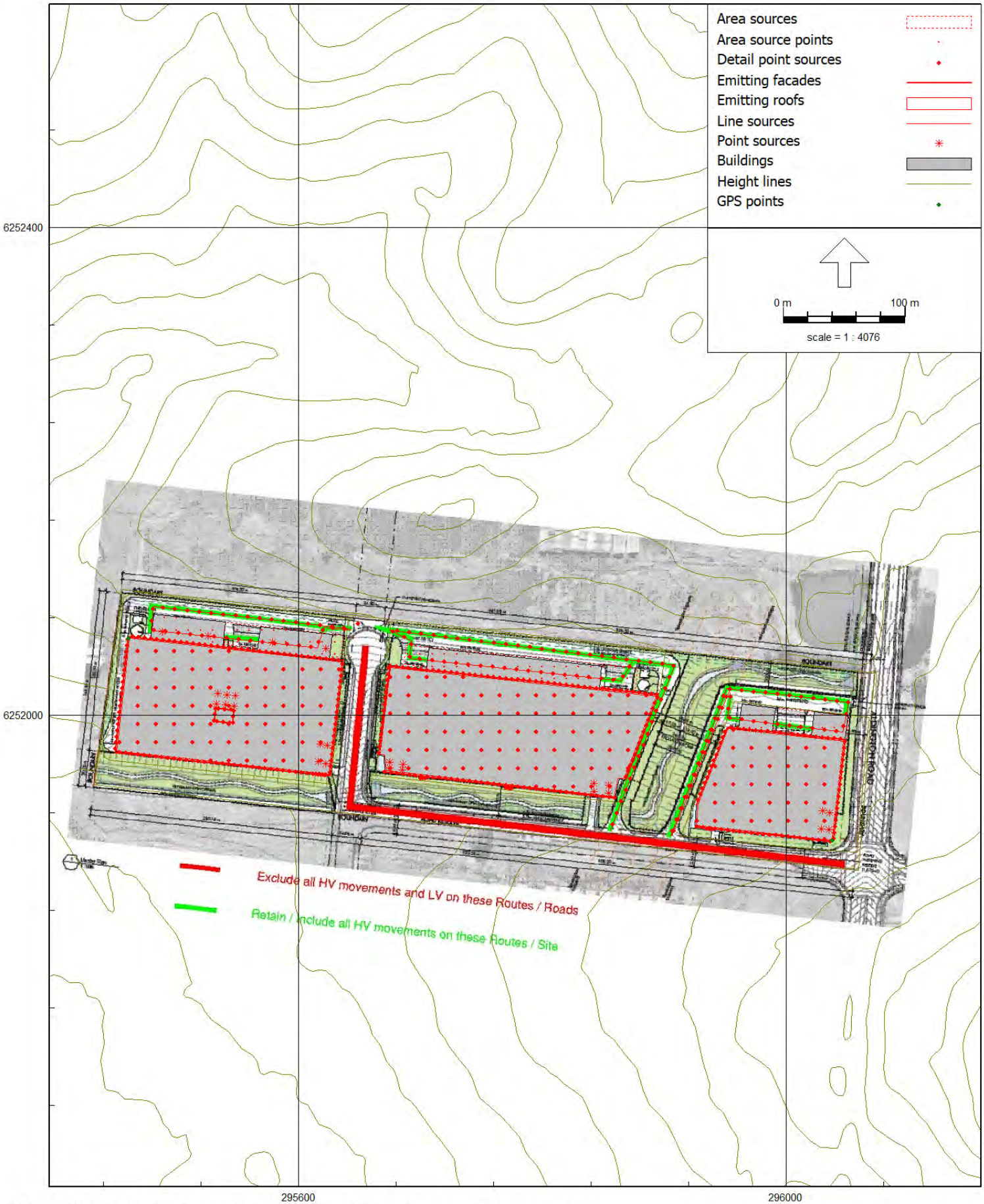
| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **18** | Chiller Plantroom - Warehouse 2 | Chillers plantroom for Warehouse 2 Box on roof 10m W x 15m L x 2.5m H central (SA) 85dBA internal and assume 100m2 opening - TRANE https://www.tranehk.com/files/Products/RTAGPRB001A-EN_1117.pdf | roof centrally - 25m2 opening on each side | 85.0 | | 1 | 1 | 1 | | 90.2 | 81.2 | 82.2 | 82.2 | 81.7 | 75.2 | 71.2 | 61.7 |
| **19** | *Warehouse 1a - composites* | north façade | | 83.5 | | | | | 94.8 | 85.5 | 82.9 | 83.1 | 80.7 | 78.6 | 75.5 | 70.5 | 62.5 |
| **20** | | east façade | | 68.5 | | | | | 91.3 | 81.3 | 75.7 | 73.0 | 66.2 | 58.5 | 52.2 | 39.5 | 31.5 |
| **21** | | south façade | | 71.3 | | | | | 94.0 | 84.0 | 78.5 | 75.8 | 69.0 | 61.3 | 55.0 | 42.3 | 34.3 |
| **22** | | west façade | | 70.6 | | | | | 92.9 | 82.9 | 77.6 | 75.1 | 68.5 | 60.8 | 54.5 | 42.5 | 34.5 |
| **23** | | roof | | 78.6 | | | | | 101.6 | 91.6 | 85.9 | 83.2 | 76.3 | 68.5 | 62.3 | 49.1 | 41.1 |
| **24** | *Warehouse 1b/c - composites* | north façade | | 86.8 | | | | | 97.9 | 88.6 | 86.1 | 86.4 | 84.0 | 81.9 | 78.8 | 73.8 | 65.8 |
| **25** | | east façade | | 70.0 | | | | | 92.3 | 82.3 | 77.0 | 74.5 | 67.8 | 60.1 | 53.8 | 41.8 | 33.8 |
| **26** | | south façade | | 74.5 | | | | | 95.3 | 85.3 | 81.0 | 78.9 | 72.5 | 65.1 | 58.5 | 48.0 | 40.0 |
| **27** | | west façade | | 70.0 | | | | | 92.3 | 82.3 | 77.0 | 74.5 | 67.8 | 60.1 | 53.8 | 41.8 | 33.8 |
| **28** | | roof | | 81.7 | | | | | 104.7 | 94.7 | 89.0 | 86.2 | 79.4 | 71.5 | 65.4 | 52.1 | 44.1 |
| **29** | *Warehouse 2 - composites* | north façade | | 75.5 | | | | | 96.2 | 86.2 | 84.3 | 79.5 | 73.0 | 66.4 | 58.9 | 49.2 | 41.2 |
| **30** | | east façade | | 73.1 | | | | | 93.8 | 83.8 | 81.9 | 77.1 | 70.6 | 64.0 | 56.5 | 46.8 | 38.8 |
| **31** | | south façade | | 70.6 | | | | | 95.7 | 85.7 | 82.8 | 73.3 | 64.2 | 59.7 | 53.7 | 46.1 | 38.1 |
| **32** | | west façade | | 67.3 | | | | | 93.3 | 83.3 | 80.3 | 69.3 | 57.3 | 55.3 | 50.3 | 43.3 | 35.3 |
| **33** | | roof | | 90.8 | | | | | 105.3 | 95.3 | 96.3 | 95.3 | 89.3 | 82.3 | 74.3 | 63.3 | 55.3 |
| **34** | All docks | **LAmax airbrake** | | 120.2 | | | | | 118.2 | 118.4 | 121.6 | 115.8 | 115.3 | 113.3 | 114.1 | 111.7 | 108.9 |
| | | | | | | per light vehicle | | 74 | 80.2 | 72.2 | 72.2 | 73.2 | 71.2 | 69.2 | 66.2 | 61.2 | 53.2 |

| | **SEL** | **No. of Events/15min** | **LAeq,15min (worst case)** | **Total (-LAmax events)** |
|---|---|---|---|---|
| LAmax event | 120 | 8 | 99 | 108 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 80.2 | 72.2 | 72.2 | 73.2 | 71.2 | 69.2 | 66.2 | 61.2 | 53.2 |
| | | PBR shed validation | 77.8 | construction | | | | 84.0 | 76.0 | 76.0 | 77.0 | 75.0 | 73.0 | 70.0 | 65.0 | 57.0 |
| | | Adjust for 2107 industrial storage 60 | 60.0 | warehouse | | | | 66.2 | 58.2 | 58.2 | 59.2 | 57.2 | 55.2 | 52.2 | 47.2 | 39.2 |
| | Insertion loss for walls and roof warehouse 1a, 1b and 1c | 0.48mm BMT sheet metal, 60mm insulation with perforated foil facing) | | | | | | 4.0 | 6.0 | 12.0 | 16.0 | 21.0 | 27.0 | 30.0 | 40.0 | 40.0 |
| | Insertion loss for walls and roof warehouse 2 | outer 0.42 BMT sheet metal, 200mm air gap with 100mm insulation 18kg/m3, inner 0.48mm BMT | | | | | | 4.0 | 6.0 | 9.0 | 21.0 | 31.0 | 31.0 | 33.0 | 35.0 | 35.0 |
| | Doors - Warehouse 2 (warehouse 1a, b and c optional) | using 1.8mm rubber Rw15 | | | | | | 3.0 | 5.0 | 4.0 | 6.0 | 10.0 | 15.0 | 20.0 | 26.0 | 26.0 |
| | translucent sheeting (some walls and roof) | Danpalon 16 (reduced to 8mm) | | | | | | 3.0 | 5.0 | 5.0 | 7.0 | 11.0 | 16.0 | 20.0 | 24.0 | 24.0 |

| **WORKINGS to populate above** | **Levels below based on internal SPL - TL + SA for component** | | | | | | | **1/3 Octave Sound Power Level, dB LZeq (Hz)** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Space averaged internal noise level* | **Warehouse 1a, 1b and 1c walls and roof** | warehouse (60dB) | | **Area** | **SA** | **Trans** | | **31.5** | **63** | **125** | **250** | **500** | **1k** | **2k** | **4k** | **8k** |
| | **Warehouse 1a** | | | north | 1289.0 | | 69.8 | 93.3 | 83.3 | 77.3 | 74.3 | 67.3 | 59.3 | 53.3 | 38.3 | 30.3 |
| | | | open | doors - north | 214.6 | 14% | 83.3 | 89.5 | 81.5 | 81.5 | 82.5 | 80.5 | 78.5 | 75.5 | 70.5 | 62.5 |
| | | | | east | 774.7 | | 67.6 | 91.1 | 81.1 | 75.1 | 72.1 | 65.1 | 57.1 | 51.1 | 36.1 | 28.1 |
| | | | | east - trans | 23.2 | 3% | 61.4 | 76.9 | 66.9 | 66.9 | 65.9 | 59.9 | 52.9 | 45.9 | 36.9 | 28.9 |
| | | | | south | 1458.6 | | 70.3 | 93.8 | 83.8 | 77.8 | 74.8 | 67.8 | 59.8 | 53.8 | 38.8 | 30.8 |
| | | | | south - trans | 45.0 | 3% | 64.3 | 79.7 | 69.7 | 69.7 | 68.7 | 62.7 | 55.7 | 48.7 | 39.7 | 31.7 |
| | | | | west | 1100.4 | | 69.1 | 92.6 | 82.6 | 76.6 | 73.6 | 66.6 | 58.6 | 52.6 | 37.6 | 29.6 |
| | | | | west - trans | 57.9 | 5% | 65.4 | 80.8 | 70.8 | 70.8 | 69.8 | 63.8 | 56.8 | 49.8 | 40.8 | 32.8 |
| | | | | roof | 8526.0 | | 78.0 | 101.5 | 91.5 | 85.5 | 82.5 | 75.5 | 67.5 | 61.5 | 46.5 | 38.5 |
| | | | | roof-trans | 174.0 | 2% | 70.2 | 85.6 | 75.6 | 75.6 | 74.6 | 68.6 | 61.6 | 54.6 | 45.6 | 37.6 |
| | **Warehouse 1b/c** | | | north | 2566.3 | | 72.8 | 96.3 | 86.3 | 80.3 | 77.3 | 70.3 | 62.3 | 56.3 | 41.3 | 33.3 |
| | | | open | doors - north | 459.1 | 15% | 86.6 | 92.8 | 84.8 | 84.8 | 85.8 | 83.8 | 81.8 | 78.8 | 73.8 | 65.8 |
| | | | | east | 950.8 | | 68.5 | 92.0 | 82.0 | 76.0 | 73.0 | 66.0 | 58.0 | 52.0 | 37.0 | 29.0 |
| | | | | east - trans | 48.5 | 5% | 64.6 | 80.1 | 70.1 | 70.1 | 69.1 | 63.1 | 56.1 | 49.1 | 40.1 | 32.1 |
| | | | | south | 1710.5 | | 71.0 | 94.5 | 84.5 | 78.5 | 75.5 | 68.5 | 60.5 | 54.5 | 39.5 | 31.5 |
| | | | | south - trans | 256.6 | 13% | 71.8 | 87.3 | 77.3 | 77.3 | 76.3 | 70.3 | 63.3 | 56.3 | 47.3 | 39.3 |
| | | | | west | 950.8 | | 68.5 | 92.0 | 82.0 | 76.0 | 73.0 | 66.0 | 58.0 | 52.0 | 37.0 | 29.0 |
| | | | | west-trans | 48.5 | 5% | 64.6 | 80.1 | 70.1 | 70.1 | 69.1 | 63.1 | 56.1 | 49.1 | 40.1 | 32.1 |
| | | | | roof | 17184.0 | | 81.0 | 104.6 | 94.6 | 88.6 | 85.6 | 78.6 | 70.6 | 64.6 | 49.6 | 41.6 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | roof - trans | 351.0 | 2% | 73.2 | 88.7 | 78.7 | 78.7 | 77.7 | 71.7 | 64.7 | 57.7 | 48.7 | 40.7 |
| **Warehouse 2** | north | 2063.999 | | 69.3 | 95.3 | 85.3 | 82.3 | 71.3 | 59.3 | 57.3 | 52.3 | 45.3 | 37.3 |
| closed | doors - north | 364.6 | 15% | 74.3 | 88.8 | 78.8 | 79.8 | 78.8 | 72.8 | 65.8 | 57.8 | 46.8 | 38.8 |
| | east | 1187.8 | | 66.9 | 92.9 | 82.9 | 79.9 | 68.9 | 56.9 | 54.9 | 49.9 | 42.9 | 34.9 |
| | east - trans | 209.6 | 15% | 71.9 | 86.4 | 76.4 | 77.4 | 76.4 | 70.4 | 63.4 | 55.4 | 44.4 | 36.4 |
| | south | 2185.7575 | | 69.6 | 95.6 | 85.6 | 82.6 | 71.6 | 59.6 | 57.6 | 52.6 | 45.6 | 37.6 |
| | south -trans | 33.3 | 2% | 63.9 | 78.4 | 68.4 | 69.4 | 68.4 | 62.4 | 55.4 | 47.4 | 36.4 | 28.4 |
| | west | 1301.8 | | 67.3 | 93.3 | 83.3 | 80.3 | 69.3 | 57.3 | 55.3 | 50.3 | 43.3 | 35.3 |
| | roof | 16390 | | 90.8 | 105.3 | 95.3 | 96.3 | 95.3 | 89.3 | 82.3 | 74.3 | 63.3 | 55.3 |


Area sources
Area source points
Detail point sources
Emitting facades
Emitting roofs
Line sources
Point sources
Buildings
Height lines
GPS points
0 m
100 m
scale = 1 : 4076
6252400
6252000
295600
296000
Exclude all HV movements and LV on these Routes / Roads
Retain / Include all HV movements on these Routes / Site

**Warehouse 1a**

**Day**

Update route length from model

| Truck | Segment | Truck speed km/h | No of trucks | Truck speed m/h | Truck speed m/min | Truck speed m/sec | Length of route (m) | Time spend on route (sec) | Time spend on route (min) | dB correction to 15 minutes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Full site sweep (in/out)** | Total | 20 | **2** | 20000 | 333.3333333 | 5.555555556 | 220.95 | 39.771 | 0.66285 | -10.5 |

**Eve**

| Truck | Segment | Truck speed km/h | No of trucks | Truck speed m/h | Truck speed m/min | Truck speed m/sec | Length of route (m) | Time spend on route (sec) | Time spend on route (min) | dB correction to 15 minutes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Full site sweep (in/out)** | Total | 20 | **1** | 20000 | 333.3333333 | 5.555555556 | 220.95 | 39.771 | 0.66285 | -13.5 |

**Night**

| Truck | Segment | Truck speed km/h | No of trucks | Truck speed m/h | Truck speed m/min | Truck speed m/sec | Length of route (m) | Time spend on route (sec) | Time spend on route (min) | dB correction to 15 minutes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Full site sweep (in/out)** | Total | 20 | **1** | 20000 | 333.3333333 | 5.555555556 | 220.95 | 39.771 | 0.66285 | -13.5 |

**Warehouse 1b/c**

**Day**

Update route length from model

| Truck | Segment | Truck speed km/h | No of trucks | Truck speed m/h | Truck speed m/min | Truck speed m/sec | Length of route (m) | Time spend on route (sec) | Time spend on route (min) | dB correction to 15 minutes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Full site sweep (in/out)** | Total | 20 | **2** | 20000 | 333.3333333 | 5.555555556 | 362.84 | 65.3112 | 1.08852 | -8.4 |

**Eve**

| Truck | Segment | Truck speed km/h | No of trucks | Truck speed m/h | Truck speed m/min | Truck speed m/sec | Length of route (m) | Time spend on route (sec) | Time spend on route (min) | dB correction to 15 minutes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Full site sweep (in/out)** | Total | 20 | **2** | 20000 | 333.3333333 | 5.555555556 | 362.84 | 65.3112 | 1.08852 | -8.4 |

**Night**

| Truck | Segment | Truck speed km/h | No of trucks | Truck speed m/h | Truck speed m/min | Truck speed m/sec | Length of route (m) | Time spend on route (sec) | Time spend on route (min) | dB correction to 15 minutes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Full site sweep (in/out)** | Total | 20 | **2** | 20000 | 333.3333333 | 5.555555556 | 362.84 | 65.3112 | 1.08852 | -8.4 |

**Warehouse 2**

**Day**

Update route length from model

| Truck | Segment | Truck speed km/h | No of trucks | Truck speed m/h | Truck speed m/min | Truck speed m/sec | Length of route (m) | Time spend on route (sec) | Time spend on route (min) | dB correction to 15 minutes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Full site sweep (in/out)** | Total | 20 | **2** | 20000 | 333.3333333 | 5.555555556 | 211.24 | 38.0232 | 0.63372 | -10.7 |

**Eve**

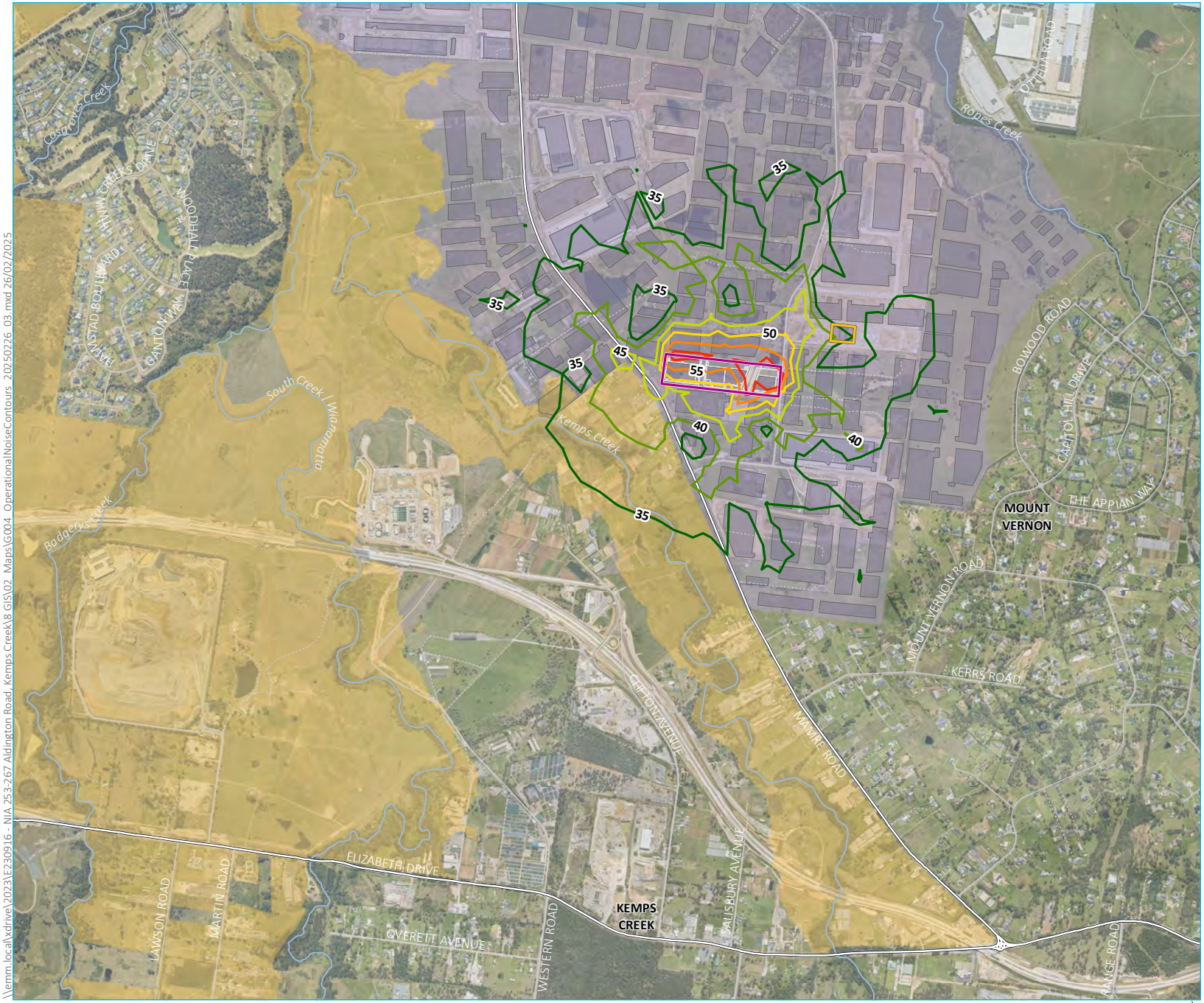
| Truck | Segment | Truck speed km/h | No of trucks | Truck speed m/h | Truck speed m/min | Truck speed m/sec | Length of route (m) | Time spend on route (sec) | Time spend on route (min) | dB correction to 15 minutes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Full site sweep (in/out)** | Total | 20 | **1** | 20000 | 333.3333333 | 5.555555556 | 211.24 | 38.0232 | 0.63372 | -13.7 |

**Night**

| Truck | Segment | Truck speed km/h | No of trucks | Truck speed m/h | Truck speed m/min | Truck speed m/sec | Length of route (m) | Time spend on route (sec) | Time spend on route (min) | dB correction to 15 minutes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Full site sweep (in/out)** | Total | 20 | **1** | 20000 | 333.3333333 | 5.555555556 | 211.24 | 38.0232 | 0.63372 | -13.7 |

# Appendix C
## Operational Noise Contours

EMM
creating opportunities



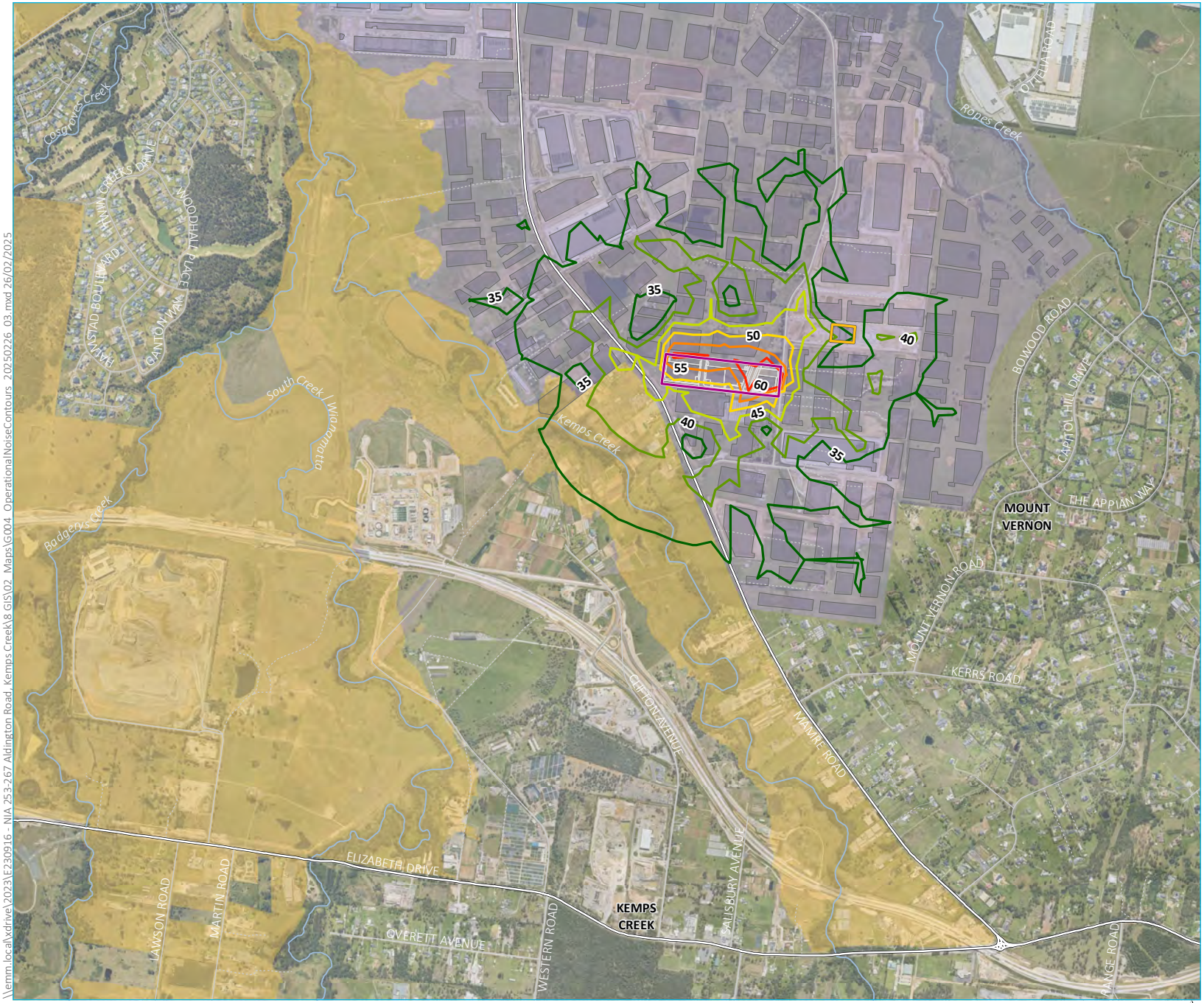

Source: EMM (2025); DCSSS (2023); GA (2009); MetroMap (2024)

\\emm.local\xdrive\2023\E230916 - NIA 253-267 Aldington Road, Kemps Creek\8 GIS\02 Maps\G004 OperationalNoiseContours 20250226 03.mxd 26/02/2025

Operational noise contours – Day - 20°C, 60% humidity and 3 m/s wind

Westgate Estate
253-267 Aldington Road, Kemps Creek NSW
Noise Impact Assessment
Figure C.1

EMM
creating opportunities



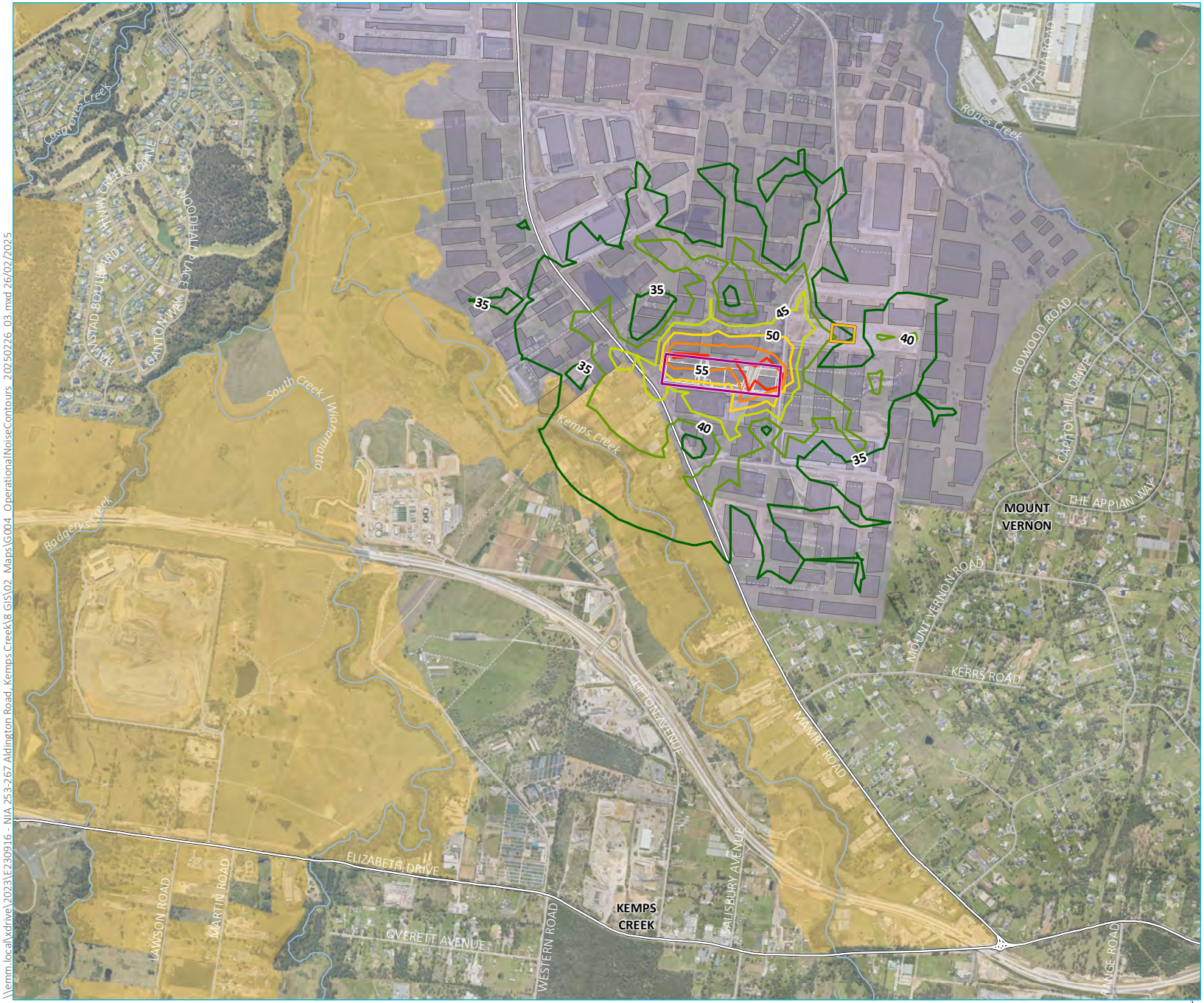

\\emm.local\xdrive\2023\E230916 - NIA 253-267 Aldington Road, Kemps Creek\8 GIS\02 Maps\G004 OperationalNoiseContours 20250226 03.mxd 26/02/2025

*Source: EMM (2025); DCSSS (2023); GA (2009); MetroMap (2024)*

Operational noise contours – Evening - 20°C, 60% humidity and 3 m/s wind

Westgate Estate
253-267 Aldington Road, Kemps Creek NSW
Noise Impact Assessment
Figure C.2

EMM
creating opportunities




Source: EMM (2025); DCSSS (2023); GA (2009); MetroMap (2024)

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Operational noise contours – Night - 10°C, 90% humidity and 2 m/s wind and temperature inversion

Westgate Estate
253-267 Aldington Road, Kemps Creek NSW
Noise Impact Assessment
Figure C.3

EMM
creating opportunities

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