



Appendix C – Revised Consolidated Mitigation Measures

SSD-82875708 – Shop top housing development, Rangers Road/Yeo Street

The collective measures required to mitigate the impacts associated with the proposed works are detailed below. These measures have been derived from the assessment in **Section 8.0** of the EIS and those detailed in the appended consultants' reports.

Ref No.	Mitigation Measure
Noise and Vibration	
Operational Noise and Vibration	
ONV-1	<ul style="list-style-type: none">• The open façade of the plant room is to be an acoustic louvre, with an indicative depth of 600mm
ONV-2	<ul style="list-style-type: none">• The soffit of the plantroom is to be lined with an absorptive panel / insulation
ONV-3	<ul style="list-style-type: none">• Chillers and all other plant are to be suitably vibration isolated
ONV-4	<ul style="list-style-type: none">• Mitigation measures for the mechanical plant should be considered during the design development stage to ensure compliance with the outlined criteria at the nearest sensitive receiver catchments. These mitigation measures could include but not limited to the following:
ONV-5	<ul style="list-style-type: none">- Positioning mechanical plant away from nearby receivers
ONV-6	<ul style="list-style-type: none">- Acoustic attenuators fitted to duct work
ONV-7	<ul style="list-style-type: none">- Screening around mechanical plant
ONV-8	<ul style="list-style-type: none">- Acoustic insulation within duct work
ONV-9	<ul style="list-style-type: none">• In order to achieve the project internal noise limits established in Section 6.1 of the Noise and Vibration Impact Assessment (Appendix X), the glazing components of the façade of the proposed development must meet the acoustic façade type presented in Table 24 of Appendix X.

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| ONV-10 | <ul style="list-style-type: none"> In addition to the required glazing systems outlined in Table 24 of Appendix X, the solid/non-glazed elements of the façade shall have an acoustic performance of no less than Rw 45 to ensure the resulting internal noise levels within each space in the proposed development do not exceed the project internal noise limits outlined in Section 6.1 of Appendix X. Masonry constructions such as concrete or blockwork will be satisfactory with no additional acoustic treatment required |
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| ONV-11 | <ul style="list-style-type: none"> If the project internal noise limits for windows/doors open is exceeded, alternative means of ventilation is required in accordance with the requirements of the NCC (i.e. alternative ventilation system complying with AS 1668.2 and AS/NZS 3666.1) to the noise-affected spaces |
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| ONV-12 | <ul style="list-style-type: none"> It is recommended that vehicle engines should be switched off, where possible, whilst in the loading dock Furthermore, to provide acoustic comfort and protection of occupants within the development, it is recommended that the slab of the loading dock be vibration isolated to ensure structure-borne noise and vibrations are controlled |
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Construction Noise and Vibration

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| CNV-1 | <ul style="list-style-type: none"> At least a one-hour respite period, for example between 12:00pm – 1:00pm (or other period to coincide with construction workers lunch time(s)), should be offered per day during the most intensive periods of noisy activities. Limiting these activities outside of sensitive hours (e.g. no noisy works, such as piling, between 7:00am – 8:00am on weekdays) should also be considered |
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| CNV-2 | <ul style="list-style-type: none"> Frequent and proactive communication with surrounding residents and neighbours is also encouraged and a Community Consultation Strategy should be developed by the contractor. This will allow occupants of surrounding residents to arrange their schedules to accommodate possible noise sensitive activities (like online meetings and conferencing) |
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| CNV-3 | <ul style="list-style-type: none"> Vibration monitoring is recommended to be conducted at surrounding sensitive receivers (or at the location of complaint) in accordance with the monitoring program strategy proposed in Section 11.3 of Appendix X |
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| CNV-4 | <ul style="list-style-type: none"> Reasonable and feasible measures should be considered to lessen the impact, such as alternative methods or equipment for activities which are causing complaints to achieve the vibration levels required |
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| CNV-5 | <ul style="list-style-type: none"> Increasing the distance between noise sources and sensitive receivers |
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| CNV-6 | <ul style="list-style-type: none"> Reducing the line-of-sight noise transmission to residences or other sensitive land uses using temporary barriers (stockpiles, shipping containers and site office transportables can be effective barriers). |
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| CNV-7 | <ul style="list-style-type: none"> Constructing barriers that are part of the project design early in the project to introduce the mitigation of site noise. |
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| CNV-8 | <ul style="list-style-type: none"> Installing purpose-built noise barriers, acoustic sheds and enclosures. |
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| CNV-9 | <ul style="list-style-type: none"> The building shall directly contact adjacent noise sensitive receivers and provide them with information provided in Section 11.2.3 of Appendix X |
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CNV-10 • Noise and vibration complaints various procedures will be followed as outlined in Section 11.2.4 of **Appendix X**

Waste Management

WM-1 The recommended waste management measures within the Operational Waste Management Plan prepared by SALT3 (**Appendix T**) will be incorporated into the detailed design of the development

Traffic and Transport

TF-1 • Trucks to minimise the use local streets for access to the construction site

TF-2 • Trucks to enter and exit the site in a forward direction

TF-3 • Pedestrians near the ingress/egress points will not be held unnecessarily

TF-4 • At construction vehicle access/egress points, priority is to be given to trucks accessing the site over trucks egressing the site so as to have no impact to traffic flow on surrounding roads (unless exceptional circumstances do not permit)

TF-5 • Trucks to not circulate on the road network to wait to enter the site (unless exceptional circumstances do not permit)

TF-6 • Restrict construction vehicle activity to designated routes which do not utilise any local roads

TF-7 • Truck drivers will be advised of the designated truck routes to/ from the site

TF-8 • Construction access from the external road network to mainly occur at signalised intersection

TF-9 • Pedestrian movements adjacent the construction site will be managed and controlled by site personnel where required

TF-10 • Pedestrian warning signs and construction safety signs/devices to be utilised in the vicinity of the site and to be provided in accordance with WorkCover requirements

TF-11 • Construction activity to be carried out in accordance with approved hours of work

TF-12 • Truck loads would be covered during transportation off-site

TF-13 • Activities related to the construction works would not impede traffic flow along adjacent roads

TF-14 • Construction vehicles not to queue on adjacent streets

TF-15 • During site induction, workers will be informed of the existing bus, train and light rail network servicing the site

TF-16 • Development and enforcement of driver charter

Loading Dock

LD-1 • Loading dock manager to be present during the operating hours of the loading dock to manage the movement of vehicles into the MRV loading bay. Should any pedestrians be walking along Military Lane the driver of the truck will be advised to wait and let these pedestrians pass prior to entering the dock

LD-2 • All trucks to use reversing beepers when entering the site and accessing the MRV loading bay

LD-3 • Signage to be installed advising drivers to be aware of pedestrians walking along Military Lane

LD-4 • Signage such as “No Pedestrian Access” will be placed in a visible location at the entrance of the loading dock, along with ground marking stating “No Pedestrian Entry, Loading Dock”, ensuring that pedestrians do not enter the area

LD-5 • All drivers to be informed of the loading dock arrangements, including necessary safety procedures, prior to arriving to the site via the online booking system to be in place

LD-6 • Informal speed limit of 10km/hr to be in place in the loading dock, to clearly notify drivers of the speed within the area

LD-7 • A maintenance check of the traffic management system on-site is to be scheduled yearly and will include a review of the on-site turntable, signage for placement and wear, and wear and visibility of ground line marking

Arboricultural

A-1 • Prior to the commencement of any construction works a project arborist is to be appointed. The role and responsibility of the project arborist is to provide on-going advice for works within identified sensitive areas and is to include at a minimum:

- Participation in the pre-clearing site walk-through, including confirmation of trees to be retained and the setup of tree protection measures

A-2 - Inspect the setup of tree protection zones prior to the commencement of construction works

A-3 - Ensure tree protection measures meet the requirements of *AS4970(2007) Protection of Trees on Development Sites*.

A-4 - Provide advice on methods to minimise the extent of encroachment within the protection zones of trees

A-5 - Provide advice for long-term tree health such as watering regimes, fertiliser application and mulching

A-6	- Provide advice on non-destructive digging technics within tree protection zones
A-7	- Provide advice on when to stop works within a tree protection zone and make recommendations on refinements to the work methodology
A-8	- Review adequacy of site training and induction material regarding tree protection zones
A-9	- Assess and report on any significant roots found to be encroaching within the development footprint
A-10	- Assess and report on the need for any further tree removals required within the project area
A-11	- Undertake regular monitoring / site inspections during construction to monitor tree health and recommend additional tree care if there are signs of stress
A-12	<ul style="list-style-type: none"> • Tree protection fencing is to be installed at the limits of the TPZ or as determined by the project arborist. Fencing shall consist of 1.8m high interlocking chain link or plywood fencing panels. The fencing shall be erected in such a way as to prevent building materials, soil and unauthorised personnel entering the TPZ. The use of temporary fencing panels is considered to be an acceptable form of tree protection fencing.
A-13	<ul style="list-style-type: none"> • Signs identifying the TPZ shall be attached to the tree protection fencing and clearly visible from within the development site. The contact details of either the site manager or project arborist shall be displayed on the sign.
A-14	<ul style="list-style-type: none"> • Where the establishment of a TPZ is deemed not possible trunk and ground protection measures are to be employed. Trunk protection is installed by first wrapping the stem of the tree in hessian or like material then strapping timber battens over the top. It is recommended that timber battens with the dimensions of length 2000mm, width 75mm and depth 50mm are used. The battens are not to be directly screwed or nailed into the tree.
A-15	<ul style="list-style-type: none"> • Where necessary branch protection may be required. Branch protection is installed in the same fashion as the trunk protection mentioned above but cut to suit the shape of the branch.

Wind

W-1	<ul style="list-style-type: none"> • If desired, vertical fins or screens can be added to enhance calm areas from Level 5 upwards, as noted within the Pedestrian Wind Assessment at Appendix K.
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Integrated Water Management

IW-1	<ul style="list-style-type: none"> • A pit and pipe network will be integrated to collect minor storm runoff from surface areas will minimise nuisance flooding
IW-2	<ul style="list-style-type: none"> • Overland flow paths will be integrated to carry major storms through and around the site without causing damage to property from flooding
IW-3	<ul style="list-style-type: none"> • Atlan Stormsack at nominated inlet pits on the podium area to form part of the water quality treatment train will be integrated to remove pollutants and nutrients that are detrimental to downstream waterways



IW-4 • A 5kL rainwater reuse tank for irrigation purposes will be integrated, as well as to assist in achieving water quality targets

IW-5 • An on-site stormwater detention tank with orifice to maintain pre-development peak flows will be integrated. The tank should be fitted with 12 x Atlan Filters to treat the stormwater prior to site discharge

Geotechnical

G-1 • A site-specific geotechnical investigation will be undertaken to accurately define the sub-surface conditions, including the depth and quality of bedrock
