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Compliance Report/Development Approval.

Title: Dickson Village

Project Address: Block 21, Section 30, Dickson Precinct

Client: BLOC

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Document Control: *DDA_J0497_181220_ComplianceReport_IssueC-DA*		Status:	Concept Design / DA	☒
Revision:	1		Construction	
Issue:	B		Defects	
Revision Date:	20/12/2018		Final	
Author:	Rhys Tappenden			

Executive Summary

BCA Clause	Summary	Attention authority
Statement of assessment for Development Approval	A total of 140 residential units are proposed. Fourteen (14) adaptable units are required, incorporating applications as per AS4299, to meet the requirements of the ACT Multi Unit Housing Development Code. Parking is required to reflect the above in accordance Adaptable Housing Parking Requirements – ACT Parking and Vehicular Access General Code. Dickson Development Code has been considered in regard to Off-street accessible parking subject to visitor car parking for the retail use and the post adaptable residential units. I am satisfied that the whilst not showing complete Detail Design (DD) and all the required applications for external entries, linking pathways, i.e. directional signage, Tactile Ground Surface Indicators and the like, the concept is suitable for the Development Application and confirms the intent of the Disability (Access to Premises – Buildings) Standards and the ACTPLA Access and Mobility General Code to the degree necessary. It is anticipated that all final dimensions and details will be resolved prior to the next phase, being Building Approval/Construction Certificate.	Compliant
Statement of assessment for Development Approval	Pre and Post Adaptable units indicated on drawings and representative to the arrangements of apartments.	Compliant Pre and Post adaptable – 2 & 3 Bed set-outs have been assessed
Statement of assessment for Development Approval	Off-street accessible parking subject to visitor and retail use show columns within the shared zones.	Performance Solution required to close out this item at construction approval.

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Preamble

The proposed mixed-use and multi-residential development provides 140 residential units. In order to meet the requirements of the Multi Unit Housing Development Code contained within the ACT Territory Plan a minimum of 10% or part thereof, being fourteen (14) units are required to be 'adaptable', meeting the requirements of *AS4299 Adaptable Housing* (Class C).

As the proposal incorporates Class 2 residential dwellings, NCC BCA requirements must be met, in addition to the adaptability requirements. Therefore, common areas need to meet accessibility requirements in accordance with AS1428.1-2009 and AS1428.4.1.

Adaptable units do not require full compliance with AS1428.1-2009, but rather consideration to the provision of a design that provides for flexibility in use and allows the owner to make future minimal and cost-effective modifications on an as-needs basis. The design must indicate 'as-constructed' or 'pre-adaptation' **and** 'post-adaptation' layouts as part of the DA application, with clear identification of what needs to be demolished to achieve the 'post-adaptation' layout. Typically, elements requiring demolition shall not consist of more than wardrobes, island kitchen benches or the like.

- Provision of an additional waste for the WC pan under the tile substrate to achieve the required 'post-adaptation' layout;
- Pan offset over waste pipe of AS1428.1;
- Level thresholds (no lip or step) to front and rear doors;
- 850mm clear opening to the front entrance, with 820mm internal doorways;
- Consideration to latch side and hinge side clearances for all doorways;
- Larger wet areas with consideration to mobility aids;
- Set-down of wet area concrete slabs to 70mm to ensure level access at finished surface levels;
- All wet area (bathrooms, ensuites, toilets) walls to be lined with villaboard and 12mm structural plywood (to allow for future provision of grabrails) and tiled to full height – floor to ceiling;
- GFA needs to align with AS1428.1, however, can be reduced to AS1428.1 2001 size if we have structural constraint.
- Car parking requirements for the adaptable units as per AS2890.6, or AS4299 as a minimum. Require all adaptable units achieve the dimensional requirements of AS2890.6 parking bays require provisions only – example, 2 X 2400mm wide spots National Construction Code (**NCC**) (D3.5) for each unit however, where required the adaptable may be assessed with the individual width of 3800mm. No international symbol of access or bollard required for the post adaptable component.

All other parking (Class 6 or other) is required to meet the required 3% of total parking to accessible off-street parking requirements – Dickson Development Code. The theory is that, should a person require the changes, then the unit can be changed/modified with minimal structural change.

1. Introduction

BLOC ACT Pty Ltd, ate responsible for the coordination and design process of the proposed mixed-use and multi-residential development, located at Block 21, Section 30 at Dickson Precinct ACT and have sought advice regarding their requirements / obligations in achieving compliance with the relevant accessibility codes and standards as well as the ACT Territory Plan

The project is proposed over 7 storeys including 5 storeys of residential (140 apartments) and 1 ground floor storey consisting of mixed-use retail with a link to basement parking.

2. Objective

The purpose of this report is to provide confirmation that a senior accredited access consultant has reviewed the proposed development against the relevant requirements of the Disability (Access to Premises — Buildings) Standards 2010, Building Code of Australia 2016 and in addition, the broader requirements of the Disability Discrimination Act 1992 (DDA), to ensure it is suitable for use by persons with a disability.

Additionally, the project has been reviewed against the relevant requirements of the Multi Unit Housing Development Code and ACT Planning and Land Authority's (ACTPLA) Access and Mobility General Code and Parking and Vehicular Access General Code. The ACTPLA Access and Mobility General Code aims to provide, as far as is reasonable, non-discriminatory, equitable and dignified access for people with a disability to buildings, services and facilities, which are designed to have general access.

The project has been designed in accordance with the 'essential required features' of AS4299-1995 (Adaptable Housing) and with reference to AS1428.1-2009 and AS1428.2-1992 and the ACT Territory Plan.

Accessible arrangements take into consideration the ability to develop the project from pre-adaptation to post-adaptation in such a way to suit the widest possible range of needs for a person with a disability. This includes the needs of people with physical disabilities including people who use wheelchairs and those with ambulant disabilities; cognitive disabilities; people with sensory disabilities including vision and hearing; and the elderly.

The following comments are reflective of the entire project. The assessment shows clear consideration to the ACT Territory Plan including the Guidelines and the Access and Mobility General Code. Therefore, achieves compliance. Furthermore, the development proposal is deemed reasonable by means of meeting the performance requirements set out within the BCA through the use of expert opinion and project specific conclusions.

3. Project Specifics

Purpose	The following statement is to provide confirmation that the proposal complies Building Code of Australia (BCA) 2016
Applicable Use Classification **(A3.2 Classifications)**	Class 2 – Residential accommodation Class 6 - Retail Class 7a - Carparking
Common facilities required to be accessible include:	No Pool or Gym located on current drawing list

4. NCC BCA – Assessment

4.1 External Approaches, Walkways, Ramps, Accessways and Entries

A continuous accessible path is to be provided to the proposed building:

- From the main points of a pedestrian entry at the allotment boundary, and
- From another accessible building connected by a pedestrian link; and
- From any required accessible car parking space on the allotment

Item	Title & Clause Summary	Clause	Status	Assessment Comments
	Ensure external paths of travel from the allotment boundary are clearly signed and address the accessible paths of travel to and within the principal pedestrian entrance of adequate width to	D3.2	Compliant	

	accommodate passing and turning spaces			
	In a building required to be accessible, an accessway must be provided through the principal pedestrian entrance, and through not less than 50% of all pedestrian entrances including the principal pedestrian entrance; and in a building with a total floor area more than 500 m2, a pedestrian entrance which is not accessible must not be located more than 50 m from an accessible pedestrian entrance,	D3.2	Compliant	
	Pedestrian crossings and or drop-off areas should be designed inclusive of line-marking, kerb ramps and TGSIs in accordance with AS1428.1 & AS1428.4.1.	D3.2	Condition of construction design	Current design shows adequate set-out to achieve this item in compliant form.
	Where pedestrian walkways and vehicular routes are at grade, hazard warning required. Position hazard TGSIs in accordance with AS1428.4.1	D3.2	Condition of construction design	Current design shows adequate set-out to achieve this item in compliant form.
	Ensure obstacles abutting a path are readily identifiable and do not obstruct a user on the path	D3.2	Compliant	
	Pathway cross grades, directional grades and passing spaces are required to meet AS1428.1 2009	D3.2	Condition of construction design	Current design shows level access through-out ground level. Adequate set-out to achieve compliance grades.
	The maximum gradient of a ramps exceeding 1900 mm in length over 190mm rise shall be 1 in 14 grade including the required AS1428.1 application. ≥1:20, applies to the reduced applications and limited to ladings	D3.2	Condition of construction design	

Key external walkway criteria:

- Walkways to be provided with passing bays (1800 x 2000mm) at maximum 20m intervals.
- Walkway gradient to be 1:20 (max) with landings at maximum 15m intervals.
- Landings in direction of travel 1200mm long; landings at 90° directional change 1500mm x 1500mm. Landings at 180° directional change 1540mm length.
- If gradient of walkway is less than 1:33 no landings are required.
- TGSIs required to warn of hazard along pedestrian and vehicular routes on grade.

Key kerb and pedestrian crossing criteria:

- Kerb ramp to have gradient no steeper than 1:8, length no greater than 1520mm.
- Pathways from accessible parking across roadways to have designated line marking.

Stairs design criteria:

- Common use stairs require AS1428 series compliant handrails, tread features and TGSI.

Key ramp design criteria:

- Maximum gradient of a ramp exceeding 1900mm is 1:14. Gradient to be consistent throughout ramp.
- Ramp required to have unobstructed width of 1000mm.
- Ramps to be provided with landings at bottom and top of ramp.
- Landings required at maximum 9m intervals where grade 1:14. Landings required at maximum 15m intervals where grade 1:20.
- Landings in direction of travel 1200mm long; landings at 90° directional change 1500mm x 1500mm. Landings at 180° directional change 1540mm x 2070mm length.
- Ramps require AS1428 series compliant handrails and TGSI.
- Ramps to be set back 900mm at property boundaries or 400mm at internal corners.
- Vertical rise not to exceed 3.6m.
- **Kerb ramps** – max rise 190mm; 1:8 max gradient.
- **Threshold ramps** – max rise 35mm; 1:8 max gradient; within 20mm of door leaf.
- **Step ramps** – max rise 190mm; 1:10 max gradient.

4.2 Accessible Parking

Objective: The specifications for accessible carparking spaces are contained in AS2890.6. These specifications aim to maximise the area available to people with disability to get into and out of their vehicles.

Item	Title & Clause Summary	Clause	Status	Assessment Comments
	Carparking Spaces for persons with a disability. Class 2 = Adaptable require AS4299 Class 6 = more 5 bays requires the 6th to meet AS2890.6 requirements, 3% of the total allocated for this class thereafter requires 1 for every 50 carparking spaces or part thereof.	Table D3.5	Adaptable meets compliance.	Basement 1 shows 208 – 8 accessible Basement 2 shows 241 total with 7 accessible Off-street accessible parking subject to visitor and retail use show columns within the shared zones. Further documentation required to close out construction approval

	Confirm existing conditions and vertical clearances to the carpark.	D3.5	Compliant	Basement Covered parking In accordance with the current requirements of AS2890.6, the vertical clearance along the vehicular path to a carpark must achieve a minimum of 2200mm and 2500mm above the PWD space and shared zone.
	A bollard is required in the shared area chevron painting and the international symbol of access to indicate the designated accessible parking bay.	D3.5	Compliant	Not required in adaptable Other in accordance with the current requirements of AS2890.6.

Key Car parking and transport design criteria:

- Accessible spaces are to be designed in accordance with AS2890.6-2009.
- Dimensions of angled accessible parking bays 2400 x 5400mm with adjacent 2400mm x 5400mm shared area and bollard in shared area.
- Dimensions of parallel parking bays 3200mm x 7800mm.
- Provide direct kerb ramp access from adjacent to the accessible parking space to pathway.
- Accessible bays to be located near entrances.
- Provide a designated area for accessible drop off from private vehicles, taxis and community vehicles with kerb ramp access to the pathway.
- Height of vehicular path of travel to accessible parking space to be 2200mm and height above accessible parking space to be 2500mm.

4.3 Entranceways

Objective: Access must be provided via the main principal entrance and:

Item	Title & Clause Summary	Clause	Status	Assessment Comments
	All entry doors are to comply with AS1428.1.	D3.2	Compliant	
	All entry doors must achieve a minimum clear door opening width of 850mm (920mm leaf door required).	D3.2	Compliant	
	Ensure doors have light operational forces (less than 20 N). Consider use of bearing hinges or other enhanced hardware to achieve requirement.	D3.2	Condition of construction design	Current design shows adequate set-out to achieve this item in compliant form.

	All full height glazing capable of being mistaken as an opening (typically this is all shopfront glazing) is to be provided with a solid band not less than 75mm thick with the lower edge starting between 900-1000mm above FFL extending the full width of the glazed panel. This is to be detailed on the 'for Construction' elevations for approval.	D3.2	Condition of construction design	Current design shows adequate set-out to achieve this item in compliant form.
	30% minimum luminance contrast change is required between the door face/leaf, door architrave and wall.	D3.2	Condition of construction design	Current design shows adequate set-out to achieve this item in compliant form.

Key entrance criteria:

- Main entry must be accessible.
- Entry requires single door leaf width clearance of 850mm (920mm door size).
- Circulation space of 1450mm required either side of entry.
- All glazed doors must be marked with contrasting marking not less than 75mm wide for full width of doors with lowest edge at 900-1000mm.

4.4 Passenger Lifts

Objective: In an accessible building, every passenger lift must be one of the types identified in Table E3.6a, subject to the limitations on use specified in the table and have accessible features in accordance with Table E3.6b, and not rely on a constant pressure device for its operation if the lift car is fully enclosed.

Item	Title & Clause Summary	Clause	Status	Assessment Comments
	Emergency lifts (a) At least one emergency lift complying with (d) must be installed in— a building which has an effective height of more than 25 m	E3.4	N/A	
	All lifts travelling >12m requires a minimum compartment size of 1400mm wide x 1600mm depth (requires 2000mm depth where stretcher use indicated and travelling >12m).	E3.6	Compliant	
	Any lift travelling <12m requires a minimum compartment size of 1100mm wide x 1400mm depth.	E3.6	Compliant	
	Fit-out must comply with AS1735.12	E3.6	Condition of approval	

	Stairway platform lift	Table E3.6a	N/A	
	Low-rise platform lift - Must not travel more than 1000 mm.	Table E3.6a	N/A	
	Low-rise, low-speed constant pressure lift, Must not— (a) for an enclosed type, travel more than 4 m; or (b) for an unenclosed type, travel more than 2 m; or (c) be used in high traffic public use areas in buildings such as a theatre, cinema, auditorium, transport interchange, shopping complex or the like.	Table E3.6a	N/A	

Key lift design criteria:

- Lift dimensions to be 1100mm x 1400mm (up to 12m) or 1400mm x 1600mm (>12m minimum).
- Lift doorway opening clearance to be 900mm.
- Fitout out of lifts to include: Handrail 600mm (min) length; at height between 850-950mm, Tactile and Braille symbols on control buttons and panels, Automatic auditory information detailing lift stops. Control buttons set back from corner.

4.5 Internal Stairs

Objective: Every ramp and stairway, except for ramps and stairways in areas exempted by D3.4, must comply with AS 1428.1-2009.

Item	Title & Clause Summary	Clause	Status	Assessment Comments
	Exemptions: Where a ramp or stairway is installed on a path of travel used solely for servicing an area exempted under D3.4 of the Access Code this limit is not mandatory.	D3.4	Condition of construction design	Current design shows adequate set-out to achieve this item in compliant form.
	All general circulation stairs are to be designed to comply with AS1428.1-2009. i.e. clear width not less than 1m, handrails both sides, TGSIs and nosings and opaque risers	D3.3	Condition of construction design	Current design shows adequate set-out to achieve this item in compliant form.
	If Fire Isolated Stairs are to be encouraged for general circulation use, the stairs should	D3.3	Information only	Require contrasting nosing strips and an internal/continuous

	be upgraded to full compliance with AS1428.1-2009 features.			handrail with no vertical fall in the handrail at landings

Key stair design criteria:

- Stairs to be set back 900mm at property boundaries or sufficient space to accommodate required handrails internal corners.
- Circular or spiral stairs are generally unsafe due to their inconsistent tread width.
- Common use stairs require AS1428 series compliant handrails, tread features and Tactile ground surface indicators (TGSI).
- TGSI shall be installed for the full width of the path of travel.
- TGSI's shall be located at both the top and bottom of the stairs.
- Fire-isolated stairs required a single handrail compliant to Clause 12 of AS1428.1 and stair nosings as a minimum.

4.6 Internal Ramps

Objective: Ramps may be used as part of an accessway where there is a change in level and must comply with the requirements specified in AS 1428.1 including a maximum gradient, landings, TGSIs, handrails and kerbing.

Item	Title & Clause Summary	Clause	Status	Assessment Comments
	Parts of buildings to be accessible: every ramp and except for ramps in areas exempted by D3.4, must comply with— except a fire-isolated ramp, clause 10 of AS 1428.1.	D3.4	Information	The fire isolated ramps only require on handrail and do not require TGSI. However, grade of ramping is required to comply with AS1428.1 Clause 10 Grades
	Landings at 90° directional change 1500mm x 1500mm.	D3.3	Condition of construction design	
	Where doorways are at landings, the dimensions on the landing must be in accordance with the requirements of the door circulation clearances.	D3.3	Condition of construction design	

4.7 Internal Walkways

Objective: An accessible path of travel is required to all areas normally used by occupants. Internal walkways should be designed with the following features:

- Suitable circulation spaces to enable turning into adjacent doorways and workstation areas,
- Adequate passing spaces, and
- Turning areas at corridor or room terminators

Item	Title & Clause Summary	Clause	Status	Assessment Comments

	Accessways and internal corridors throughout shall be designed to comply as follows:	D3.3	Condition of construction design	Current design shows adequate set-out to achieve this item in compliant form.
	Provide turning spaces of 1500x1500 (corner may be truncated) where a user is required to make a directional turn.	D3.3	Compliant	
	Provide turning space within 2000 mm at the ends of corridors, where it is not continuous to offer turning space: minimum width 1540 mm x 2070 mm length.	D3.3	Compliant	
	Passing bays (1800mm wide x 2000mm length) are required every 20m where no direct line of sight is provided.	D3.3	Compliant	
	All rooms- Minimum door circulation dimensional requirements of AS1428.1.	D3.3	Compliant	

Key internal walkway and surface criteria:

- Walkways to be provided with passing bays (1800 x 2000mm) every 20m.
- Minimum width of internal walkway 1000mm.
- Path of travel in front of doorways or those accessed from a frontal approach required to be 1450mm width (minimum).
- Path of travel in front of doorways accessed from the latch side to be 1240mm minimum width.
- Landing spaces at directional changes of: at 90° - 1500mm x 1500mm (corner can be truncated); at 180°- 1540mm x 2070mm.
- Turning space at corridor terminations to be 1540mm width x 2070mm length.

4.8 Internal Doorways

Objective: An accessible path of travel is required to all areas normally used by occupants. Future detailed design should provide compliant door circulation space to all doors where appropriate.

Item	Title & Clause Summary	Clause	Status	Assessment Comments
	The unobstructed clear width of doors must achieve a minimum of 850mm (920mm leaf required).	D3.3	Compliant	
	Door circulation to comply with AS1428.1.	D3.3	Compliant	
	All doors to have light operation forces.	D3.3	Information required	If installed only - ensure doors have light operational forces

				(less than 20 N). Consider use of bearing hinges or other enhanced hardware to achieve requirement.
	30% minimum luminance contrast change is required between the door face/leaf, door architrave and wall.	D3.3	Condition of construction design	Current design shows adequate set-out to achieve this item in compliant form.
	Braille signage required to final exit doors per D3.6 stating 'Exit', 'Level Ground' and 'First Floor' in contrasting braille (tactile characters).	D3.6	Condition of construction design	Current design shows adequate set-out to achieve this item in compliant form.

Key internal doorway criteria:

- All doors require 850mm clearance width (920mm doors) incl. active leaf of double doors.
- Latch side clearance of 510mm to inward opening doors; 530mm to outward opening doors.
- Circulation space of 1450mm required either side of doors that are approached from the front. Circulation space of 1240mm required in front of inward opening doors approached from latch side.
- All glazed doors must be marked with contrast marking no less than 75mm wide for full width of doors at 910- 1000mm height.

4.9 Sanitary Facilities

Objective: Facilities to be provided in accessible parts of the building. Accessible sanitary facilities must be provided on each level where other sanitary facilities are also provided and if the Storey/levels have more than 1 bank of sanitary compartments containing male and female sanitary compartments, at not less than 50% of those banks. The accessible facilities should be located adjacent/opposite the gender facilities.

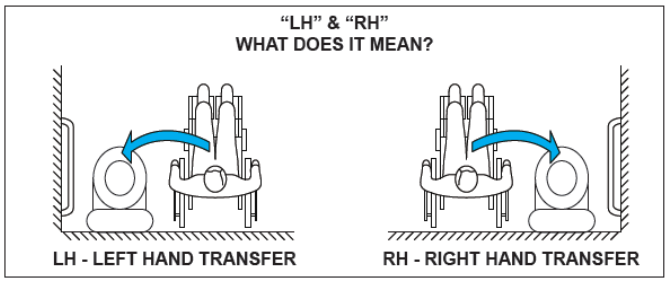
Where one or more pans are provided, an ambulant toilet within each of the male and female facilities is to be provided.

Item	Title & Clause Summary	Clause	Status	Assessment Comments
	Accessible unisex sanitary compartments must be provided in accessible parts of the building	F2.4	Condition of construction design	Current design shows adequate set-out to achieve this item in compliant form.
	Where two or more accessible sanitary facilities are installed there shall be an even distribution of mirror imaged layouts to provide left hand and right hand transfer.	F2.4	Condition of construction design	Current design shows adequate set-out to achieve this item in compliant form.
	Ambulant accessible cubical are required in addition to the accessible facility.	F2.4	Condition of construction design	Current design shows adequate set-out to achieve this item in compliant form.
	End of Trip	F2.4	Information	Coles End of Trip Current design shows adequate set-out

				to achieve this item in compliant form.

Further:

- LH & RH image



Key sanitary facility criteria

- Accessible sanitary facilities to be in same location as gender facilities and located on all levels of a multi-level building.
- Minimum room dimension with WC and basin: 1900mm x 2630mm or 2330mm x 2200mm.
- Provide AS1428 series compliant fixtures inclusive of shelf, clothes hooks, full length mirror.
- A sanitary compartment suitable for a person with an ambulant disability must also be provided for use by males and females.
- Baby change tables are not permitted to encroach on fixture circulation spaces and are to be installed in accordance with Clause 15.2.8.2.

4.10 Symbols and signs

Objective: Mandatory Braille and tactile signage must be provided to sanitary facilities (except SOUs), spaces with hearing augmentation, for required exit signage and directional signage to alternative accessible entrances, paths of travel or alternative sanitary facilities.

Item	Title & Clause Summary	Clause	Status	Assessment Comments
	Mandatory Braille and tactile signage will be required Incorrect Braille & Tactile signage in accordance with Specification D3.6 in the following locations: Unisex Accessible sanitary facilities Hear augmentation. Emergency Exit, each door required by E4.5 of the BCA to be provided with an exit sign	D3.6	Condition of construction design	Current design shows adequate set-out to achieve this item in compliant form.

Key Signage design criteria:

- Accessible way finding should highlight the pathway from entrance to reception to lifts/stairs, amenities and to key components of the facility. Ensure, accessible way finding signage is:
  - Located at appropriate viewing heights

- Perpendicular to the path of travel or beside identifiable features (e.g. door faces)
- Of suitable colour contrast (luminance contrast min 30%)
- Of compliant notation inclusive of use of the international symbol of access.

- Signage to accessible sanitary facilities requires identification with the international symbol of access, raised tactile and Braille signage and letters RH or LH to indicate side of transfer to the WC pan.
- Signage required to areas with required hearing augmentation provided.

4.11 Swimming Pools

Objective: Accessible entry/exit is required to and within swimming pools in accordance with D3.10 of the BCA.

Item	Title & Clause Summary	Clause	Status	Assessment Comments
	Access is required to and into a pool with a permitted of 40m or greater. Provision of access into the pool is to comply with D3.10 of the BCA via a platform swimming pool lift, sling style lift or the like.	D3.6	N/A	NO swimming pool is proposed on site. Please note compliance requirements should this change, and exceeds 40m, as the design develops further.

5. Access & Mobility General Code – Assessment

PART A – GENERAL DEVELOPMENT CONTROLS

5.1 Element 1: Parking

Intent: To ensure car parking is provided to meet the needs of people with disabilities.

Rules	Criteria	Comments
1.1 Car Parking		
R1 j) Designated accessible car parking spaces meet the requirements of *AS2890.1 and Parking and Vehicular Access General Code.*	C1 Car parking is provided at designated locations to meet the needs of people with disabilities.	Current design shows adequate set-out to achieve this item in compliant form.
R2 Car parking spaces provided for people with disabilities must have vertical clearance for the entire width of the space and the adjacent shared area of not less than 2.5m, described in Figure 2.7 of *AS2890.6.*	C2 Adequate space is provided to allow a roof-mounted wheelchair to be unloaded, either front-in or reverse-in position.	Current design shows adequate set-out to achieve this item in compliant form.

5.2 Element 2: External Access to Entrances

Intent: To ensure safe and convenient access is provided to entrances of buildings and public spaces for people with a disability or with impaired mobility.

Rules	Criteria	Comment
2.1 Continuous Accessible Path of Travel and Walkways		
R3 A continuous accessible path of travel is provided, which complies with: i) *AS1428.1 - Design For Access and Mobility*; ii) *AS1428.4* – Tactile Ground Surface Indicators for the orientation of people with vision impairment to highlight hazards or provide direction; iii) *AS4586* – Slip-Resistant Classification of New Pedestrian Surface Materials for external paving and ground surfaces; and iv) Designed so that the placement of facilities does not intrude into the continuous accessible path of travel. v) Walkways and glass adjacent to walkways to comply with *AS1428.1* and *AS1428.2*.	C3 Continuous accessible path of travel is provided for owners, occupants, employees and visitors: a) To all areas and all required facilities of the building. b) From property boundary, designated accessible parking spaces, passenger drop off points and public spaces to entrances of buildings. c) To connect buildings, facilities and spaces, which are on the same block or part of the same complex, unless topographically impossible. d) To minimise distances travelled between elements of buildings and facilities. e) Walkways are of an appropriate scale and if clear glass is used adjacent to walkways, it is identified by appropriate luminance contrast.	Current design shows adequate set-out to achieve this item in compliant form.
2.2 Lighting		
R4 Internal lighting along the whole of the continuous accessible path of travel designed to meet *AS1680.0*.	C4 This is a mandatory requirement. There is no applicable criterion.	The required LUX levels will be achieved Current design shows adequate set-out to achieve this item in compliant form.
R5 External lighting along the whole of the continuous accessible path of travel meets AS1158.3.1 and the *ACT Crime Prevention and Environmental Design General Code*.	C5 This is a mandatory requirement. There is no applicable criterion.	The required LUX levels will be achieved Current design shows adequate set-out to achieve this item in compliant form.

2.3 Wayfinding		
R6 Where installed directional signage or other wayfinding methods, e.g. tactile indicators, to be in accordance with *AS1428.1* and *AS1428.4* and must identify the continuous accessible path of travel, accessible parts of buildings and all accessible facilities. Details to meet *AS1428.1* and *AS1428.4*.	C6 This is a mandatory requirement. There is no applicable criterion.	The required LUX levels will be achieved Current design shows adequate set-out to achieve this item in compliant form.
R7 There is no applicable rule.	C7 For illuminated signs, the luminance of the symbols is to be at least 30% in contrast to the background.	Compliant signs will be chosen to achieve this item in compliant form.

5.3 Element 3: Entry and doorways

Intent: To provide safe and convenient entry to, and egress from buildings and to floors within buildings.

Rules	Criteria	Comments
3.1 Doorways and Doors		
R8 Doorways and doors are designed to meet AS1428.1- Design for Access and Mobility for: f) Pedestrian entrances and exits; g) Public circulation areas; and any common use areas.	C8 This is a mandatory requirement. There is no applicable criterion.	Compliant
R9 There is no applicable rule.	C9 Automatic doors for public entrances should be installed in high use commercial and public buildings.	Current design shows automatic doors to achieve this item in compliant form.

5.4 Element 4: Circulation

Intent: To provide design elements, which are safe and convenient, for circulation within and entry to buildings.

Rules	Criteria	Comments

Circulation		
	Stairways, stairway lifts, passenger lifts, ramps, handrails and grab rails are provided in accordance with appropriate Australian Standards (refer to appendix A).	Current design shows adequate set-out to achieve this item in compliant form.

5.5 Element 5: Toilets

Intent: To provide access and use of sanitary facilities.

Rules	Criteria	Comments
Sanitary Facilities		
	Sanitary facilities and associated signage are designed and provided to meet the purpose of the buildings and appropriate Australian Standards (refer to appendix A).	Current design shows adequate set-out to achieve this item in compliant form.

5.6 Element 6: Facilities

Intent: To provide access to other appropriate facilities such as street furniture and ATMs.

Rules	Criteria	Comments
Outdoor furniture		
	Street furniture (seating, drinking fountains, litterbins and the like) and ATM facilities are designed and provided in accordance with appropriate Australian Standards (refer to appendix A).	Current design shows adequate set-out to achieve this item in compliant form.

PART B – ADDITIONAL SPECIFIC CONTROLS 'ADAPTABLE HOUSING'

5.7 Element 1: Built Form

Intent: To provide for the appropriate design, location and choice of sizes of adaptable dwellings within multi-unit developments and places of shared accommodation.

Rules	Criteria	Comments
1.1 Building Design		

R10 Where dwellings are required to be adaptable, the dwellings must be designed in accordance with *AS4299 Class C (Adaptable Housing)*	C10 This is a mandatory requirement. There is no applicable criterion.	Current design shows adequate set-out to achieve this item in compliant form.
R11 There is no applicable rule.	C11 In multi-residential complexes, adaptable dwellings are required to be distributed in the development and representative sample of sizes provided.	Current design shows adequate set-out to achieve this item in compliant form.

5.8 Element 2: Parking

Intent: To provide for adequate and convenient parking for owners, residents, tenants and visitors to adaptable dwellings.

Rules	Criteria	Comments
2.1 Car Parking		
R12 Minimum of one accessible car parking space for each adaptable dwelling is designed in accordance with *AS2890.6*.	C12 Accessible car spaces are to be located in close proximity to the entrance of the adaptable units, and if a lift or stair platform lift is provided to serve adaptable units in multi-unit buildings.	Current design shows adequate set-out to achieve this item in compliant form.
R13 There is no applicable rule.	C13 Where there is a change in grade between the carparking and the adaptable unit, a lift or access ramp is to be provided from any basement or internal car parking for the adaptable units or visitors to the floor level of any adaptable dwelling. Access ramp to comply with *AS1428.1*.	Current design shows adequate set-out to achieve this item in compliant form.

5.9 Element 3: Access to common use areas

Intent: To provide for convenient access for owners, residents, tenants and visitors to common use areas in adaptable dwellings.

Rules	Criteria	Comments
3.1 Entries		

R14 Common use areas including shared corridors in multi unit developments to meet *AS1428.1*.	C14 This is a mandatory requirement. There are no Criteria.	Current design shows adequate set-out to achieve this item in compliant form.

5.10 Element 4: Circulation

Intent: To provide appropriate access within developments for people with disabilities or to provide design options for easy adaptation.

Rules	Criteria	Comments
4.1 Lifts		
R15 Passenger lifts meet *AS1735.12 - Lifts, Escalators and Moving Walks – Facilities for Persons with Disabilities* where they are provided as part of a multi-unit housing development, which includes adaptable dwellings.	C15 Where a multi-storey –multi unit development proposal does not incorporate a lift, the building is designed to be capable of having lift access for future use as adaptable units.	Current design shows adequate set-out to achieve this item in compliant form.

6. Adaptable Housing – Assessment

This appraisal will be carried out against the 'essential required features' of AS4299 (Adaptable house class C) and with reference to AS1428.1-2009 and AS1428.2-1992.

6.1 Adaptable Units

Item	Requirement	Comment
Drawings		
1.	Pre-adaptation and post-adaptation stages to be shown	Compliant
Siting		
2.	Ramp gradient max 1:14	No ramps showing.
3.	Continuous accessible path of travel from street and vehicle parking to building entry to AS 1428.1	Current design shows adequate set-out to achieve this item in compliant form.
Letterboxes		
4.	To be located on hard standing connected to accessible pathway	Compliant

Item	Requirement	Comment
Parking (private)		
5.	Car space to be min 6m x 3.8m	Compliant
Accessible Entry		
6.	Entry to be accessible to AS1428.1 i.e. level (max 1:40), low threshold, landing, weatherproofed entry door	Compliant
7.	Main entrance door minimum 850mm clear opening	Compliant
8.	Door lever handles and hardware to AS1428.1 (including operable with one hand)	Condition of post adaptable requirements
Interior		
9.	Internal doors minimum 820mm clear opening	Compliant
10.	Corridors to be 1000mm min	The concept shows compliance and offers the application to be detailed within the following stage/design.
11.	Door approaches to AS1428.1	Compliant
Living & Dining Room		
12.	Circulation space min. 2250mm diameter	Compliant
13.	Telephone adjacent to GPO	Condition of post adaptable requirements
14.	Illumination level min 300 lux	Condition of post adaptable requirements
Kitchen		
15.	Minimum width 2.7m	Compliant
16.	Circulation space 1550mm between benches	Compliant
17.	Circulation at doors to AS1428.1	Condition of post adaptable requirements
18.	Benches planned to include at least one work surface of 800mm length, adjustable in height from 750-850mm or replaceable	Condition of post adaptable requirements
19.	Refrigerator adjacent to work surface	Condition of post adaptable requirements
20.	Kitchen sink adjustable to between 750-850mm or replaceable	Condition of post adaptable requirements
21.	Kitchen sink bowl max. 150mm deep	Condition of post adaptable requirements

Item	Requirement	Comment
22.	Tap set capstan, lever handles or lever mixer	Condition of post adaptable requirements
23.	Tap set located within 300mm of front of sink	Condition of post adaptable requirements
24.	Cooktops to include either front or side controls with raised cross bars	Condition of post adaptable requirements
25.	Cooktops to include isolating switch	Condition of post adaptable requirements
26.	Worksurfaces min 800mm length adjacent to cooktop at same height	Condition of post adaptable requirements
27.	Oven located adjacent to an adjustable height or replacement work surface	Condition of post adaptable requirements
28.	GPOs to comply with AS1428.1. At least one GPO within 300mm from front of work surface	Condition of post adaptable requirements
29.	GPO for refrigerator to be easily reachable when refrigerator is in its operating position	Condition of post adaptable requirements
30.	Slip resistant floor surface	Condition of post adaptable requirements
Main Bedroom		
31.	At least one bedroom of area sufficient to accommodate queen size bed and wardrobe and circulation space to AS 1428.2	Compliant
Main Bathroom		
32.	Provision for bathroom to comply with AS1428.1	Compliant
33.	Slip resistant floor surface	Condition of post adaptable requirements
34.	Shower recess to have no hob and min size 1160mm x 1100mm and to comply with AS1428.1	Condition of post adaptable requirements
35.	Shower area waterproofed to AS3740 with floor to fall to waste	Condition of post adaptable requirements
36.	Recessed soap holder	Condition of post adaptable requirements
37.	Shower taps positions for easy reach to access side of shower sliding track	Condition of post adaptable requirements
38.	Adjustable, detachable hand held shower rose mounted on slider grabrail or fixed hook	Condition of post adaptable requirements
39.	Provision for grabrail in shower to AS1428.1	All wet areas (bathrooms / ensuites / laundries) lined with Villaboard and 12mm

Item	Requirement	Comment
		structural plywood and tiled full height all walls
40.	Tap sets to be capstan or lever handles with single outlet	Condition of post adaptable requirements
41.	Provision of washbasin with clearances to comply with AS 1428.1	Condition of post adaptable requirements
42.	Double GPO beside mirror	Condition of post adaptable requirements
Toilet		
43.	Visitable or accessible toilet	N/A
44.	To comply with AS1428.1 circlatio	Condition of post adaptable requirements
45.	Location of pan correct distance to walls	Condition of post adaptable requirements
46.	Provision of grab rail zone	All wet areas (bathrooms / ensuites / laundries) lined with Villaboard and 12mm structural plywood and tiled full height all walls
47.	Slip resistant floor surface	Condition of post adaptable requirements
48.	Recessed toilet roll holder	Condition of post adaptable requirements
Laundry		
49.	Circulation at doors to comply with AS1428.1	Compliant
50.	Adequate circulation space in front or beside (min 1550mm depth)	Compliant
51.	Provision for automatic washing machine	Condition of post adaptable requirements
52.	Where clothesline is provided, an accessible path is provided	Condition of post adaptable requirements
53.	Double GPO	Condition of post adaptable requirements
54.	Slip resistant floor	Condition of post adaptable requirements
Door Locks		
55.	Door hardware operable with one hand, located 900-1100mm above floor	Condition of post adaptable requirements

7. Applicable Standards

The National Construction Code (NCC) (Code) makes reference to some of the Australian Standards applicable to the design of equitable access. The NCC indicates which edition of Australian Standards it refers to. The NCC does not always refer to the most recent version of a standard. However, under the Code, the most up-to-date Australian Standards, applied by the code, are applicable to relevant development proposals. At the time of the preparation of this report the following standards apply:

- Livable Housing Design Guidelines
- AS1158.3.1 Road Lighting - Pedestrian Area (Category P) Lighting – Performance and Installation Design Requirements
- AS1428.1 Design for Access and Mobility – General Requirements for Access – New Building Work
- AS1428.2 Design for Access and Mobility - Enhanced and Additional Requirements – Buildings and Facilities
- AS1428.3 Design for Access and Mobility - Requirements for Children and Adolescents with Physical Disabilities
- AS1428.4 Design for Access Mobility - Tactile Indicators
- AS 1680.0 Interior Lighting – Safe Movement
- AS1735.7 Lifts, Escalators and Moving Walks – Stairway Lifts
- AS1735.12 Lifts, Escalators and Moving Walks – Facilities for Persons with Disabilities
- AS1735.14 Lifts for People with Limited Mobility - Restricted Use - Low Rise Platforms
- AS1735.15 Lifts, Escalators and Moving Walks – Low-Rise Passenger Lifts - Non-Automatically Controlled
- AS1735.16 Lifts, Escalators and Moving Walks – Lifts for Persons with Limited Mobility – Restricted use - Automatically Controlled
- AS2890.1 Parking Facilities: Part 1 – Off-Street Car Parking
- AS2890.6 Parking facilities: Part 6 – Off-Street Parking for People with Disabilities
- AS2899 Public Information Symbol Signs - Part 1 General Information Signs
- AS3769 Automatic Teller Machines – User Access
- AS4299 Adaptable Housing
- AS4428.4 Fire Detection, Warning, Control and Intercom Systems - Control and Indicating Equipment - Intercommunication Systems for Emergency Purposes
- AS4586 Slip Resistance Classification of New Pedestrian Surface Materials

ACT Planning and Land Authority Codes:

- Multi Unit Housing Development Code
- Access and Mobility General Code
- Parking and Vehicular Access General Code

8. Responsibilities

Compliance with the National Construction Code, Building Code of Australia, Australian Standards and Disability (Access to Premises − Buildings) Standards will provide an environment, which is considered accessible under the Building Codes. However, whilst this legislation focuses on the physical aspects of the building design and construction, the DDA goes further. The DDA focuses on the people, who use the

building and the way the premises are administered. Therefore, there will always be a need for those responsible for buildings and their uses to consider broader issues of access, such as management and staff training, as well as matters such as maintenance.

As identified, the Building Code of Australia, Disability (Access to Premises − Buildings) Standards and associated Australian Standards provide technical guidance and specific recommendations on accessible design, covering elements such as:

- Access to buildings from allotment boundaries
- Provision of car parking for people with disabilities
- Access into the building and circulation routes
- Accessible sanitary facilities
- Suitable hearing augmentation
- Provision of tactile indicators
- Provision of suitable lifts

However, realistically, there are often constraints with a proposal, which prevent the design meeting the deemed-to-satisfy provisions in the BCA. In such a case, the provision of an “alternative solution” can be provided to demonstrate compliance with the performance requirements of the BCA, as is the case with this report.

In such circumstances, a broader holistic view may be required to achieve the optimum level of accessibility, when considered in conjunction with the end use of the building, along with the constraints, which are imposed. In this respect, the proposal will still meet the broader Performance Requirements and intent of the NCC (BCA).

9. Appendix A – Drawing Register

Architectural drawings assessed.

Series	Drawing No.	Drawing Name
General	DA-001-001	Title Sheet
	DA-001-002	Locality Plan
Siteworks	DA-100-001	Estate Development Plan
	DA-100-101	Block Details
	DA-100-201	Site Plan / Concept Master Plan / Single Stage Plan
	DA-100-301	Land Acquistion Plan
GA Plans	DA-110-007	Basement 02
	DA-110-008	Basement 01
	DA-110-009	Ground Level
	DA-110-010	Level 01
	DA-110-011	Level 02
	DA-110-012	Level 03-05 Typical
	DA-110-013	Level 06
	DA-110-014	Roof Level
GA Elevations	DA-250-001	North Elevation
	DA-250-101	East Elevation
	DA-250-201	South Elevation
	DA-250-301	West Elevation
Streetscape Elevations	DA-255-001	Streetscape Elevations 1
	DA-255-101	Streetscape Elevations 2
GA Sections	DA-350-001	Section AA
	DA-350-002	Section BB
Shadow Diagrams	DA-710-001	Solar Study - June
	DA-710-002	Solar Study - December

Pre and Post adaptable – 2 & 3 Bed set-outs have been assessed.

Curriculum Vitae

Assessor, Rhys Tappenden

M: 0410 559 196 E: rhys@indesignaccess.com

QUALIFICATIONS & ACCREDITATIONS

- DDA/Access Consultant − Association of Consultants in Access Australia (ACAA), Accredited Mem #428 Qualified
- Building Designer – Lic. # 1168941
- Builder Open – Lic. # 1168941
- Livable Design Guidelines Qualified & Registered Assessor # 10023
- Livable Housing Design - Technical Advisor
- Livable Housing Design Appointed Panel member (TAP)
- Advanced Diploma in building management

SUMMARY

With over 20 years experience in the construction industry and performing duties in Access Consulting, Building Codes Compliance, Building and Building Designing, Rhys has worked in both the private and commercial sector as an access consultant, certifying compliant access conditions and has built a reputation as a specialist in this sector.

With over 5 years managing a non-for-profit program *Home and Community Care* (HACC), Rhys has designed and built for the individual clinical needs of a person with a disability under 65 and over 65 years of age. Additionally, he has worked closely with community-based Occupational Therapists and local Council conditions to achieve the best clinical outcome and solution for the client, while keeping within the funded budget.

Moreover, Rhys has been part of the forward thinking of Livable Housing Design Guidelines as one of the 6 members on their Technical Advisory Panel (TAP), developing the performance requirements and ruling on changes made. This has given him the ability to work with the residential sector at the Property Council of Australia and develop a usable product.

While building the same reputation in the commercial sector, Rhys became qualified as an access consultant in public spaces and the urban environment. His understanding of both Local and State Government legislation, right down to the dimensional requirements of the Australian Standards for the use of products and servicing a person with a disability, is second to none.

Lastly, Rhys is proficient in collaborating with clients and working with people who have changing needs and mobility limitations. His experience with industry stakeholders includes property and facility managers, building owners, builders, architects, engineers, occupational therapists, commercial lessees, landscape designers, heritage architects, and the general public. Therefore, clients can be assured that they will receive high quality information and evidence-based recommendations.

Membership

Association of Consultants in Access Australia, Inc

Certificate of Membership
Accredited Member

President
Mr Chris Porter
Vice President
Ms Joe Manton
Secretary
Mr Terry Osborn
Treasurer
Ms Kelle Millar
Committee Members
Mr Con Livanos
Ms Kelle Millar
Mr Mark Relf
Mr Bryce Tolliday

This is to certify that

Mr Rhys Tappenden

Membership Number

428

Was admitted as an Accredited Class Member of the Association of Consultants in Access Australia, Inc. on the 2nd day of September 2015.
Membership is only valid whilst a current financial member.

Mr Chris Porter
ACAA NATIONAL PRESIDENT

Mr TERRY OSBORN
ACAA SECRETARY

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Geelong Victoria
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ACA AUSTRALIA

COMMUNITY CONSULTATION REPORT

Block 21 Section 30
DICKSON

December 2018

For the use of
Environment and Planning Directorate and their consultees

For the purpose of a
Meeting the requirements of S138AE of the Planning and Development Act 2007

T +61 2 6230 7855
PO Box 248, Civic Square ACT 2608
Level 4, 64 Allara Street
Canberra ACT 2601

CONTENTS

1. PURPOSE

This report details all pre-application community consultation activity that has informed the development of the proposal.

2. SITE PARTICULARS

2.1. Site Description and Location

Site Address
Dickson Place, Dickson, ACT, 2602
Site Area
7866m^2
Site Description
The site is used as an at grade 237 space car park serving the Dickson Group Centre. The site falls gently from the north-western corner to the south-eastern corner with all slopes being less than 5%.
Surrounding and Adjoining Development
The surrounding development comprises of public, commercial and residential uses, another supermarket, petrol station, public library as well as medium density and low-rise residential development.
Road System & Access
The site is bound by Antill Street to the north, Badham Street to the west and an unnamed and un-gazetted 'access way' known as 'Road A' to the south and east.
Services and Amenities
Action bus stops are located on Antill Street (within approximately 20 metres of the site), a future light rail stop and the Dickson bus interchange are located within 500m of the proposed development.

Figure 1 Location of the site within Dickson Group Centre

3. STATUTORY REQUIREMENTS

Section 138AE of the Planning and Development Act 2007 states that prior to lodging a development application for a prescribed development proposal, the proponent of the proposal must consult the community about the proposal

Regulation 20A prescribes the following development: -

(a) a building for residential use with 3 or more storeys and 15 or more dwellings;

(b) a building with a gross floor area of more than 5000m^2;

(c) a building or structure more than 25m above finished ground level;

(d) a variation of a lease to remove its concessional status.

The proposal meets the requirements of Regulation 20A(a) and (b) and consequently triggers the need for mandatory pre-application public consultation.

4. PRE-DA CONSULTATION GUIDELINES

4.1. Minimum Consultation Requirements

Minimum Requirements	Response	Check
1. Notify how consultation will occur for the proposal on the ACT Government's community consultation web page.	Requirement Met. The consultation was notified on the EPSDD Website – Talk with us. Pre-DA Lodgement Form AF2017-41 has been completed and submitted with this application.	✓
2. Ensure people living in areas immediately surrounding the development and the wider community (as appropriate) are informed of the intended consultation process and consulted on the proposal.	Requirement Met. A postcard drop was made to the residential properties located within 500m of the subject site. A newspaper article about the development and the community engagement was in the Canberra Times.	✓
3. Ensure people from a diverse demographic (age, gender, race, religion and/or physical abilities as appropriate) have the opportunity to view and make comment on the proposal.	Requirement Met. The consultation events were held on a number of different days, and times, including two pop-up events within the busy Dickson Centre. A demographic survey was undertaken to capture where possible the different groups that were consulted with.	✓
4. Conduct face-to-face engagement sessions that are accessible to a diverse cross-section of the community.	Requirement Met. The extent of engagement included a 4 hour pop-up at the Downer Shops, two drop in sessions at the Dickson Group Centre, an engagement session with Dickson Traders, and individual face-to-face meetings with representatives of the Downer Community Association, North Canberra Community Council, and MyDickson.	✓
5. Make available to the community conceptual drawings with appropriate dimensions/measurements including, at minimum: **> a site plan (showing parking areas, access and egress, waste areas and communal spaces)** **> indicative floor plans** **> elevations** **> shadow diagrams if there are likely to be shadow impacts**	Requirement Met. Please refer to the Appendix F which details the drawings shown to the consultation attendees.	✓

> perspectives > landscaping plans > proposed materials and finishes.		
6. Make available to the community a plain English statement explaining the proposal, including any departures from the Territory Plan, a response to the zone objectives and key design elements of the proposal.	Requirement Met. Please refer to Appendix A for the development statement made available on the website for the consultation Chapter 5.4.	✓
7. Make the documentation required by points 5 and 6 available for the public to view online on the proponent's website or another appropriate location	Requirement Met. Details were made available at https://www.coles.com.au/dicksondevelopment as linked from the Directorate website https://www.planning.act.gov.au/topics/your_say/current-pre-da-consultations, and details were provided for interested parties to contact Knight Frank Town Planning.	✓
8. For development applications to remove the concessional status of a Crown lease, the proponent should make available to the community details of any future development or redevelopment proposals or possible change of use of the site (if available).	Not Applicable Development does not apply for removal of a concessional status of a Crown lease.	**N/A**

4.2. Minimum Documentation Requirements:

Minimum Requirements	Response	Check
1. Attaches the approved form declaring that consultation was undertaken in accordance with these guidelines and that the proposal was notified on the ACT Government's pre-DA community consultation website prior to the start of consultation and for the entire consultation period.	Requirement Met. The Pre-DA Lodgement Form AF2017-41 has been submitted with this application. The consultation was undertaken in accordance with these guidelines and notified on the ACT Government website.	✓
2. Provides accurate details of the nature and extent of consultation undertaken.	Requirement Met. This report details the nature and extent of the consultation undertaken for this development.	✓

3. Demonstrates that the consultation process targeted a diverse demographic (age, gender, race, religion and/or physical abilities as appropriate), including how these demographics were targeted.	Requirement Met. Please refer to Chapters 5 – 7 of this report, which addresses respondents and demographics.	✓
4. Provides copies of what the community was shown during the consultation process.	Requirement Met. Please refer to the Appendix F.	✓
5. Provides a summary of how the community responded to the proposal and the main comments.	Requirement Met. Please refer to Chapter 6.	✓
6. Details how the submitted design responds to the community's concerns and, in particular, the main issues raised, with meaningful changes highlighted.	Requirement Met. Please refer to Chapter 6.	✓
7. States whether the proposal submitted to the planning and land authority for assessment is substantially the same as that shown to the community. **If not, provides detailed reasons for how and why the proposal is different.** **Where there are significant changes that do not respond to community feedback, further pre-DA consultation is recommended and may be required.**	Requirement Met. The development shown at the community consultation is substantially the same as that provided in the development application (DA) submission.	✓
8. For development applications to remove the concessional status of a Crown lease, the consultation report must encompass the requirements of the Social Impact Assessment Guidelines.	Not Applicable Development does not apply for removal of a concessional status of a crown lease.	**N/A**

5. COMMUNITY CONSULTATION

5.1. Previous Community Consultation

Over the past 6 months, Coles Group Property Developments Ltd (CGPD) has had extensive engagement with the community groups, North Canberra Community Council (NCCC), Downer Community Association (DCA) and resident Josip Sladic. This engagement was initially as a result of a mediation opportunity. CGPD consulted with key representatives of NCCC and DCA leading up to the mediation and during two full day mediation sessions held on 6 August 2018 and 14 September 2018. This mediation process resulted in an agreement with NCCC and DCA, with both supporting the key design elements shown in the development plans. The parties also agreed to adjourn the Supreme Court proceedings to develop the concept designs and allow CGPD to lodge a new Development Application incorporating the key design elements.

CGPD Development Manager regularly updates the community representatives from NCCC and DCA about the status of the new development application, and will continue to do so.

5.2. Correspondence with Community Councils and Residents Associations

Emails were written to North Canberra Community Council, and the Downer Community Association. These emails are within Appendix B, entities were invited to come to one of the community information drop in sessions being held for this development application. In addition the CGDP Development Manager had individual face-to-face meetings with representatives of the Downer Community Association and North Canberra Community Council.

5.3. Canberra Times Article

On Saturday 24 November 2018 an article was published in the Canberra Times titled 'Coles unveils new proposal for long-planned Dickson development'. The article written by Han Nguyen provided details of the development and upcoming consultation sessions as well as a perspective render of the proposed new Dickson Square. A copy of the article has been provided as Appendix C.

5.4. Online Engagement

CGPD launched a website detailing the proposal on Monday 3 December 2018
https://www.coles.com.au/dicksondevelopment

Link from EPSDD website
https://www.planning.act.gov.au/topics/your_say/current-pre-da-consultations

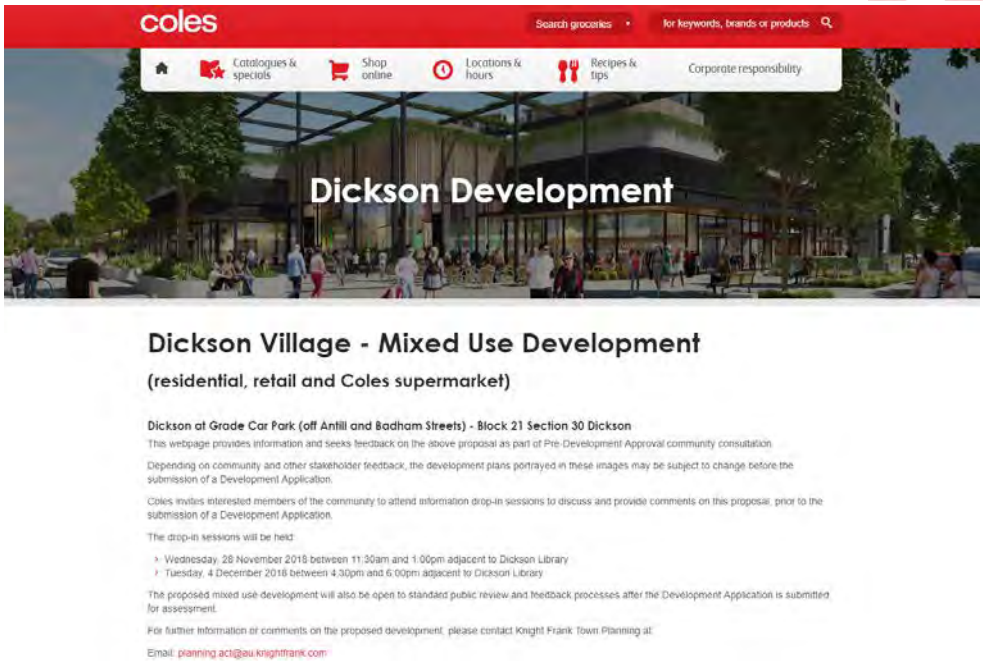


Figure 2. www.coles.com.au/dicksondevelopment

5.5. Postcard Invitations

On 20 November 2018, approximately 1500 postcard invitations were distributed by Knight Frank Town Planning to residences in Dickson. The letterbox drop covered residential properties within a 500m radius of the development site. The double-sided postcard was designed to inform the local residents of the proposed development, associated consultation events and contact details. An image of the postcard has been supplied within Appendix D.

The area covered by the letterbox drop is depicted in red shading in the figure below.

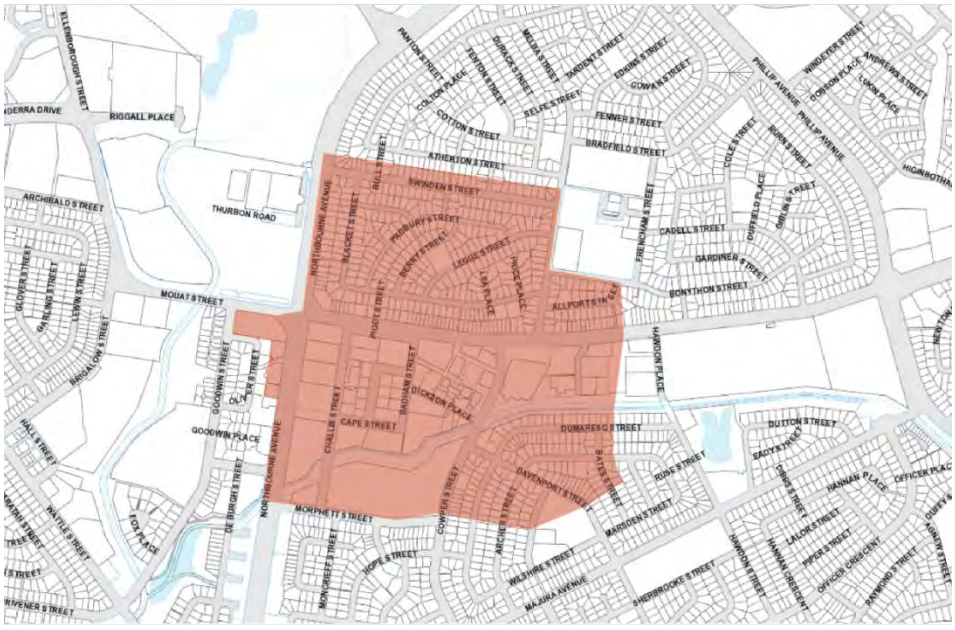


Figure 3. Postcard drop radius

5.6. Downer Party at the Shops

When: Saturday 17 November 2018 10am-2pm

Location: Downer Shops, Frencham Place, Downer

Set-up: Five A1 sized boards displayed on easels illustrating two plans and three perspectives of the proposed scheme together with a fly-thru video. Approximately 80 people engaged with KFTP staff and CGDP Development Manager at the stand.

Demographics Survey: A survey created with Survey Monkey was used to allow for anonymous demographic data collection. The questions were modelled on sample questions from the ACT Governments Application forms. A copy of this survey has been submitted within Appendix E.

Feedback: Feedback was given verbally, collated and documented by KFTP staff and recorded in Chapter 6 of this report.

5.7. Consultation Event – Lunchtime Pop-up

When: Wednesday 28 November 2018 11:30am – 1pm

Location: Dickson Square (opposite Dickson Library)

Set-up: Under a marquee in Dickson Square, four A1 sized boards displayed on easels illustrating two plans and two perspectives of the proposed scheme. Approximately 40 people engaged with KFTP staff at the event.

Demographics Survey: A survey created with Survey Monkey was used to allow for anonymous demographic data collection. The questions were modelled on sample questions from the ACT Governments Application forms. A copy of this survey has been submitted within Appendix E.

Feedback: Feedback was given verbally, collated and documented by KFTP staff and recorded in Chapter 6 of this report.

5.8. Consultation Event – Evening Pop-up

When: Tuesday 4 December 2018 4:30pm – 6pm

Location: Dickson Square (opposite Dickson Library)

Set-up: Four A1 sized boards displayed on easels illustrating two plans and two perspectives of the proposed scheme. Approximately 60 people engaged with KFTP staff at the event.

Demographics Survey: A survey created with Survey Monkey was used to allow for anonymous demographic data collection. The questions were modelled on sample questions from the ACT Governments Application forms. A copy of this survey has been submitted within Appendix E.

Feedback: Feedback was given verbally, collated and documented by KFTP staff and recorded in Chapter 6 of this report.

5.9. Consultation Event – Dickson Traders Information Session

Invitation: On 4 December 2018, approximately 150 invitations were distributed by hand by Knight Frank Town Planning to Traders locate within the Dickson Group Centre. A copy of the invitation has been supplied at Appendix G.

When: Tuesday 11 December 2018, 5:30pm – 6:30pm

Location: The Dickson Tradies, 2 Badham Street, Dickson

Set-up: Five A1 sized boards displayed on the wall illustrating two plans and three perspectives of the proposed scheme. Representatives of KFTP, CGDP, and Bloc made a visual presentation that included a fly-thru video and question time. Approximately 10 people representing Dickson Traders attended the event.

Feedback: Feedback was given verbally, collated and documented by KFTP staff and recorded in Chapter 6 of this report.

6. MATTERS RAISED

6.1. Summary of Matters Raised During Consultation

The vast majority of people consulted were positive about the changes made to the 2014 proposal and were supportive of the development. Some expressed disappointment at the Aldi supermarket no longer being proposed. Although after explanation, understood that it was the decision of Aldi to withdraw their offer and that this provided opportunity to revise the design to address the key design elements as agreed with representatives of the North Canberra Community Council (NCCC), Downer Community Association (DCA).

Concern for the management of parking during construction was raised by a number of people and some Dickson traders. People also sought clarification on the built form, landscaping, traffic, loading area, parking and construction arrangements. Further detail on the matters raised and the response are provided in the following table.

6.2. Matters Raised During Consultation

SUBJECT	FEEDBACK	RESPONSE
POSITIVE FEEDBACK	General support for: • the 4m pathway width provided around the building; • the street facing retail; • the egress via the travelators into the main entry area opposite Dickson Square; • the relocation of the ramps and provision of the area adjacent to Dickson Square; • consideration of winter solar access, the minimal overshadowing of Dickson Square; • potential for a positive interface and integration with Dickson Library frontage and greater shopping precinct; • pedestrian priority, one-way shared zone to reduce current traffic conflict	The vast majority of respondents were supportive of the revised proposal. An email received on 6 Dec 2018 from a resident in the local area stated: "*I like the Dickson Square part of the proposal, particularly not casting a shadow over the space in winter. Having the square adjacent to the area in front of the library will hopefully help integrate the new development with the rest of the shopping precinct and reduce the chance of a barrier between the two. I also like the one way shared zone between the library and the development – this should help deal with the messiness that currently exists there*".
COMMUNITY APPROVAL **1.**	Is this the scheme that the NCCC is supportive of?	This proposal has incorporated the key design elements as raised by the North Canberra Community Council and the Downer Community Association.

2.	Why couldn't this have been the original development proposal?	The government requirements for the release of the site necessitated the delivery of two supermarkets. The withdrawal of the offer by Aldi has created an opportunity for design changes to the development.
ADMINISTRATION	Are the plans available online?	A website with plans was launched on Monday 3 December 2018 https://www.coles.com.au/dickson development. Prior to that people were advised that it will be up shortly and to send through their email address so that a link can be sent through on launch.
ACCESSIBLE HOUSING **1.**	Will there be accessible housing options for the regions ageing population?	The development will meet the adaptable housing requirements as per the Territory Plan and Australian Standards. Adaptable housing is housing designed to be easily adaptable to cater for people of all ages and abilities and provides greater housing choices for those who want to age in place
2.	Demand for three bed adaptable units for downsizers in Dickson and more two-bedroom units.	This view is noted.
LANDSCAPE **1.**	What is the landscaping proposed? Expressed desire for large trees, deep root planting a high priority.	The proposed landscape plan incorporates the planting of advanced trees along all street frontages as well as the public realm and podium level planting.
2.	Will the existing trees in the Dickson Square be retained?	The trees in Dickson Square will not be removed as a part of this proposal. Trees located within the car park site will be removed.
BUILT FORM **1.**	Concern for the construction quality and liveability of the residences	The proposal will meet natural light and ventilation criteria, BCA requirements and will be constructed to the required standards.
2.	Clarification of maximum building heights and number of storeys sought.	In accordance with the requirements of the Territory Plan the proposed has a maximum building height of 24m above natural ground level; seven storeys above ground on the Antill St frontage and a two storey

		interface with the Dickson Library and to the south. The Nova development along Antill St is also 24m in height.
3.	Demand for an appealing, well designed northern façade to Antill Street for pedestrians and passing traffic. The render provided obscures the view of the loading bay with street trees. Clarity of outcome required.	Noted. The design team have been briefed on the requirement for further consideration of the Antill Street frontage.
4.	Concern that Dickson will develop a generic/placeless character.	The proposal will provide a quality design outcome for this precinct that may serve as a catalyst for other parts of the Dickson Group Centre.
RETAIL **1.**	Why is Aldi supermarket no longer proposed?	Aldi has withdrawn its offer for the second supermarket creating an opportunity for design changes to the development.
2.	Will the Woolworths Supermarket stay?	The Woolworths Supermarket has given no indication of closing.
3.	Who will occupy the retail tenancies?	The tenancy arrangements are the subject of negotiation with Coles Group and will provide a variety of offerings.
4.	Can a hardware store be provided?	It is unlikely a hardware store operator would be interested in the tenancies on offer.
LOADING AREA **1.**	What noise attenuation measures will be included for the loading area particularly for onsite and adjacent residents?	The loading area fronting Antill Street will be enclosed by roller doors and is buffered from adjacent existing or potential future residential development by greater than 30m. The podium level residential carpark on the first floor provides a buffer between the loading area and the residences directly above. A noise management Plan has been prepared for the development and the recommendation in that report will be adopted.
2.	What are the operational arrangements for the loading dock?	On entry and exit vehicles will travel in a forward direction, with no reversing of trucks required on Antill Street. All truck manoeuvring will be contained within the building.

3.	Why is the loading dock located on Antill Street?	After extensive consideration by traffic consultants and in consideration of the planning constraints for the site, the only option available is to locate the loading dock so that it is accessed off Antill Street.
SOCIAL/ ENVIRONMENTAL 1.	Will there be any community housing? Expressed concern for how any renewal addresses high homeless population of Dickson.	There is no community housing in the proposed development. Government had not identified this site for community housing provisions.
2.	What environmental / sustainability measures will be incorporated into the development?	The development will meet current ACT Planning standards of environmental sustainability including WSUD and energy performance requirements. The roof for the seven storey building will contain PV solar cells for collecting electricity.
3.	What noise attenuation measures will be included particularly for onsite residents?	The development will incorporate the noise management plan requirements.
4.	Concern for the loss of public space by the sale of public land.	The decision to release the site for redevelopment was identified in the Dickson Master Plan and was released by the ACT Government to CGDP in 2014.
CONSTRUCTION 1.	Concern for further dust and traffic disruptions during construction	A Temporary Traffic Management Plan will be provided as a condition of Works Approval. The Plan will detail how the safety, accessibility and amenity of vehicle and pedestrian access will be maintained throughout the development and associated works.
2.	What will be the extent of the construction zone? Will construction affect the Dickson Library and Dickson Square area?	Offsite works include upgrades to Road A, adjoining the Dickson Library, and the inclusion of a shared zone interface with Dickson Square. Pedestrian access will be maintained around Dickson Library, Dickson Square, Woolworths and McDonalds. Traffic will be impacted during construction on the western side of Dickson Library and Dickson Square and the northern side of Woolworths.

3.	What noise requirements are in place during construction?	Noise pollution in the ACT is regulated by the Environmental Protection Act 1997. During construction these regulations will be adhered to.
4.	When will the development be built and open?	Subject to approval construction is expected to begin mid-late 2019 for completion late 2021.
5.	Communication with the traders and public on parking arrangements during the construction period will be important.	Noted and agreed. A communication strategy will be undertaken to inform Dickson Group Centre businesses and members of the public about the alternative arrangements.
6.	How will construction vehicles access the site?	The construction arrangements will be subject to approval by the ACT Government prior to the commencement of construction.
PARKING **1.**	What are the arrangements for public car parking during construction?	Alternative parking arrangements will be provided during construction subject to agreement with the ACT Government. It is intended that parking for construction workers will be located off-site within the Section 72 Dickson precinct (Not adjacent to the Dickson Pool).
2.	How much will parking cost and will the car park be open 24 hours?	The public car park will be open 24 hours and will be pay parking. The car park will be managed by a private provider and rates will be commensurate with those applied to parking managed in the area by the ACT Government.
3.	What provision is there in the shared zone for car parking/drop off?	There are three allocated drop off spaces accessed from the shared zone.
4.	What are the access arrangements of the shared zone for a monthly barbeque that occurs adjacent to the Dickson Library entry?	The proposed shared zone will not impede the accessibility of the space adjacent to the Dickson Library. During construction, access will be available via the loading zone on the opposite side of the post office.
5.	What method of pay parking will be used?	Licence plate recognition will be utilised for pay parking.

6.	Will the temporary parking opposite the pool be going ahead?	No the temporary parking opposite the pool will not be going ahead.
ACCESS & TRAFFIC **1.**	How will pedestrians accessing from Downer be able to cross near the intersection of Antill Street and Badham Street?	Pedestrians will be able to utilise the crossings available at the signalised intersection of Antill Street and Badham Street.
2.	Concern regarding the potential for rat-running at Road A.	On completion of the upgrades, the shared zone will incorporate multiple traffic calming devices and a well delineated pedestrian priority shared zone. Driving through the shared zone would likely delay a driver's route.
3.	Concern for the inconvenience of no right turn from Road A to Antill Street.	There is currently no right turn from Road A to Antill Street with alternative east bound access available via Cowper Street. This arrangement will not change by this proposal.
4.	Concern that the increased traffic will have an unreasonable impact on the exiting traffic congestion on Antill Street..	An updated traffic report will be provided with the development application to demonstrate consideration of the traffic by this development proposal.
5.	Request to improve pedestrian interface with Downer. Walking across and along Antill Street from Downer into Dickson is difficult and uncomfortable.	A pedestrian movement plan will be submitted with the development application. This development proposal will address the pedestrian improvements as are reasonable within the scope of this development.
6.	Why are the basement access and egress ramp in the locations?	The access and egress locations for the ramps are positioned further away from Dickson Square and the Dickson Library. There are no alternative locations suitable for basement access.
7.	Require pedestrian priority for footpaths that crossover driveways.	Noted.
PUBLIC REALM **1.**	Concern for the bollard design at the shared zone: low height, low visibility – suggestion of multi-functional or artistic bollards	Noted. The details of the bollards will be considered in the final landscape plans and will be designed to meet Australian accessibility and safety guidelines.
2.	Concern for the lack of colour in the public realm – demand for Dickson to retain an edgy and colourful character.	The design intent for the public realm at Dickson Village Square is to be reflective of the broader development scheme and is not considered to warrant an edgy and

		colourful character.
3.	Will the structure defining the square be roofed for weather protection?	No the structure will not be roofed however weather protection will be provided via awnings.
4.	Will the Dickson Village Square contain gutters and steps? Concerns of appropriateness for the elderly.	Dickson Village Square will be accessible via an on-grade pedestrian priority shared zone free of gutters and steps with the exception of a small section of gutter located adjacent to the three layby spaces to address the potential for overland flow.
5.	Will there be enough seating in the Square? Expressed concern for the elderly.	There will be seating in Dickson Village Square. Concerns raised have been noted.
6.	What measures will be in place to maintain the vertical wall landscape treatment on Antill Street?	CGDP and the residential body corporate will maintain their associated landscape treatments.
7.	Can the development include a viewing platform and playground equipment?	This proposal provides a landscaped podium at level 2 for the residential apartments which will overlook Dickson Square and Dickson Village Square. Dedicated playground equipment is not proposed however an artificial grassed area will provide space for play.
8.	Clarify the arrangements for cyclists using the shared zone.	Cyclist movements through the shared zone will be the same as other shared zone. Being a low speed environment it is not anticipated that the shared zone will create any impediment to the movement of cyclists.
9.	Concern that the structure defining the Dickson Village Square space will be reduced in size.	The development team have no intention to reduce the size of the structure defining the square as it is seen as an integral element of the scheme.

7. DEMOGRAPHICS

During the first three community consultation events (two pop-ups and the Party at the Shops), a demographic survey of 105 attendees in total was captured out of approximately 180 people consulted with. This survey was undertaken through Survey Monkey, a copy of a survey is reproduced in Appendix E. It is important to note this demographic data is only representative of a small proportion of the Dickson local and visiting population. This data does not describe trends within Dickson, but it does report similarities with the Australian Government Census Data for Dickson if a correlation is found.

The responses to the questions have been analysed below:

Q1- What is your age?

This consultation engaged with people from all age ranges, with the largest share of people responding from the 65 or older category. There was relatively a high 21% representation of 36 to 45 year-olds at 21%, while 15% of respondents were 35 or younger. The evening pop-up event attracted the greatest number of respondents under the age of 26 while the Party at the Shops respondents were predominantly of the 36-55 age category. Having representation from a diverse age range interacting with this consultation provides a strong base for the comments received and shows that the comments are representative of a cross-section of ages.

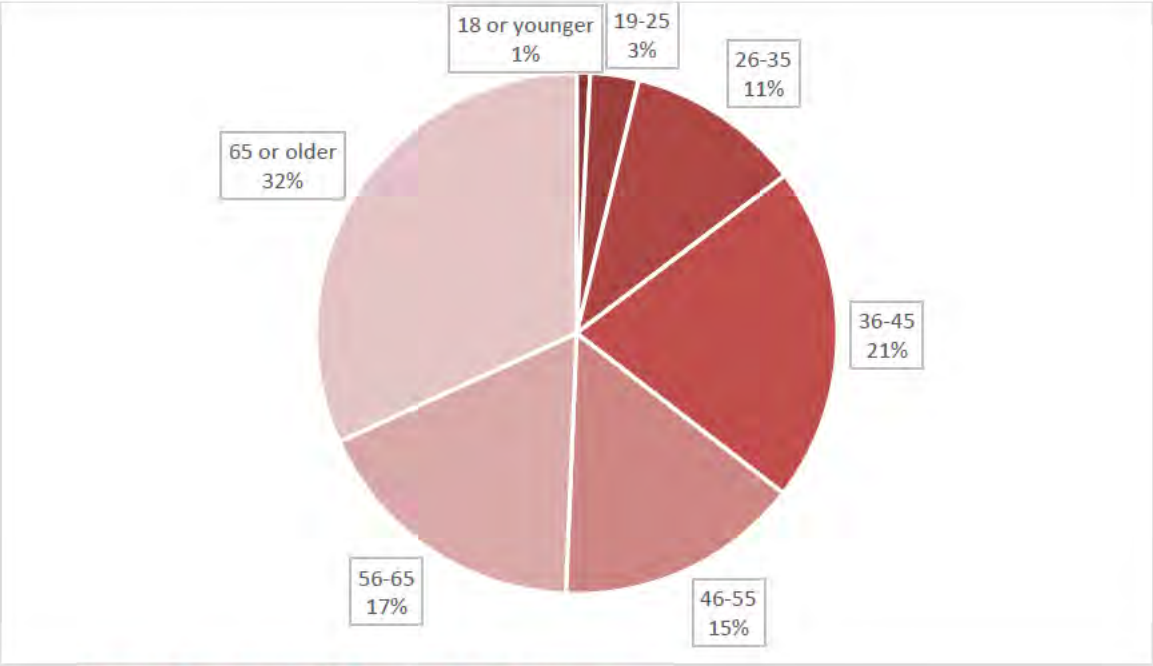


Figure 4 Data Analysis Question 1. Age category

Q2- What gender do you identify as?

On average, the three events were attended by a near equal number of male and female respondents. The other 1% represents a non-gendered alternative response the survey question. According to the Australian Bureau of Statistics, in 2015 the total population of Dickson had 51% male and 49% female residents. The lunchtime pop-up respondents were predominantly male at 57.7% conversely, 57.5% of Party at the Shops respondents identified as female. Assessing the representative genders of respondents at the consultation sessions against the ABS data provides a basis for the assumption that the attendees were representative of the local population.

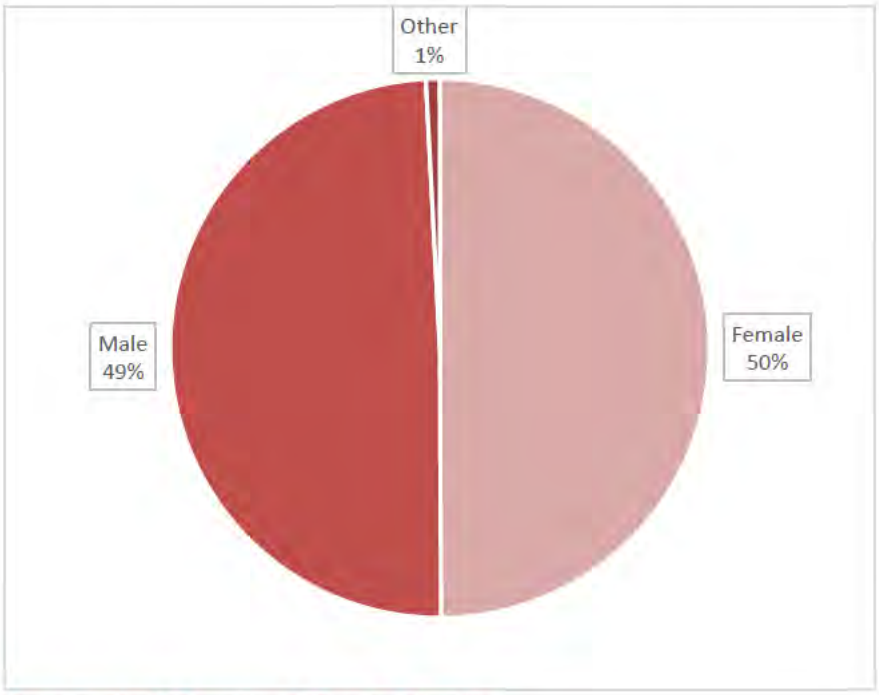


Figure 5 Data Analysis Question 2. Gender Identity

Q3- Are you a member of any of the following groups?

The majority of respondents do not identify as Aboriginal/Torres Strait Islander, person with a disability or from a non-English background. There were a small proportion of respondents, 3%, 3% and 5% respectively, who identified with these groups. According to the 2016 statistics, 1.3% of the Dickson population are Aboriginal or Torres Strait Islander, whilst in our consultation 3% of respondents identified as at Aboriginal and Torres Strait Islander.

22.3% of Dickson households have a non-English language in the home (2016 census). The highest representation of non-english speaking background respondents attended the first pop-up with 11.5% reporting to be from this group. While on average only 5% of survey respondents identified with this group. This question can be interpreted in a large manner of ways through birth country, parental birth country and most common language spoken at home.

According to the 2009 ABS Survey of Disability, Aging and Carers 18.5% of Australian report having a disability. Of the survey respondents 3.3% identified as a person with a disability with the highest percentage, 7.5% attending the evening pop-up event on 4 December 2018.

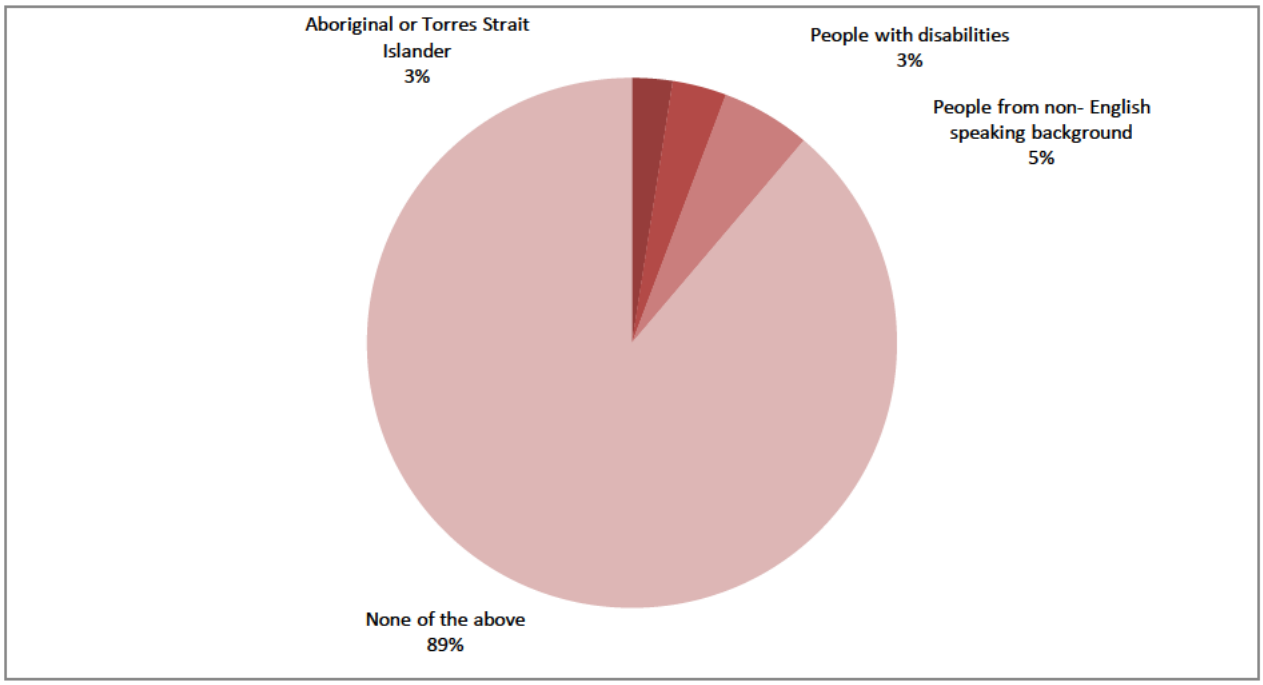


Figure 6 Data Analysis Question 3. Are you a member of any of the following groups?

Q4- How did you hear about this event?

Question 4 was only surveyed at the two pop-up events at which 26% of the respondents heard about the events from the postcard drop. The Party at the Shops attendees were not asked question 4 as the event was not advertised as part of this proposal. At the pop-up events several attendees reported to staff that they had hear about the events through word of mouth, fuelled by the postcards, or had happened to pass by the presentation. Responses were consistent across the two events. These statistics provide evidence of the benefits of individually inviting community members to events being greater than broader advertising. Further strengthening the link of the development to the locality.

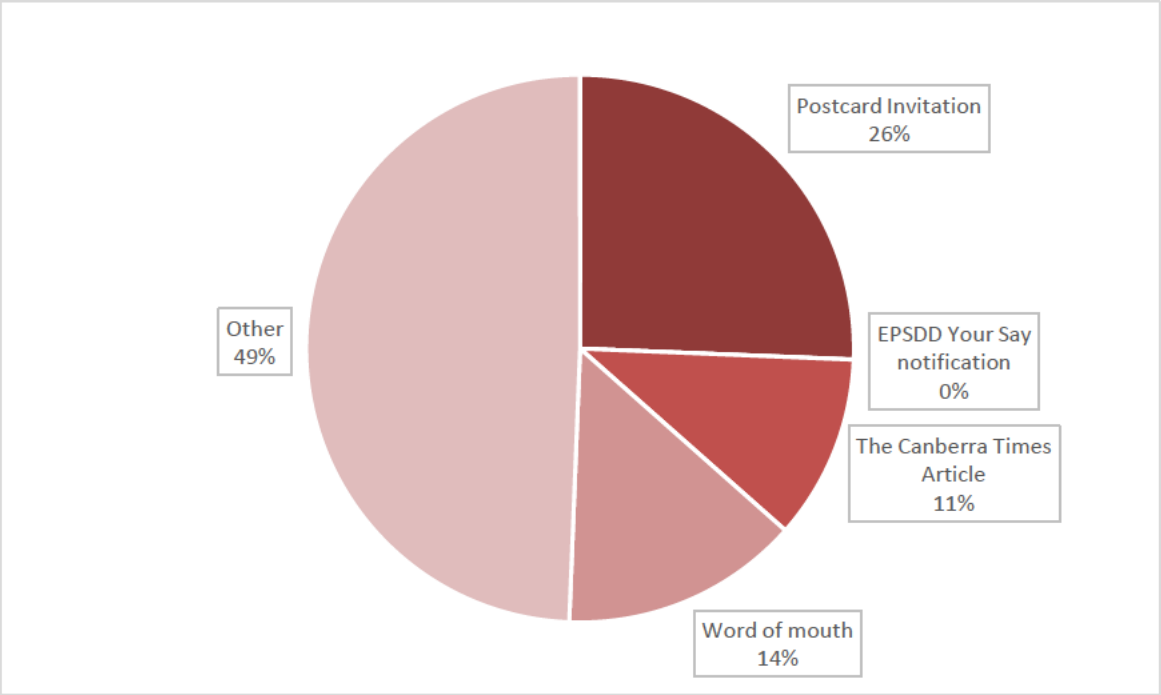


Figure 7 Data Analysis Question 4. How did you hear about this event?

8. CONCLUSION

This report represents extensive community consultation undertaken with the community groups, the Dickson traders and with a diverse demographic of the local community. Over 1,500 postcards were distributed to local residents for the community information sessions, and conversations about the development proposal were had with approximately 200 people. Feedback provided by community members was forwarded to CGDP for consideration and integration into the proposed development.

APPENDIX A – PLAIN ENGLISH STATEMENT

Dickson Village - Mixed Use Development

Background
A Development Application for the redevelopment of the site was made in December 2014 and approved in June 2016. This decision was the subject of a review process before ACAT and an appeal to the ACT Supreme Court.

Aldi has removed its offer for the second supermarket creating an opportunity for design changes to the development. A new urban design team was engaged to create new concept designs, without a second supermarket.

Coles, North Canberra Community Council (**NCCC**) and the Downer Community Association (**DCA**) have reviewed concept designs and agreed key design elements for the development. The parties also agreed to adjourn the Supreme Court proceedings to develop the concept designs and allow Coles to lodge a new Development Application incorporating the key design elements.

Development Proposal
The site of the proposed mixed use development is on land currently used as an at grade car park in the Dickson Group Centre (Block 21 Section 30). The site is bounded on four sides by Antill Street, Badham Street and an access road (Road A). The site has an area of approximately 7,866 sqm.

The proposed development is 7 storeys with a building height up to RL600.200; in accordance with the 24m height limit as permitted in this part of Dickson Group Centre.

The proposal includes:

- a Coles supermarket
- approx. 7 ground floor retail / commercial tenancies;
- 140 residential units with a mix of one, one plus study, two and three bedroom units;
- two basement levels of public car parking plus one level of podium car parking (replacing the existing car parking spaces and adding to the car parking required to address the demands of the development); and,
- ·other associated works on-site and off-site.

The proposed development creates the following public domain improvements:

- the interface with the heritage Dickson Library is respected by the creation of high quality landscaped space, being the New Dickson Square (approx. 800 sqm) with an open canopy reinforcing the civic nature of the space;
- a shared zone on Road A (from Badham Street toward Antill Street) being a one lane, one way, paved and low speed (maximum speed limit of 10 km/hr) zone prioritising pedestrian movement and activity;
- access to the basement public car parking is by a ramp in Road A, keeping the majority of vehicles out of the Dickson Village precinct. Egress from the basement public car park is by ramp within the site;
- laybys are provided within the shared zone to provide pick up and set down opportunities;
- improved amenity provided by 4 metre wide public footpaths around the site;
- cutting back the building on the south east corner of the site to create the new Dickson Square ensures that the existing Dickson Square is not overshadowed by the development at 3.00pm on 21 June (being the time of year that shadows cast are longest).

APPENDIX B – EMAILS TO COMMUNITY COUNCILS

From: Rebecca Thomas <Rebecca.Thomas@coles.com.au<mailto:Rebecca.Thomas@coles.com.au>>
Date: 15 November 2018 at 2:59:34 pm AEDT
To: "chair@northcanberra.org.au<mailto:chair@northcanberra.org.au>"
<chair@northcanberra.org.au<mailto:chair@northcanberra.org.au>>
Cc: Jane Goffman <active_planning@me.com<mailto:active_planning@me.com>>, "ron@3fidi.com<mailto:ron@3fidi.com>"
<ron@3fidi.com<mailto:ron@3fidi.com>>, Denis O'Brien <denis.obrien@iinet.net.au<mailto:denis.obrien@iinet.net.au>>
Subject: Update on the Coles Dickson development

Dear Leon

Thank you for meeting with me last Thursday, 8 November 2018. I appreciated the opportunity to show you the current plans and flythrough model for the Coles Dickson development.

Community Consultation

Thank you for your suggestion of attending the DCA Party at the Shops this Saturday, 17 November. We have made arrangements with Amit Barkay and I will be in attendance with Aaron Oshyer of Knight Frank Town Planning between 10am – 2pm on Saturday to discuss the current plans and present the fly-through model of the development.

Knight Frank Town Planning on behalf of Coles will also be holding pop up events in the square adjacent to the Dickson Library on:

11.30am – 1pm on Wednesday, 28 November 2018 4.30pm – 6pm on Tuesday, 4 December 2018

This will be notified on the EPSDD Pre DA consultation website. In addition a postcard notifying the engagement events will be delivered to Dickson / Downer residents (located within a 500m radius of the site) over the course of the next week.

Coles are arranging a separate event for the traders located in the Dickson Group Centre.

Status of development application

On 8 October 2018 Coles requested the Supreme Court to adjourn the proceedings to allow a new development application to be lodged. The Court was willing to vacate the November hearing dates, but was not prepared to adjourn the proceedings without having confidence that the new development application was progressing and on that basis, has listed the proceedings for directions at the beginning of Court term (8 February 2019). At the next directions hearing Coles is required to confirm that the development application has been lodged and notified. This morning, Coles Group Property Development (CGPD) lodged its proposed infrastructure plans with the Deed Manager for the Estate Development Plan (EDP) process. The objective of the EDP process is to engage with government and service entities and obtain endorsement from the Deed Manager to enable lodgement of the development application (DA).

CGPD need to lodge the new development application by Christmas this year and intend to submit by 14 December 2018. EPSDD will then carry out its completeness check and CGPD will pay the DA lodgement fee.

Due to the proximity to Christmas, EPSDD will arrange public notification of the development application on or after 2 January 2019. We understand the notification period is 15 business days.

I am very happy for you to share this information with your members and will continue to keep you and other NCCC and DCA representatives updated of our progress. Please do not hesitate to contact me, if you wish to discuss.

Kind regards

Rebecca Thomas
Development Manager – NSW / ACT
Coles Group Property Development

APPENDIX C – CANBERRA TIMES ARTICLE

NATIONAL ACT PLANNING AND DEVELOPMENT

Coles unveils new proposal for long-planned Dickson development

By Han Nguyen
24 November 2018 — 12:00am

Talking points

Coles has a new proposal for its shopping village in Dickson

It will hold information sessions for Canberrans next week

The new proposal includes a 3800-square-metre market-style supermarket

Coles has unveiled a new proposal for its long-awaited shopping village in Dickson, dropping plans for an Aldi supermarket also on the site, and creating a new "Dickson Square".

Coles has not released its plans, but is briefing local residents at public sessions next week before it lodges a new development application.

Coles' bid to develop the site, on a carpark on Antill Street, Dickson, near the existing Woolworths, has hit roadblock after roadblock for many years.

New artist impression of the Coles Village in Dickson. Community consultation will be held next week.

Coles' development arm first lodged plans to build two supermarkets and 155 apartments on the car park on the corner of of Antill and Badham streets in late 2014.

But the developers were sent back to the drawing board by the government in early 2015, with concern from residents about a "mall" that would cut off pedestrian access to the Dickson group centre, strangling small businesses and activity in the eclectic courtyards.

A Coles spokeswoman said the Supreme Court proceedings had been now adjourned by consent of all parties to allow Coles to lodge a new development application.

While Coles has not released the detailed plans, she said the biggest change was Aldi's decision to withdraw, allowing a new Dickson Square, with "an open canopy and landscaping".

"Shoppers will be able to stroll around the space on four-metre wide public footpaths and the motorist ramp has been moved away from the library and within the property boundary," she said.

"External aesthetics", including facade treatments and landscaping, had also been improved.

There would be two levels of basement parking, and seven levels above, with shopping, apartments and parking for residents.

It includes a 3800-square-metre "market-style" supermarket.

The development will also have 1000 square metres of specialty shops and 140 residential apartments.

"During construction, around 250 jobs are expected to be created and once completed the development is anticipated to generate more than 200 retail jobs in the retail precinct including 100 new jobs at Coles," the spokesperson said.

If the development is approved Coles said it planned for construction to start mid-2019.

> The drop-in consultation sessions will be held on Wednesday, November 28, 11.30am to 1pm and Tuesday, December 4, 4.30-6pm, adjacent to Dickson Library.

with Katie Burgess

APPENDIX D – POSTCARD INVITATIONS

Community Information Sessions

Proposed mixed use (residential, retail and supermarket) development of Dickson at grade car park (off Antill and Badham Street)

Wednesday 28 November 2018
11.30am – 1pm

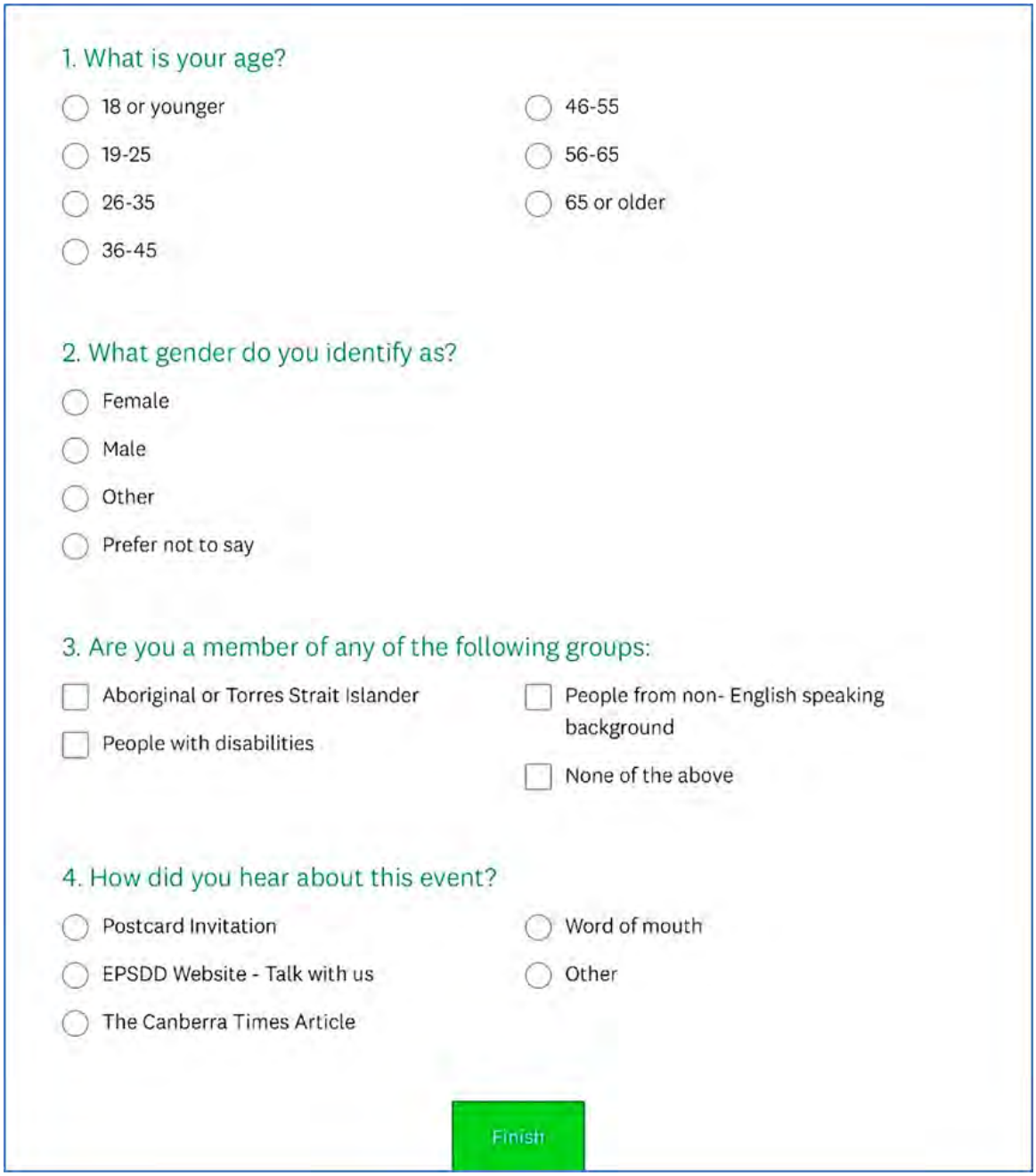
Tuesday 4 December 2018
4.30pm – 6pm

Location
Dickson Square (opposite Dickson library)

For further information or comments please contact:
planning.act@au.knightfrank.com

coles
TURNER
Knight Frank

APPENDIX E – DEMOGRAPHIC SURVEY



1. What is your age?

- ◯ 18 or younger
- ◯ 19-25
- ◯ 26-35
- ◯ 36-45
- ◯ 46-55
- ◯ 56-65
- ◯ 65 or older

2. What gender do you identify as?

- ◯ Female
- ◯ Male
- ◯ Other
- ◯ Prefer not to say

3. Are you a member of any of the following groups:

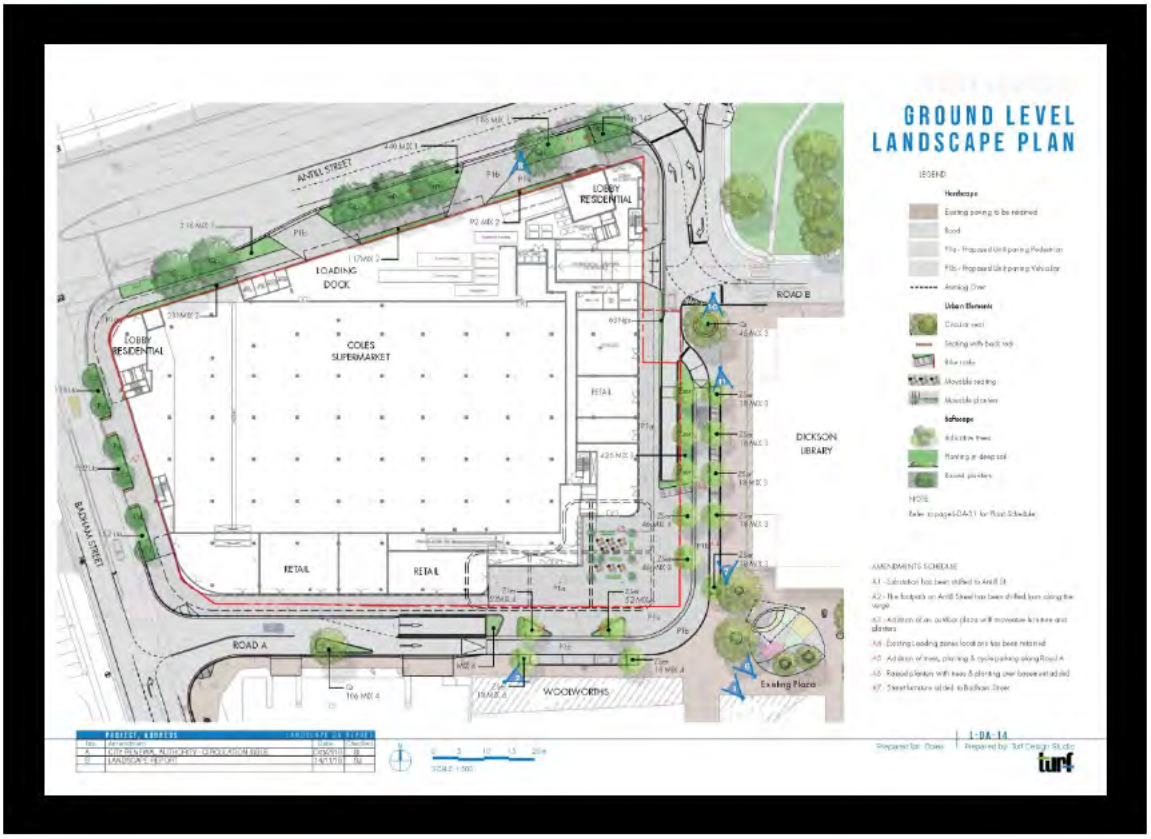
- ☐ Aboriginal or Torres Strait Islander
- ☐ People with disabilities
- ☐ People from non- English speaking background
- ☐ None of the above

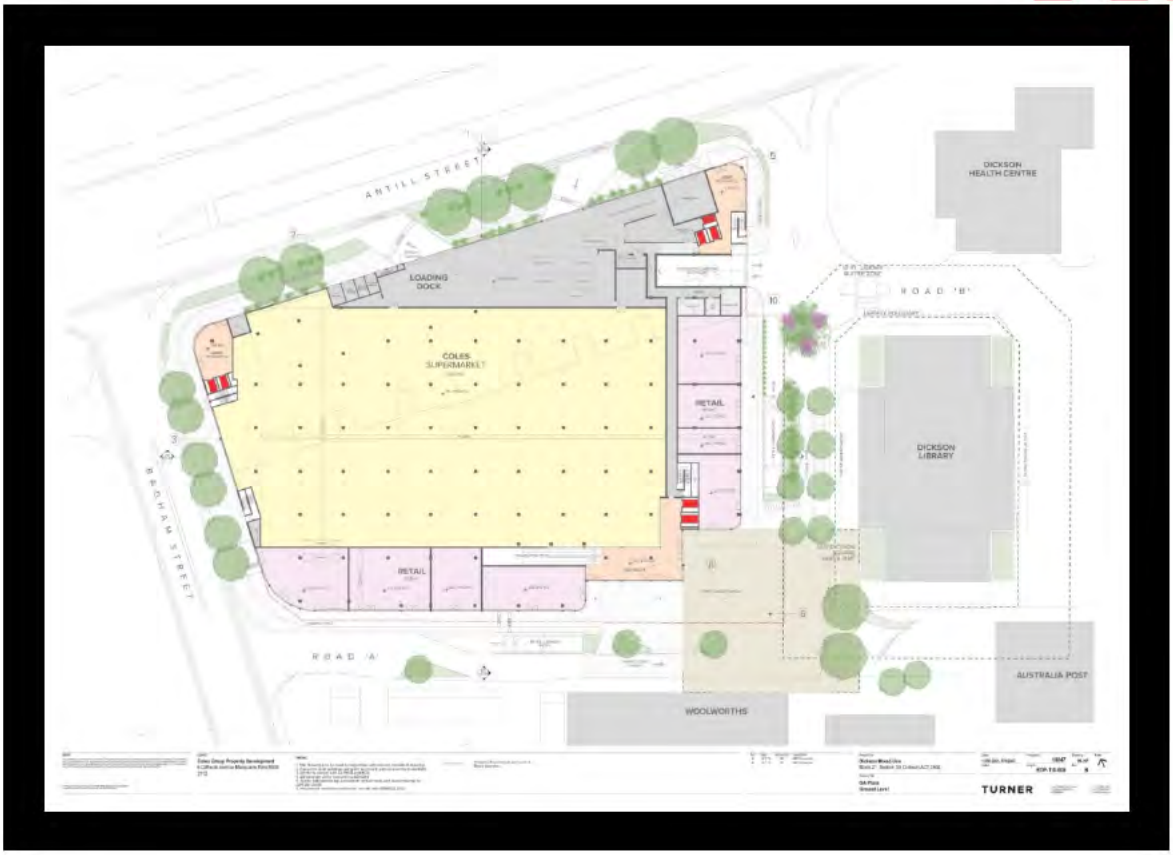
4. How did you hear about this event?

- ◯ Postcard Invitation
- ◯ EPSDD Website - Talk with us
- ◯ The Canberra Times Article
- ◯ Word of mouth
- ◯ Other

Finish

APPENDIX F – BOARDS FOR CONSULTATION EVENTS





BLOCK 21 SECTION 30, DICKSON PRECINCT

INDICATIVE VISUAL ANTILL STREET ELEVATION LOOKING WEST

INDICATIVE VISUAL ANTILL STREET ELEVATION LOOKING EAST

APPENDIX G – INVITATION TO DICKSON TRADERS

To the Dickson traders

As you are probably aware, Coles' Development Application for the redevelopment of the car park site on the Corner of Antill and Badham Streets was made in December 2014 and approved in June 2016. This decision was the subject of a review process before ACAT and an appeal to the ACT Supreme Court.

Aldi has removed its offer for the second supermarket creating an opportunity for design changes to the development. A new urban design team was engaged to create new concept designs, without a second supermarket.

Coles, North Canberra Community Council (NCCC) and the Downer Community Association (DCA) have reviewed concept designs and agreed key design elements for the development. The parties also agreed to adjourn the Supreme Court proceedings to develop the concept designs and allow Coles to lodge a new Development Application incorporating the key design elements.

Coles invites the Dickson traders to attend an information session to discuss and provide comments on this proposal, prior to the submission of the Development Application.

This information session is being held:
5.30pm on Tuesday, 11 December
Malvern Star and Speedwell Rooms, The Dickson Tradies
2 Badham Street, Dickson

For further information or comments please contact:
planning.act@au.knightfrank .com

We hope that you can join us.

coles TURNER Knight Frank

LEGEND

EXISTING	EXISTING SURVEYED	NEW	
Ø300 eSW — Ø300 eSW	Ø300 zSW — Ø300 zSW	Ø300 SW — Ø300 SW	STORMWATER LINE WITH MANHOLE, R-SUMP, AND PIPE DIAMETER
		SS SS SS	SUBSOIL DRAIN
SC SV PTB Ø150 eW Ø150 eW	SC SV PTB Ø150 zW Ø150 zW	SC SV PTB Ø150 W Ø150 W	WATER METER, WATER MAIN WITH FIRE HYDRANT, STOPCOCK, STOP VALVE, CONCRETE THRUST PIER CONCRETE THRUST BLOCK, PIPE DIAMETER AND END CAP
			INTERNAL WATER LINE
Ø300 eS — Ø300 eS	Ø300 zS — Ø300 zS	Ø300 S — Ø300 S	SEWER MAIN WITH MANHOLE, PIPE DIAMETER AND END CAP
eTEL eTEL	zTEL zTEL	TEL TEL	TELSTRA CABLE
eOPT eOPT	zOPT zOPT	OPT OPT	OPTUS CABLE
eNBN eNBN	zNBN zNBN	NBN NBN	NBN CABLE
eINET eINET	zINET zINET	INET INET	IINET CABLE
eHV eHV eHV	zHV zHV zHV	HV HV HV	ELECTRICITY UNDER GROUND HIGH VOLTAGE
eHV eHV eHV	zHV zHV zHV	HV HV HV	ELECTRICITY ABOVE GROUND HIGH VOLTAGE
eLV eLV eLV	zLV zLV zLV	LV LV LV	ELECTRICITY UNDER GROUND LOW VOLTAGE
eLT eLT eLT	zLT zLT zLT	LT LT LT	STREET LIGHTING CABLE AND COLUMN
Ø32 eG Ø32 eG	Ø32 zG Ø32 zG	Ø32 G Ø32 G	GAS AND PIPE DIAMETER

ALL PLANS SHOWING UTILITIES OTHER THAN THE UTILITIES PLAN ARE DOCUMENTED AS FINE BLACK FOR PROPOSED AND GREY FOR EXISTING

BLOCK BOUNDARY

GENERAL

G1 THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED.

G2 ANY DISCREPANCIES OR OMISSIONS SHALL BE REFERRED TO THE ENGINEER FOR A DECISION BEFORE PROCEEDING WITH THE WORK.

G3 ALL WORKMANSHIP AND MATERIALS SHALL COMPLY WITH THE BUILDING CODE OF AUSTRALIA AS AMENDED AND THE APPROPRIATE AND CURRENT AUSTRALIAN STANDARDS.

G4 ALL DIMENSIONS ARE IN Meters UNLESS NOTED OTHERWISE.

G5 DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE CIVIL DRAWINGS.

G6 ALL DIMENSIONS SHOWN ON THE DRAWINGS SHALL BE VERIFIED ON SITE BY THE BUILDER PRIOR TO CONSTRUCTION OR FABRICATION.

UTILITIES

U1 THE LOCATIONS OF EXISTING SERVICES SHOWN ON THESE DRAWINGS HAVE BEEN PLOTTED FROM DIAGRAMS PROVIDED BY SERVICE AUTHORITIES. THIS INFORMATION HAS BEEN PREPARED SOLELY FOR THE AUTHORITY'S OWN USE AND MAY NOT NECESSARILY BE UPDATED OR ACCURATE.

U2 THE POSITION OF EXISTING SERVICES AS RECORDED BY THE AUTHORITY AT THE TIME OF INSTALLATION MAY NOT REFLECT CHANGES IN THE PHYSICAL ENVIRONMENT SUBSEQUENT TO INSTALLATION.

U3 FOR THIS MINOR WORK, SELLICK CONSULTANTS HAS PERFORMED THE REQUIRED SURVEY FOR ALL VISIBLE EXISTING SERVICES ON AND ABOVE THE GROUND. HOWEVER, SELLICK CONSULTANTS DOES NOT GUARANTEE THAT THE UNDERGROUND EXISTING SERVICES INFORMATION SHOWN ON THESE DRAWINGS SHOW MORE THAN THE PRESENCE OR ABSENCE OF UNDERGROUND EXISTING SERVICES. AND WILL ACCEPT NO LIABILITY FOR INACCURACIES IN THE UNDERGROUND EXISTING SERVICES INFORMATION SHOWN FROM ANY CAUSE WHATSOEVER.

U4 THE CONTRACTOR SHALL:

(A) CONDUCT A SERVICES SEARCH WITH ALL UTILITY SERVICES AUTHORITIES TO DETERMINE PLAN LOCATIONS OF ANY SERVICES IN THE VICINITY OF THE WORK.

(B) UNDERTAKE HAND EXCAVATION TO DETERMINE THE EXACT POSITION OF SERVICE WITHIN THE LIMIT OF THE WORKS SHOWN ON PLAN. IF THE EXISTING UNDERGROUND SERVICES HAVE AN IMPACT ON THE ACCEPTED DESIGN OR THE STANDARDS OF ICON WATER, THE CONTRACTOR SHALL INFORM THE DEVELOPER'S DESIGNER, AND THE DESIGNER SHALL PROVIDE A NEW SUBMISSION TO ICON WATER FOR ACCEPTANCE.

(C) ARRANGE RELOCATION OR ADJUSTMENT OF SERVICE TO THE APPROVAL OF THE RELEVANT AUTHORITY.

STORMWATER DRAINAGE NOTES

D2 PIPES 300 DIA AND LARGER TO BE REINFORCED CONCRETE CLASS "AS SPECIFIED" APPROVED SPIGOT AND SOCKET WITH RUBBER RING JOINTS U.N.O.

D3 PIPES UP TO 300 DIA SHALL BE SEWER GRADE UPVC WITH SOLVENT WELDED JOINTS.

D4 EQUIVALENT STRENGTH VCP OR FRC PIPES MAY BE USED SUBJECT TO APPROVAL.

D5 PRECAST PITS MAY BE USED EXTERNAL TO THE BUILDING SUBJECT TO APPROVAL.

D6 ENLARGERS, CONNECTIONS AND JUNCTIONS TO BE PRECAST FITTINGS WHERE PIPES ARE LESS THAN 300 DIA.

D8 GRATES AND COVERS SHALL CONFORM WITH AS 3996-1992.

D9 PIPES ARE TO BE INSTALLED IN ACCORDANCE WITH AS 3725. ALL BEDDING TO BE TYPE H2 U.N.O.

D10 CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES SHOWN ARE NOT TO BE REDUCED WITHOUT APPROVAL.

ICON WATER NOTES

1. ALL WORK ON ICON WATER WATER SUPPLY AND SEWER MAINS TO BE CARRIED OUT IN ACCORDANCE WITH CURRENT WSSS STANDARDS.
   - -WSA-02 'GRAVITY SEWERAGE CODE OF AUSTRALIA'
   - -STD-SPE-G-011 'ICON WATER SUPPLEMENT TO WSA-02'
   - -WSA-03 'WATER SUPPLY CODE OF AUSTRALIA'
   - -STD-SPE-G-012 'ICON WATER SUPPLEMENT TO WSA-03'
   - -STD-SPE-M-006 'REQUIREMENTS FOR PROPERTY SERVICE CONNECTIONS'
   - -ALL WORK ON STORMWATER MAINS TO BE CARRIED OUT IN ACCORDANCE WITH DESIGN STANDARDS FOR URBAN INFRASTRUCTURE AND STANDARD SPECIFICATION FOR URBAN INFRASTRUCTURE WORKS.
2. CONNECTIONS AND OR DISCONNECTIONS OF SEWER AND WATER AT THE MAIN TO BE MADE BY ICON WATER AT CONTRACTOR'S EXPENSE. THE CONTRACTOR IS TO EXPOSE THE MAIN AT THE LOCATION OF THE CONNECTION/DISCONNECTION IN PREPARATION FOR THE WORK BY ICON WATER. ALL EXCAVATION IN THE VICINITY OF MAINS IS TO BE CARRIED OUT BY HAND.
3. THE CONTRACTOR MUST VISIT THE SITE OF WORKS BEFORE TENDERING AND MAKE ALLOWANCES IN HIS TENDER FOR ALL TOPOGRAPHIC CONSTRAINTS AFFECTING THE EXECUTION OF THE WORKS AND THE RESTORATION OF THE SITE.
4. ALTHOUGH THE POSITIONS OF EXISTING UNDERGROUND SERVICES HAVE BEEN PLOTTED FROM AVAILABLE RECORDS, THE CONTRACTOR SHALL CONFIRM THE DEPTH AND LOCATION OF ALL SERVICES ON SITE BEFORE COMMENCING EXCAVATIONS. CONTRACTOR TO ADVISE DESIGN ENGINEER IF NOT IN ACCORDANCE WITH THE PLAN.
5. ALL LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (AHD). ALL COORDINATES ARE BASED ON THE ACT STANDARD GRID SYSTEM (STROMLO PROJECTION).
6. THE CONTRACTOR MUST SECURE ALL PERMITS, ARRANGE ALL CLEARANCES AND PAY ALL FEES REQUIRED TO COMPLETE THE PROJECT BEFORE COMMENCING WORK.
7. WORK AS EXECUTED DRAWINGS, TIE BOOK AND DEPOSITED PLAN MUST BE SUBMITTED BEFORE CONNECTION.
8. ANY NON-METALLIC WATER SERVICE IS TO BE INSTALLED WITH TRACER WIRE AND TESTED.
9. EXCESS EXCAVATED MATERIAL SHALL BE REMOVED FROM SITE AND DISPOSED OF AT AN APPROVED SPOIL AREA.
10. THE CONTRACTOR SHALL REINSTATE ALL DISTURBED SURFACES TO MATCH EXISTING.
11. THE CONTRACTOR IS RESPONSIBLE FOR THE PREPARATION OF ALL NECESSARY TEMPORARY TRAFFIC MANAGEMENT PLANS AND THEIR APPROVAL.
12. CONTRACTOR TO CONFIRM DEPTH OF SEWER AND STORMWATER TIE POINTS PRIOR TO COMMENCEMENT OF CONSTRUCTION. ADVISE DESIGN ENGINEER IF NOT IN ACCORDANCE WITH PLAN.
13. ANY DEVIATION OF PIPE MATERIAL TO BE PROPOSED TO ENGINEER PRIOR TO INSTALLATION.

File Name: P:\2018\181174_B21-S30-Dickson\04_CAD\4.2_Drawings\CIV\181174_drg-civ-gn-0002.dwg

Rev	Description	Date	Drawn By
D	DEVELOPMENT APPLICATION	14.12.2018	DA
C	EDP UPDATE	14.11.2018	DA
B	EDP UPDATE	12.11.2018	DA
A	ESTATE DEVELOPMENT PLANS	9.11.2018	DA

Scales

North

DO NOT SCALE OFF DRAWINGS. VERIFY ALL DIMENSIONS ON SITE PRIOR TO WORK.

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Client Logo

GROUP PROPERTY DEVELOPMENTS

Status: NOT FOR CONSTRUCTION

Original Size	A1	Drawn By: DA	Drafting Check: DCA
Date Plotted	14-Dec-18	Designed By: AE	Design Check: BC
Coordinate System	STROMLO GRID	Approved: BC	Approved Date: 9.11.2018
Height Datum	AHD	Approved Signature	

Project Name and Location: DICKSON MIXED USE PROJECT
BLOCK 21 SECTION 30 DICKSON ACT

Drawing Title: GENERAL NOTES AND LEGEND

Project Number	Type	Discipline	Sub-Discipline	Drg No.	Rev
181174	DRG	CIV	GN	0002	D

DICKSON MIXED USE

BLOCK 21 SECTION 30, DICKSON ACT

DEVELOPMENT APPLICATION

DECEMBER 2018

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PROJECT NAME:

DICKSON MIXED USE PROJECT

PROJECT LOCATION:

BLOCK 21 SECTION 30 DICKSON, ACT

CLIENT:

COLES GROUP PROPERTY DEVELOPMENTS

JOB NUMBER:

181174

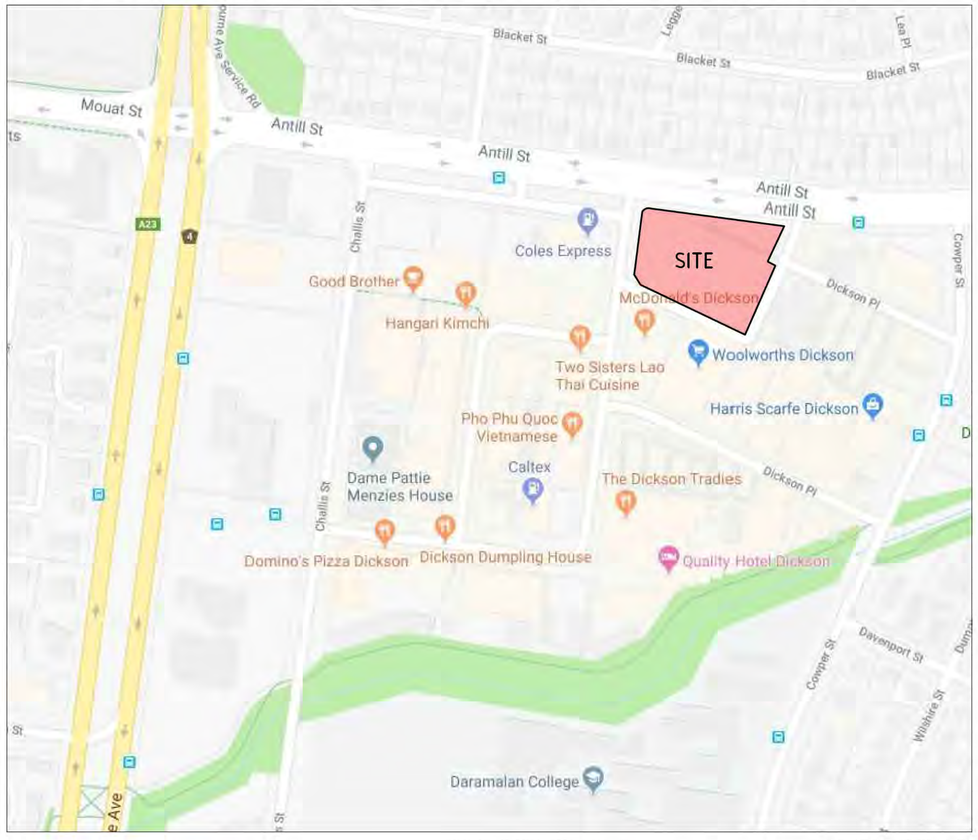
DISCIPLINE

CIVIL ENGINEERING

SUBMISSION TYPE:

DEVELOPMENT APPLICATION

DRAWING INDEX:



LOCALITY PLAN

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coles GROUP PROPERTY DEVELOPMENTS

Rev	Description	Date	Approved
D	DEVELOPMENT APPLICATION	14.12.2018	DA
C	EDP UPDATE	14.11.2018	DA
B	EDP UPDATE	12.11.2018	DA
A	ESTATE DEVELOPMENT PLANS	9.11.2018	DA

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Height Datum	AHD	Approved Signature	

Project Name and Location: DICKSON MIXED USE PROJECT
BLOCK 21 SECTION 30 DICKSON ACT

Drawing Title: COVER SHEET, DRAWING INDEX AND LOCALITY PLAN

Project Number	Type	Discipline	Sub-Discipline	Drg No.	Rev
181174	DRG	CIV	GN	0001	D

File Name: P:\2018\181174_B21-S30-Dickson\04_CAD\4.2_Drawings\CIV\181174-drg-civ-gn-0001.dwg

RENZO TONIN & ASSOCIATES
inspired to achieve

Acoustics
Vibration
Structural Dynamics

CGPD DICKSON ACT

Noise Management Plan

17 December 2018

Coles Group Property Development

TJ357-02F01 CGPD Dickson ACT Noise Management Plan (r4)

30 1982 2012 ACOUSTIC EXCELLENCE
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Document details

Detail	Reference
Doc reference:	TJ357-02F01 CGPD Dickson ACT Noise Management Plan (r4)
Prepared for:	Coles Group Property Development
Address:	6 Giffnock Avenue MACQUARIE PARK NSW 2113
Attention:	Ms Rebecca Thomas

Document control

Date	Revision history	Non-issued revision	Issued revision	Prepared	Instructed	Authorised
13.12.2018	Issued for comment	0-2	3	RT	RT	
17.12.2018	Issued		4	RT	RT	RT

Contents

List of tables

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1 Introduction

Renzo Tonin & Associates was engaged to prepare a Noise Management Plan (**NMP**) in respect of a proposed seven storey mixed-use development comprising a Coles supermarket and other ground floor retail tenancies, car parking on two basement levels and on the Level 1 podium, 140 residential units, and other associated works on-site and off-site at Block 21 Section 30 Dickson ACT (**Site**).

This NMP demonstrates how environmental noise pollution will be managed for the Site and details how the proposal will comply with the Environment Protection Act 1997 (the **Act**), Environment Protection Regulation 2005 (the **Regulation**) and other applicable standards and outlines measures to prevent, minimise or control noise impacts.

This NMP has been prepared in accordance with the *"Guidelines for the preparation of Noise Management Plans for development applications"* issued by the ACT Environment Protection Authority, February 2014 (**Guidelines**). In accordance with the Guidelines, an NMP must be prepared by a person suitably qualified in the assessment of environmental noise. The EPA considers full members of the Australian Acoustical Society, listed in the directory of Members Areas of Professional Practice under Environmental Noise, to be suitably qualified. The author of this NMP declares that he has the qualifications required in the Guidelines.

A list of documents referred to in preparing this NMP can be found in the References section of this document.

The work documented in this NMP was carried out in accordance with the Renzo Tonin & Associates Quality Assurance System, which is based on Australian Standard / NZS ISO 9001.

Appendix A contains a glossary of acoustic terms used in this NMP.

2 Description of the development and surrounding sensitive land uses

The proposal is a comprehensive redevelopment of the Site as a single stage including the demolition of all existing structures and removal of regulated trees to accommodate one supermarket, ground floor retail tenancies, 140 residential units with associated communal open space, and replacement public car parking and car parking generated by the development and offsite works including paving and landscaping treatments to Road A, the installation of new street furniture and lighting, and intersection upgrades.

Figure 1 shows the location of the site and surrounding land uses.

The site will generally be built to all boundaries, with the exception of ground level and above where it is set back from the southern and eastern boundaries, with retail activity focused towards Road A as the interface with the rest of the Dickson Group Centre. The residential component will be set against Antill Street and will rise to 24m in height (seven storeys). Two basement car parking levels will be provided. Retail activities will be accommodated on the ground floor including the Coles supermarket and retail tenancies extending across the site. The first floor will also accommodate car parking (podium parking). The second floor incorporates the first level of residential accommodation, communal open space for residents and mechanical plant.

Once the development is completed, a Crown Lease will be issued to Coles Group Property Development Limited (**CGPD**), being the developer of the Site. The draft version of the Crown Lease [1] requires that the uses which are required or may be carried out as part of the proposed development are:

1) there must be a minimum of two supermarkets.

2) there must be:

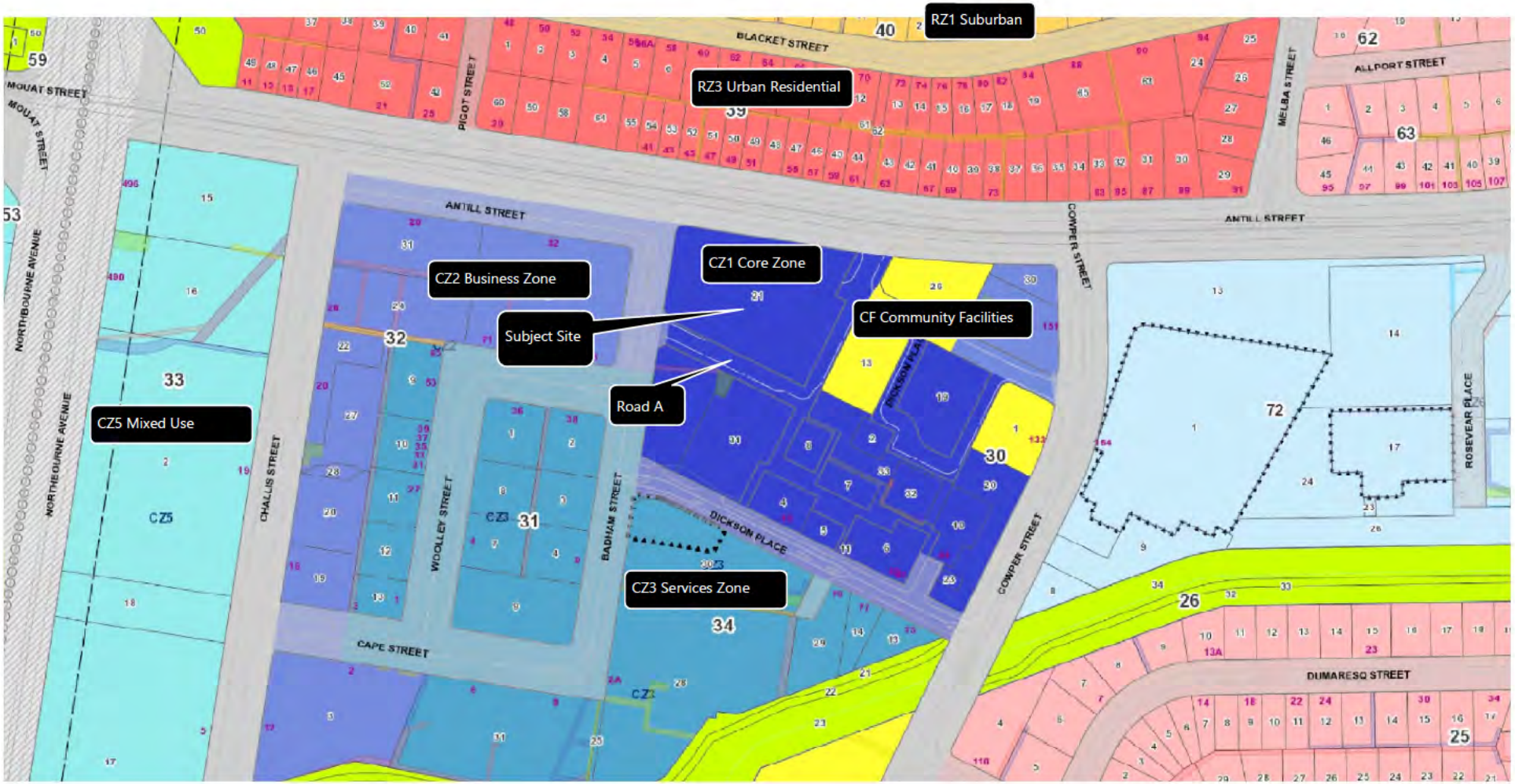
    a) residential use limited to multi-unit housing restricted to the first floor and above; and/or
    b) commercial accommodation use (for example, a hotel) restricted to the first floor and above;

    provided always that the combined number of residential dwellings and commercial accommodation units is not less than 100.

3) and permitting the following additional uses at ground floor level only:

    a) community use;
    b) drink establishment;
    c) non-retail commercial use (excluding office which is limited to 4,000sqm);
    d) pedestrian plaza;
    e) restaurant; and,
    f) shop.

Figure 1: Land zoning in the immediate locality of the subject site



There is only one supermarket proposed for the Site. A variation will therefore be sought by CGPD to amend the requirement in the draft Crown Lease that there be two supermarkets. There is no proposal to incorporate commercial accommodation use on the Site (for example, a hotel). In respect of the ground floor tenancies, other than the supermarket space, the proposal provides for a number of retail tenancies on the ground floor.

Land to the north of Antill Street lies within the residential suburb of Downer. Blocks with immediate frontage to Antill Street are occupied by 1960's two storey duplex residential units and are zoned RZ3 Urban Residential (see Figure 1). Residential blocks on Antill Street are separated from the Site by approximately 39m.[1] Antill Street in this location comprises a dual carriageway with wide verges and a median strip.

Land to the west, on the opposite side of Badham Street, is occupied by a service station and fast food restaurant. Access to both is from Badham Street. To the south lies a McDonalds restaurant with drive through access from Road A, and a Woolworths supermarket.

Land immediately to the east is zoned CF Community Facilities. This is occupied by a health centre on the Antill Street frontage and the Dickson Library on Road A. The Dickson Library comprises a single storey, heritage registered building with its primary address to a small, south facing community courtyard formed by the arrangement of surrounding buildings.

Land further south east is occupied by a mix of one, two and three storey buildings, most of which date from the centre development in the 1960's, with specialty retail on the ground floor and commercial offices above.

There are residential uses on the corner of Challis Street and Antill Street (Block 31 Section 32), Challis Street and Cape Street and in Dumaresq Street, however, these residences are sufficiently separated by distance from the proposed development so as not to be affected by way of noise.

[1] 44.5m separation with respect to the façade of the subject building

3 Applicable noise criteria

This section deals with the applicable noise criteria for the Site and surrounding land as required in the Regulation. The numeric standards in the Regulation are contained in Schedule 2 in terms of "noise zones". In turn, the noise zones are defined in terms of the applicable land zoning. Figure 1 above shows the zoning applicable to the Site and surrounding land.

Of particular note are the RZ3 Urban Residential zone situated opposite the Site on Antill Street and the CF Community Facilities incorporating the Dickson Library to the east of the Site.

The applicable noise standards in relation to these zones are shown in the following table:

Table 1 Applicable noise standards for the zones as defined in the Environment Protection Regulation 2005

column 1 item	column 2	column 3 noise standard (dB(A)) * Monday-Saturday 7am-10pm Sunday and public holiday 8am-10pm	column 4 noise standard (dB(A)) * Monday-Saturday 10pm-7am Sunday and public holiday 10pm-8am
3	Zone C Dickson Group Centre CZ1 CZ2 Business Zone CF	55	45
7	Zone G Urban Residential RZ3	45	35

* Measured as an LA10 for 5 -15 minutes to obtain an accurate representation of the noise 2

In this table, the noise standards (dB(A)) are defined as an LA10,T where T denotes the time of measurement. By way of explanation, when measuring noise that fluctuates over time (such as noise in the loading dock), there is no single number that represents the final noise level because the noise is not constant. Instead, in the ACT, the LA10,T is used to represent the final noise level being the noise level exceeded for 10% of the time of measurement T. The LA10,T represents the typically highest noise levels in the sample and is meant to provide a conservative assessment of noise impact. According to the ACT Noise Measurement Manual [6], T can vary from 5 to 15 minutes depending upon the noise source characteristics.

The compliance point for the Urban Residential RZ3 land is the boundary of the residential land closest to the Site. Similarly, the compliance point for the Dickson Library is at the common boundary of the CZ1 land and the CF land. Similarly, the compliance point for the CZ2 Business Zone to the west of the Site is the boundary of that business zone and the compliance point for the adjacent CZ1 properties to

[2] Section 4.2.4 Environment Protection (Noise Measurement Manual) Approval 2009 (No 1)

the south of the site (notably the McDonalds and Woolworths stores) are the boundaries of those allotments.

3.1 Rule 23 of the Commercial Zones Development Code

The Commercial Zones Development Code sets out in Rule 23 the requirements for noise generating activities within all commercially zoned land as shown in the table below.

Table 2 Requirement in the Commercial Zones Development Code for Element 6: Noise

Element 6: Noise Intent: a) To promote a high level of amenity	
Rules	**Criteria**
6.1 Potentially noisy uses	
R23 This rule applies to any of the following: a) club b) drink establishment c) emergency services facility d) hotel e) indoor recreation facility f) industry (except light industry) g) indoor entertainment facility h) outdoor recreation facility i) restaurant. Development complies with a noise management plan prepared by a suitably qualified person and endorsed by the Environment Protection Authority (EPA). The noise management plan will detail the proposed design, siting and construction methods that will be employed to ensure compliance with the Noise Zone Standard as detailed in the Environment Protection Regulation 2005, based on the estimated noise levels when the facility is in use. Note: A condition of development approval may be imposed to ensure compliance with the endorsed noise management plan.	This is a mandatory requirement. There is no applicable criterion.

As stated in the previous section, in respect of the ground floor tenancies, other than the supermarket space, the application includes a number of retail tenancies on the ground floor. A retail tenancy as proposed in the current development application would not trigger Rule 23.

However, as the draft Crown Lease contemplates the possibility of other uses on the ground floor some of which are listed in Table 2, for the sake of completeness, the noise impact of uses such as a restaurant or drink establishment (being the worst case noise producing uses) is considered in this NMP.

3.2 Rule 60 of the Commercial Zones Development Code

This is also a requirement in the Commercial Zones Development Code to have regard to noise impact generated from the Site to the multi-unit housing proposed on the Site. The relevant requirement is Rule 60 as outlined in the following table:

Table 3 Requirement in the Commercial Zones Development Code for Element 19: Residential development

Element 19: Residential development Intent: a) To provide opportunities for higher density residential development, while protecting existing commercial uses and the amenity of residents living in commercial zones.	
Rules	**Criteria**
19.2 Multi unit housing	
R60 Multi unit housing or residential components of commercial mixed use complies with the Residential Zones- Multi Unit Housing Development Code.	This is a mandatory requirement. There is no applicable criterion.

The pertinent requirement in the Residential Zones - Multi Unit Housing Development Code is Rule 67 which is shown in Table 4 below.

Table 4 Requirement in the Multi Unit Housing Development Code for section 6.9 Noise attenuation – external sources

Rules	Criteria
6.9 Noise attenuation – external sources	
R67 Where a block has one or more of the following characteristics: i) identified in a precinct code as being potentially affected by noise from external sources ii) adjacent to a road carrying or forecast to carry traffic volumes greater than 12,000 vehicles per day iii) located in a commercial zone iv) adjacent to a commercial or industrial zone dwellings shall be constructed to comply with the relevant sections of all of the following: a) AS/NZS 2107:2000 - Acoustics - Recommended design sound levels and reverberation times for building interiors (the relevant satisfactory recommended interior design sound level) b) AS/NZS 3671 - Acoustics – Road Traffic Noise Intrusion Building Siting and Design. For other than road traffic noise, compliance with this rule is demonstrated by a noise management plan, prepared by a member of the Australian Acoustical Society with experience in the assessment of noise and endorsed by the EPA. For other than road traffic noise, the noise level immediately adjacent to the dwelling is assumed to be the relevant noise zone standard specified in the ACT Environment Protection Regulation 2005. For road traffic noise, compliance with this rule is demonstrated by an acoustic assessment and noise management plan, prepared by a member of the Australian Acoustical Society with experience in the assessment of road traffic noise, and endorsed by the Transport Planning & Projects Section in ESDD and endorsed by the ACT Government entity responsible for Transport Planning. Note: A condition of development approval may be imposed to ensure compliance with the endorsed noise management plan.	This is a mandatory requirement. There is no applicable criterion.

The first requirement in this Rule is that if the Site has any one or more of the characteristics identified as i)-iv) in the table above, this triggers the requirement to design the dwelling so as to comply with

AS/NZS 2107:2000 - Acoustics - Recommended design sound levels and reverberation times for building interiors and *AS/NZS 3671 - Acoustics – Road Traffic Noise Intrusion Building Siting and Design*.

Pertinently, Antill Street currently carries 16,863 vehicles per day therefore triggering the first requirement.[3]

The second requirement is that a noise management plan must be prepared demonstrating compliance with the Rule.

Australian Standard 2107:2000 Recommended design sound levels and reverberation times for building interiors (**AS2107:2000**) recommends design criteria for building interiors based upon the function of each occupancy. The sound levels are to apply to a fully fitted out and completed building, but excluding occupant noise. The Standard is applicable to steady-state or quasi-steady state sounds such as mechanical services equipment and road traffic noise intrusion, but not intended for transient or variable sources such as aircraft noise, railways and construction noise. It is noted that AS2107:2000 has recently been updated in 2016 [4], however, as the 2016 version is not specified in Rule 67 it will not be referred to.

AS/NZS 3671:1989 - Acoustics – Road Traffic Noise Intrusion Building Siting and Design (**AS3671:1989**) provides guidelines for determining the type of building construction necessary to achieve acceptable noise levels indoors, as recommended in AS2107:2000 for different occupancies.

The principal noise sources affecting the residential building constructed on Level 2 and above on the Site are a) noise associated with traffic on Antill Street, b) noise from mechanical plant servicing the building, particularly the supermarket and c) noise from activities associated with restaurants and drinking establishments on the ground floor (should those uses eventuate in the future).

Table 5 below shows the applicable noise criteria for building spaces associated with residential accommodation. In particular, the categories " Houses and apartments near major roads" would apply in this instance as Antill Street carries more than 12,000 vpd and would therefore be classified as a major road.

[3] Email correspondence from Northrop traffic consultant. The figure is the average daily weekday traffic for Antill Street from Monday 22/10/2018 to Sunday 4 November 2018 combined both directions and all lanes.

[4] AS/NZS 2107:2016 Acoustics - Recommended design sound levels and reverberation times for building interiors

Table 5: AS2107 Recommended design sound levels for different areas of occupancy in buildings

Type of occupancy/ activity	Recommended design sound level, L_{Aeq}, dB(A)		Recommended reverberation time (T),s
	Satisfactory	Maximum	
7 RESIDENTIAL BUILDINGS (see Note 7 and Clause 5.2)			
Houses in areas with negligible transportation -			
Sleeping areas	25	30	-
Houses and apartments near minor roads -			
Living areas	30	40	-
Sleeping areas	30	35	-
Work areas	35	40	-
Apartment common areas (e.g. foyer, lift lobby)	45	55	See Note 3
Houses and apartments near major roads -			
Living areas	35	45	-
Sleeping areas	30	40	-
Work areas	35	45	-
Apartment common areas (e.g. foyer, lift lobby)	45	55	See Note 3

NOTES:

* See Appendix A of AS2107:2000

1. The recommended design sound levels are for a fully fitted out and completed building. Attention is drawn to the additive noise effect of many machines within the same area and adjacent areas. Allowance for the total number and type of noise sources should therefore be made in the selection of equipment and in the design of building spaces. A building owner or developer may consider an allowance of 3-5 dB(A) to be appropriate.
2. Recommended reverberation time is 10 percent to 20 percent higher than Curve 1 of Appendix A.
3. Reverberation time should be minimized as far as practicable for noise control.
4. Certain teaching spaces, including those intended for students with learning difficulties and students with English as a second language, should have reverberation times at the lower end of the specified range.
5. Specialist advice should be sought for these spaces.
6. A very wide range of noise levels can occur in the occupied state in spaces housing manufacturing processes, and the levels are primarily subject to control as part of a noise management program (see AS/NZS 1269.2). The possibilities for segregating very noisy processes from quieter ones by partitioning vary between particular industries and plants. For reasons such as these, it is difficult to make generalized recommendations for desirable, or even maximum, design levels for the unoccupied state, but one guiding principle may still be observed - when the activity in one area of a manufacturing plant is halted, it is desirable that the local level should if possible drop to 70 dB(A) or lower to permit speech communication without undue effort.
7. In situations where traffic noise levels may vary widely over a 24-hour period, measurements to assess compliance with this Standard should be taken at the relevant time and for an appropriate measurement period according to the area of occupancy or activity in the building. Where traffic noise fluctuates rapidly with the passage of individual vehicles, the community reaction may not correlate well with the equivalent continuous noise level as measured.
8. The overall sound pressure level in dB(A) should conform to the recommended design sound level given in Table 1. In these spaces, a balanced sound pressure level across the full frequency range is essential. These spaces should therefore be evaluated in octave bands across the full frequency spectrum. The recommended maximum sound pressure levels for the individual octave bands corresponding to the overall dB(A) value are given in Appendix C.
9. In spaces in which high quality sound recordings are to be made, the levels set for low frequency octave bands should not be exceeded (see Appendix C). Subsequent replay of the recordings may cause an amplification of the ambient sound resulting in an overemphasis of its low-frequency components. Specialist advice should always be sought when these spaces are being designed. In some circumstances, for purposes of very high quality recording, lower levels than those specified in Table 1 may be required.

Rule 67 states that it is the "satisfactory recommended interior design sound level" that shall be complied with.

It is noted that the noise criteria are expressed in terms of LAeq rather than the previously discussed LA10,T. By way of explanation, the LAeq is an energy average of the varying noise level over time. Whilst the standard does not specify the time of averaging, in this NMP, the times 7am to 10pm for day-time and 10pm-7am for night time (which are the relevant time periods adopted in NSW) are used for living areas and sleeping areas respectively.

Therefore, the following criteria apply in respect of the residential component of the Site.

Table 6: AS2107 Recommended satisfactory design sound levels for residential apartments on the Site

Type of occupancy/ activity	Recommended satisfactory design sound level, LAeq,T dB(A) 7:00am-10:pm living and work areas 10:00pm-7:00am sleeping areas
Residential apartments -	
Living areas	35
Sleeping areas	30
Work areas	35
Apartment common areas (e.g. foyer, lift lobby)	45

As the predominant noise path of external noise into the residential units is via the exterior glazing, these requirements are to be complied with by appropriate choice of glazing thickness.

3.3 General environmental duty

Under Section 22 of the Act, there is a general environmental duty which requires all people to take practicable and reasonable steps to prevent or minimise any environmental harm or environmental nuisance their actions may cause.

This would include the use of the supermarket loading dock located on Antill Street which is specifically assessed in this NMP.

4 Acoustic assessment of use of the Site with the noise criteria

The following noise issues are assessed as being pertinent to compliance of the site with the noise criteria discussed in the previous section:

a. Noise from use of the loading dock at the residences located opposite the road on Antill Street and at the residential units situated above the loading dock on Level 2 and above;

b. A design for the external glazing for the residential building to comply with Rule 67 of the Multi Unit Housing Development Code;

c. Noise from mechanical plant servicing the building; and,

d. Noise from use of restaurants and drinking establishments on the ground floor (should those uses eventuate in the future).

4.1 Noise from use of the loading dock

Noise from the loading dock comprises noise from trucks manoeuvring in the dock, engine starts, doors closing, the sound of exhaust brakes, the sound of reversing beepers and noise from loading and unloading trucks. This type of activity is quite complex and therefore, to quantify the noise levels, a noise survey was conducted of an operating loading dock at Coles West Ryde, NSW.

The Coles West Ryde development is relevant not only because it is a similar sized store having a net lettable area of 3,467sqm, compared with the Coles supermarket at the Site which is 3,833sqm, but also because it is also a 7 storey mixed use building with the number of residential apartments being in excess of the proposed Dickson development.

The survey was conducted from Thursday 3 November to Tuesday 8 November 2016. The results of all dock movements (with motor vehicle movements omitted) are annexed hereto in Appendix B. The microphone was located at a level of 3.5m above the floor at a point just inside the dock adjacent to the wall separating the entry and exit to the dock. At this point, the microphone is located very close to truck exhausts on entry and on exit and not representative of noise emitted when averaged over the loading dock openings. An allowance is made in the subsequent calculations to account for this.

The noise survey includes multiple instances of more than one truck using the loading dock at any one time.

The eight highest noise levels in Appendix B denoted by a "marker" were analysed, each over a period of 15 minutes to determine the LA10,15min noise level within the dock. The following results were obtained:

Table 7 Measured dock noise levels, Coles West Ryde NSW

Marker Number	Start Date and Time	Duration hh:mm:ss	LAeq,T	LA10,T
Marker 1	4/11/2016 10:56 AM	0:14:59	75.7	84.1
Marker 2	5/11/2016 11:30 AM	0:15:00	73.5	79.6
Marker 3	6/11/2016 11:25 AM	0:15:00	73.1	79.8
Marker 4	7/11/2016 8:54 AM	0:15:00	73.7	79.8
Marker 5	7/11/2016 5:05 PM	0:15:00	75.7	80.9
Marker 6	8/11/2016 10:00 AM	0:15:00	76.5	81.5
Marker 7	8/11/2016 12:12 PM	0:05:00	77.8	82.4
Marker 8	9/11/2016 10:15 AM	0:15:00	75.4	80.9

From this information, the noise levels at the nearest RZ3 receiver located on the opposite side of Antill Street and at the residential unit above the dock on Level 2 can be determined as shown in Table 8 below.

In this table, it is assumed that acoustic absorption material is installed in the loading dock as specified in this NMP. There was no acoustic absorption installed at the Coles West Ryde loading dock.

In respect of the RZ3 residential receivers on the opposite side of Antill Street, the predicted LA10,T noise level of 43.5dB(A) at the compliance point complies with the day-time noise standard of 45dB(A) but not with the night-time noise standard of 35dB(A).

In respect of the residential units on Level 2 and above on the subject Site (being in the CZ1 zone), the predicted LA10,T noise level of 53.5dB(A) on the balcony of the nearest unit complies with the day-time noise standard of 55dB(A).

It is therefore concluded that noise from the loading dock will comply with the zone standards provided that the loading dock hours are restricted to Monday-Saturday 7am-10pm and Sunday and public holidays 8am-10pm and that acoustic absorption material is installed within the loading dock as specified in this NMP.

Table 8 Calculated LA10,T loading dock noise level at the nearest residential and residential receivers

Item	Input Value	dB(A)
RZ3 Receiver		
Average LA10,15min		81.1
Correction for mic distance *		-5.0
Power Area (m)	86.4	19.4
Inside to outside correction		-6
Sound abs treatment to loading dock		-5
Distance to receiver (m)	44.5	
Distance Correction		-40.9
LA10,15min at RZ3 Receiver		43.5
Residential unit above dock		
Average LA10,15min		81.1
Correction for mic distance *		-5.0
Power Area (m)	86.4	19.4
Inside to outside correction		-6
Sound abs treatment to loading dock		-5
Additional Distance Correction		-6.0
Power to Pressure Conversion (measured value obtained from internal study of noise attenuation between adjacent balconies of residential apartments)		-25.0
LA10,15min at balcony of residential unit above		53.5

* see explanation in second paragraph of Section 4.1 regarding microphone location

4.2 Design of external glazing for the residential building

The design of the external glazing for the residential building in accordance with AS2107:2000 and AS3671:1989 requires the measurement of noise levels external to the proposed building at the location of the most exposed building facades. For this purpose, a noise survey was conducted at two locations denoted as M1 and M2 in Figure 2 below.

Location M1 was chosen to represent the northern façade of the residential building which is most exposed to noise from traffic on Antill Street. The noise monitoring instrument was located 4.2m above ground level on a street lighting pole.

Location M2 was chosen to represent the southern façade of the residential building which is shielded from traffic noise from Antill Street. The noise monitoring instrument was located on top of the awning of the Commonwealth Bank building.

Figure 2: Aerial image of Site showing surrounding residential and commercial properties and noise monitoring locations (M1 and M2)

The equipment used for noise measurements was an RTA Technology RTA07 noise logger which is based on an NTi Audio Type XL2 precision sound level analyser which is a class 1 instrument having accuracy suitable for field and laboratory use. The instrument was calibrated prior and subsequent to measurements using a Bruel & Kjaer Type 4231 calibrator. No significant drift in calibration was observed. All instrumentation complies with IEC 61672 (parts 1-3) '*Electroacoustics - Sound Level Meters*' and IEC 60942 '*Electroacoustics - Sound calibrators*' and carries current NATA certification.

The noise survey was conducted from Saturday 29th October to Sunday 6th November 2016. The results of the noise measurements are annexed hereto in Appendix C. Meteorological data from the AWS at Canberra Airport was used to remove incidences of rain and wind speeds greater than 5m/sec at the microphone.

Columns 2 and 3 in Table 9 show the measured external noise levels. Columns 4 and 5 the satisfactory design sound levels for internal each space and columns 6 and 7 the required sound reduction index Rw of the glazing. The Rw is a measure of the sound insulation performance of the glazing, a higher value meaning a high standard of sound insulation.

Columns 8 and 9 show the available glazing options for the facades.

Table 9 Design glazing options for residential building constructed on the Site

1	2	3	4	5	6	7	8	9
Facade	External facade sound level		AS2107 satisfactory design sound level		Rw		Glazing options	
	LAeq (15hr)	LAeq (9hr)	Day	Night	Day	Night		
			Living areas	Sleeping areas	Living areas	Sleeping areas	Living areas	Sleeping areas
Northern façade facing Antill St and Western and Eastern facades	64	58	35	30	35	34	12.38mm lam glass or 8.8mm Optiphon	10.38mm lam glass or 8.8mm Optiphon
South façade	51	50	35	30	22	26	6mm float glass	6mm float glass

It is concluded that the design of glazing for the residential building proposed on the Site is able to comply with Rule 60 of the Commercial Zones Development Code and Rule 67 of the Residential Zones - Multi Unit Housing Development Code.

4.3 Noise from mechanical plant

Level 2 of the podium building will accommodate three plantrooms including the Coles plant, carpark exhausts and retail plant. The most significant of these is the Coles plant which is located on the southern façade of the podium.

The Coles plant is similar in concept to the Coles West Ryde NSW installation, including banks of horizontally mounted condenser fans in the enclosed plant room on Level 1 of the building (instead of

Level 2 as proposed in the subject development) with acoustic louvres and acoustic lining fitted to the walls and underside of the roof.

The nearest affected sensitive receivers are the McDonalds site opposite the proposed Coles plant and the southern oriented suites of the residential building. The following is a calculation of the predicted noise levels at both locations.

Table 10 Calculated LA10,15min noise level from mechanical plant

Location	Item	Variable	LA10,15min
Residential suite			
	LA10,15min inside plant room		80
	Area of louvres (sqm)	72	
	PWL correction		18.6
	Louvre insertion loss		-22
	Barrier insertion loss		-15
	Distance to south façade (m)	24	
	Distance correction		-35.6
	LA10,15min on balcony		26
	Rw 6mm float glass		-28
	Room correction		6
	LA10,15min inside room		4
McDonalds site boundary			
	LA10,15min inside plant room		80
	Area of louvres	72	
	PWL correction		18.6
	Louvre insertion loss		-22
	Distance to boundary (m)	22.4	
	Distance correction		-35.0
	LA10,15min at site boundary		42

The first part of Table 10 shows the predicted noise level outside a residential suite is 26dB(A) which complies with the noise standard for Zone C1 of 45dB(A) at night-time with a comfortable margin and will obviously comply in the day-time. Therefore, noise from the Coles plant and the car park exhausts can be designed so as not to exceed the noise standard with all plant operating.

The internal noise level within a residential suite is 4dB(A) which is insignificant compared with the acceptable recommended design sound level for residential units is 30dB(A) for the night-time.

The second part of Table 10 shows that the noise level predicted at the nearest site boundary (being Mcdonalds) is 42 LA10,T which is 3dB below the noise standard for Zone C1 of 45dB(A) at night-time and will obviously comply in the day-time. Therefore, noise from the Coles plant and the car park exhausts can be designed so as not to exceed the noise standard with all plant operating.

It is concluded that noise from mechanical plant can be designed with appropriate noise control treatment to comply with the zone standards at the nearest affected receivers.

4.4 Noise from use of future drink establishments and restaurants on the ground floor

As stated in Section 3.1 above, as the draft Crown Lease contemplates the possibility of other uses on the ground floor some of which are listed in Table 2, for the sake of completeness, the noise impact of uses such as a restaurant or drink establishment (being the worst case noise producing uses) is considered in this NMP.

A number of scenarios are therefore warranted for consideration. However, of those scenarios where the use of a future restaurant or drink establishment is confined totally indoors, then noise emission from the premises may be controlled by appropriate use of glazing and, in special circumstances, air-locks.

The most significant noise emissions would occur from use of the outside footpath as a drinking or dining area (in a drink establishment or restaurant). In this case, the nearest potentially affected receiver is the Dickson Library in the CF zone.

The following table shows the predicted LA10,15min noise level from the use of the footpath for outside dining:

Table 11 Calculated LA10,15min noise level from outside patrons in restaurant situation

Item	Variable	dB(A)
LA10,15min PWL per patron for outside restaurant		71.0
Patrons outside (no)	18	
Correction for Patrons		12.6
Distance to library (m)	15	
Distance correction		-28.5
LA10,15min at library		55

The predicted noise level of 55dB(A) will comply with the applicable noise limit for Zone CF of 55dB(A) in the day-time but will not comply in the night-time. On the assumption that the boundary noise levels must be complied with whether or not the Library operates at night-time, then the use of outdoor

dining must be confined to the day-time hours Monday-Saturday 7am-10pm and Sunday and public holidays 8am-10pm.

It is therefore concluded that noise from the use of restaurants or drink establishments (should those uses eventuate in the future) will comply with the zone standards provided that:

a. high noise level uses (such as amplified music) are confined indoors and appropriate treatment is provided to the glazing and doors; and,

b. any outdoor dining is restricted to Monday-Saturday 7am-10pm and Sunday and public holidays 8am-10pm.

This is advice in principle because the precise nature or location of any restaurant or drink establishment is not known at this time. In any event, a noise management plan should be prepared at the time of lodging any development consent for such uses.

5 Recommendations

The following recommendations are made:

1. The supermarket loading dock hours shall be restricted to Monday-Saturday 7am-10pm and Sunday and public holidays 8am-10pm.

2. Acoustic absorption material shall be installed to 100% of the soffit of the loading dock. The acoustic absorption material shall have a minimum NRC 0.9 equivalent to CSR Martini Omega 50 having a protective acoustically transparent facing.

3. The following glazing shall be used in the residential building constructed on the Site.

Table 12 - Recommended Glazing Treatment for residential building constructed on the Site

Line No	Facade / Orientation	Occupancy	Glazing Thickness and Type	Acoustic Rating of Glazing Assembly Rw	Laboratory Test Reference
1	Northern façade facing Antill St and Western and Eastern facades	Living Areas	12.38mm lam glass or 8.8mm Optiphon	35	ESTIMATE
2		Sleeping Areas	10.38mm lam glass or 8.8mm Optiphon	34	ESTIMATE
3	South façade	Living Areas	6mm float glass	26	ESTIMATE
4		Sleeping Areas	6mm float glass	26	ESTIMATE

The term "glazing assembly" means the glass, frame and seals including the perimeter seal at the wall junction.

The specified Rw rating must be achieved by the glazing product specified or selected.

The Weighted sound reduction index Rw is a measure of the noise reduction property of a partition, a higher rating implying a higher sound reduction performance.

Note that the Weighted apparent sound reduction index R'w of systems measured in-situ may be up to 5 points lower than the laboratory result.

The glazing thicknesses specified in this table are a minimum value. The advice provided here is in respect of acoustics only. Specialist advice should be sought in respect to wind loading, waterproofing and structural requirements etc.

LEGEND where there is no Laboratory Test Reference:

ESTIMATE: The client is advised not to commence detailing or otherwise commit to glazing assemblies which have not been tested in an approved laboratory or for which an opinion only is available. Testing of glazing assemblies is a component of the quality control of the design process and should be viewed as a priority because there is no guarantee the forecast results will be achieved thereby necessitating the use of an alternative which may affect the cost and timing of the project. No responsibility is taken for use of or reliance upon untested glazing assemblies, estimates or opinions.

ESTIMATE – APPROVED FOR CONSTRUCTION: Use of the glazing assembly is approved prior to laboratory certification. To complete the quality control of the design process and confirm the acoustical performance of the glazing assembly, we recommend testing in a laboratory to confirm the Rw rating as soon as practicable.

ESTIMATE – TEST NOT REQUIRED: Use of the glazing assembly is approved without laboratory certification. The Rw of the form of construction exceeds the project requirements.

4. Acoustic treatment to mechanical plant shall be designed so as to ensure that noise emitted from the Site when all plant is operating will comply with the applicable statutory noise standards as outlined in this report

6 Conclusion

This Noise Management Plan (**NMP**) has been prepared to address noise impact potentially associated with a proposal to construct a seven-storey mixed-use development comprising a Coles supermarket and other ground floor retail tenancies, podium car parking, 140 residential units, and other associated works on-site and off-site at Block 21 Section 30 Dickson ACT.

The NMP addresses the applicable noise criteria for the Site and surrounding land as required in the ACT Environment Protection Regulation 2005.

The NMP has had regard to Rule 23 and Rule 60 of the Commercial Zones Development Code as applying to development on the Site and Rule 67 of the Multi Unit Housing Development Code and has established the appropriate noise criteria for affected receivers.

The NMP examines compliance of use of the site with the noise criteria and concludes as follows:

i. noise from the loading dock is predicted to comply with the zone standards provided that the loading dock hours are restricted to Monday-Saturday 7am-10pm and Sunday and public holidays 8am-10pm and that acoustic absorption material is installed within the loading dock as specified in this NMP.

ii. the design of glazing for the residential building proposed on the Site will comply with Rule 60 of the Commercial Zones Development Code and Rule 67 of the Residential Zones - Multi Unit Housing Development Code.

iii. noise from mechanical plant can be designed with appropriate noise control treatment to comply with the zone standards at the nearest affected receivers.

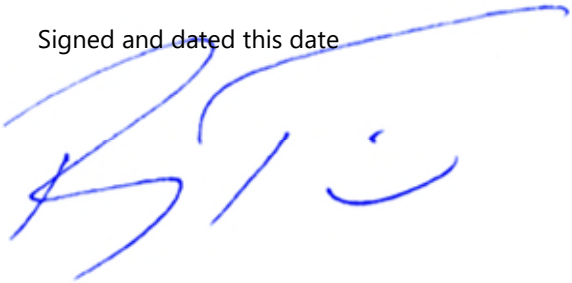
iv. noise from alternative use of the retail shops (such as restaurant or drink establishment use) is predicted to comply with the zone standards provided that:

- High noise level uses (such as amplified music) are confined indoors and appropriate treatment is provided to the glazing and doors; and,
- any outdoor dining is restricted to Monday-Saturday 7am-10pm and Sunday and public holidays 8am-10pm.

However, a specific noise management plan should be prepared if there is a change of use for any of those retail tenancies in the future.

It is concluded that the proposal by Coles Group Property Developments Ltd to construct a seven-storey mixed-use development comprising of a Coles supermarket and other ground floor retail tenancies is predicted to comply with the requirements of the ACT Environment Protection Regulation 2005, the Commercial Zones Development Code and the Multi Unit Housing Development Code provided the recommendations in this report are implemented.

Signed and dated this date



Renzo Tonin

References

[1] Crown Lease. Annexure A3 Leases Plan and List. Dickson Section 30 Block 21 dated 21.02.2014

[2] Set of architectural plans prepared by Turner Architects dated 13.11.18 and 07.12.18

[3] Traffic Impact Assessment - Block 21, Section 30 Dickson ACT. Northrop Consulting Engineers. 14.11.2018

[4] Statement against relevant criteria - Block 21, Section 30 Dickson. Knight Frank. 14.11.2018

[5] Development Plan Design Response Report - - Block 21, Section 30 Dickson. Knight Frank. 14.11.2018

[6] ACT Environment Protection (Environment Protection (Noise Measurement Manual) Approval 2009 (No 1) (**Noise Measurement Manual**)

APPENDIX A Glossary of terminology

The following is a brief description of the technical terms used to describe noise to assist in understanding the technical issues presented.

Adverse weather	Weather effects that enhance noise (that is, wind and temperature inversions) that occur at a site for a significant period of time (that is, wind occurring more than 30% of the time in any assessment period in any season and/or temperature inversions occurring more than 30% of the nights in winter).
Ambient noise	The all-encompassing noise associated within a given environment at a given time, usually composed of sound from all sources near and far.
Assessment period	The period in a day over which assessments are made.
Assessment point	A point at which noise measurements are taken or estimated. A point at which noise measurements are taken or estimated.
Background noise	Background noise is the term used to describe the underlying level of noise present in the ambient noise, measured in the absence of the noise under investigation, when extraneous noise is removed. It is described as the average of the minimum noise levels measured on a sound level meter and is measured statistically as the A-weighted noise level exceeded for ninety percent of a sample period. This is represented as the L90 noise level (see below).
Decibel [dB]	The units that sound is measured in. The following are examples of the decibel readings of every day sounds: 0dB The faintest sound we can hear 30dB A quiet library or in a quiet location in the country 45dB Typical office space. Ambience in the city at night 60dB CBD mall at lunch time 70dB The sound of a car passing on the street 80dB Loud music played at home 90dB The sound of a truck passing on the street 100dBThe sound of a rock band 115dBLimit of sound permitted in industry 120dBDeafening
dB(A)	A-weighted decibels. The A- weighting noise filter simulates the response of the human ear at relatively low levels, where the ear is not as effective in hearing low frequency sounds as it is in hearing high frequency sounds. That is, low frequency sounds of the same dB level are not heard as loud as high frequency sounds. The sound level meter replicates the human response of the ear by using an electronic filter which is called the "A" filter. A sound level measured with this filter switched on is denoted as dB(A). Practically all noise is measured using the A filter.
dB(C)	C-weighted decibels. The C-weighting noise filter simulates the response of the human ear at relatively high levels, where the human ear is nearly equally effective at hearing from mid-low frequency (63Hz) to mid-high frequency (4kHz), but is less effective outside these frequencies.
Frequency	Frequency is synonymous to pitch. Sounds have a pitch which is peculiar to the nature of the sound generator. For example, the sound of a tiny bell has a high pitch and the sound of a bass drum has a low pitch. Frequency or pitch can be measured on a scale in units of Hertz or Hz.
Impulsive noise	Having a high peak of short duration or a sequence of such peaks. A sequence of impulses in rapid succession is termed repetitive impulsive noise.
Intermittent noise	The level suddenly drops to that of the background noise several times during the period of observation. The time during which the noise remains at levels different from that of the ambient is one second or more.
L_{Max}	The maximum sound pressure level measured over a given period.
L_{Min}	The minimum sound pressure level measured over a given period.

L_1	The sound pressure level that is exceeded for 1% of the time for which the given sound is measured.
L_{10}	The sound pressure level that is exceeded for 10% of the time for which the given sound is measured.
L_{90}	The level of noise exceeded for 90% of the time. The bottom 10% of the sample is the L90 noise level expressed in units of dB(A).
L_{eq}	The "equivalent noise level" is the summation of noise events and integrated over a selected period of time.
Reflection	Sound wave changed in direction of propagation due to a solid object obscuring its path.
SEL	Sound Exposure Level (SEL) is the constant sound level which, if maintained for a period of 1 second would have the same acoustic energy as the measured noise event. SEL noise measurements are useful as they can be converted to obtain Leq sound levels over any period of time and can be used for predicting noise at various locations.
Sound	A fluctuation of air pressure which is propagated as a wave through air.
Sound absorption	The ability of a material to absorb sound energy through its conversion into thermal energy.
Sound level meter	An instrument consisting of a microphone, amplifier and indicating device, having a declared performance and designed to measure sound pressure levels.
Sound pressure level	The level of noise, usually expressed in decibels, as measured by a standard sound level meter with a microphone.
Sound power level	Ten times the logarithm to the base 10 of the ratio of the sound power of the source to the reference sound power.
Tonal noise	Containing a prominent frequency and characterised by a definite pitch.

APPENDIX B Loading dock noise survey at Coles West Ryde NSW

Vision Logger - Truck Identification			
Coles, West Ryde - Loading Dock			
Date	Time	Truck type	Activity
3/11/2016	21:13:18	Small rigid (2 axles)	Entering loading dock via Chatham Rd
	21:45:42		Engine starting inside loading dock
	21:46:18		Leaving loading dock towards Anthony Rd
4/11/2016	3:46:24	Small rigid (2 axles)	Entering loading dock via Anthony Road
	3:47:04		Truck IDLING in the middle of the loading dock while unloading
	3:49:02		Moving payload on pallets with 4-wheeled trolley
	3:51:58		Leaving towards Chatham Rd
4/11/2016	4:36:35	Rubbish truck (rear loader)	Entering loading dock via Chatham Rd
	4:36:44		Reversing towards camera
	4:37:37		Rubbish dumping and crushing
	4:39:31		Leaving towards Anthony Rd
4/11/2016	4:40:59	Rubbish truck (rear loader)	Entering loading dock via Chatham Rd
	4:41:09		Reversing towards camera
	4:41:36		Rubbish dumping and crushing
	4:45:55		Leaving towards Anthony Rd
4/11/2016	5:04:35	Small rigid (2 axles)	Entering loading dock via Chatham Rd
	5:04:53		Reversing towards loading bay
	5:05:39		Unloading procedure
	5:23:49		Leaving towards Anthony Rd
4/11/2016	6:07:57	Small rigid (2 axles)	Entering loading dock via Anthony Rd and reverse to loading bay
	6:13:35		Unloading procedure
	6:25:47		Leaving towards Anthony Rd
4/11/2016	6:41:55	Small rigid (2 axles)	Entering loading dock via Chatham Rd
	6:42:43		Unloading procedure, payload moved with motorised trolley
	7:12:21		Leaving towards Anthony Rd
4/11/2016	7:45:44	Rubbish truck (rear loader)	Entering loading dock via Chatham Rd and reverse towards camera
	7:46:41		Rubbish dumping and crushing

Vision Logger - Truck Identification				
Coles, West Ryde - Loading Dock				
Date	Time	Truck type	Activity	
	7:48:08		Leaving towards Anthony Rd	
4/11/2016	8:56:51	Heavy rigid (4 axles)	Entering loading dock via Chatham Rd and reverse to loading bay	
	9:01:05		Unloading procedure	
	9:23:33		Leaving (camera has been bumped, no clear vision of road)	
4/11/2016	10:42:17	Small rigid 1 (2 axles)	Entering loading dock via Chatham Rd and reverse to loading bay	
	10:42:31	Small rigid 2 (2 axles)	Second truck arrives at loading dock, parked outside on driveway	
	10:45:41	Small rigid 2 (2 axles)	Second truck leaves loading dock	
	10:47:11	Small rigid 1 (2 axles)	First truck leaves loading dock	
4/11/2016	11:03:43	Semi trailer (Linfox 1, Volvo, 5 axles)	Entering loading dock via Anthony Rd	MARKER 1
	11:04:03	Semi trailer (Linfox 1, Volvo, 5 axles)	Starting numerous reversing movements to align with loading bay	
	11:06:29	Semi trailer (Linfox 1, Volvo, 5 axles)	Finish reversing movements and start unloading procedure	
	11:20:15	Semi trailer (Linfox 2, Freightliner, 5 axles)	Entering loading dock via Anthony Rd, parked on driveway waiting for first truck to finish unloading payload	
	11:28:41	Semi trailer (Linfox 1, Volvo, 5 axles)	Linfox 1 leaves loading dock	
	11:30:43	Semi trailer (Linfox 2, Freightliner, 5 axles)	Linfox 2 enters loading dock	
	11:31:40	Semi trailer (Linfox 2, Freightliner, 5 axles)	Numerous reversing movements to align with loading bay	
	11:34:31	Semi trailer (Linfox 2, Freightliner, 5 axles)	Finish reversing movements and start unloading procedure	
	11:48:33	Small rigid (2 axles)	Small rigid enters loading dock and reverses to park next to Linfox 2	
	11:51:43	Small rigid (2 axles)	Small rigid leaves loading dock	
	12:15:15	Semi trailer (Linfox 3, Volvo, 5 axles)	Linfox 3 enters loading dock, waiting for Linfox 2 to finish unloading	
	12:38:31	Semi trailer (Linfox 2, Freightliner, 5 axles)	Linfox 2 leaves loading dock and Linfox 3 begins movements to align with loading bay to begin unloading procedure	
	13:15:35	Hiace van	Hiace van arrives to deliver parcel	
	13:23:29	Semi trailer (Linfox 3, Volvo, 5 axles)	Linfox 3 leaves	
	13:30:11	Hiace van	Hiace van leaves	
4/11/2016	17:11:54	Rubbish truck (rear loader)	Entering loading dock and reverse towards camera	
	17:13:30		Rubbish dumping and crushing	
	17:16:46		Leaving loading dock	
5/11/2016	4:09:22	Medium rigid	Entering loading dock, followed by reversing to loading bay and unloading procedure	
	4:22:00		Leaving loading dock	
5/11/2016	4:54:18	Medium rigid	Entering loading dock, followed by reversing to loading bay and unloading procedure	

Vision Logger - Truck Identification				
Coles, West Ryde - Loading Dock				
Date	Time	Truck type	Activity	
	5:08:24		Leaving loading dock	
5/11/2016	8:46:50	Heavy rigid	Entering loading dock, followed by reversing to loading bay	
	8:48:38		Unloading procedure	
	9:08:40		Leaving loading dock	
5/11/2016	10:12:22	Medium rigid (3 axles)	Entering loading dock, followed by reversing to loading bay	
	10:14:28		Unloading procedure	
	10:36:06		Leaving loading dock	
5/11/2016	11:04:56	Medium rigid (3 axles)	Entering loading dock, followed by multiple reversing manoeuvres to align with loading bay	MARKER 2
	11:12:10	Medium rigid (3 axles)	Unloading procedure	
	11:28:14	Hiace van	Van arrives to loading dock while truck is unloading payload	
	11:35:16	Medium rigid (3 axles)	Leaving loading dock	
	11:35:44	Semi trailer (Linfox 1, Volvo, 5 axles)	Entering loading dock, followed by multiple reversing manoeuvre to align with loading bay	
	11:38:42	Semi trailer (Linfox 1, Volvo, 5 axles)	Unloading of Linfox procedure	
	11:43:48	Hiace van	Van leaves loading dock	
	12:05:28	Semi trailer (Linfox 2, 5 axles)	Entering loading dock, parked on drive way while waiting for Linfox 1 to finish unloading	
	12:05:28	Mercedes van	A mercedes van arrived at the same time as Linfox 2	
	12:43:04	Semi trailer (Linfox 1, Volvo, 5 axles)	Leaving loading dock	
	12:44:20	Semi trailer (Linfox 2, 5 axles)	Linfox 2 moves to position and begins multiple reversing manoeuvres to align with loading bay	
	12:49:14	Semi trailer (Linfox 2, 5 axles)	Unloading procedure	
	13:31:30	Semi trailer (Linfox 2, 5 axles)	Leaving loading dock	
6/11/2016	4:03:17	Small rigid 1 (2 axles)	Entering loading dock, followed by reversing to align with loading bay	
	4:04:21	Small rigid 1 (2 axles)	Unloading procedure	
	4:18:13	Small rigid 2 (2 axles)	Second truck entering loading dock and reversed to park next to first truck	
	4:23:45	Small rigid 1 (2 axles)	Leaving loading dock	
	4:35:37	Small rigid 2 (2 axles)	Leaving loading dock	
6/11/2016	11:25:13	Semi trailer (Mercedes, 5 axles)	Entering loading dock, followed by multiple reversing manoeuvres to align with loading bay	MARKER 3
	11:31:53		Unloading procedure	
	12:34:45		Leaving loading dock	
7/11/2016	1:34:11	Rubbish truck (rear loader)	Reversed into loading dock	

Vision Logger - Truck Identification				
Coles, West Ryde - Loading Dock				
Date	Time	Truck type	Activity	
	1:34:41		Rubbish dumping and crushing procedure	
	1:43:53		Leaving loading dock	
7/11/2016	3:01:43	Small rigid (2 axles)	Entering loading dock and reversing into loading bay to deliver payload	
	3:15:43		Leaving loading dock	
7/11/2016	6:05:35	Small rigid (2 axles)	Entering loading dock and reversing into loading bay to deliver payload	
	6:15:07		Leaving loading dock	
7/11/2016	7:59:42	Rubbish truck (rear loader)	Entering loading dock and reversing towards camera	
	8:01:23		Rubbish dumping and crushing procedure	
	8:04:47		Leaving loading dock	
7/11/2016	8:59:07	Semi trailer (Mercedes, 5 axles)	Entering loading dock, followed by multiple reversing manoeuvre to align with loading bay	MARKER 4
	9:50:37		Leaving loading dock	
7/11/2016	9:50:37	Semi trailer (Scania, 5 axles)	Entering loading dock, followed by multiple reversing manoeuvre to align with loading bay	
	9:53:49		Unloading procedure	
	10:24:49		Leaving loading dock	
7/11/2016	10:25:37	Heavy rigid (Iveco, 4 axles)	Entering loading dock, followed by reversing manoeuvre to align with loading bay	
	10:27:49		Unloading procedure	
	10:35:45		Leaving loading dock	
7/11/2016	11:40:25	Medium rigid (Iveco, 3 axles)	Entering loading dock, followed by reversing manoeuvre to align with loading bay	
	11:42:41	Medium rigid (Iveco, 3 axles)	Unloading procedure	
	11:59:28	Small rigid (2 axles)	Entering loading dock, parked in loading dock to wait for first truck to finish delivering payload	
	12:02:48	Small van	Entering loading dock	
	12:06:08	Small rigid (2 axles)	Leaving loading dock	
	12:08:22	Small van	Leaving loading dock	
	12:10:20	Medium rigid (Iveco, 3 axles)	Leaving loading dock	
7/11/2016	13:53:08	Medium rigid (Iveco, 3 axles)	Entering loading dock, followed by reversing manoeuvre to align with loading bay	
	13:55:58		Unloading procedure	
	14:11:40		Leaving loading dock	
7/11/2016	14:24:24	Small rigid (2 axles)	Entering loading dock, parked in the middle of the loading dock - not in the loading bay	
	14:28:50		Unloading procedure using trolleys	

Vision Logger - Truck Identification				
Coles, West Ryde - Loading Dock				
Date	Time	Truck type	Activity	
	14:38:40		Leaving loading dock	
7/11/2016	17:05:52	Semi trailer (Scania, 5 axles)	Entering loading dock, followed by multiple reversing manoeuvres to align with loading bay	MARKER 5
	17:15:30		Unloading procedure	
	17:57:08		Leaving loading dock	
8/11/2016	1:22:58	Small rigid (2 axles)	Entering loading dock and reversing to park in the middle of loading dock	
	1:24:54		Unloading procedure	
	1:31:22		Leaving loading dock	
8/11/2016	2:04:32	Small rigid (2 axles)	Entering loading dock and reversing to park in the middle of loading dock to deliver payload	
	2:11:10		Leaving loading dock	
8/11/2016	2:51:28	Small rigid (2 axles)	Entering loading dock and reversing to park in the middle of loading dock to deliver payload	
	3:52:50		Leaving loading dock	
8/11/2016	5:00:58	Rubbish truck (rear loader)	Entering loading dock and reversing towards camera	
	5:02:48		Rubbish dumping and crushing	
	5:04:26		Leaving loading dock	
8/11/2016	5:48:04	Small rigid (2 axles)	Entering loading dock and reversing to align with loading bay, followed by unloading	
	5:57:50		Leaving loading dock	
8/11/2016	8:46:26	Small rigid 1 (2 axles)	Entering loading dock and reversing to align with loading bay, followed by unloading	
	8:58:32	Small rigid 2 (2 axles)	Second truck entering loading dock and parked in front of first truck	
	9:01:35	Small rigid 1 (2 axles)	Leaving loading dock	
	9:18:06	Small rigid 2 (2 axles)	Leaving loading dock	
8/11/2016	9:18:11	Medium rigid (3 axles)	Entering loading dock and reversing to align with loading bay, followed by unloading	MARKER 6
	9:34:00	Semi trailer (Volvo, 5 axles)	Second truck arrives while first truck is unloading	
	9:39:36	Rubbish truck (rear loader)	Rubbish truck entering loading dock	
	9:47:42	Rubbish truck (rear loader)	Leaving loading dock	
	10:01:11	Armguard truck	Armguard truck arrives at loading dock	
	10:03:52	Medium rigid (3 axles)	Leaving loading dock	
	10:03:52	Semi trailer (Volvo, 5 axles)	Multiple reversing manoeuvres to align with loading bay	
	10:08:20	Semi trailer (Volvo, 5 axles)	Unloading procedure	
	11:09:11	Semi trailer (Volvo, 5 axles)	Leaving loading dock	

Vision Logger - Truck Identification				
Coles, West Ryde - Loading Dock				
Date	Time	Truck type	Activity	
8/11/2016	11:31:37	Medium rigid (Iveco, 3 axles)	Entering loading dock and reversing to align with loading bay, followed by unloading	
	12:13:27		Leaving loading dock	
8/11/2016	12:14:33	Semi trailer (5 axles)	Entering loading dock, followed by multiple reversing manoeuvre to align with loading bay	MARKER 7
	12:17:03		Unloading procedure	
	12:33:55		Leaving loading dock	
8/11/2016	14:07:21	Medium rigid (3 axles)	Entering loading dock and reversing to align with loading bay, followed by unloading	
	14:21:57		Leaving loading dock	
8/11/2016	15:21:05	Medium rigid (3 axles)	Entering loading dock and reversing to align with loading bay, followed by unloading	
	15:26:25		Leaving loading dock	
9/11/2016	2:12:31	Medium rigid (3 axles)	Entering loading dock and reversing to align with loading bay, followed by unloading	
	2:26:53		Leaving loading dock	
9/11/2016	5:10:09	Rubbish truck (rear loader)	Entering loading dock and reversing towards camera	
	5:12:07		Rubbish dumping and crushing	
	5:15:35		Leaving loading dock	
9/11/2016	6:02:25	Small rigid (2 axles)	Entering loading dock and reversing to align with loading bay, followed by unloading	
	6:17:27		Leaving loading dock	
9/11/2016	7:56:31	Small rigid (2 axles)	Entering and parking in the middle of the loading dock. Unloading items not associated to Coles	
	8:08:19		Leaving loading dock	
9/11/2016	9:02:41	Heavy rigid (4 axles)	Entering loading dock, followed by multiple reversing manoeuvre to align with loading bay	
	9:22:11		Leaving loading dock	
9/11/2016	10:16:22	Semi trailer 1 (Mercedes, 5 axles)	Entering loading dock, followed by multiple reversing manoeuvres to align with loading bay	MARKER 8
	10:22:36	Semi trailer 1 (Mercedes, 5 axles)	Unloading procedure	
	10:42:18	Semi trailer 2 (5 axles)	Entering loading dock, waiting for first truck to finish unloading	

APPENDIX C Unattended noise logger graphs

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inspired to achieve

Acoustics
Vibration
Structural Dynamics

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Carpak North Boundary, Opp 55 Anthill Street

Background & Ambient Noise Monitoring Results - NSW 'Industrial Noise Policy', 2000

	L_{A90} Background Noise Levels[4]			L_{Aeq} Ambient Noise Levels		
Date	**Day[1]**	**Evening[2]**	**Night[3]**	**Day[1]**	**Evening[2]**	**Night[3]**
Saturday-29-October-2016	-	51.4	40.8	-	60.4	55.3
Sunday-30-October-2016	-	-	-	-	-	-
Monday-31-October-2016	53.7	52.0	40.1	63.1	61.4	56.3
Tuesday-01-November-2016	54.7	51.6	40.3	63.2	60.9	57.0
Wednesday-02-November-2016	54.4	52.2	39.2	62.6	61.2	55.7
Thursday-03-November-2016	53.7	52.4	40.9	62.3	61.5	56.5
Friday-04-November-2016	55.1	52.1	-	62.4	61.0	-
Saturday-05-November-2016	-	51.8	41.3	-	60.5	55.5
Sunday-06-November-2016	52.7	49.2	40.0	61.6	59.4	55.9
Monday-07-November-2016	-	-	-	-	-	-
Representative Weekday[5]	**54.4**	**52.1**	**40.2**	**62.7**	**61.2**	**56.4**
Representative Weekend[5]	**52.7**	**51.4**	**40.8**	**61.6**	**60.1**	**55.6**
Representative Week[5]	**54.1**	**51.9**	**40.3**	**62.6**	**60.8**	**56.1**

Notes:

1. Day is 8:00am to 6:00pm on Sunday and 7:00am to 6:00pm at other times
2. Evening is 6:00pm to 10:00pm
3. Night is the remaining periods
4. Assessment Background Level (ABL) for individual days
5. Rating Background Level (RBL) for L_{A90} and logarithmic average for L_{Aeq}
6. Leq is calculated in the free field. 2.5dB is subtracted from results if logger is placed at facade

Carpak North Boundary, Opp 55 Anthill Street

Road / Rail Noise Monitoring Results (at one metre from façade)

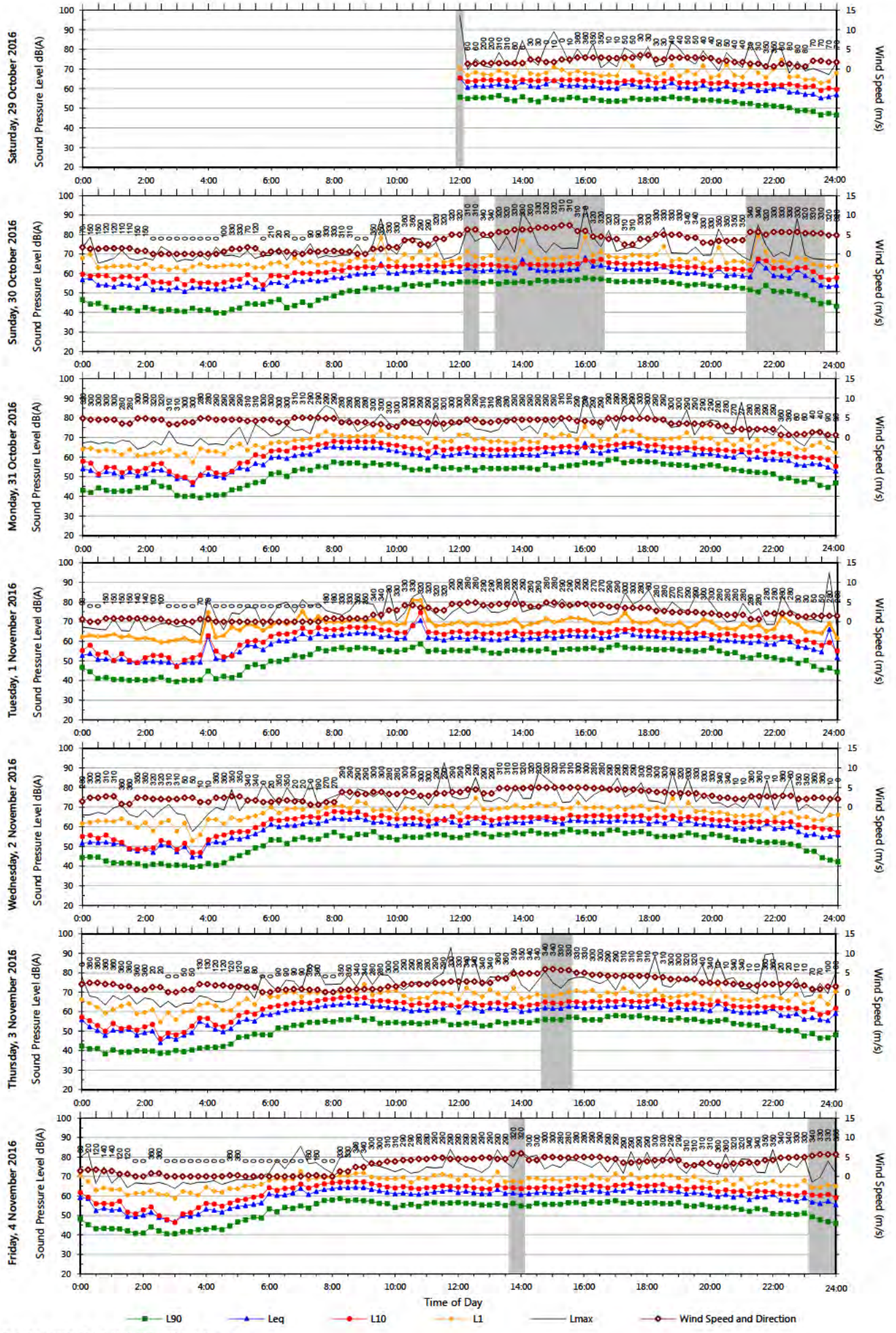
	L_{Aeq} Noise Levels		$L_{Aeq\ 1hr}$ Noise Levels			
Date	**Day[1]**	**Night[2]**	**Day - Up[4]**	**Day - Low[5]**	**Night - Up[4]**	**Night - Low[5]**
Saturday-29-October-2016	63.6	57.5	64.8	62.3	61.3	54.6
Sunday-30-October-2016	63.4	57.6	65.2	59.7	62.9	52.3
Monday-31-October-2016	65.2	58.8	67.2	62.7	64.1	51.5
Tuesday-01-November-2016	65.2	59.5	68.3	62.1	63.3	51.3
Wednesday-02-November-2016	64.8	58.2	66.2	62.4	63.1	49.8
Thursday-03-November-2016	64.6	59.0	65.9	63.0	64.2	51.6
Friday-04-November-2016	64.5	57.6	66.1	62.3	60.9	52.6
Saturday-05-November-2016	63.5	57.6	64.7	61.6	61.1	53.9
Sunday-06-November-2016	63.4	58.4	65.4	60.2	63.8	50.1
Monday-07-November-2016	65.0	-	66.2	63.7	-	-
Representative Weekday[3]	**64.9**	**58.7**	**66.8**	**62.7**	**63.3**	**51.5**
Representative Weekend[3]	**63.5**	**57.8**	**65.0**	**61.1**	**62.4**	**53.0**
Representative Week[3]	**64.4**	**58.3**	**66.1**	**62.1**	**62.9**	**52.2**

Notes:

1. Day is 7:00am to 10:00pm
2. Night is 10:00pm to 7:00am
3. Logarithmic average of daily L_{Aeq}
4. Upper 10th percentile $L_{Aeq\ 1hr}$
5. Lower 10th percentile $L_{Aeq\ 1hr}$
6. Values are calculated at the facade. 2.dB is added to results if logger is placed in the free field

Unattended Monitoring Results

Location: Carpak North Boundary, Opp 55 Anthill Street

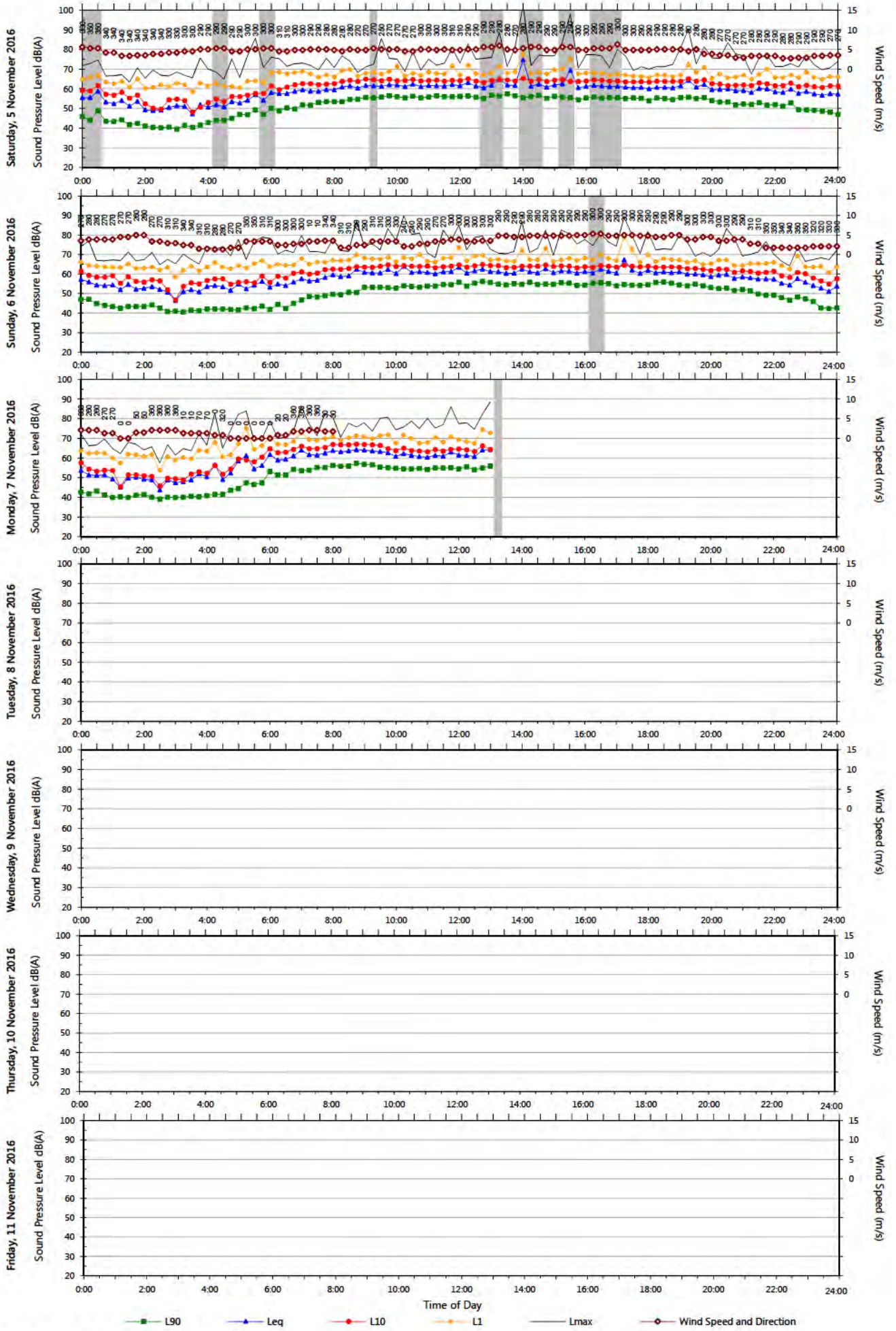


Data File: 2016-10-29_SLM_000_123_Rpt_Report.txt

Template: QTE-26 (rev 14) Logger Graphs Program

Unattended Monitoring Results

Location: Carpak North Boundary, Opp 55 Anthill Street



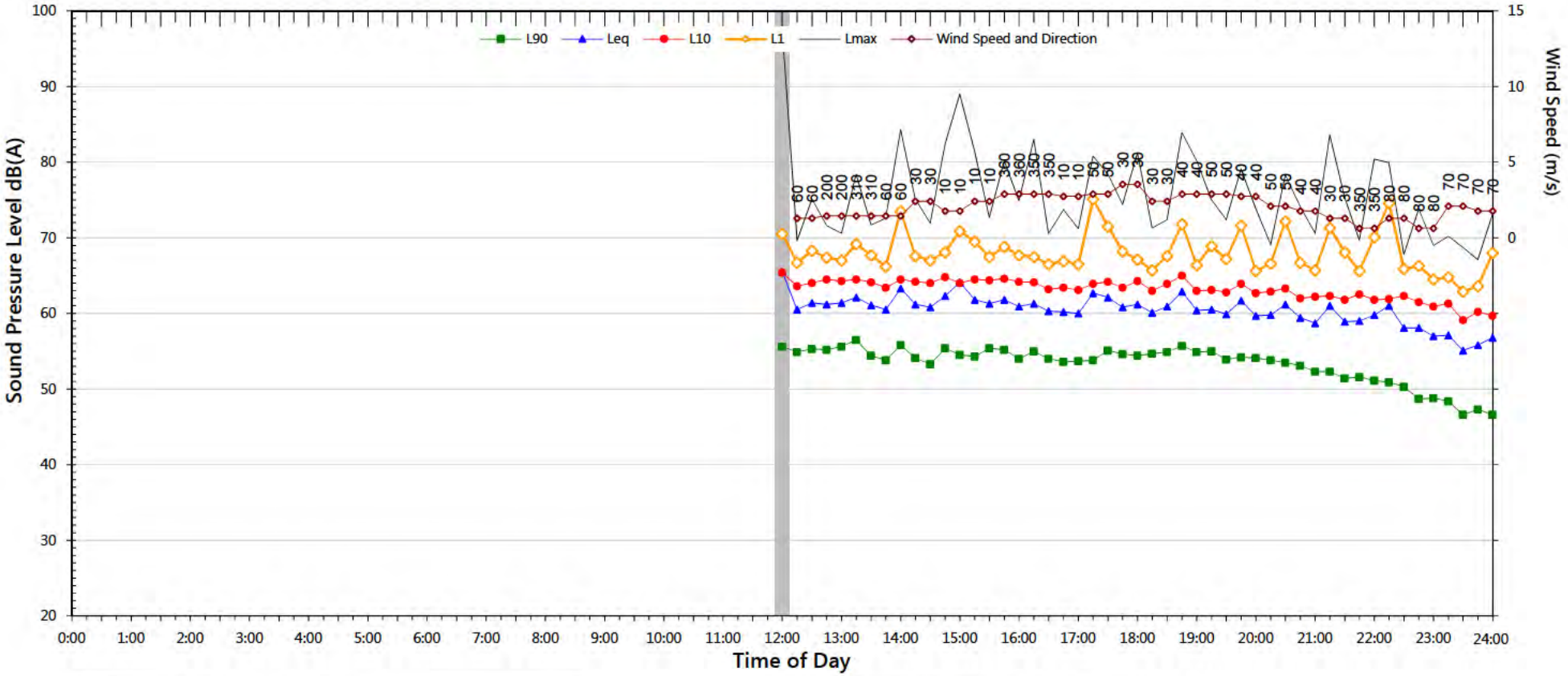
Data File: 2016-10-29_SLM_000_123_Rpt_Report.txt

Template: QTE-26 (rev 14) Logger Graphs Program

Unattended Noise Monitoring Results

Carpak North Boundary, Opp 55 Anthill Street

Saturday, 29 October 2016



NSW Industrial Noise Policy (Free Field)			
Descriptor	Day[2]	Evening[3]	Night[4 5]
L_{90}	-	51.4	40.8
LAeq	-	60.4	55.3

Night Time Maximum Noise Levels			(see note 7)
L_{Max} (Range)	69.9	to	79.9
L_{Max} - L_{eq} (Range)	16.9	to	23.6

NSW Road Noise Policy (1m from facade)		(see note 6)
Descriptor	Day	Night[5]
	7am-10pm	10pm-7am
$L_{eq\ 15\ hr}$ and $L_{eq\ 9\ hr}$	63.6	57.5
$L_{eq\ 1hr}$ upper 10 percentile	64.8	61.3
$L_{eq\ 1hr}$ lower 10 percentile	62.3	54.6

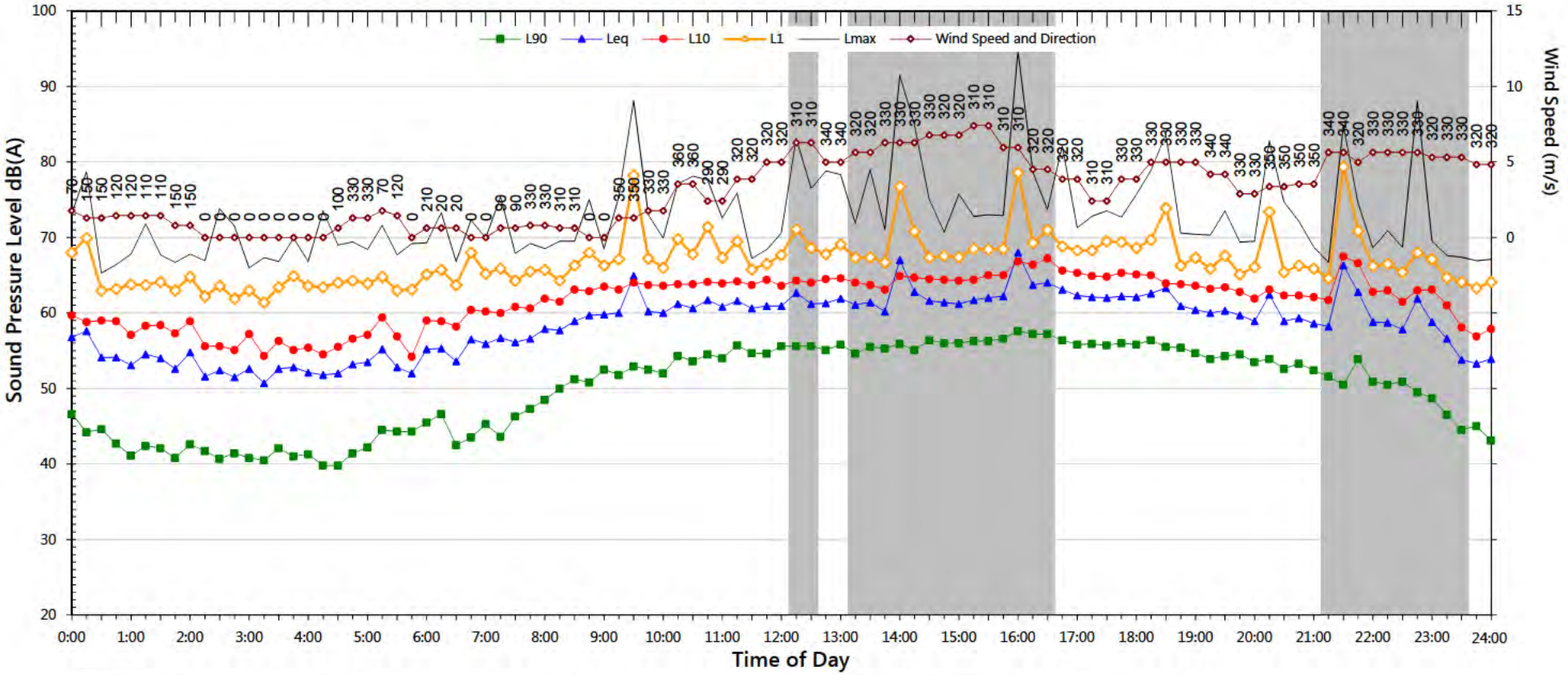
Notes:

1. Shaded periods denote measurements adversely affected by rain, wind or extraneous noise - data in these periods are excluded from calculations.
2. "Day" is the period from 8am till 6pm on Sundays and 7am til 6pm on other days
3. "Evening" is the period from 6pm till 10pm
4. "Night" relates to the remaining periods
5. "Night" relates to period from 10pm on this graph to morning on the following graph.
6. Graphed data measured in free-field; tabulated results facade corrected
7. Night time L_{Max} values are shown only where L_{Max} >65dB(A) and where L_{Max}- Leq ≥15dB(A)

Unattended Noise Monitoring Results

Carpak North Boundary, Opp 55 Anthill Street

Sunday, 30 October 2016



NSW Industrial Noise Policy (Free Field)			
Descriptor	Day[2]	Evening[3]	Night[4 5]
L_{90}	-	-	-
LAeq	-	-	-

Night Time Maximum Noise Levels			(see note 7)
L_{Max} (Range)	67.8	to	76.6
L_{Max} - L_{eq} (Range)	15.7	to	23.2

NSW Road Noise Policy (1m from facade)		(see note 6)
Descriptor	Day	Night[5]
	7am-10pm	10pm-7am
$L_{eq\ 15\ hr}$ and $L_{eq\ 9\ hr}$	63.4	57.6
$L_{eq\ 1hr}$ upper 10 percentile	65.2	62.9
$L_{eq\ 1hr}$ lower 10 percentile	59.7	52.3

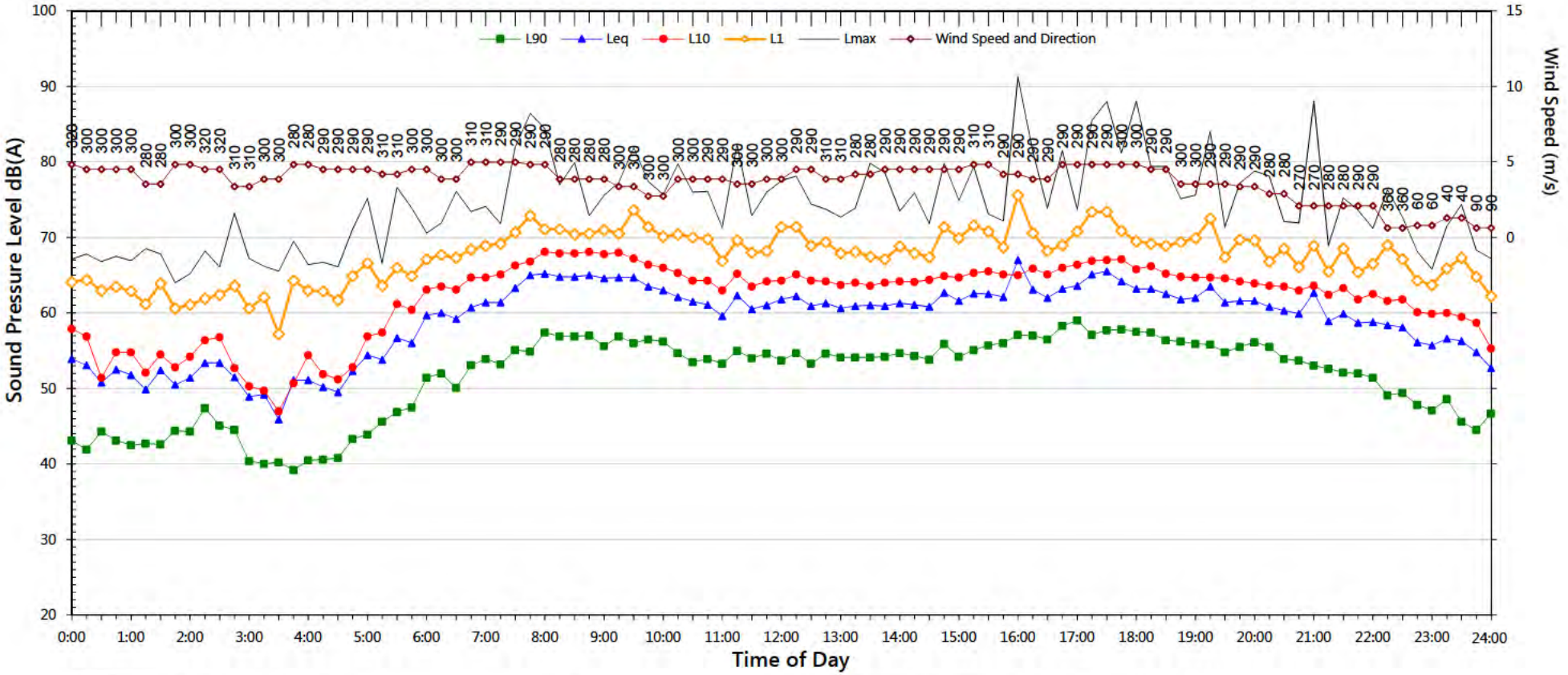
Notes:

1. Shaded periods denote measurements adversely affected by rain, wind or extraneous noise - data in these periods are excluded from calculations.
2. "Day" is the period from 8am till 6pm on Sundays and 7am til 6pm on other days
3. "Evening" is the period from 6pm till 10pm
4. "Night" relates to the remaining periods
5. "Night" relates to period from 10pm on this graph to morning on the following graph.
6. Graphed data measured in free-field; tabulated results facade corrected
7. Night time L_{Max} values are shown only where L_{Max} >65dB(A) and where L_{Max}- Leq ≥15dB(A)

Unattended Noise Monitoring Results

Carpak North Boundary, Opp 55 Anthill Street

Monday, 31 October 2016



NSW Industrial Noise Policy (Free Field)			
Descriptor	Day[2]	Evening[3]	Night[4 5]
L_{90}	53.7	52.0	40.1
LAeq	63.1	61.4	56.3

Night Time Maximum Noise Levels			(see note 7)
L_{Max} (Range)	69.3	to	81.8
L_{Max} - L_{eq} (Range)	19.0	to	24.9

NSW Road Noise Policy (1m from facade)		(see note 6)
Descriptor	Day	Night[5]
	7am-10pm	10pm-7am
$L_{eq\ 15\ hr}$ and $L_{eq\ 9\ hr}$	65.2	58.8
$L_{eq\ 1hr}$ upper 10 percentile	67.2	64.1
$L_{eq\ 1hr}$ lower 10 percentile	62.7	51.5

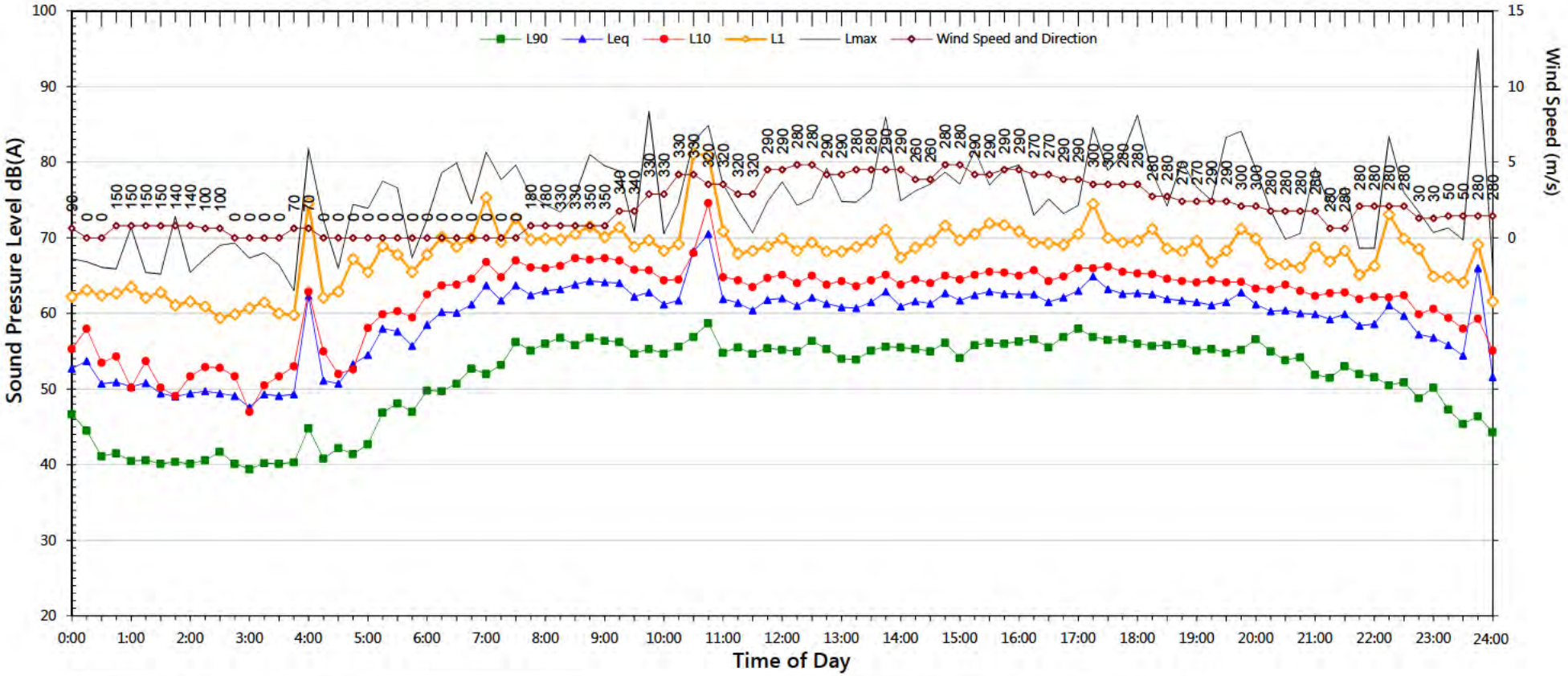
Notes:

1. Shaded periods denote measurements adversely affected by rain, wind or extraneous noise - data in these periods are excluded from calculations.
2. "Day" is the period from 8am till 6pm on Sundays and 7am til 6pm on other days
3. "Evening" is the period from 6pm till 10pm
4. "Night" relates to the remaining periods
5. "Night" relates to period from 10pm on this graph to morning on the following graph.
6. Graphed data measured in free-field; tabulated results facade corrected
7. Night time L_{Max} values are shown only where L_{Max} >65dB(A) and where L_{Max}- Leq ≥15dB(A)

Unattended Noise Monitoring Results

Carpak North Boundary, Opp 55 Anthill Street

Tuesday, 1 November 2016



NSW Industrial Noise Policy (Free Field)			
Descriptor	Day[2]	Evening[3]	Night[4 5]
L_{90}	54.7	51.6	40.3
LAeq	63.2	60.9	57.0

Night Time Maximum Noise Levels			(see note 7)
L_{Max} (Range)	66.6	to	94.9
L_{Max} - L_{eq} (Range)	17.7	to	34.1

NSW Road Noise Policy (1m from facade)		(see note 6)
Descriptor	Day	Night[5]
	7am-10pm	10pm-7am
$L_{eq\ 15\ hr}$ and $L_{eq\ 9\ hr}$	65.2	59.5
$L_{eq\ 1hr}$ upper 10 percentile	68.3	63.3
$L_{eq\ 1hr}$ lower 10 percentile	62.1	51.3

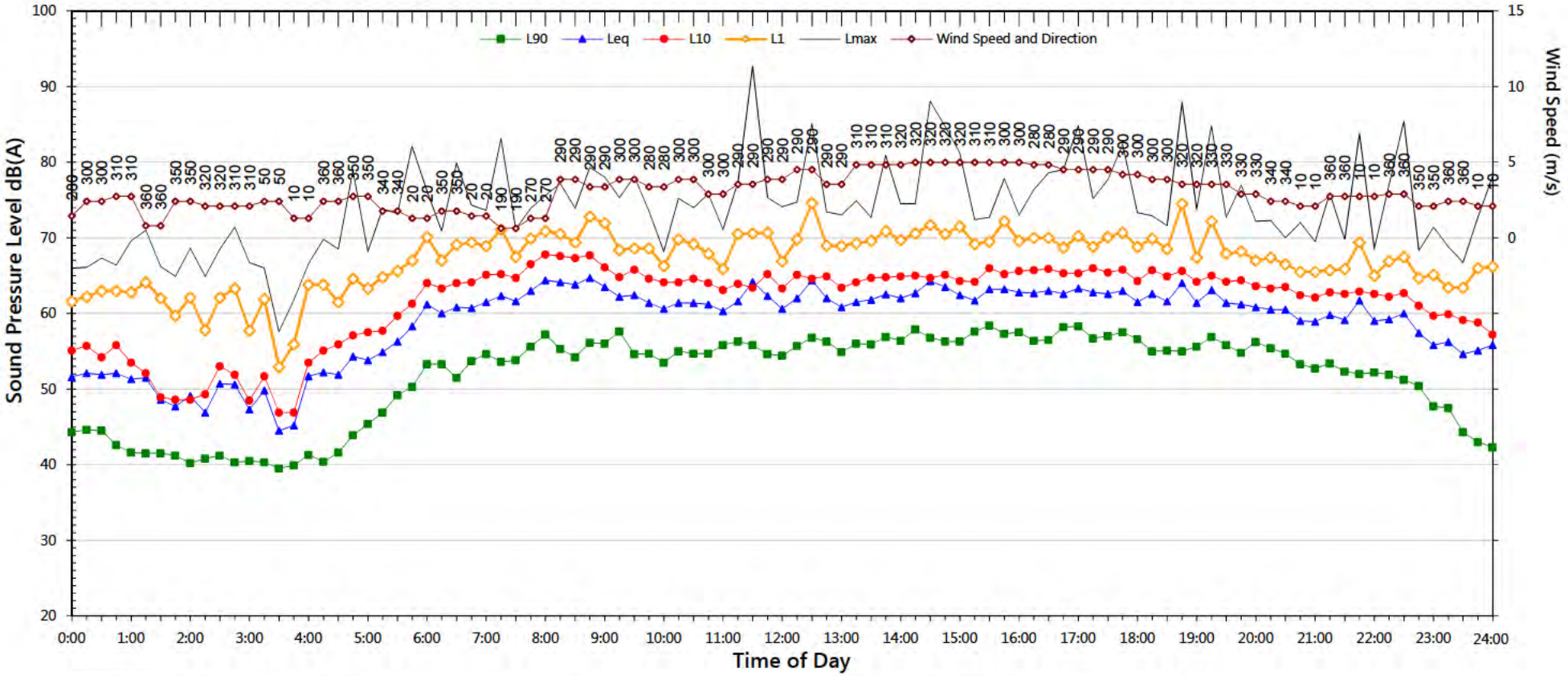
Notes:

1. Shaded periods denote measurements adversely affected by rain, wind or extraneous noise - data in these periods are excluded from calculations.
2. "Day" is the period from 8am till 6pm on Sundays and 7am til 6pm on other days
3. "Evening" is the period from 6pm till 10pm
4. "Night" relates to the remaining periods
5. "Night" relates to period from 10pm on this graph to morning on the following graph.
6. Graphed data measured in free-field; tabulated results facade corrected
7. Night time L_{Max} values are shown only where L_{Max} >65dB(A) and where L_{Max}- Leq ≥15dB(A)

Unattended Noise Monitoring Results

Carpak North Boundary, Opp 55 Anthill Street

Wednesday, 2 November 2016



NSW Industrial Noise Policy (Free Field)			
Descriptor	Day[2]	Evening[3]	Night[4 5]
L_{90}	54.4	52.2	39.2
LAeq	62.6	61.2	55.7

Night Time Maximum Noise Levels			(see note 7)
L_{Max} (Range)	66.2	to	85.4
L_{Max} - L_{eq} (Range)	15.6	to	27.0

NSW Road Noise Policy (1m from facade)		(see note 6)
Descriptor	Day	Night[5]
	7am-10pm	10pm-7am
$L_{eq\ 15\ hr}$ and $L_{eq\ 9\ hr}$	64.8	58.2
$L_{eq\ 1hr}$ upper 10 percentile	66.2	63.1
$L_{eq\ 1hr}$ lower 10 percentile	62.4	49.8

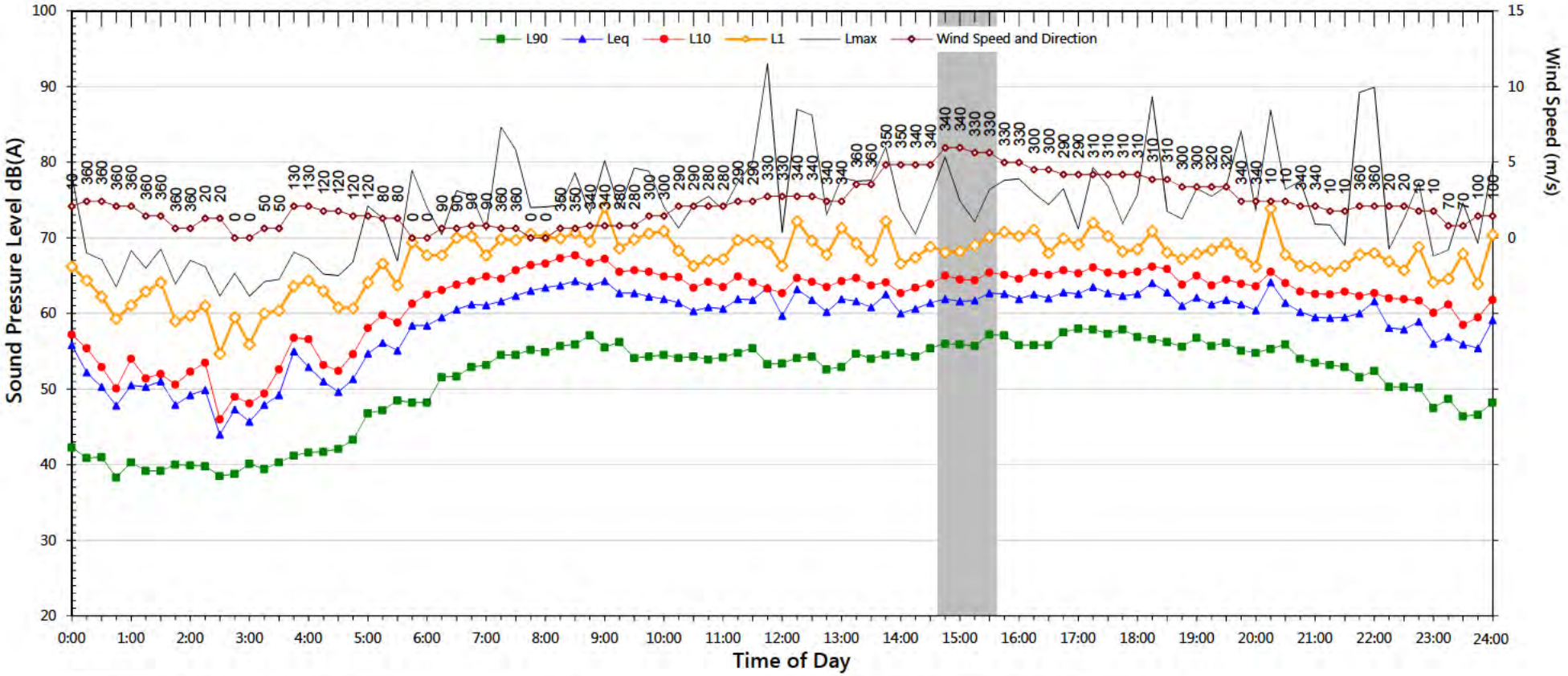
Notes:

1. Shaded periods denote measurements adversely affected by rain, wind or extraneous noise - data in these periods are excluded from calculations.
2. "Day" is the period from 8am till 6pm on Sundays and 7am til 6pm on other days
3. "Evening" is the period from 6pm till 10pm
4. "Night" relates to the remaining periods
5. "Night" relates to period from 10pm on this graph to morning on the following graph.
6. Graphed data measured in free-field; tabulated results facade corrected
7. Night time L_{Max} values are shown only where L_{Max} >65dB(A) and where L_{Max}- Leq ≥15dB(A)

Unattended Noise Monitoring Results

Carpak North Boundary, Opp 55 Anthill Street

Thursday, 3 November 2016



NSW Industrial Noise Policy (Free Field)			
Descriptor	Day[2]	Evening[3]	Night[4 5]
L_{90}	53.7	52.4	40.9
LAeq	62.3	61.5	56.5

Night Time Maximum Noise Levels			(see note 7)
L_{Max} (Range)	66.9	to	85.6
L_{Max} - L_{eq} (Range)	15.3	to	27.8

NSW Road Noise Policy (1m from facade)		(see note 6)
Descriptor	Day	Night[5]
	7am-10pm	10pm-7am
$L_{eq\ 15\ hr}$ and $L_{eq\ 9\ hr}$	64.6	59.0
$L_{eq\ 1hr}$ upper 10 percentile	65.9	64.2
$L_{eq\ 1hr}$ lower 10 percentile	63.0	51.6

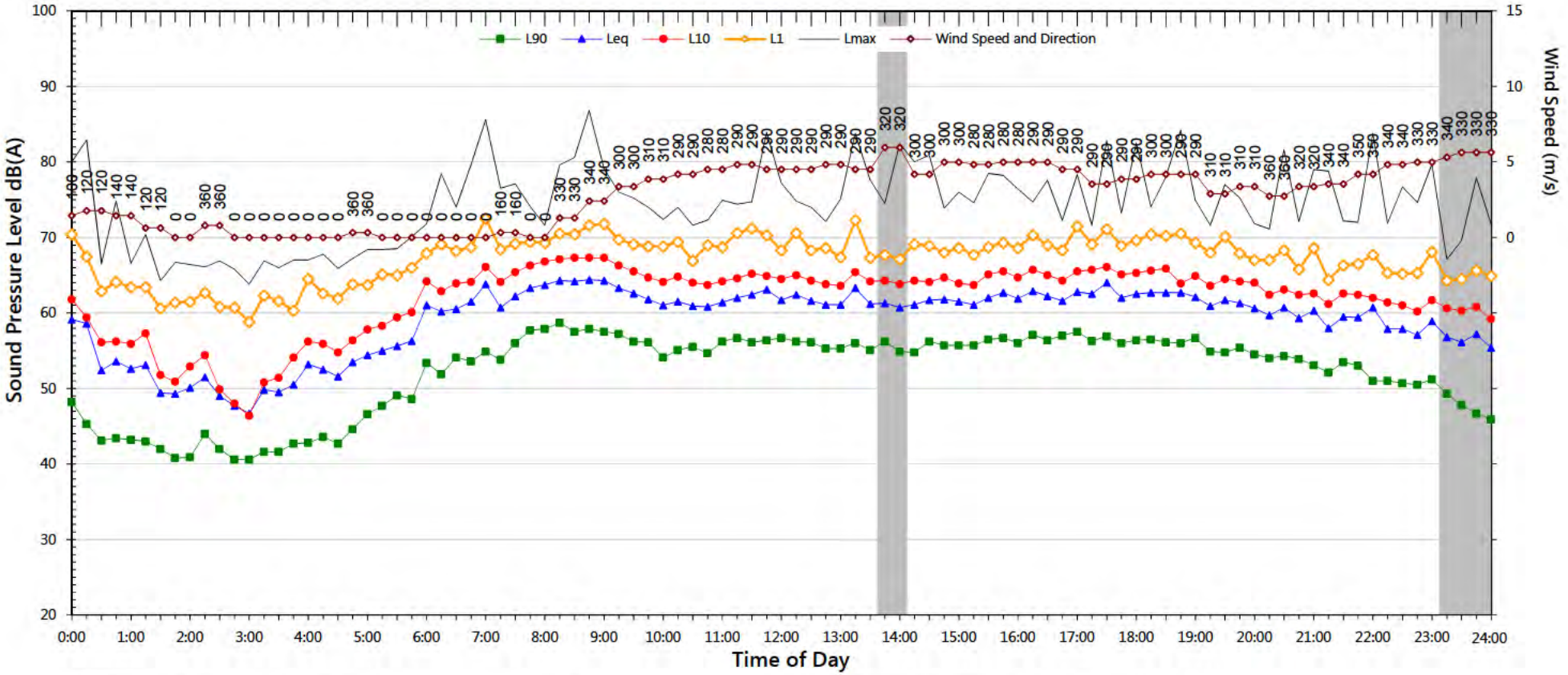
Notes:

1. Shaded periods denote measurements adversely affected by rain, wind or extraneous noise - data in these periods are excluded from calculations.
2. "Day" is the period from 8am till 6pm on Sundays and 7am til 6pm on other days
3. "Evening" is the period from 6pm till 10pm
4. "Night" relates to the remaining periods
5. "Night" relates to period from 10pm on this graph to morning on the following graph.
6. Graphed data measured in free-field; tabulated results facade corrected
7. Night time L_{Max} values are shown only where L_{Max} >65dB(A) and where L_{Max}- Leq ≥15dB(A)

Unattended Noise Monitoring Results

Carpak North Boundary, Opp 55 Anthill Street

Friday, 4 November 2016



NSW Industrial Noise Policy (Free Field)			
Descriptor	Day[2]	Evening[3]	Night[4 5]
L_{90}	55.1	52.1	-
LAeq	62.4	61.0	-

Night Time Maximum Noise Levels			(see note 7)
L_{Max} (Range)	69.5	to	85.8
L_{Max} - L_{eq} (Range)	16.9	to	30.0

NSW Road Noise Policy (1m from facade)		(see note 6)
Descriptor	Day	Night[5]
	7am-10pm	10pm-7am
$L_{eq\ 15\ hr}$ and $L_{eq\ 9\ hr}$	64.5	57.6
$L_{eq\ 1hr}$ upper 10 percentile	66.1	60.9
$L_{eq\ 1hr}$ lower 10 percentile	62.3	52.6

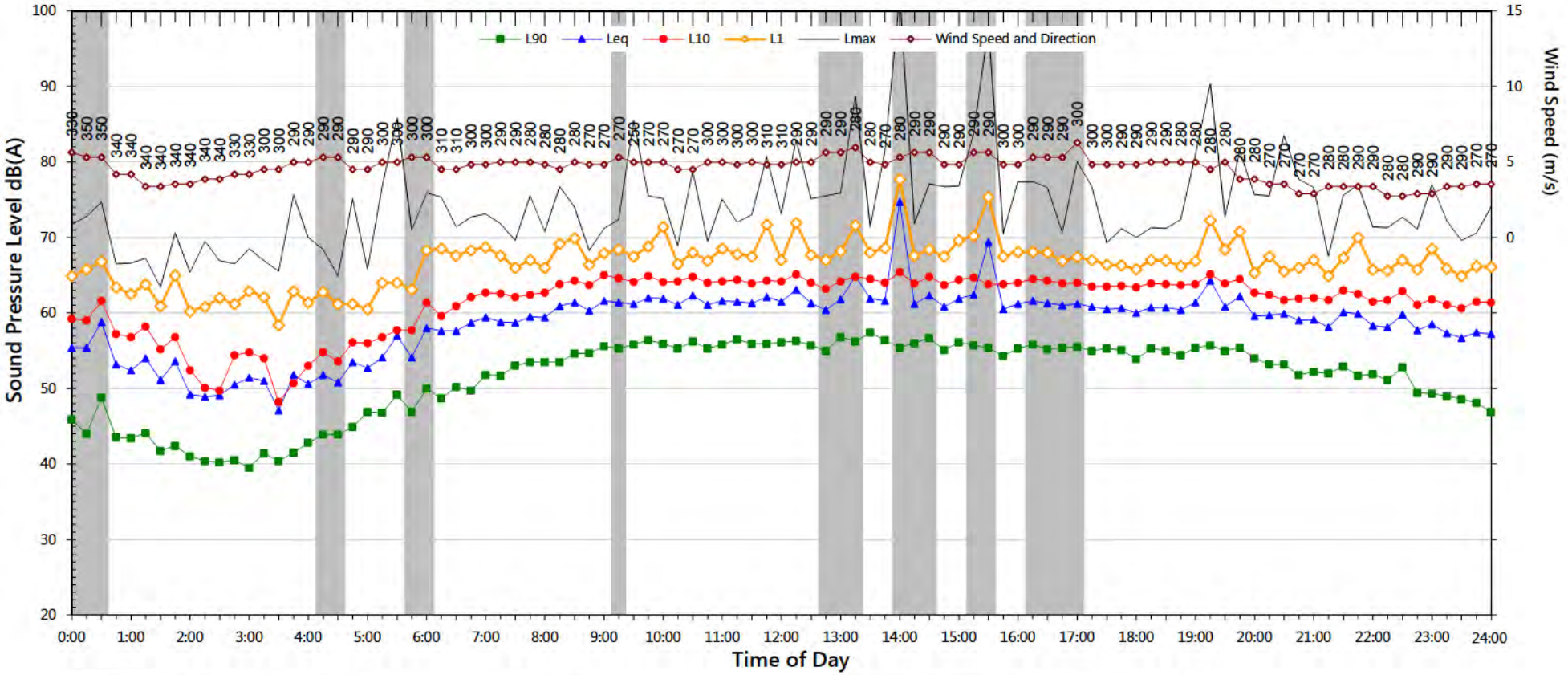
Notes:

1. Shaded periods denote measurements adversely affected by rain, wind or extraneous noise - data in these periods are excluded from calculations.
2. "Day" is the period from 8am till 6pm on Sundays and 7am til 6pm on other days
3. "Evening" is the period from 6pm till 10pm
4. "Night" relates to the remaining periods
5. "Night" relates to period from 10pm on this graph to morning on the following graph.
6. Graphed data measured in free-field; tabulated results facade corrected
7. Night time L_{Max} values are shown only where L_{Max} >65dB(A) and where L_{Max}- Leq ≥15dB(A)

Unattended Noise Monitoring Results

Carpak North Boundary, Opp 55 Anthill Street

Saturday, 5 November 2016



NSW Industrial Noise Policy (Free Field)			
Descriptor	Day[2]	Evening[3]	Night[4 5]
L_{90}	-	51.8	41.3
LAeq	-	60.5	55.5

Night Time Maximum Noise Levels			(see note 7)
L_{Max} (Range)	71.0	to	79.8
L_{Max} - L_{eq} (Range)	16.9	to	24.6

NSW Road Noise Policy (1m from facade)		(see note 6)
Descriptor	Day	Night[5]
	7am-10pm	10pm-7am
$L_{eq\ 15\ hr}$ and $L_{eq\ 9\ hr}$	63.5	57.6
$L_{eq\ 1hr}$ upper 10 percentile	64.7	61.1
$L_{eq\ 1hr}$ lower 10 percentile	61.6	53.9

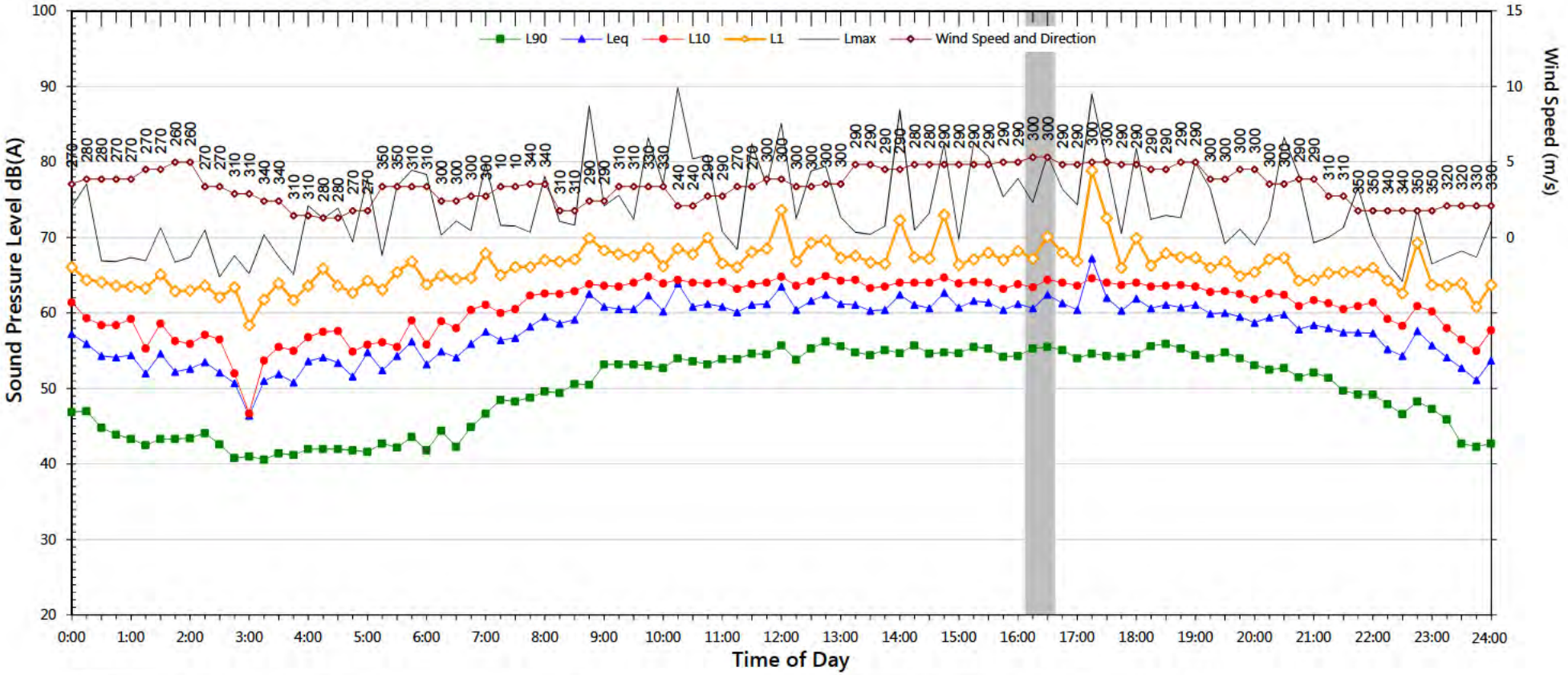
Notes:

1. Shaded periods denote measurements adversely affected by rain, wind or extraneous noise - data in these periods are excluded from calculations.
2. "Day" is the period from 8am till 6pm on Sundays and 7am til 6pm on other days
3. "Evening" is the period from 6pm till 10pm
4. "Night" relates to the remaining periods
5. "Night" relates to period from 10pm on this graph to morning on the following graph.
6. Graphed data measured in free-field; tabulated results facade corrected
7. Night time L_{Max} values are shown only where L_{Max} >65dB(A) and where L_{Max}- Leq ≥15dB(A)

Unattended Noise Monitoring Results

Carpak North Boundary, Opp 55 Anthill Street

Sunday, 6 November 2016



NSW Industrial Noise Policy (Free Field)			
Descriptor	Day[2]	Evening[3]	Night[4 5]
L_{90}	52.7	49.2	40.0
LAeq	61.6	59.4	55.9

Night Time Maximum Noise Levels			(see note 7)
L_{Max} (Range)	66.8	to	86.2
L_{Max} - L_{eq} (Range)	17.8	to	27.3

NSW Road Noise Policy (1m from facade)		(see note 6)
Descriptor	Day	Night[5]
	7am-10pm	10pm-7am
$L_{eq\ 15\ hr}$ and $L_{eq\ 9\ hr}$	63.4	58.4
$L_{eq\ 1hr}$ upper 10 percentile	65.4	63.8
$L_{eq\ 1hr}$ lower 10 percentile	60.2	50.1

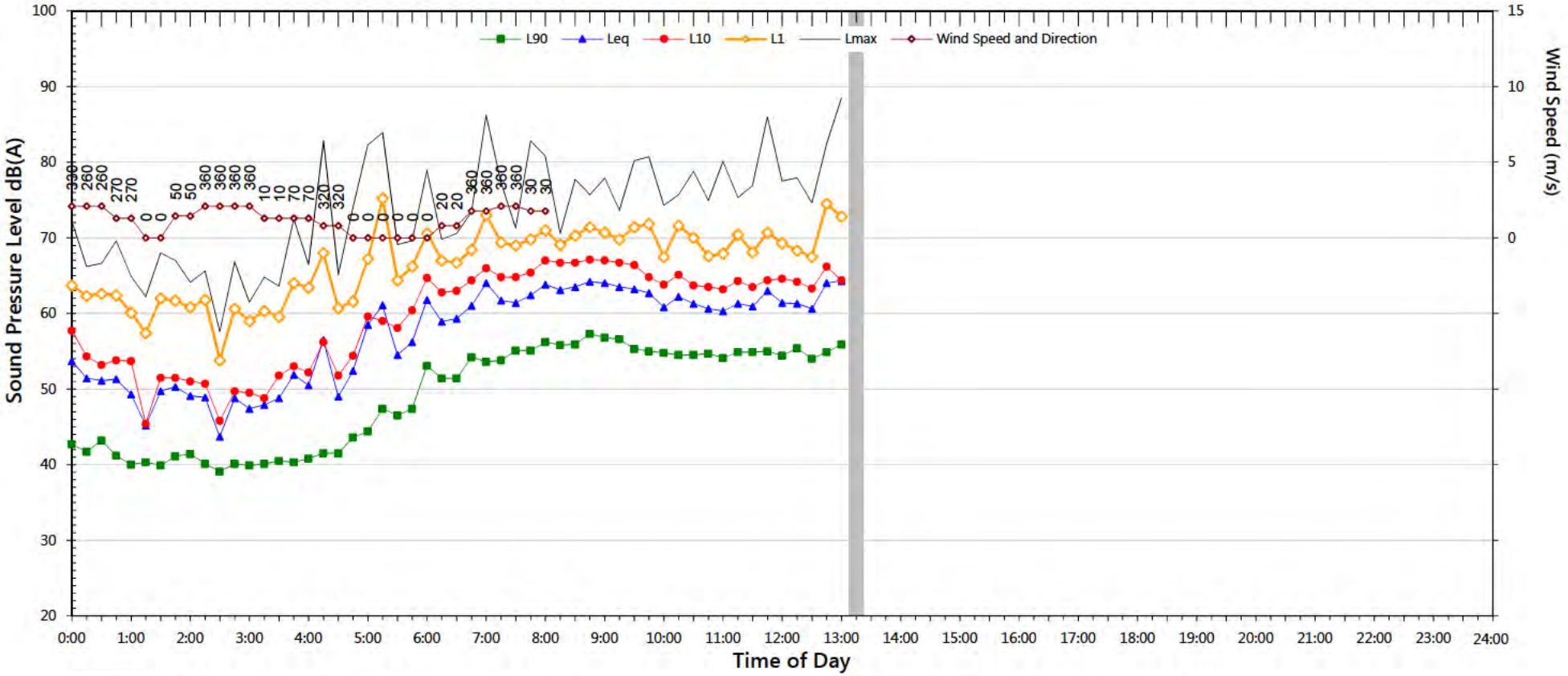
Notes:

1. Shaded periods denote measurements adversely affected by rain, wind or extraneous noise - data in these periods are excluded from calculations.
2. "Day" is the period from 8am till 6pm on Sundays and 7am til 6pm on other days
3. "Evening" is the period from 6pm till 10pm
4. "Night" relates to the remaining periods
5. "Night" relates to period from 10pm on this graph to morning on the following graph.
6. Graphed data measured in free-field; tabulated results facade corrected
7. Night time L_{Max} values are shown only where L_{Max} >65dB(A) and where L_{Max}- Leq ≥15dB(A)

Unattended Noise Monitoring Results

Carpak North Boundary, Opp 55 Anthill Street

Monday, 7 November 2016



NSW Industrial Noise Policy (Free Field)			
Descriptor	Day[2]	Evening[3]	Night[4 5]
L_{90}	-	-	-
LAeq	-	-	-

Night Time Maximum Noise Levels			(see note 7)
L_{Max} (Range)	-	to	-
L_{Max} - L_{eq} (Range)	-	to	-

NSW Road Noise Policy (1m from facade)		(see note 6)
Descriptor	Day	Night[5]
	7am-10pm	10pm-7am
$L_{eq\ 15\ hr}$ and $L_{eq\ 9\ hr}$	65.0	-
$L_{eq\ 1hr}$ upper 10 percentile	66.2	-
$L_{eq\ 1hr}$ lower 10 percentile	63.7	-

Notes:

1. Shaded periods denote measurements adversely affected by rain, wind or extraneous noise - data in these periods are excluded from calculations.
2. "Day" is the period from 8am till 6pm on Sundays and 7am til 6pm on other days
3. "Evening" is the period from 6pm till 10pm
4. "Night" relates to the remaining periods
5. "Night" relates to period from 10pm on this graph to morning on the following graph.
6. Graphed data measured in free-field; tabulated results facade corrected
7. Night time L_{Max} values are shown only where L_{Max} >65dB(A) and where L_{Max}- Leq ≥15dB(A)

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Commonwealth Bank Awning, Dickson

Background & Ambient Noise Monitoring Results - NSW 'Industrial Noise Policy', 2000

	L_{A90} Background Noise Levels[4]			L_{Aeq} Ambient Noise Levels		
Date	**Day[1]**	**Evening[2]**	**Night[3]**	**Day[1]**	**Evening[2]**	**Night[3]**
Saturday-29-October-2016	-	50.0	42.7	-	57.9	52.2
Sunday-30-October-2016	-	-	-	-	-	-
Monday-31-October-2016	50.9	49.6	46.0	55.4	57.9	56.6
Tuesday-01-November-2016	51.5	49.0	46.3	56.4	58.7	53.8
Wednesday-02-November-2016	51.1	48.5	40.2	58.0	56.6	53.7
Thursday-03-November-2016	50.7	49.4	44.6	57.8	58.9	54.9
Friday-04-November-2016	52.0	51.2	-	59.7	58.5	-
Saturday-05-November-2016	-	51.2	43.1	-	60.7	53.1
Sunday-06-November-2016	50.2	46.7	44.1	56.4	56.1	53.5
Monday-07-November-2016	-	-	-	-	-	-
Representative Weekday[5]	**51.1**	**49.4**	**45.3**	**57.7**	**58.2**	**54.9**
Representative Weekend[5]	**50.2**	**50.0**	**43.1**	**56.4**	**58.6**	**53.0**
Representative Week[5]	**51.0**	**49.5**	**44.1**	**57.5**	**58.4**	**54.2**

Notes:

1. Day is 8:00am to 6:00pm on Sunday and 7:00am to 6:00pm at other times
2. Evening is 6:00pm to 10:00pm
3. Night is the remaining periods
4. Assessment Background Level (ABL) for individual days
5. Rating Background Level (RBL) for L_{A90} and logarithmic average for L_{Aeq}
6. Leq is calculated in the free field. 2.5dB is subtracted from results if logger is placed at facade

Commonwealth Bank Awning, Dickson

Road / Rail Noise Monitoring Results (at one metre from façade)

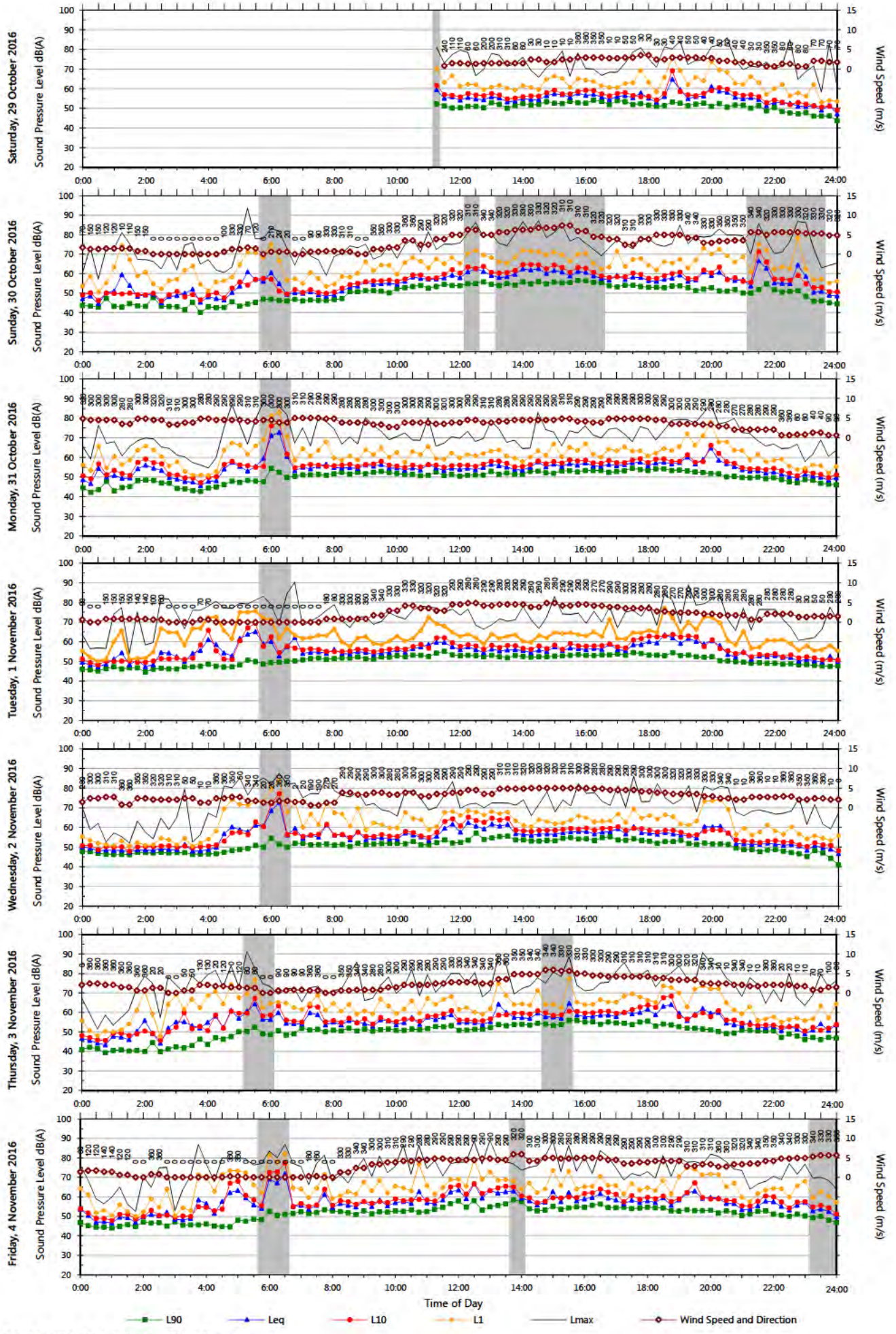
	L_{Aeq} Noise Levels		$L_{Aeq\ 1hr}$ Noise Levels			
Date	**Day[1]**	**Night[2]**	**Day - Up[4]**	**Day - Low[5]**	**Night - Up[4]**	**Night - Low[5]**
Saturday-29-October-2016	59.1	54.9	62.7	56.3	61.9	50.7
Sunday-30-October-2016	59.6	55.0	62.6	52.6	57.3	49.7
Monday-31-October-2016	58.7	59.1	62.1	55.9	67.0	51.5
Tuesday-01-November-2016	59.6	56.3	63.4	56.0	62.2	50.7
Wednesday-02-November-2016	60.1	56.2	62.8	55.7	60.6	48.0
Thursday-03-November-2016	60.6	57.4	63.9	56.5	63.0	50.6
Friday-04-November-2016	61.9	58.5	65.3	58.8	66.7	50.6
Saturday-05-November-2016	63.0	55.7	66.6	59.1	59.0	51.5
Sunday-06-November-2016	58.6	56.0	61.1	54.1	61.9	50.1
Monday-07-November-2016	58.3	-	59.9	56.3	-	-
Representative Weekday[3]	**60.1**	**57.7**	**63.2**	**56.7**	**64.6**	**50.4**
Representative Weekend[3]	**60.5**	**55.4**	**63.8**	**56.2**	**60.4**	**50.5**
Representative Week[3]	**60.2**	**56.8**	**63.4**	**56.5**	**63.2**	**50.5**

Notes:

1. Day is 7:00am to 10:00pm
2. Night is 10:00pm to 7:00am
3. Logarithmic average of daily L_{Aeq}
4. Upper 10th percentile $L_{Aeq\ 1hr}$
5. Lower 10th percentile $L_{Aeq\ 1hr}$
6. Values are calculated at the facade. 2.dB is added to results if logger is placed in the free field

Unattended Monitoring Results

Location: Commonwealth Bank Awning, Dickson

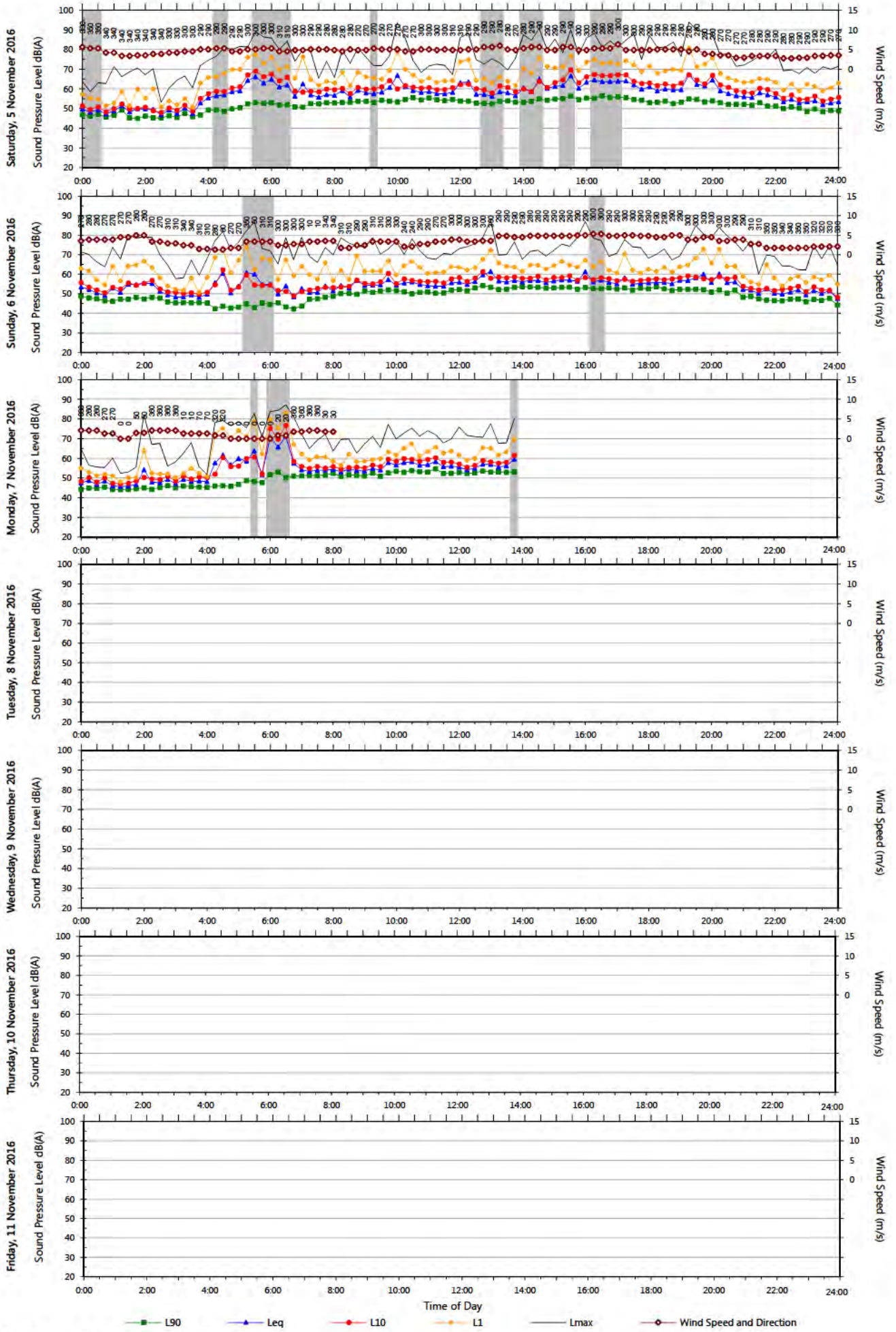


Data File: 2016-10-29_SLM_000_123_Rpt_Report.txt

Template: QTE-26 (rev 14) Logger Graphs Program

Unattended Monitoring Results

Location: Commonwealth Bank Awning, Dickson



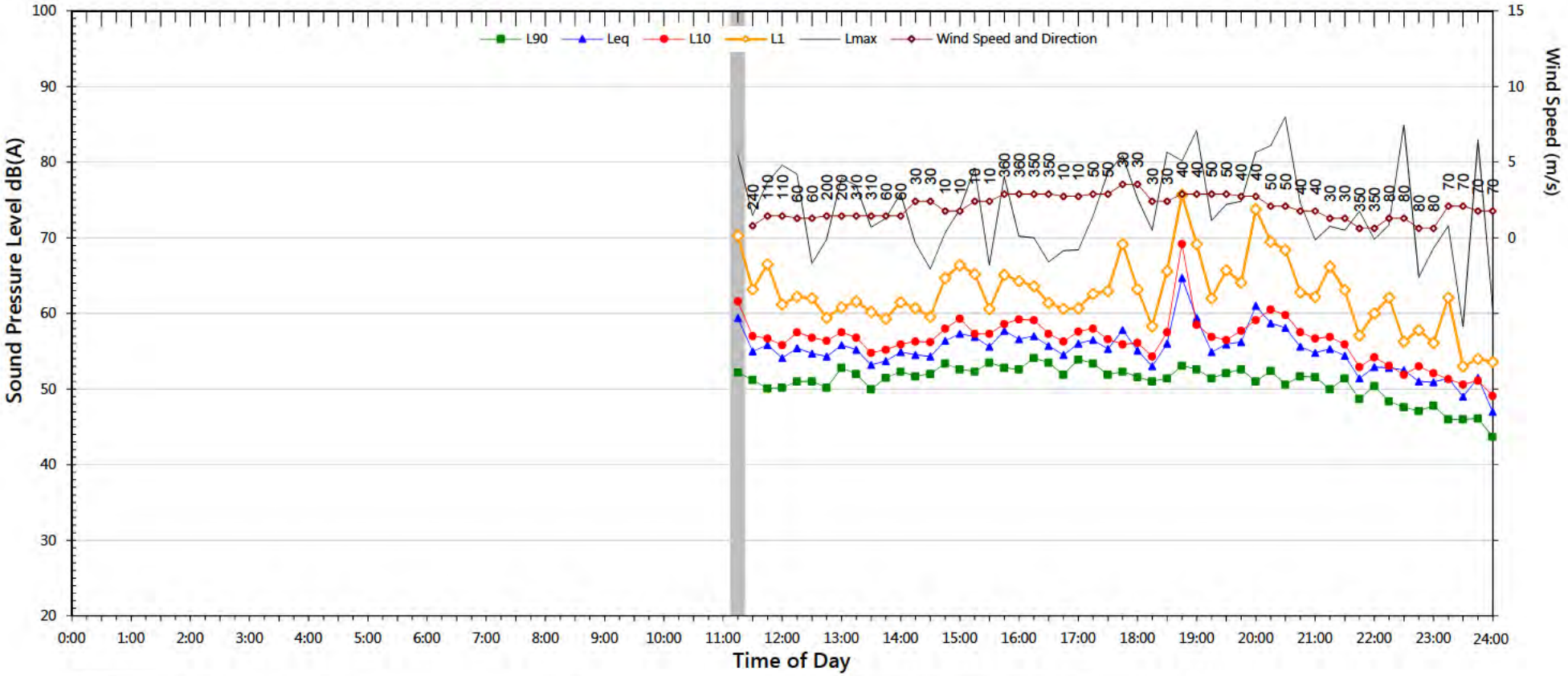
Data File: 2016-10-29_SLM_000_123_Rpt_Report.txt

Template: QTE-26 (rev 14) Logger Graphs Program

Unattended Noise Monitoring Results

Commonwealth Bank Awning, Dickson

Saturday, 29 October 2016



NSW Industrial Noise Policy (Free Field)			
Descriptor	Day[2]	Evening[3]	Night[4 5]
L_{90}	-	50.0	42.7
LAeq	-	57.9	52.2

Night Time Maximum Noise Levels			(see note 7)
L_{Max} (Range)	70.4	to	93.7
L_{Max} - L_{eq} (Range)	22.2	to	34.3

NSW Road Noise Policy (1m from facade)		(see note 6)
Descriptor	Day	Night[5]
	7am-10pm	10pm-7am
$L_{eq\ 15\ hr}$ and $L_{eq\ 9\ hr}$	59.1	54.9
$L_{eq\ 1hr}$ upper 10 percentile	62.7	61.9
$L_{eq\ 1hr}$ lower 10 percentile	56.3	50.7

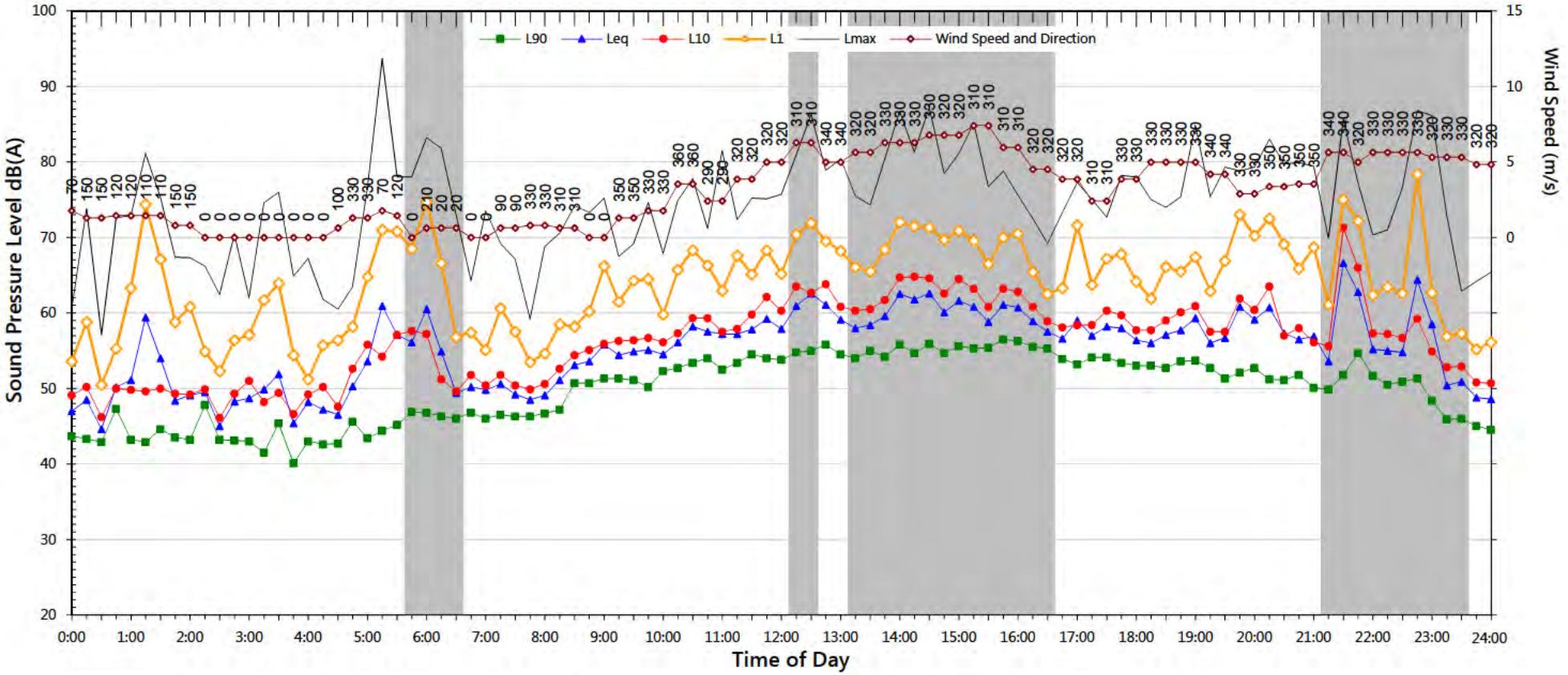
Notes:

1. Shaded periods denote measurements adversely affected by rain, wind or extraneous noise - data in these periods are excluded from calculations.
2. "Day" is the period from 8am till 6pm on Sundays and 7am til 6pm on other days
3. "Evening" is the period from 6pm till 10pm
4. "Night" relates to the remaining periods
5. "Night" relates to period from 10pm on this graph to morning on the following graph.
6. Graphed data measured in free-field; tabulated results facade corrected
7. Night time L_{Max} values are shown only where L_{Max} >65dB(A) and where L_{Max}- Leq ≥15dB(A)

Unattended Noise Monitoring Results

Commonwealth Bank Awning, Dickson

Sunday, 30 October 2016



NSW Industrial Noise Policy (Free Field)			
Descriptor	Day[2]	Evening[3]	Night[4 5]
L_{90}	-	-	-
LAeq	-	-	-

Night Time Maximum Noise Levels			(see note 7)
L_{Max} (Range)	65.4	to	86.9
L_{Max} - L_{eq} (Range)	16.6	to	32.1

NSW Road Noise Policy (1m from facade)		(see note 6)
Descriptor	Day	Night[5]
	7am-10pm	10pm-7am
$L_{eq\ 15\ hr}$ and $L_{eq\ 9\ hr}$	59.6	55.0
$L_{eq\ 1hr}$ upper 10 percentile	62.6	57.3
$L_{eq\ 1hr}$ lower 10 percentile	52.6	49.7

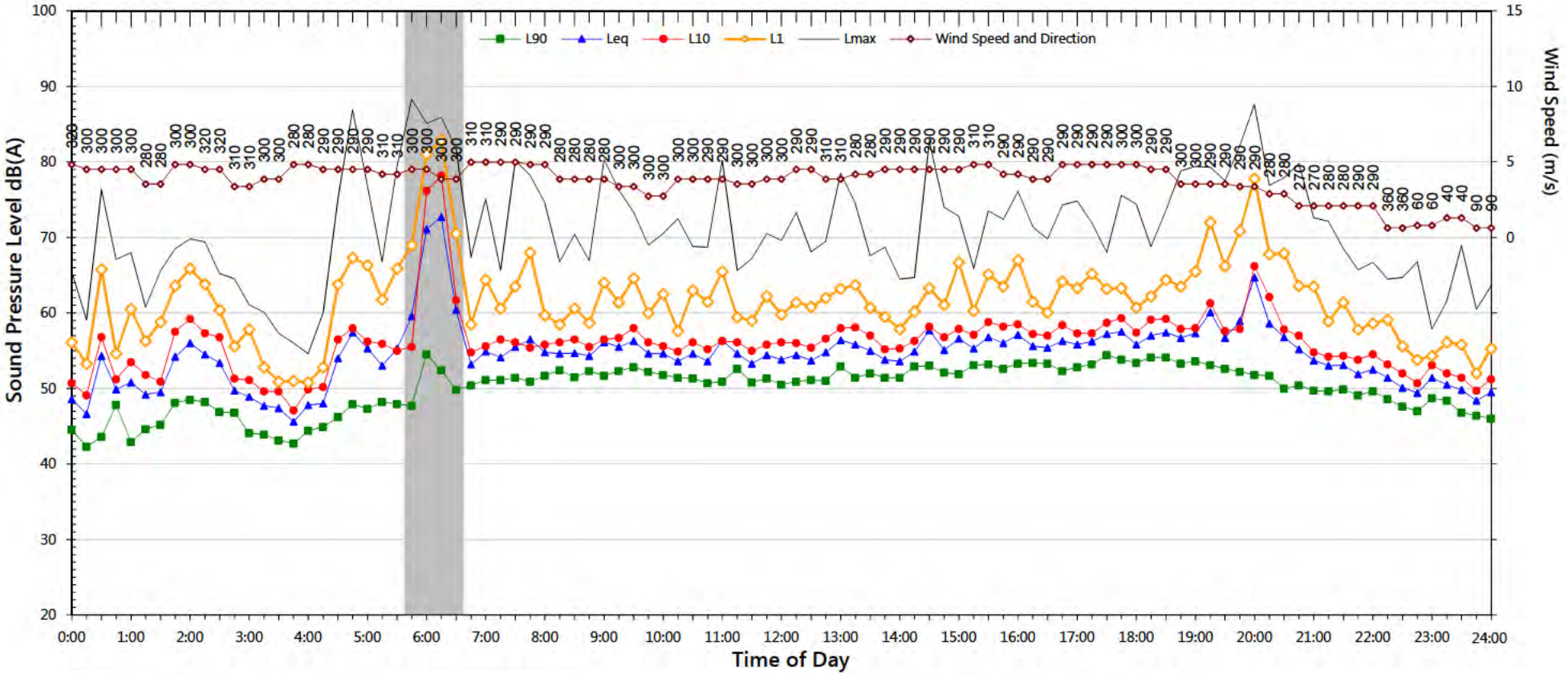
Notes:

1. Shaded periods denote measurements adversely affected by rain, wind or extraneous noise - data in these periods are excluded from calculations.
2. "Day" is the period from 8am till 6pm on Sundays and 7am til 6pm on other days
3. "Evening" is the period from 6pm till 10pm
4. "Night" relates to the remaining periods
5. "Night" relates to period from 10pm on this graph to morning on the following graph.
6. Graphed data measured in free-field; tabulated results facade corrected
7. Night time L_{Max} values are shown only where L_{Max} >65dB(A) and where L_{Max}- Leq ≥15dB(A)

Unattended Noise Monitoring Results

Commonwealth Bank Awning, Dickson

Monday, 31 October 2016



NSW Industrial Noise Policy (Free Field)			
Descriptor	Day[2]	Evening[3]	Night[4 5]
L_{90}	50.9	49.6	46.0
LAeq	55.4	57.9	56.6

NSW Road Noise Policy (1m from facade)	(see note 6)	
Descriptor	Day	Night[5]
	7am-10pm	10pm-7am
$L_{eq\ 15\ hr}$ and $L_{eq\ 9\ hr}$	58.7	59.1
$L_{eq\ 1hr}$ upper 10 percentile	62.1	67.0
$L_{eq\ 1hr}$ lower 10 percentile	55.9	51.5

Night Time Maximum Noise Levels			(see note 7)
L_{Max} (Range)	66.8	to	90.4
L_{Max} - L_{eq} (Range)	16.1	to	30.7

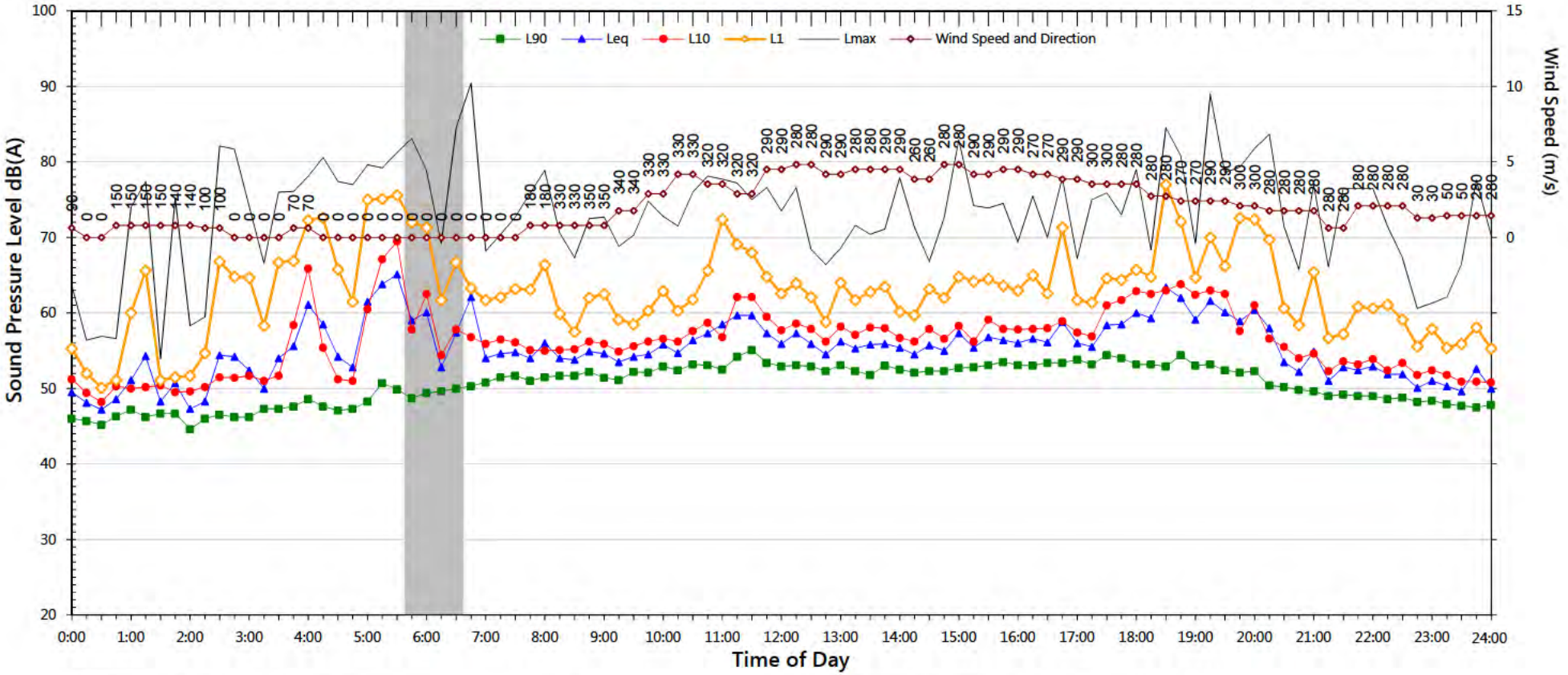
Notes:

1. Shaded periods denote measurements adversely affected by rain, wind or extraneous noise - data in these periods are excluded from calculations.
2. "Day" is the period from 8am till 6pm on Sundays and 7am til 6pm on other days
3. "Evening" is the period from 6pm till 10pm
4. "Night" relates to the remaining periods
5. "Night" relates to period from 10pm on this graph to morning on the following graph.
6. Graphed data measured in free-field; tabulated results facade corrected
7. Night time L_{Max} values are shown only where L_{Max} >65dB(A) and where L_{Max}- Leq ≥15dB(A)

Unattended Noise Monitoring Results

Commonwealth Bank Awning, Dickson

Tuesday, 1 November 2016



NSW Industrial Noise Policy (Free Field)			
Descriptor	Day[2]	Evening[3]	Night[4 5]
L_{90}	51.5	49.0	46.3
LAeq	56.4	58.7	53.8

Night Time Maximum Noise Levels			(see note 7)
L_{Max} (Range)	65.2	to	85.1
L_{Max} - L_{eq} (Range)	16.5	to	30.4

NSW Road Noise Policy (1m from facade)		(see note 6)
Descriptor	Day	Night[5]
	7am-10pm	10pm-7am
$L_{eq\ 15\ hr}$ and $L_{eq\ 9\ hr}$	59.6	56.3
$L_{eq\ 1hr}$ upper 10 percentile	63.4	62.2
$L_{eq\ 1hr}$ lower 10 percentile	56.0	50.7

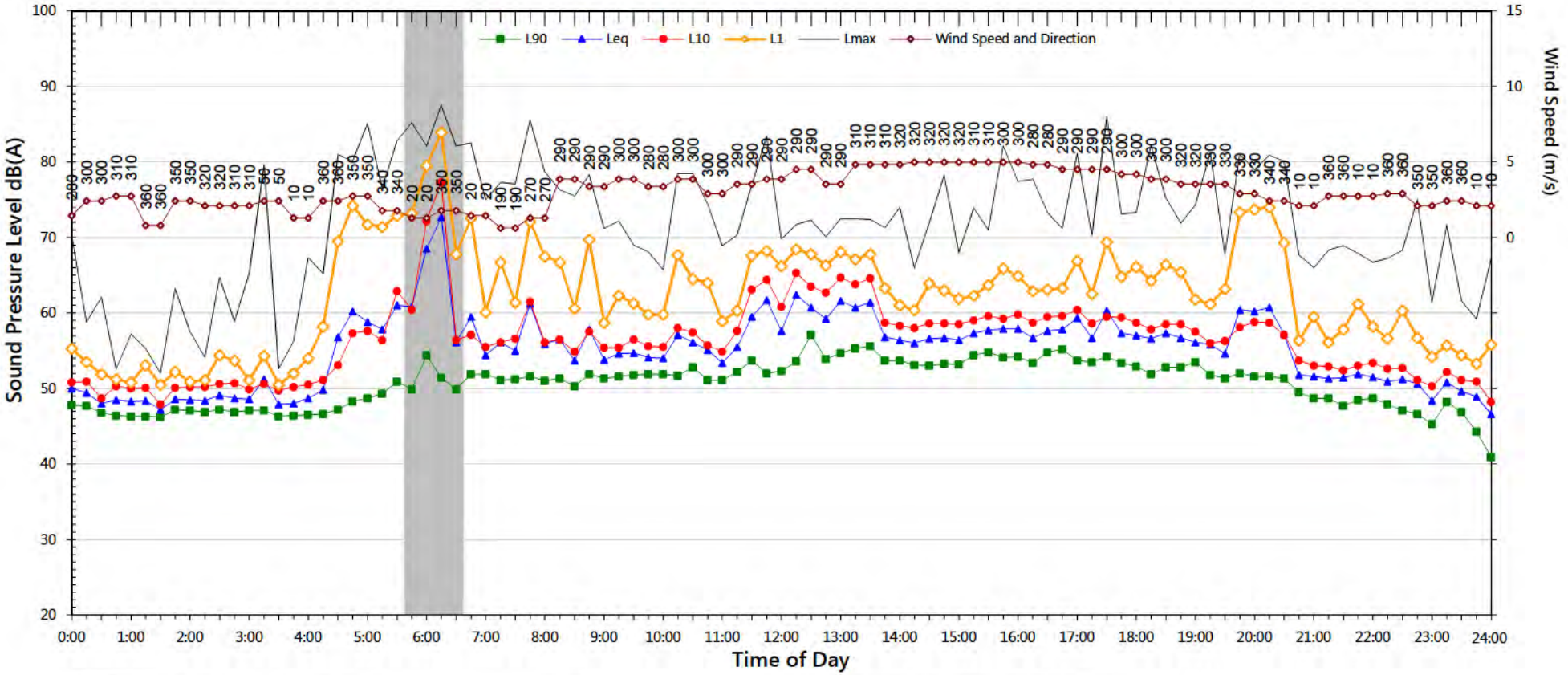
Notes:

1. Shaded periods denote measurements adversely affected by rain, wind or extraneous noise - data in these periods are excluded from calculations.
2. "Day" is the period from 8am till 6pm on Sundays and 7am til 6pm on other days
3. "Evening" is the period from 6pm till 10pm
4. "Night" relates to the remaining periods
5. "Night" relates to period from 10pm on this graph to morning on the following graph.
6. Graphed data measured in free-field; tabulated results facade corrected
7. Night time L_{Max} values are shown only where L_{Max} >65dB(A) and where L_{Max}- Leq ≥15dB(A)

Unattended Noise Monitoring Results

Commonwealth Bank Awning, Dickson

Wednesday, 2 November 2016



NSW Industrial Noise Policy (Free Field)			
Descriptor	Day[2]	Evening[3]	Night[4 5]
L_{90}	51.1	48.5	40.2
LAeq	58.0	56.6	53.7

Night Time Maximum Noise Levels			(see note 7)
L_{Max} (Range)	71.6	to	84.0
L_{Max} - L_{eq} (Range)	16.0	to	26.9

NSW Road Noise Policy (1m from facade)		(see note 6)
Descriptor	Day	Night[5]
	7am-10pm	10pm-7am
$L_{eq\ 15\ hr}$ and $L_{eq\ 9\ hr}$	60.1	56.2
$L_{eq\ 1hr}$ upper 10 percentile	62.8	60.6
$L_{eq\ 1hr}$ lower 10 percentile	55.7	48.0

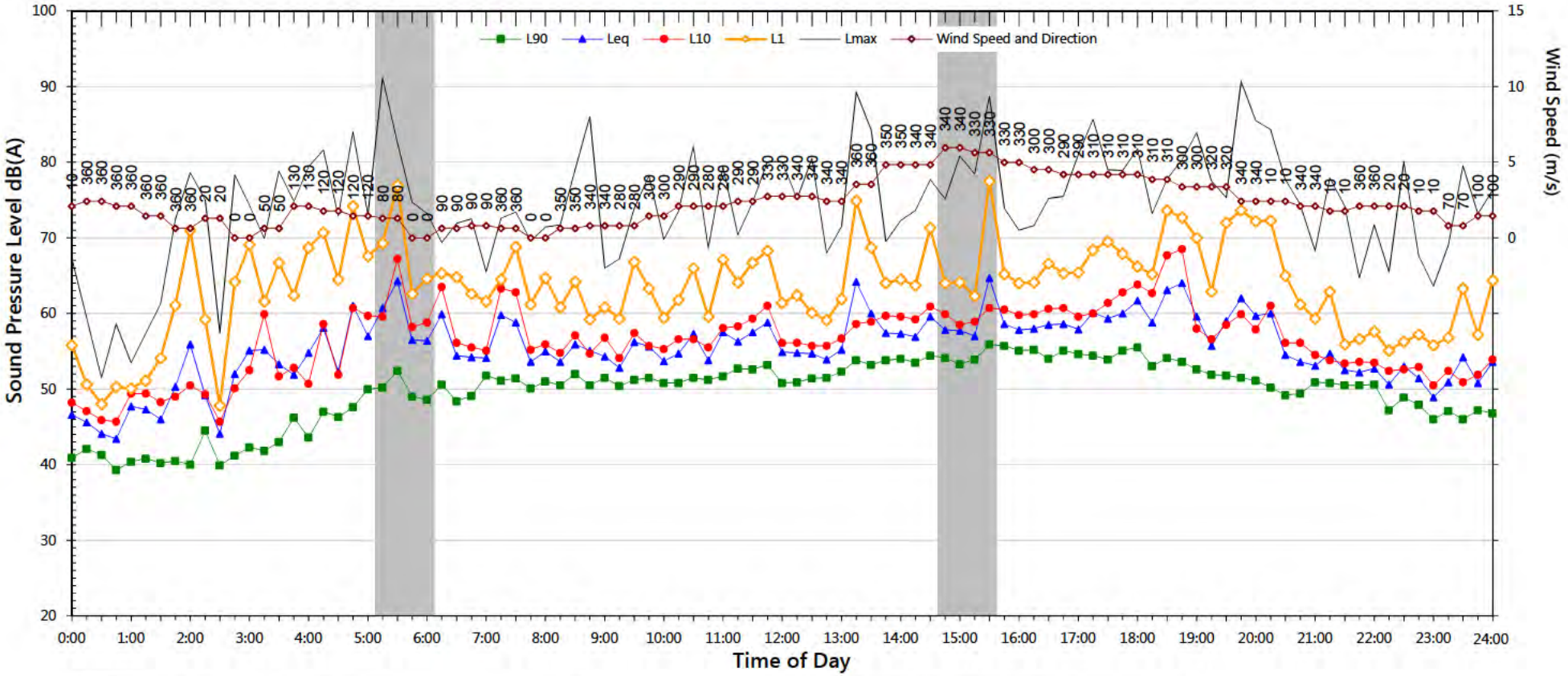
Notes:

1. Shaded periods denote measurements adversely affected by rain, wind or extraneous noise - data in these periods are excluded from calculations.
2. "Day" is the period from 8am till 6pm on Sundays and 7am til 6pm on other days
3. "Evening" is the period from 6pm till 10pm
4. "Night" relates to the remaining periods
5. "Night" relates to period from 10pm on this graph to morning on the following graph.
6. Graphed data measured in free-field; tabulated results facade corrected
7. Night time L_{Max} values are shown only where L_{Max} >65dB(A) and where L_{Max}- Leq ≥15dB(A)

Unattended Noise Monitoring Results

Commonwealth Bank Awning, Dickson

Thursday, 3 November 2016



NSW Industrial Noise Policy (Free Field)			
Descriptor	Day[2]	Evening[3]	Night[4 5]
L_{90}	50.7	49.4	44.6
LAeq	57.8	58.9	54.9

Night Time Maximum Noise Levels			(see note 7)
L_{Max} (Range)	68.6	to	86.8
L_{Max} - L_{eq} (Range)	19.5	to	31.7

NSW Road Noise Policy (1m from facade)		(see note 6)
Descriptor	Day	Night[5]
	7am-10pm	10pm-7am
$L_{eq\ 15\ hr}$ and $L_{eq\ 9\ hr}$	60.6	57.4
$L_{eq\ 1hr}$ upper 10 percentile	63.9	63.0
$L_{eq\ 1hr}$ lower 10 percentile	56.5	50.6

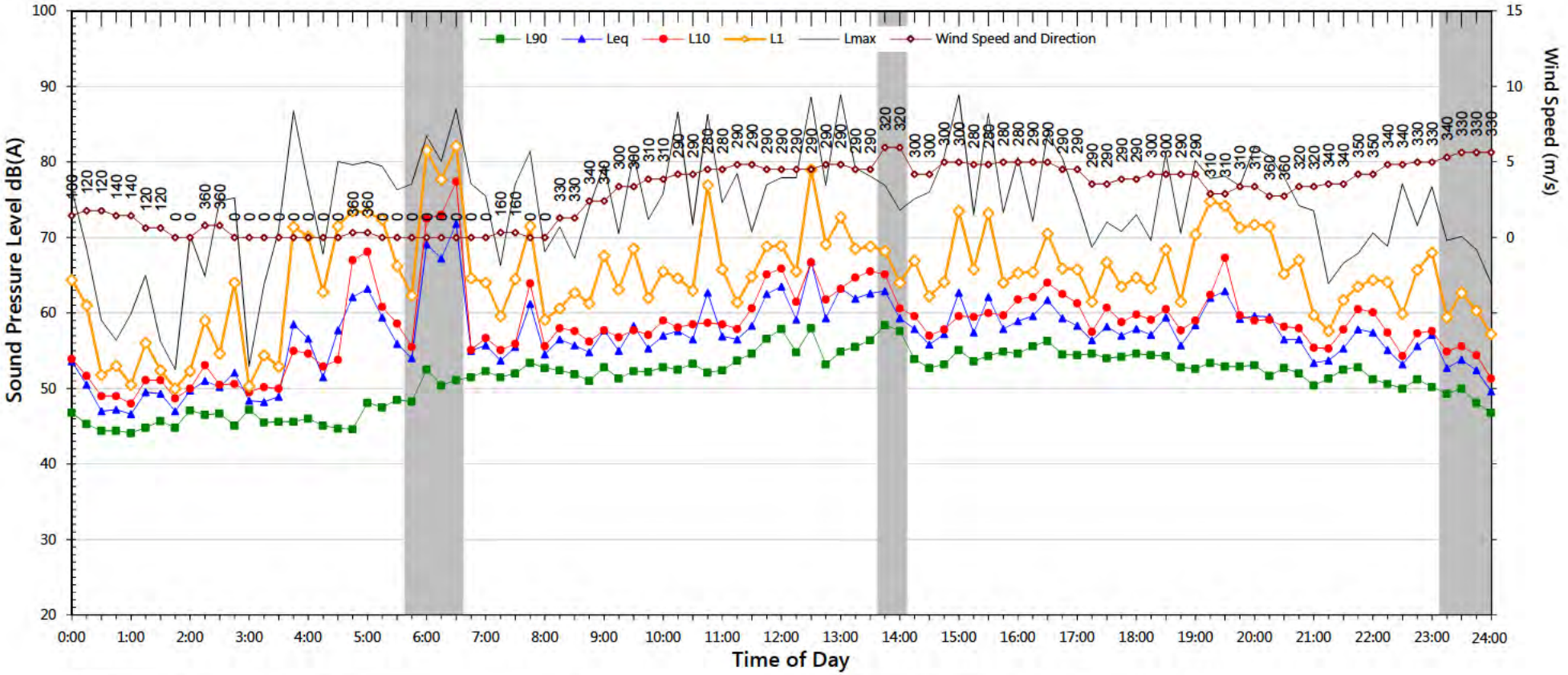
Notes:

1. Shaded periods denote measurements adversely affected by rain, wind or extraneous noise - data in these periods are excluded from calculations.
2. "Day" is the period from 8am till 6pm on Sundays and 7am til 6pm on other days
3. "Evening" is the period from 6pm till 10pm
4. "Night" relates to the remaining periods
5. "Night" relates to period from 10pm on this graph to morning on the following graph.
6. Graphed data measured in free-field; tabulated results facade corrected
7. Night time L_{Max} values are shown only where L_{Max} >65dB(A) and where L_{Max}- Leq ≥15dB(A)

Unattended Noise Monitoring Results

Commonwealth Bank Awning, Dickson

Friday, 4 November 2016



NSW Industrial Noise Policy (Free Field)			
Descriptor	Day[2]	Evening[3]	Night[4 5]
L_{90}	52.0	51.2	-
LAeq	59.7	58.5	-

Night Time Maximum Noise Levels			(see note 7)
L_{Max} (Range)	70.3	to	81.5
L_{Max} - L_{eq} (Range)	17.2	to	23.2

NSW Road Noise Policy (1m from facade)		(see note 6)
Descriptor	Day	Night[5]
	7am-10pm	10pm-7am
$L_{eq\ 15\ hr}$ and $L_{eq\ 9\ hr}$	61.9	58.5
$L_{eq\ 1hr}$ upper 10 percentile	65.3	66.7
$L_{eq\ 1hr}$ lower 10 percentile	58.8	50.6

Notes:

1. Shaded periods denote measurements adversely affected by rain, wind or extraneous noise - data in these periods are excluded from calculations.
2. "Day" is the period from 8am till 6pm on Sundays and 7am til 6pm on other days
3. "Evening" is the period from 6pm till 10pm
4. "Night" relates to the remaining periods
5. "Night" relates to period from 10pm on this graph to morning on the following graph.
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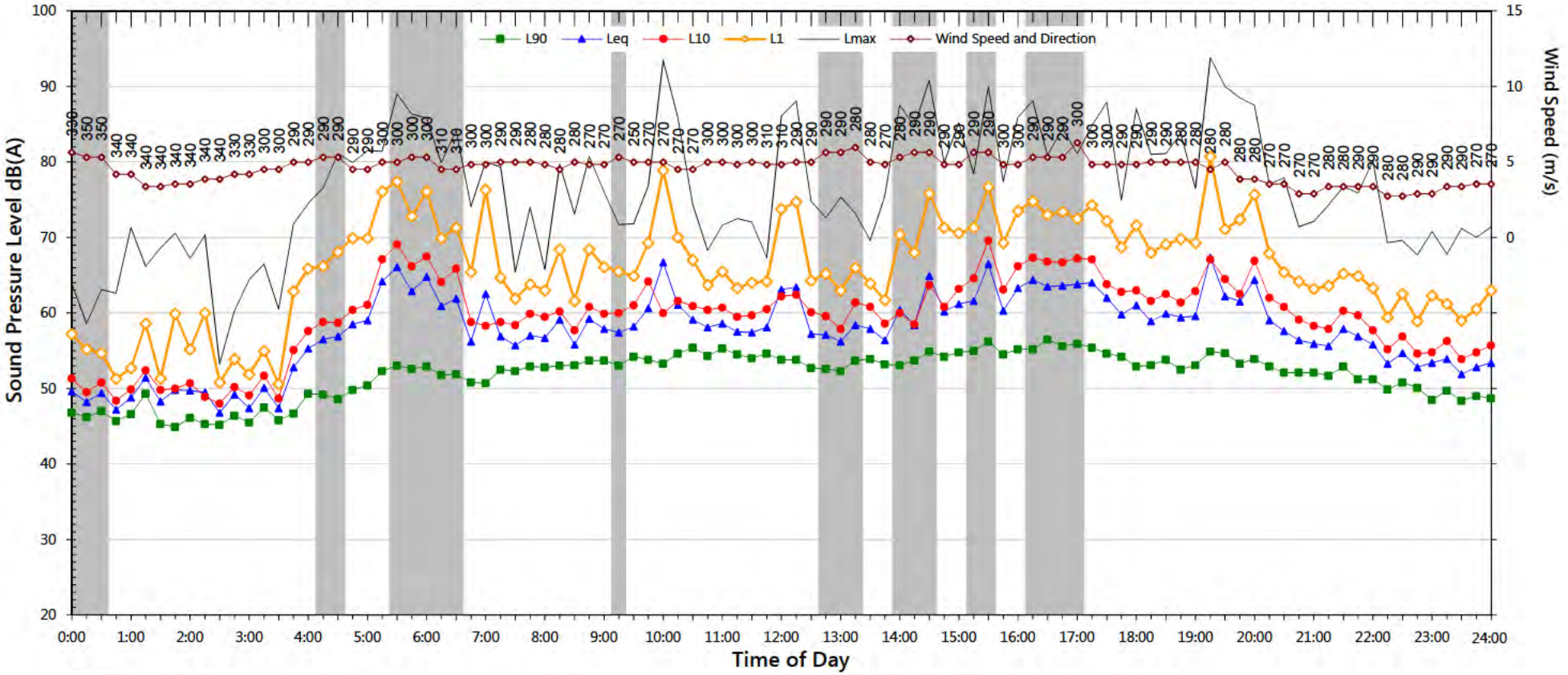
7. Night time L_{Max} values are shown only where L_{Max} >65dB(A) and where L_{Max}- Leq ≥15dB(A)

Unattended Noise Monitoring Results

Commonwealth Bank Awning, Dickson

Saturday, 5 November 2016



NSW Industrial Noise Policy (Free Field)			
Descriptor	Day[2]	Evening[3]	Night[4 5]
L_{90}	-	51.2	43.1
LAeq	-	60.7	53.1

NSW Road Noise Policy (1m from facade)		(see note 6)
Descriptor	Day	Night[5]
	7am-10pm	10pm-7am
$L_{eq\ 15\ hr}$ and $L_{eq\ 9\ hr}$	63.0	55.7
$L_{eq\ 1hr}$ upper 10 percentile	66.6	59.0
$L_{eq\ 1hr}$ lower 10 percentile	59.1	51.5

Night Time Maximum Noise Levels			(see note 7)
L_{Max} (Range)	68.1	to	81.9
L_{Max} - L_{eq} (Range)	17.2	to	27.2

Notes:

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3. "Evening" is the period from 6pm till 10pm
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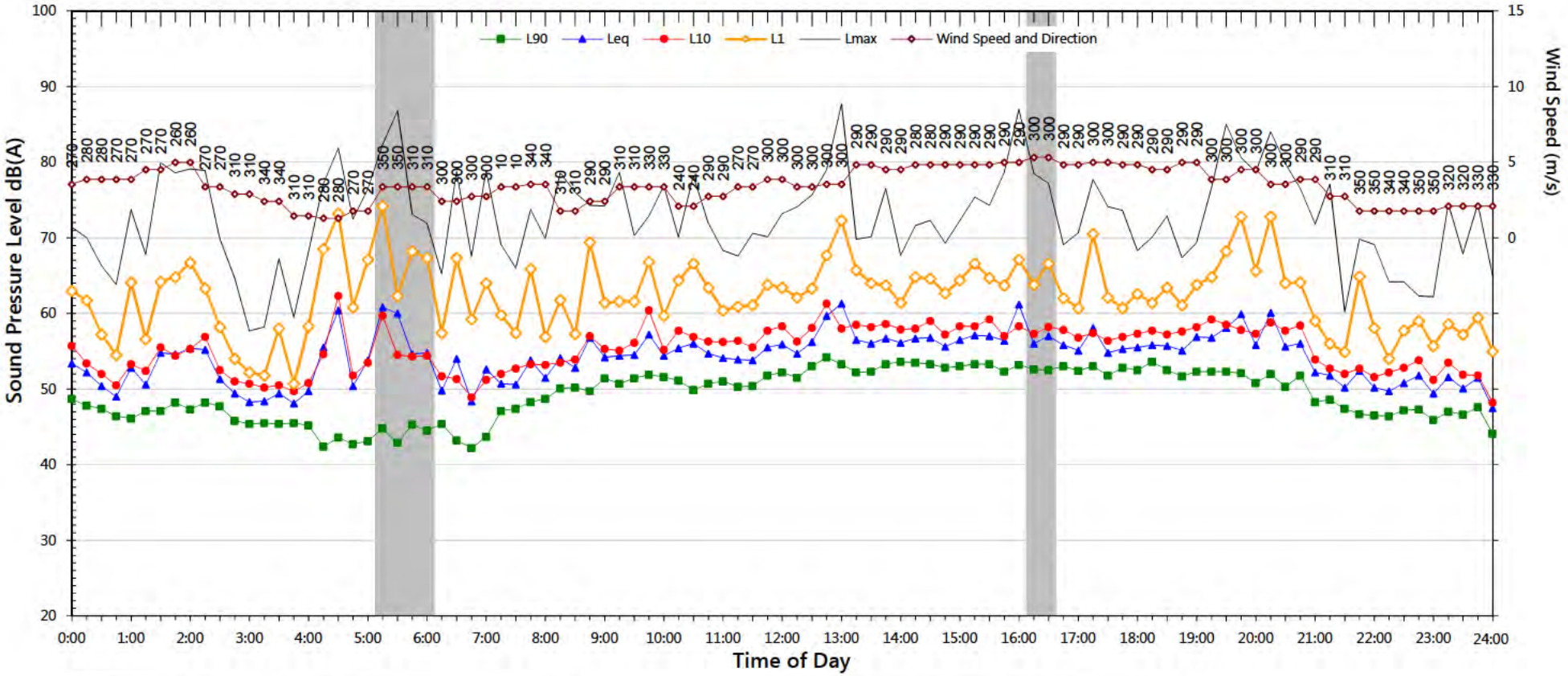
6. Graphed data measured in free-field; tabulated results facade corrected
7. Night time L_{Max} values are shown only where L_{Max} >65dB(A) and where L_{Max}- Leq ≥15dB(A)

Unattended Noise Monitoring Results

Commonwealth Bank Awning, Dickson

Sunday, 6 November 2016



NSW Industrial Noise Policy (Free Field)			
Descriptor	Day[2]	Evening[3]	Night[4 5]
L_{90}	50.2	46.7	44.1
LAeq	56.4	56.1	53.5

Night Time Maximum Noise Levels			(see note 7)
L_{Max} (Range)	67.6	to	82.1
L_{Max} - L_{eq} (Range)	19.2	to	32.3

NSW Road Noise Policy (1m from facade)		(see note 6)
Descriptor	Day	Night[5]
	7am-10pm	10pm-7am
$L_{eq\ 15\ hr}$ and $L_{eq\ 9\ hr}$	58.6	56.0
$L_{eq\ 1hr}$ upper 10 percentile	61.1	61.9
$L_{eq\ 1hr}$ lower 10 percentile	54.1	50.1

Notes:

1. Shaded periods denote measurements adversely affected by rain, wind or extraneous noise - data in these periods are excluded from calculations.
2. "Day" is the period from 8am till 6pm on Sundays and 7am til 6pm on other days
3. "Evening" is the period from 6pm till 10pm
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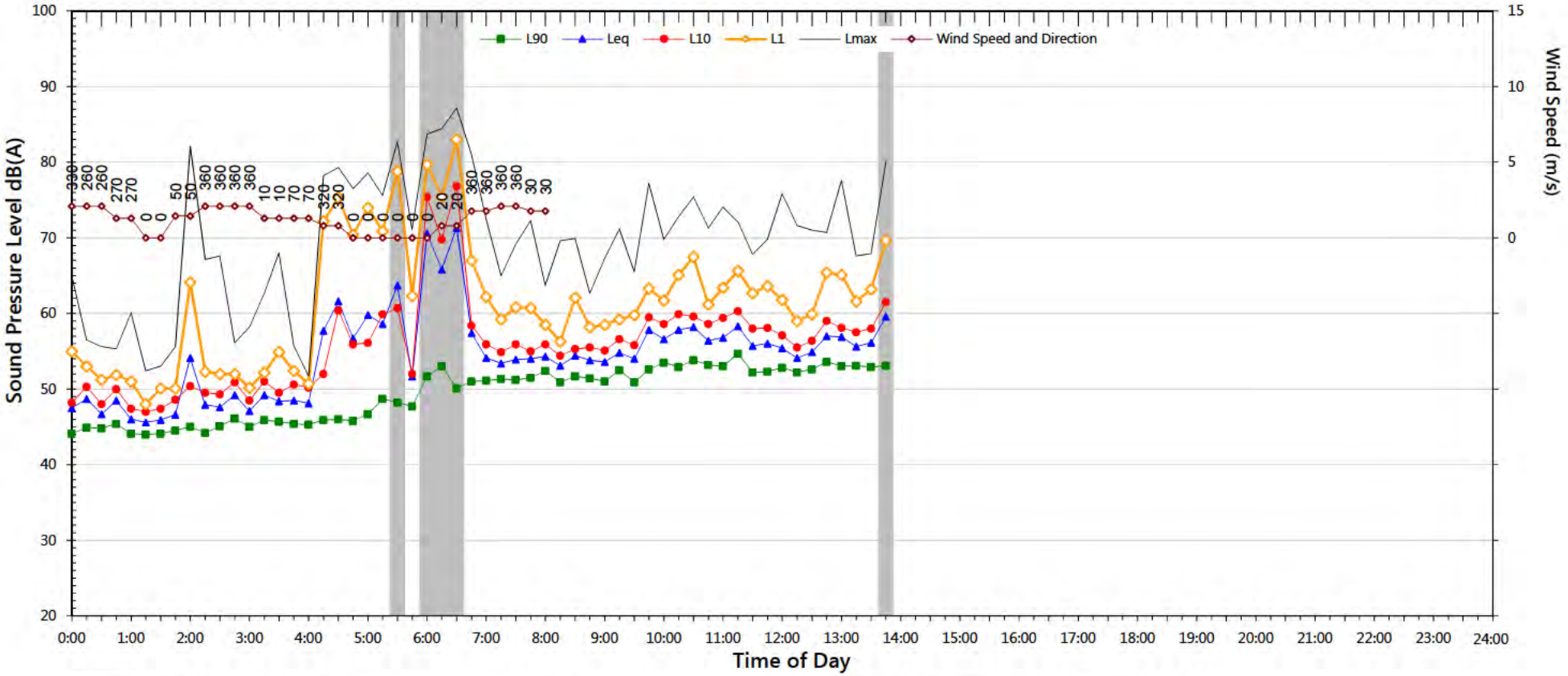
7. Night time L_{Max} values are shown only where L_{Max} >65dB(A) and where L_{Max}- Leq ≥15dB(A)

Unattended Noise Monitoring Results

Commonwealth Bank Awning, Dickson

Monday, 7 November 2016



NSW Industrial Noise Policy (Free Field)			
Descriptor	Day[2]	Evening[3]	Night[4 5]
L_{90}	-	-	-
LAeq	-	-	-

Night Time Maximum Noise Levels			(see note 7)
L_{Max} (Range)	-	to	-
L_{Max} - L_{eq} (Range)	-	to	-

NSW Road Noise Policy (1m from facade)		(see note 6)
Descriptor	Day	Night[5]
	7am-10pm	10pm-7am
$L_{eq\ 15\ hr}$ and $L_{eq\ 9\ hr}$	58.3	-
$L_{eq\ 1hr}$ upper 10 percentile	59.9	-
$L_{eq\ 1hr}$ lower 10 percentile	56.3	-

Notes:

1. Shaded periods denote measurements adversely affected by rain, wind or extraneous noise - data in these periods are excluded from calculations.
2. "Day" is the period from 8am till 6pm on Sundays and 7am til 6pm on other days
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ACT Government
Environment, Planning and Sustainable Development

Planning and Development Act 2007, s425

PRE DA LODGEMENT

COMMUNITY CONSULTATION WRITTEN NOTICE

To be completed and uploaded via eDevelopment with DA

This document must be attached to a consultation report for the following types of development applications in all areas except for Industrial Zones as defined by the Territory Plan or in an area outlined in Schedule 1B of the *Planning and Development Regulations 2008*:

A development proposal for 1 or more of the following:

(a) a building for residential use with 3 or more storeys and 15 or more dwellings

(b) a building with a gross floor area of more than 5000m^2

(c) if the development proposal is for more than 1 building – the buildings have a total gross floor area of more than 7000m^2

(c) a building or structure more than 25m above finished ground level

(d) a variation of a lease to remove its concessional status.

Lease/Site Details *Please Print*

If more than one lease/site, attach the following details for each lease/site

Block/s	21	**Section**	30	**Suburb**	Dickson
District		**Street Address**	'Public Carpark' Cnr Antill/Badham Streets		

Description of Development Proposal *Please Print*

Demolition and removal of all existing structures and trees onsite to facilitate the construction of a two to seven storey mixed use development with 140 residential units, a supermarket and other ground floor retail/commercial tenancies, podium car park, two levels of basement car parking and other associated onsite and offsite works.

COMMUNITY CONSULTATION SUMMARY

I/we hereby certify that:

- community consultation was undertaken prior to the lodgement of the development application in accordance with the guidelines for pre DA community consultation for prescribed developments
- the proposal was notified on the ACT Government's website for pre DA community consultation prior to consultation beginning and for the entire consultation period.

Applicant Details *Please Print*

Applicants Name	Knight Frank Town Planning		
Applicant Signature		**Date**	21/12/2018

Approved Form AF2017-206 approved by Ben Ponton *Chief Planning Executive* Planning and Land Authority on 31 October 2017 under section 425 of the *Planning and Development Act 2007* and revokes approved form AF2017—41.
Authorised by the ACT Parliamentary Counsel—also accessible at www.legislation.act.gov.au

Property Concept & Management Pty. Ltd.
Independent Property Consultants

17 December 2018

Coles Group Property Development
6 Giffnock Avenue
Macquarie Park NSW 2113

Attention: Rebecca Thomas

DICKSON VILLAGE – DEVELOPMENT APPROVAL DOCUMENTATION
OPINION OF COST - BUILDINGS & EXTERNAL WORKS

Property Concept & Management Pty Ltd (PCM) has reviewed the Development Approval documentation for the Dickson Village Project – Buildings and External Works and assessed an estimated construction cost of **$69,730,000 plus GST**.

Project Scope:

The estimated construction cost includes the following scope of works:

- Two Level Basement (454 Cars) - Approx. 16,800m2
- Upper Level Car Parking (206 Cars) - Approx. 6,823m2
- Ground Level Supermarket & Retail - Approx. 7,385m2
- Apartment Building (5 Level) - Approx. 15,206m2
- Associated External Works & Landscaping

Basis of Cost Estimate

The documentation referenced to undertake the assessment comprised:

- Turner Architects DA Documentation dated 11 December 2018

Exclusions

The Cost Estimate excludes the following:

- Land Costs and Land Acquisition Costs
- Interest/Finance and Legal Fees
- Design Fees
- Removal of any Contaminated In-Ground Material (if discovered)
- Supermarket Fitout
- Retail Fitouts
- Cost Escalation beyond December 2018
- GST

Refer detailed DA Budget Summary attached.

Should you need anything further, please contact the undersigned.

Yours faithfully,

Garry Eggleton
B. App. Sc. QS AAIQS
Director

DICKSON VILLAGE

DA Budget - December 2018

Component	Estimated Cost		
	GFA	**$/m²**	**$**
Car Parking:			
Basement Car Parking:			
- Basement Excavation - m3 (3-4m)	26,880	$ 24	$ 645,120
- Basement Excavation - m3 (4-6m)	23,520	$ 39	$ 917,280
- Basement Car Parking (B1 - 209 Cars)	8,400	$ 772	$ 6,482,616
- Basement Car Parking (B2 - 245 Cars)	8,400	$ 734	$ 6,165,096
- Travelators (4 No.)	Item		$ 660,000
- Ticket Machines & Boom Gates	Item		$ 360,000
Upper Level (L1) Car Parking:			
- Upper Level Car Parking (206 Cars)	6,823	$ 813	$ 5,545,325
Total - Car Parking	**23,623**	**$ 879**	**$ 20,775,437**
Apartment Building (Upper Levels):			
- Residential Foyers	134	$ 1,921	$ 257,374
- Apartments (140 No.)	11,144	$ 1,980	$ 22,069,345
- Lobbies & Corridors	1,071	$ 1,234	$ 1,321,698
- Plant/Service/BOH/Stairs/Risers	388	$ 1,393	$ 541,011
- Balconies	1,498	$ 1,293	$ 1,936,579
- Courtyards/Terraces	970	$ 1,076	$ 1,043,235
- Extra for Landscaped Communal Roof	Item		$ 200,000
- Passenger Lifts (4 No. - Serving 7 Levels)	Item		$ 880,000
Total - Apartment Building	**15,206**	**$ 1,858**	**$ 28,249,241**
Retail Building (Ground Level):			
- Retail - Supermarket (Cold Shell)	3,830	$ 892	$ 3,417,892
- Retail - Specialty (Warm Shell)	1,118	$ 1,585	$ 1,772,365
- Retail Arcade	157	$ 2,253	$ 353,674
- Retail Amenities	86	$ 3,559	$ 306,045
- Loading Dock	682	$ 983	$ 670,270
- Plant/Service/BOH/Stairs/Risers (Ground & Level 2)	1,512	$ 1,393	$ 2,105,611
- Passenger Lift (1 No. - Serving 4 Levels)	Item		$ 160,000
- Goods Lift (1 No. - Serving 5 levels)	Item		$ 200,000
Total - Retail Building	**7,385**	**$ 1,217**	**$ 8,985,857**
External Works:			
- Demolition			$ 95,000
- In-Ground Services Upgrades/Relocations	Item		$ 190,000
- Badham/Road A Intersection	Item		$ 190,000
- Antill Street/Road A Intersection	Item		$ 95,000
- Road A/Road B Intersection	Item		$ 48,000
- Water Main Upgrade - Antill Street	Item		$ 85,000
- Sewer Main Upgrade - Badham Street	Item		$ 24,000
- Gas Main Upgrade Works	Item		$ 28,500
- Relocation of Existing Telstra Infrastructure	Item		$ 95,000
- HV Infrastructure Upgrade	Item		$ 190,000
- External Road Lighting Upgrade	Item		$ 80,000
- Reinstatement of Off Site Verge Paving & Kerb Infrastructure	Item		$ 20,000
- Removal of Existing Car Park Ticket Machines	Item		$ 5,000
Total - External Works			**$ 1,145,500**
On-Costs:			
- Preliminaries & Supervision (15%)	Item		$ 8,873,405
- Management Fee (2.5%)	Item		$ 1,700,559
Total - On-Costs			**$ 10,573,964**
PROJECT TOTAL			**$ 69,730,000**

Exclusions:
- Supermarket Fitout
- Retail Fitouts
- GST

pcm - concept - cost - contract - construction - performance - independent

Property Concept & Management
Independent Property Consultants

TURNER

DICKSON MIXED USE

RES DENT AL AND RETA L DEVELOPMENT
BLOCK 21 SECT ON 30
D CKSON ACT

ARCHITECTURAL STATEMENT
DA Subm ss on

Incorporating:
C ty Renewa Author ty - Des gn Pr nc p e Assement Cr ter a
ACT Mu t -un t Hous ng Deve opment Code
Terr tory P an

December 2018

TURNER

PART 1 : PROJECT SUMMARY

Project Overview

Th s des gn report s prepared by Turner on beha f of Co es Group Property Deve opments Pty Ltd n support of a Deve opment App cat on (DA) subm ss on for the m xed use deve opment known as 'D ckson V age'

The s te s ocated n the D ckson Group Centre and therefore requ res cons derat on of the un que commun ty sett ng of D ckson Square

The deve opment proposa s for a reta and res dent a deve opment cons st ng of 140 apartments and over 4 900m2 of reta GLA The deve opment w conta n a var ety of reta offer ngs w th arge anchor tenant

The deve opment app cat on s a cons dered approach to the s te has responded respons b y to the s te character st cs and adjo n ng context

The des gn for the proposa has been dr ven by the context and focused on a pos t ve urban des gn outcome for the D ckson Square reta area

The bu d ng forms have been deve oped n response to a number of des gn pr nc p es s te observat ons and requ rements from numerous sources nc ud ng

1 C ty Renewa Author ty Des gn Pr nc p e Assessment Cr ter a
2 D ckson Prec nct Map and Code
3 ACT Mu t Un t Hous ng Deve opment Code
4 Terr tory Strateg c P ann ng Po cy
5 Terr tory P an
6 Urban des gn and arch tectura pr nc p es deve oped by Turner and ver fied through numerous comp eted projects
7 S te observat ons
8 Commun ty consu tat on

The proposa has been deve oped n co aborat on w th a comprehens ve consu tant team to address both strateg c and deta ed ssues assoc ated w th the s te and overa context

Th s report s ntended to be read n conjunct on w th arch tectura draw ngs prepared by Turner andscape draw ngs prepared by Turf Des gn and the p ann ng reports w th append ces prepared by Kn ght Frank

Prec nct ocat on p an - ustrat ng the ex st ng context n the v c n ty of the proposed s te

PART 1 : INTRODUCTION

Location

The subject s te s ts w th n the D ckson Group Centre as defined by the D ckson Prec nct Code Area RC1 Group centres s t on the th rd rung of the ACT commerc a centres h erarchy and p ay a ro e n de ver ng reta commerc a and commun ty serv ces to a group of adjo n ng suburbs

The s te s ega y descr bed as B ock 21 Sect on 30 D ckson t s ocated between Badham Street to the west and Ant Street to the north and bounded by an unnamed road known as 'Road A' to the south and east

Under the ACT Terr tory P an 2008 the s te s zoned as CZ1 Core Zone

The ex st ng surround ng context s representat ve of the var ous per ods of deve opment n D ckson To the far north of the s te across Ant Street deve opment s predom nate y res dent a and s ng e and two storey n he ght To the east of the s te s D ckson brary and D ckson hea th centre The D ckson brary s a her tage reg stered bu d ng w th a south fac ng address To the south s an estab shed McDona ds restaurant w th access from Road A and a Woo worths supermarket The s te to the west of Badham Street s occup ed by a serv ce stat on and fast food restaurant both accessed off Badham Street

The s te s we ocated n c ose prox m ty to oca pub c transport nc ud ng new D ckson ght ra stop wh ch s w th n 400m of the s te The s te s cons dered to be h gh y access b e by both pr vate veh c e and pub c transport

Proposal

The deve opment proposa s for a m xed use ntegrated deve opment br ng ng together pub c and pr vate uses The proposa nc udes a pr vate communa andscape area basement park ng and reta offer ngs

A cons stent arch tectura approach has been app ed to each strata of bu d ng typo ogy w th a strong focus on urban des gn pedestr an amen ty and c rcu at on at the ground p ane D fferent at on s prov ded to each bu d ng typo ogy through var at on n mater a use and app cat on w th a focus on the fine gra n at the ground eve The use of cons stent co our pa ette across the bu d ng de vers a coherent scheme for the s te

The deve opment s hor zonta y d v ded nto two uses reta at the ground floor and res dent a above w th pr vate park ng between the two uses The res dent a component conta ns 140 pr vate apartments of stud o 1- 2- and 3- bedroom configurat ons The reta park ng s over two basement eve s offer ng 472 spaces together w th access b e motorb ke and b cyc e park ng

The bu d ng form s arranged to opt m se ground floor act vat on around a s des of the bu d ng Part cu ar attent on has been p aced on the character of the southeast corner of the s te where a new urban square has been created The square s generous n ts proport ons w th connect ons to the ex st ng brary supermarket and reta tenanc es n c ose prox m ty to the s te The square s des gned to fac tate d fferent uses nc ud ng commun ty events

The overa form s softened at the pod um w th andscape treatment over the bu d ng edge The andscape s a so extended to the ground p ane enhanc ng a v brant and act ve pub c doma n The andscape s a so ntergrated nto the bu t form w th a s gn ficant component of vegetat on a ong the northern e evat on and v s b e a ong the bu d ng form from the eve 2 pod um

Use

The s te s current y used as an at grade car park serv c ng the D ckson Group Centre w th a tota of 237 car park ng spaces Access s so e y from 'Road A' Park ng s ava ab e on a predom nant y short term bas s on a meter ng system w th m ters onger stay and free park ng opt ons Tro ey co ect on po nts are a so present w th n the s te a ong w th a number of trees

PART 2 : DESIGN OVERVIEW

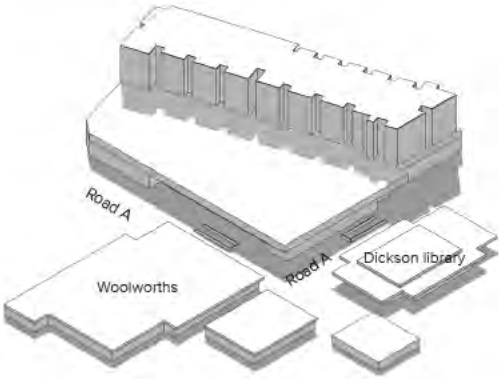
Design

The des red character for D ckson Group Centre env s ons v brant m xed use deve opment w th h gh qua ty fin shes and prov d ng nterest ng art cu ated bu d ng facades The prov s on of act ve frontages and fine gra n shopfronts a ong ma n pedestr an routes s a so des red A p ace where peop e ve work and p ay

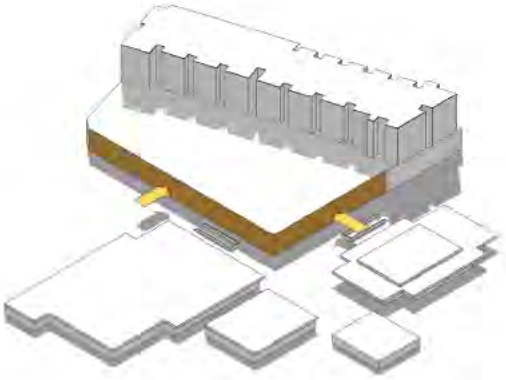
The des gn has deve oped from the structure of a prev ous proposa for the s te The current proposa has recons dered the nature of the s te n ts context and sought to prov de a more who st c and ntergrated urban des gn

Respond ng to contextua cues commun ty v ews and the requ rements of the bu d ng program

The current des gn s based on a ser es of strateg es re at ng to the urban des gn and arch tecture of the proposa

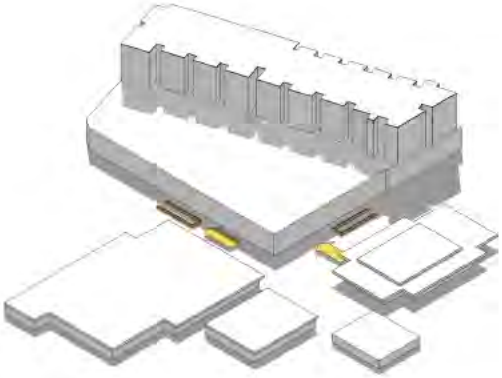


Prev ous proposa



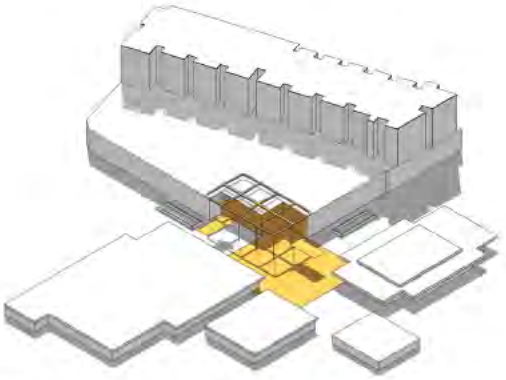
Bu d ng Enve ope

A reduct on n the bu d ng enve ope a ong the ent re 'Road A' nterface Th s prov des better amen ty to the pedestr an act v ty on the ground floor but mproves the setback to the D ckson brary and Woo worths supermarket



Ramp ocat ons

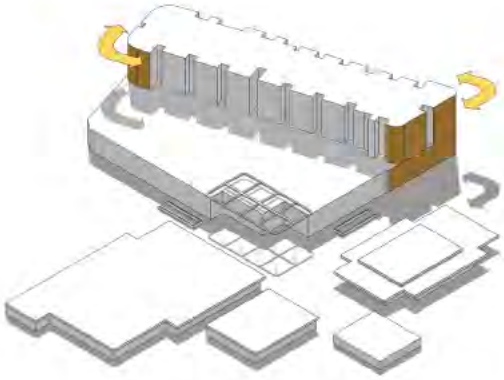
Entry and ex t ramps nto the deve opment basement carpark were moved away from the h gh pedestr an movement areas to prov de better pedestr an amen ty and mprove the safety of the pub c



D ckson Square

The south east corner of the bu d ng and reta tenanc es were reconfigured to prov de better amen ty and hand back the pub c doma n to the commun ty

The canopy structure over the square ass sts n demarcat ng the area as a po nt of gather ng The cutt ng back of the south ast corner a so ensures no overshadow ng of the ex st ng D ckson Sqaure



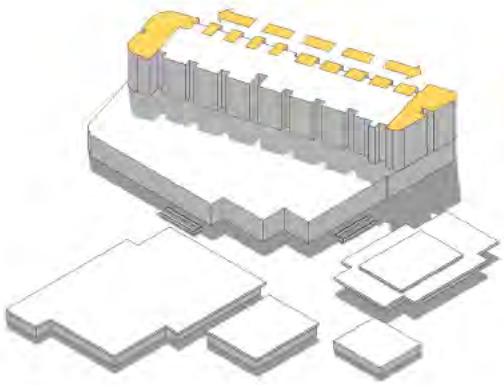
Bu d ng form

The form of the bu d ng has been softened on each of the pr mary corners but most s gn ficant y s the Ant Street corners

Curv ng the bu d ng form and program s a effect ve way to reduce the v sua appearance of the bu d ng t a so draws the eye a ong the bu d ng and nto the w der deve opment

Green ayer

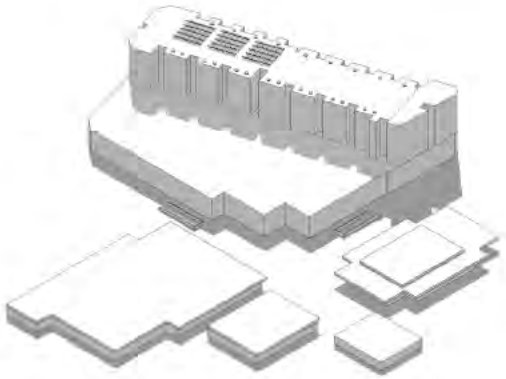
The andscape treatment for the eve 2 communa area has been great y ncreased to prov de a better fac ty for the res dents and better out ook from the pr vate apartments The rema n ng p ant rooms have been c ad n t mber ke mater a to soften the nteract on w th these enc osures wh st us ng th s space



Art cu at on

The roof form has been accentuated n parts though sma but effect ve measures to add more var at on and nterest n the facade

Art cu at on a so reduces the mass of the bu d ng form mproves amen ty to the surround ng deve opment and the res dent a apartments



Susta nab ty

The orentat on of the bu d ngs w th n the constra nts of the prescr bed bu d ng enve ope a ows the so ar access to be opt m sed for the res dent a apartments Th s s further mproved though the use of sky ghts on the top floor

So ar pane s are proposed for the reta tenancy use and common areas

W ndows n the res dent a corr dors prov des a p easant env ronment as we as a v sua connect on to the adjo n ng context for the res dents

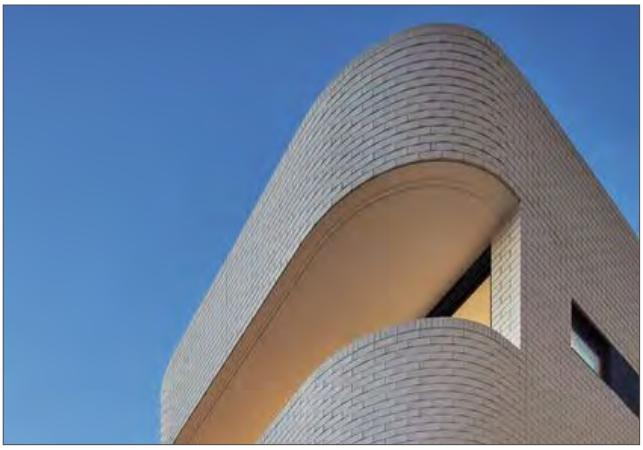
Design Concept

The bu d ng form has been deve oped and ocated to respond to

- The Terr tory P an v s on of a rev ta sed D ckson foster ng a v brant and cohes ve commun ty w th upgraded pub c doma n reta and commerc a components
- Bu d ng program Cons derat on of d fferent components of the r nter re at onsh p and spec fic requ rements
- Or entat on to ach eve opt mum so ar access w th n the constra nts of the prescr bed bu d ng enve ope The northern enve ope has been sp t to prov de for a centra sp ne Th s max m ses the number of apartments that rece ve so ar access and a so prov des for enhanced so ar access to the centra open space
- Prov de for natura cross vent at on The bu d ng form has been configured to max m se corner apartments

The des gn methodo ogy for the arch tecture of the project s configured to ach eve art cu at on and fine gra n part cu ar y from v ewpo nts on grade and where v s b e from the pub c doma n Mater a s se ect ons are des gned to weather gracefu y and to be durab e and s mp e to ma nta n The des gn approach addresses the fo ow ng e ements art cu at on entr es pr vacy and fine gra n

- Art cu at on The overa form s art cu ated to reduce the sca e of the form Vert ca and hor zonta e ements have been emp oyed to art cu ate the mass ng and prov de sca e and rhythm Expressed s ab edges a const tuent part of the structure define res dent a floors and are pa nted to contrast the br ck work to accentuate the hor zonta nature of the res dent a tower Curved e ements n the facade are dep oyed as a way to soften the angu ar junct on of the s te boundary
- Lobb es and reta frontages are enhanced w th awn ngs and soffits treatments
- Pr vacy Screen ng and vegetat on comp ements the vert ca ty of the ba ustrades and pr vacy screens offer ng fi tered pr vacy for c othes dry ng and outdoor d n ng Br ck ba ustrades a so m t gate pr vacy concerns on exposed corner apartments
- F ne gra n Ground floor act vat on s further enhanced w th fine-gra n arch tectura deta ng and spec a fin shes Masonry defines the res dent a port on of the deve opment but s a so ntroduced nto the ground p ane to further connect the two uses subt y Landscape e ements offer a further fine gra n to the open spaces around the s te and on the bu d ng facade



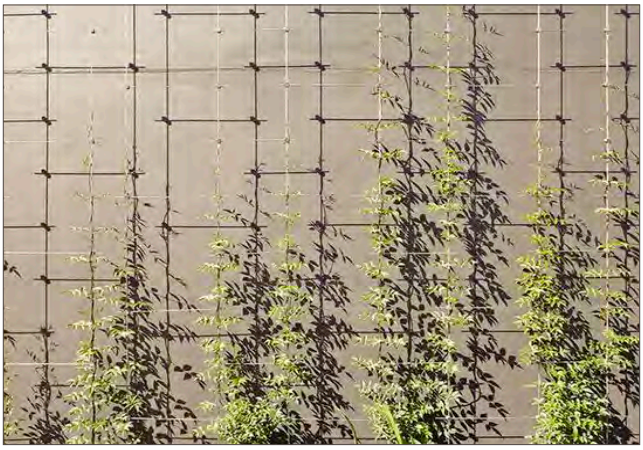
Curved face br ck softens the bu d ng form

T mber c add ng references the vert ca ba ustrade treatments

Ba ustrades d srupted the hor zonta rhythm

Expressed s ab edges accentuates the hor zonta y of the bu d ng form

A finer gra n of mater a ty define reta uses



Vert ca veg ta on soften no art cu ated facades

Design Elements

PART 3 : DESIGN PRINCIPLES

Principle 1

Design Principle 1
Context and Neighbourhood Character

Good des gn responds and contr butes to ts context Context refers to the key natura and bu t features of an area the r re at onsh p and the character they create when comb ned t a so nc udes soc a econom c hea th and env ronmenta cond t ons

Respond ng to context nvo ves dent fy ng the des rab e e ements of an area s ex st ng or future character We des gned bu d ngs respond to and enhance the qua t es and dent ty of the area nc ud ng the adjacent s tes streetscape and ne ghbourhood Cons derat on of oca context s mportant for a s tes nc ud ng s tes n estab shed areas those undergo ng change or dent fied for change

Proposal

The proposa s compat b e w th the ex st ng and future character of the prec nct as set out n D ckson Prec nct Map and Code

The oca ty s compr sed of a m xture of ex st ng commun ty and reta bu d ngs w th ow dens ty res dent a and s ng e dwe ngs n the w der context

W th reference to the present context hor zonta art cu at on defines the ower and upper port ons w th a 2 storey ower sect on and an addt ona 5 storey upper sect on defined by ncreased setbacks The facade thus re ates to the ex st ng ower sca e deve opment wh st ant c pat ng the h gher sca e deve opment

The ground p ane s des gned to produce an attract ve and v brant p ace w th the most act ve uses front ng the road network around the s te Res dent a obb es a d n act vat ng the corners of the s te and create markers and dent ty for the res dents

Veh c e c rcu at on arrangements w a ow access to the pub c and pr vate carpark from Badham Street and 'Road A' Th s w prov de nks to both Ant Street and Cowper Street A shared zone w fac tate ow vo ume ow speed veh c e movement around the s te and promote better pedestr an nteract on w th n the shared zone Serv c ng de ver es and waste access s from Ant Street

Mater a s se ect ons are des gned to weather gracefu y and to be durab e and s mp e to ma nta n The co our pa ette s refined and cons stent across the d fferent typo og es w th bo d accents to a d n v sua dent ty

The deve opment s we serv ced by pub c transport commun ty reta and recreat ona fac t es and s we su ted to the des red future character of the area

S te P an

Principle 2

Design Quality Principle 2
Built Form and Scale

Good des gn ach eves a sca e bu k and he ght appropr ate to the ex st ng or des red future character of the street and surround ng bu d ngs

Good des gn a so ach eves an appropr ate bu t form for the s te and the bu d ng s purpose n terms of bu d ng a gnments proport ons bu d ng type art cu at on and the man pu at on of bu d ng e ements Appropr ate bu t form defines the pub c doma n contr butes to the character of streetscapes and parks nc ud ng the r v ews and v stas and prov des nterna amen ty and out ook

Proposal

The sca e of the proposed deve opment s des gned to fit w th n the D ckson Prec nct Map and Code

The s te ma nta ns a re at ve y eve topography therefore the bu d ng he ght s cons stent w th the contro s for th s s te

The new D ckson Square w offer greater pedestr an nteract on n and around the s te and the w der context The pub c doma n w benefit from mproved pedestr an connect v ty wh ch s expressed n the D ckson Prec nct Map and Code

The mass ng of the bu d ng s art cu ated to define a s ng e storey reta pod um w th res dent a form above The res dent a form s art cu ated w th curved corners and component mass ng so that the forms appear more s ender and reduced n sca e A ong Ant Street the upper floor s art cu ated to reduce the apparent sca e of the bu d ng A vert ca andscape e ement a ong Ant Street softens the appearance of the first and second floor of the bu d ng

Landscape e ements nc ud ng street trees pav ng fin shes p ant ng seats and urban furn ture are des gned to create a we come atmosphere and a ow flex b ty of use w th n the square

The proposed bu d ng meet the object ves for bu d ngs that respond to the s te oca ty and andscape and demonstrates a we art cu ated bu d ng ncorporated w th we des gned andscap ng and open space The proposa contr butes to the pub c doma n w th act ve and v brant street frontages

Ant Street e evat on (north fac ng)

Principle 3

Design Quality Principle 3
Density

Good des gn ach eves a h gh eve of amen ty for res dents and each apartment resu t ng n a dens ty appropr ate to the s te and ts context

Appropr ate dens t es are cons stent w th the area s ex st ng or projected popu at on Appropr ate dens t es can be susta ned by ex st ng or proposed nfrastructure pub c transport access to jobs commun ty fac t es and the env ronment

Proposal

The proposed mass ng and bu d ng use s a d rect response to the D ckson Prec nct Map and Code p anned future des red character of the area

The number of proposed apartments (140) var ety n reta offer ngs and assoc ated car park ng s cons stent of the des red future dens ty of the prec nct

The proposed res dent a bu d ng prov des a range of dwe ng types to su t the des red hous ng d vers ty of D ckson and the greater Terr tory P an Th s nc udes the prov s on of 10% of dwe ngs that may be adapted to meet the needs of peop e w th m ted phys ca mob ty The adaptab e apartments are ocated on each floor and n c ose prox m ty to the ft obb es

The deve opment s cons stent w th the future des red dens ty of the D ckson Group Centre The proposa s cons stent w th the deed for the s te - wh ch dent fied the need for reta n the area and the appropr ateness of we -des gned res dent a apartments

The proposed dens ty s cons dered appropr ate for the s te and cons stent w th the D ckson Prec nct Mapr and Code pr nc p es

V ew from 'Road A' and Badham Street

Principle 4

Design Quality Principle 4
Sustainability

Good des gn comb nes pos t ve env ronmenta soc a and econom c outcomes Good susta nab e des gn nc udes use of natura cross vent at on and sun ght for the amen ty and vab ty of res dents and pass ve therma des gn for vent at on heat ng and coo ng reduc ng re ance on techno ogy and operat on costs Other e ements nc ude recyc ng and reuse of mater a s and waste use of susta nab e mater a s and deep so zones for groundwater recharge and vegetat on

Proposal

The proposed deve opment s des gned to fac tate a number of susta nab e measures and to contr bute pos t ve y to the env ronmenta soc a and econom c aspects of the area

The D ckson Prec nct Map and Code determ nes the east/west orentat on on the res dent a compontent

The mass ng or entat on and nterna apartment p ann ng have been organ sed to max m se natura day ght and so ar access to the pr mary v ng spaces and externa areas

The deve opment prov des a var ety of open space and andscaped areas to enhance the overa amen ty for the res dents

So ar pane s are ocated on the roof to prov de power to the reta spaces and common areas

Water sens t ve pr nc p es as out ned n the Terr tory P an WSUD w be mp emented through the use of water effic ent fixtures a s ow re ease storm water detent on system wh ch w a so prov de rr gat on to the pod um andscaped area

Reta and res dent a recyc ng fac t es are prov ded on the ground floor

Proposed env ronmenta n t at ves respect and respond to the and and ts peop e to he p accentuate and preserve the natura env ronment creat ng a ba ance that s susta nab e for new commun t es today and nto the future

The pub c transport serv ces n the mmed ate D ckson context together w th b cyc e park ng fac t es promote a ternat ve transport modes other than pr vate veh c e use

Landscape concept for pod um eve

Principle 5

Design Quality Principle 5
Landscape

Good des gn recogn ses that together andscape and bu d ngs operate as an ntegrated and susta nab e system resu t ng n attract ve deve opments w th good amen ty A pos t ve mage and contextua fit of we des gned deve opments s ach eved by contr but ng to the andscape character of the streetscape and ne ghbourhood

Good andscape des gn enhances the deve opment s env ronmenta performance by reta n ng pos t ve natura features wh ch contr bute to the oca context co-ord nat ng water and so management so ar access m cro-c mate tree canopy hab tat va ues and preserv ng green networks Good andscape des gn opt m se usab ty pr vacy and opportun t es for soc a nteract on equ tab e access respect for ne ghbours amen ty prov des for pract ca estab shment and ong term management

Proposal

The proposa s des gned to de ver a h gh qua ty bu t env ronment w th n a mature andscaped sett ng The proposa cons ders the nterface w th the pub c doma n the var ety of outdoor spaces generated by the bu d ng and the uses surround ng t

Landscape des gn s a cr t ca component of the des gn and Turf Landscape Consu tants have been engaged to contr bute to the proposa and to ntegrate the andscape components nto the overa bu d ng form

Ded cated communa open space s prov ded for the res dents on the eve 2 pod um Th s space has a extended out ook and offers a var ety of structures to fac tate d fferent act v t es for groups and nd v dua s

Setback to the ground floor prov des a human-sca e fine gra n to the pub c doma n and street nterface Th s a so a ows opportun ty for substant a trees n the pub c areas where ncreased shad ng n the outdoor env ronment s more des rab e

The D ckson Square and pub c doma n components have rece ved part cu ar attent on w th p ant ng urban furn ture and pav ng fin shes des gned to ntegrate nto the ex st ng D ckson Square pa ette and andscape

A vert ca garden feature s ocated on the northern e evat on to med ate the form and to screen the serv ce entr es to the bu d ng

The proposa has a comprehens ve andscape concept and des gn ntegrated w th the arch tectura programme Further nformat on on the andscape concept s out ned n the Landscape Arch tecture draw ngs nc uded as part of th s DA proposa

Landscaped pub c doma n and northern facade a ong Ant Street

Principle 6

Design Quality Principle 6
Amenity

Good des gn pos t ve y nfluences nterna and externa amen ty for res dents and ne ghbours Ach ev ng good amen ty contr butes to pos t ve v ng env ronments and res dent we be ng

Good amen ty comb nes appropr ate room d mens ons and shapes access to sun ght natura vent at on out ook v sua and acoust c pr vacy storage ndoor and outdoor space effic ent ayouts and serv ce areas and ease of access for a age groups and degrees of mob ty

Proposal

The amen ty of the reta space and connect on w th D ckson Square has been recons dered from the or g na scheme so that the proposa can better ntegrate nto the ex st ng shopp ng prec nct

Park ng entrances have been re ocated further away from the southeast corner to fac tate pedestr an connect ons to the D ckson brary and other reta tenanc es

The arrangement of the park ng s gn ficant y reduces traffic flow adjacent to D ckson Square a ow ng a true shared zone through the square Drop-off/p ck-up bays ass st to act vate the Square and prov de conven ence to v s tors

Res dent a obb es have been ocated on the northern corners of the bu d ng to act vate Ant Street and more appropr ate y funct on as markers and dent ty for res dents The res dent a fts now access a eve s for both obb es

A cont nuous 3 meter w de awn ng and 4 meter w de footpath are prov ded as per the D ckson Prec nct Map and Code

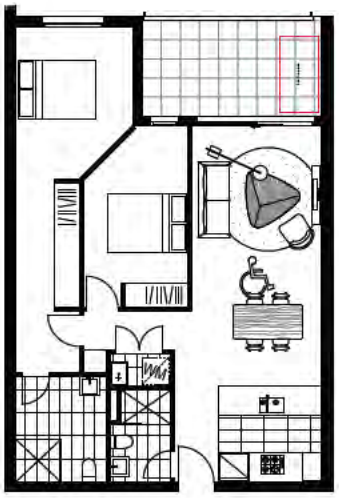
The proposed range of apartments nc ude a m x of un t typo og es prov d ng day ght access and natura vent at on Apartment ayouts have been deve oped to max m se the number of north fac ng un ts street and d str ct v ews

The proposed apartments are des gned to have exce ent eve s of amen ty A apartments meet or exceed the m n mum apartment s ze recommendat ons of the Mu t Un t Deve opment Code and are des gned w th regu ar shapes and open p an ayouts for ease of furn sh ng

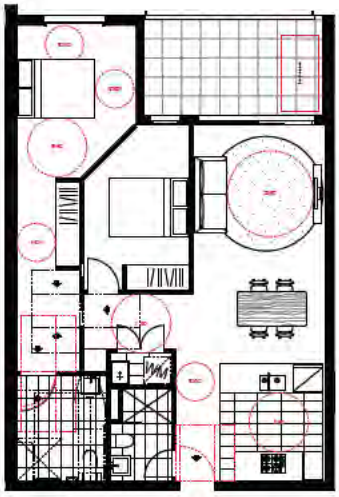
Adaptab e apartments are prov ded to meet the 10% requ rement

The waste serv ces are conso dated and separated from the more act ve ground eve uses They are des gned to operate ndependent y of the res dents and car park ng zones Waste s stored at ground eve and co ected d rect y off Ant Street v a the oad ng dock

Pr vate open space are part a y screened or obscure to prov de opportun ty for c othes dry ng to the m n mum requ rement The communa open space s respons b y segregated so that there are c ear pub c pr vate-communa and pr vate spaces Pr vate and pub c doma ns are c ear y denoted and contro ed



Typ ca pre-adaptat on apartment ayout



Typ ca post-adaptat on apartment ayout

Principle 6

Design Quality Principle 6
Amenity

Good des gn pos t ve y nfluences nterna and externa amen ty for res dents and ne ghbours Ach ev ng good amen ty contr butes to pos t ve v ng env ronments and res dent we -be ng

Good amen ty comb nes appropr ate room d mens ons and shapes access to sun ght natura vent at on out ook v sua and acoust c pr vacy storage ndoor and outdoor space effic ent ayouts and serv ce areas and ease of access for a age groups and degrees of mob ty

Proposal

A d vers ty of hous ng opportun t es under es the proposed deve opment A var ety of stud o 1- 2- and 3- bed types have been prov ded for the res dent a apartments

A cons stent eve of amen ty s prov ded across a typo og es Add t ona pr vate open space s prov ded at Leve 2 resu t ng from des rab e ncreased pr vacy between the communa areas and the pr vate apartments

The proposed range of apartment types meet the Mu t Un t Hous ng Deve opment Code object ves

- Un ts are s zed to a ow for apartment ayouts that meet the needs of res dents
- Layouts of un ts are effic ent and ach eve a h gh eve of res dent a amen ty
- The range of s zes cater to a range of househo d types and fac tate hous ng d vers ty

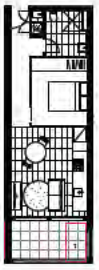
Cons stent w th market demand the proposa presents the fo ow ng apartment m x

Pr vate res dent a

- 5% x Stud o apartments
- 45% x 1 Bed apartments
- 39% x 2 Bed apartments
- 11% x 3 Bed apartments

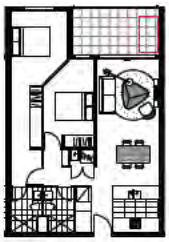
W th n th s un t m x a var ety of types have been prov ded n ne w th the Mu t Un t Hous ng Deve opment Code

The proposed apartment s zes are supported by a var ety of externa and nterna communa spaces for enhanced res dent amen ty

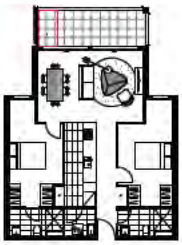


Studio

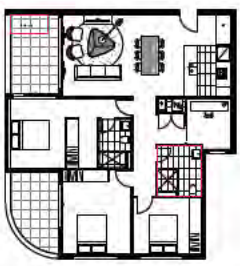
1 Bed



2 Bed



2 Bed



3 Bed

Principle 7

Design Quality Principle 7
Safety

Good des gn opt m se safety and secur ty w th n the deve opment and the pub c doma n t prov des for qua ty pub c and pr vate spaces that are c ear y defined and fit for the ntended purpose Opportun t es to max m se pass ve surve ance of pub c and communa areas promote safety

A pos t ve re at onsh p between pub c and pr vate spaces s ach eved through c ear y defined secure access po nts and we t and v s b e areas that are eas y ma nta ned and appropr ate to the ocat on and purpose

Proposal

The deve opment proposa opt m se safety and secur ty by ntegrat ng res dent a w th the pub c doma n to encourage casua surve ance of communa spaces

The proposa has recons dered safety for res dents and reta v s tors to the s te S ght nes to obb es and entry areas have been cons dered and enhanced where poss b e The s ght nes from the top of the trave ator and reta obby are now more d rect to the D ckson brary and adjacent reta tenanc es The proposa has been reconfigured to better engage w th D ckson Square a ow ng s mp e access to nearby commun ty bu d ngs and reta tenanc es

The res dent a eve s are separated from the ground floor v a secure obb es and fts Lobb es are we - t v s b e from the pub c doma n and supp emented by CCTV Park ng has been a ocated to ensure adequate separat on and secur ty to both res dents and the genera pub c

Way-find ng and s gnage are an mportant cons derat on and are des gned to be c ear eg b e and fac tate s mp e nav gat on through the s te for pedestr ans and veh c es

Act ve and casua surve ance to the pub c doma n s ach eved by res dent a apartments over ook ng the ground p ane wa kways through communa spaces and secur ty and management procedures for car park ng areas Concea ed spaces and recesses have been m n m sed

There w be appropr ate ght ng to pub c and pr vate areas des gned to both prov de a secure env ronment and to m n m se ght sp for res dents

Principle 8

Design Quality Principle 8
Housing diversity and Social Integration

Good des gn ach eves a m x of apartment s zes prov d ng hous ng cho ce for d fferent demograph cs v ng needs and househo d budgets

We des gned apartment deve opments respond to soc a context by prov d ng hous ng and fac t es to su t the ex st ng and future soc a m x Good des gn nvo ves pract ca and flex b e features nc ud ng d fferent types of communa spaces for a broad range of peop e prov d ng opportun t es for soc a nteract on amongst res dents

Proposal

The deve opment conta ns a m x of stud o 1- 2- and 3- bed apartments There are mu t p e apartment types and s zes to cater for a range of demograph cs and pr ce po nts 10% of the hous ng stock s a ocated to adaptab e hous ng ntegrat ng th s prov s on n the deve opment Arch tectura treatment access to v ews and a var ety of apartment types are prov ded across a res dent a eve s

The proposed communa space s des gned to engender commun ty sp r t for res dents w th n the deve opment by offer ng pr vate and pub c open spaces Areas are prov ded for groups to congregate n the eve 2 andscape pod um together w th communa garden fac t es

The ocat on of the communa open space has been s ted to opt m se so ar access dur ng m d w nter w th n the constra nts of the presr bed bu d ng enve ope

A common areas are des gned for equ tab e access

Bus ght ra stops and b cyc e park ng are nearby for the conven ence of reta v s tors and to a ow a ternat ves to pr vate veh c e use

Ant Street v ew of res dent a tower and ground floor obby

Principle 9

Design Quality Principle 9
Aesthetics

Good des gn ach eves a bu t form that has good proport ons and a ba anced compos t on of e ements reflect ng the nterna ayout and structure Good des gn uses a var ety of mater a s co ours and textures

The v sua appearance of we des gned apartment deve opment responds to the ex st ng or future oca context part cu ar y des rab e e ements and repet t ons of the streetscape

The proposa s des gned w th a number of d fferent arch tectura strateg es n order to ach eve a we -ba anced aesthet c and an appropr ate v sua presence from vantage po nts both near and far from the s te

The n t a strategy was to art cu ate the overa bu d ng form w th n the enve ope so that e ements of the bu d ng read as a ser es of sma er vo umes by express ng d screte parts of the bu d ng d fferent y

The des gn methodo ogy for the facades has been refined to ach eve an appropr ate eve of art cu at on w th a robust pa ette of mater a s and appropr ate address to the street and pub c doma n A cons stent anguage un fies the d fferent typo og es The des gn approach addresses the fo ow ng e ements art cu at on entr es pr vacy and fine gra n

Articulation. The overa form s art cu ated to reduce the sca e of the form

Vert ca and hor zonta e ements have been emp oyed to art cu ate the mass ng and prov de sca e and rhythm Expressed s ab edges a const tuent part of the structure define res dent a floors and are pa nted to contrast the br ck work to accentuate the hor zonta nature of the res dent a tower

Curved e ements n the facade are dep oyed as a way to soften the angu ar junct on of the s te boundary

Entries. Lobb es and reta frontages are enhanced w th awn ngs to g ven a sense of arr va and dent ty

Privacy. Screen ng comp ements the vert ca ty of the ba ustrades offer ng fi tered pr vacy for c othes dry ng and outdoor d n ng Br ck ba ustrades a so m t gate pr vacy concerns on exposed corner apartments

Fine grain. Ground floor act vat on s further enhanced w th fine-gra n arch tectura deta ng and spec a fin shes

Masonry defines the res dent a port on of the deve opment but s a so ntroduced nto the ground p ane to further connect the two uses subt y Landscape e ements offer a further fine gra n to the open spaces around the s te and on the bu d ng facade

Further nformat on regard ng the fin shes mater a s and e evat ons compos t on can be found n the e evat ons and perspect ve mages subm tted as part of th s app cat on

Examp e 1

Th s shop front s des gned around product d sp ay where arge w ndow are used to max m se connect on to the pedestr an traffic and two s ng e entry po nts are prov ded to encourage the pub c ns de

Examp e 2

Th s shop front s des gned around food and beverage where the shopfront acts as a d n ng bench and outdoor d n ng s encourage and a s ng e entry po nts he ps tenants mange the flow of d nners

TURNER

DICKSON MIXED USE

B ock 21, Section 30, Dickson ACT

DEVELOPMENT schedule

DEVELOPMENT APPL CAT ON

Prepared for Co es Group Property Deve opment

Incorporating:

Deve opment Summary
Area Anan ysis
ADG Summary
Heights Summary
Parking Ana ysis

28 November 2018
Rev C
For nformation

01 DEVELOPMENT SUMMARY

Summary

Site Area	7,258	sq m
Overa Bui ding FSR	2.46	:1
Number of Storeys	**7**	5 Storeys residentia over 1 storey retai
Size range / 1 Bed Apartment	55-66	sq m
Size range / 2 Bed Apartment	75-85	sq m
Size range / 3 Bed Apartment	96-138	sq m
Percentage of Studio Apartments	5.0%	
Percentage of 1 Bed Apartments	45.0%	
Percentage of 2 Bed Apartments	39.3%	
Percentage of 3 Bed Apartments	10.7%	
Nett nterna Area for Residentia	10,067	sq m
Efficiency NSA/GFA	82%	
Tota Number of Studio Apartments	7	units
Tota Number of 1 Bed Apartments	63	483
Tota Number of 2 Bed Apartments	55	units
Tota Number of 3 Bed Apartments	15	units
Tota Number of Apartments	**140**	units
Retai GFA	**5,001**	**sqm**
Retai GHR/Amenities/Lobby	**269**	**sqm**
Residentia GFA	**12,251**	**sq m**
Residentia GHR / Storage / obbies	**313**	**sqm**
	17,834	**sq m**

Car Park

Carparking	Studio	1 Bed	2 Bed	3 Bed		Retai /Comm
Number per Type	1.0	1.0	1.5	2.0		0
Sub Tota	7	63	83	30	**169**	**470**
Accesib e					**14**	**15**
Actua number of spaces provided					183	485

02 AREA ANALYSIS

Site Information

Site Area	7,867	GFA Residentia	12,251
		Ground F oor Lobbies	140
		Leve 2 Storage	166
		Resi Garbage	147
		Subtotal	**12,704**
		Retai obby	148
		Supermarket	3878
		Retai	1123
		Amenites	85
		Commercia GH	35
		Subtotal	**5,269**
		TOTAL	**17,973**

Area Analysis Residential

Total

	GFA	GFA/NLA	NSA nt*
Leve 06	2452	82.3%	2018
Leve 05	2452	82.3%	2018
Leve 04	2452	82.3%	2018
Leve 03	2452	82.3%	2018
Leve 02	2442	81.7%	1994
	GFA		NSA nt
Total	12,251	82.2%	10,067

03 YIELD AND ADG SUMMARY

Apartment and Amenity Ana ysis > Overa Summary

Apartment Yield

	Apartment Type	No. of Apartments	% Mix	Net internal (m2)	Net External (m2)	Average Internal	Average External
Total							
	Studio	7	5%	301	120	43.0	17.1
	1 Bed	63	45%	3575	983	56.7	15.6
	2 Bed	55	39%	4589	801	83.4	14.6
	3 Bed	15	11%	1600	319	106.7	21.3
	Total	140	*100%*	**186**	**2223**	**98.1**	**15.9**

Apartment Amenity (Reference to Apartment Design Guide)

	Natural Vent	Solar (LIV)	Solar (BY)	Adaptable	Livable Housing (Silver)	Lift	NDS 9am-3pm
Studio	1	1	0	0	0	0	6
1 Bed	13	13	0	0	0	0	50
2 Bed	15	55	55	9	0	0	0
3 Bed	15	15	15	5	0	0	0
Total	44	84	70	14	0	0	56
	31%	60%	50%	10%	0%	0%	40%

04 HEIGHTS SUMMARY

Height Summary > Foyer A

	Storeys	FLOOR Leve	RL	*Floor to Floor*
		Parapet	600.20	0.55
		Roof	599.65	*3 00*
	7	Leve 6	596.65	*2 90*
	6	Leve 5	593.75	*2 90*
	5	Leve 4	590.85	*2 90*
	4	Leve 3	587.95	*2 90*
PODIUM	**3**	Leve 2	585.05	*2 90*
	2	*Level 1 - Carpark*	582.05	*3 00*
Transfer	**1**	Ground	576.20	*5 85*
	B1	*Basement 01 Car Park*	573.20	*3 00*
	B2	*Basement 02 Car Park*	570.20	*3 00*
		Lift Pit	567.25	*2 95*

05 PARKING ANALYSIS

Parking Analysis > Overall Summary

Vehicle Parking Requirements_Target Rates

Residentia	Apartment Type	Parking Rate	No. of Apartments	Parking Provided.
	Studio	1.0	7	7
	1 Bed	1.0	63	63
	2 Bed	1.5	55	83
	3 Bed	2.0	15	30
				183
Subtota			140	**183**
Total (less Adaptable)				**169**
		Parking Rate (Minimum / Apartment)		
Car rep acement				237
New Supermarket/Retai				248
Tota Retai (ess Adaptab e)				470
TOTAL RETA L				**485**

Ancillary Parking Requirements

Residentia	
Adaptab e Space	14
Non-Residentia	
Accessibi e - Retai	15
TOTAL Accessib e/Adaptab e Bays	**29**