
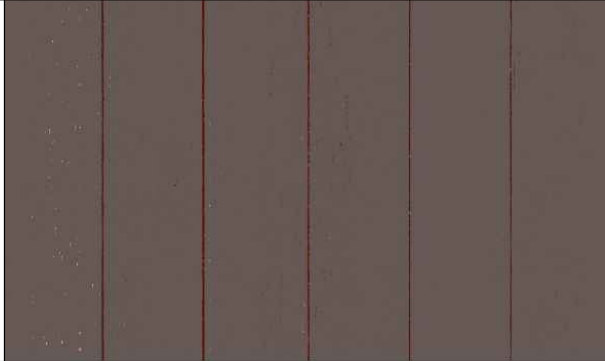

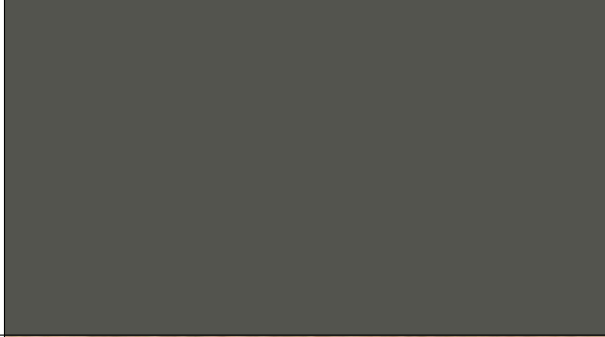






**STREETSCAPE ELEVATION**  
MOUNT VERNON ROAD

EXTERNAL FINISHES			
ABBREVIATION	DESCRIPTION	LOCATION	FINISH
STC.01	STONE CLADDING 'DESERT STORM'	EXTERNAL WALLS	
TBR.01	TIMBER CLADDING 'WEATHERTEX' WEATHERGROOVE 150	EXTERNAL WALLS	
PRP.01	ACRATLEX 3 STEP COATING SYSTEM TO POWER PANELS	EXTERNAL WALLS	
R.01 F.01 B.01 G.01 HR.01 PCA.01	COLORBOND METAL 'WOODLAND GREY'	CORRUGATED ROOF SHEETS GUTTER FASCIA BARGE BOARD HANDRAIL WINDOWS	
DK.01	MODWOOD ECO DECK	VERANDAH, BOARDWALK & GAZEBO	
SCN.01	MODWOOD ECO DECK	SUB-FLOOR SCREEN	
TP.01	TIMBER POST CLADDING 'MERBAU'	VERANDAH, BOARDWALK & GAZEBO	

ARCHITECTURAL DRAWING LIST		
DRAWING NO.	NAME	SCALE
DA00	COVER SHEET	NTS
DA01	SITE PLAN	1:200 1:400
DA02	SITE ANALYSIS AND MANAGEMENT PLAN	1:400
DA03	FLOOR PLAN	1:100
DA04	ROOF PLAN	1:100
DA05	ELEVATIONS & SECTION	1:100
DA06	COMMERCIAL KITCHEN DETAIL PLAN ELEVATIONS AND SECTIONS	1:50
DA07	NOTES	NTS
DA08	PHOTOMONTAGE - SHEET 1	NTS
DA09	PHOTOMONTAGE - SHEET 2	NTS
DA10	PHOTOMONTAGE - SHEET 3	NTS

Development Application

# SECTION J NOTES

## Part J1 - Building Fabric

### 1. Construction Requirements - Installation of Insulation

Where required, insulation must comply with AS/NZS 4859.1 and be installed so that it:

- (i) abuts or overlaps adjoining insulation other than at supporting members; and
- (ii) forms a continuous barrier...and
- (iii) does not affect the safe or effective operation of a service or fitting.

Reflective insulation must be installed with:

- (i) the necessary airspace to achieve the required R-Value between a reflective side of the reflective insulation and a building lining or cladding; and
- (ii) the reflective insulation closely fitted against any penetration, door or window opening; and
- (iii) the reflective insulation adequately supported by framing members; and
- (iv) each adjoining sheet of roll membrane being overlapped not less than 50 mm or lapped together.

Bulk insulation must be installed so that:

- (i) it maintains its position and thickness, other than where it crosses roof battens, water pipes, electrical cabling or the like; and
- (ii) in a ceiling, where there is no bulk insulation or reflective insulation in the wall beneath, it overlaps the wall by not less than 50 mm.

### 2. Construction Requirements - Roof and Ceiling Insulation

The minimum total R-Value for the roof/ceiling system which forms part of the envelope required by BCA Table J1.3a is R3.2.

The proposed roof/ceiling system achieves an R-Value of R0.47. Therefore to achieve compliance, insulation of at least R2.73 is required to be incorporated into the roof/ceiling system which forms part of the envelope.

### 3. Construction Requirements - Adjustment for Loss of Ceiling Insulation

Where the required insulation is located at ceiling level and the percentage of ceiling area uninsulated is more than 0.5% as a result of loss of ceiling insulation due to operational or safety reasons and where insulation of more than R1.0 is located at ceiling level, the loss of insulation must be compensated for by increasing the R-Value of the insulation in the remainder of the ceiling in accordance with BCA Table J1.3b.

Note: The percentage of ceiling area uninsulated must not exceed 5% of the total ceiling area forming part of the envelope.

### 4. Construction Requirements - Thermal Break

Where the ceiling lining is attached directly to the same metal frame as the metal roof, a thermal break of at least R0.2 must be installed between the metal sheet roofing and its supporting metal frame. This applies to areas of roof that form part of the envelope.

### 5. Construction Requirements - Wall Insulation (External Envelope)

Where external walls form part of the envelope, a total R-value of R2.8 is required to be achieved. The metal stud walls achieve an R-value of R0.22. Therefore, insulation with R-value of at least R2.58 is required to be incorporated into the metal stud wall system where walls form part of the external envelope.

See Appendix for walls forming part of the envelope.

### 6. Construction Requirements - Wall Insulation (Internal Envelope)

Where internal walls form part of the envelope, a total R-value of R1.8 is required to be achieved.

The stud walls achieve an R-value of R0.33. Therefore, insulation with R-value of at least R1.47 is required to be incorporated into the stud wall system where walls form part of the internal envelope.

See Appendix for walls forming part of the envelope.

### 7. Construction Requirements - Thermal Breaks

A thermal break with R-Value of not less than R0.2 must be installed between the external cladding and the metal frame of walls that have lightweight external cladding fixed to a metal frame and have a wall lining fixed directly to the same metal frame where walls form part of the envelope.

### 8. Construction Requirements - Floor Insulation

The total R-value required to be achieved by an on-ground concrete slab with no in-slab heating or cooling in climate zone 6 is: *NIL*

## Part J2 - Glazing

### 9. Construction Requirements - Glazing

Glazing elements forming part of the envelope shall have the following thermal properties in terms of their orientations:

Orientation	Item	Total U Value	SHGC
South	Glazing	Equal or Lower than 5.4	Equal or Higher than 0.31
East	Glazing	Equal or Lower than 8.0	Equal or Lower than 1.0
North	Glazing	Equal or Higher than 3.2	Equal or Lower than 0.54
West	Glazing	Equal or Lower than 6.0	Equal or Lower than 0.99

Refer to Appendix for full calculation of glazing requirements.

### 10. Construction Requirements - Shading

Shading has been provided as shown on architectural drawings by building elements and shading projections. For further details refer to the glazing calculations in Appendix (see P and H values). No alterations shall be made to shading design dimensions without first checking compliance with this Clause.

Contact Application Solutions for assistance if required.

## Part J3 - Building Sealing

### 11. Construction Requirements - Window and Door Sealing

A seal to restrict air infiltration must be fitted to each edge of a door, operable window or the like where forming part of the envelope. The seal may be a foam or rubber compression strip, fibrous seal or the like.

For the bottom edge of an external saving door, a draft protection device must be installed. For exemptions to this clause see body of report.

### 12. Construction Requirements - Building Entrance Sealing

An entrance to a building leading to a conditioned space must have an airtight, self-closing door, revolving door or the like.

### 13. Construction Requirements - Exhaust Fan Sealing

A miscellaneous exhaust fan such as a bathroom or domestic kitchen exhaust fan, must be fitted with a sealing device such as a self-closing damper or the like when serving a conditioned space.

### 14. Construction Requirements - Roof, Wall and Floor Sealing

Roofs, ceilings, walls, floors and any opening such as a window frame, door frame, or the like must be constructed to minimise air leakage when forming part of the envelope and must be enclosed by internal lining systems that are close fitting at ceiling, wall and floor junctions or sealed by caulking, skirting, architraves, cornices or the like.

## Part J5 - Air-conditioning and Ventilation Systems

### 15. Construction Requirements - Deactivation Capability

An air-conditioning system must be capable of being deactivated when the building or part of the building served is not occupied.

### 16. Construction Requirements - Air-conditioning Zones

Different air-conditioning zones shall be separately thermostatically controlled and not have their temperature controlled by mixing actively heated air, or actively cooled air. Reheating must be limited to not more than a 7.5K rise in temperature for a fixed supply air rate, or for a variable supply air rate, not more than 7.5K rise in temperature at the normal supply air rate but increased or decreased at the same rate that the supply air rate is respectively decreased or increased.

### 17. Construction Requirements - Economy Cycle

Where the air-conditioning system provides the required mechanical ventilation and exceeds 35 kW, it shall have an outdoor air economy cycle.

### 18. Construction Requirements - Air Dampers

Where the air-conditioning unit or system has motorised outside air and return dampers, close the dampers when the air-conditioning unit or system is deactivated.

### 19. Construction Requirements - Air-conditioning Fans

Fans of any air-conditioning systems serving the building must comply with BCA Specification J5.2a.

### 20. Construction Requirements - Ductwork Insulation

The ductwork of an air-conditioning system must be insulated and sealed in accordance with BCA Specification J5.2b.

### 21. Construction Requirements - Energy Efficiency Ratios

Any packaged air-conditioning equipment or refrigerant chillers (as part of an air-conditioning system) must have energy efficiency ratios in compliance with BCA Specification J5.2c.

### 22. Construction Requirements - Time Switch

A time switch in accordance with BCA Specification J6 must be provided to control all air-conditioning/heating systems of more than 10 kW.

### 23. Construction Requirements - Ventilation Operation

A mechanical ventilation system (excluding one which is part of an air-conditioning system) must be capable of being deactivated when the building or part of the building served is not occupied.

### 24. Construction Requirements - Mechanical Ventilation of Conditioned Space

The mechanical ventilation system shall not provide mechanical ventilation in excess of the minimum quantity required by BCA Part F4 by more than 20% other than in the conditions detailed in the body of the report.

### 25. Construction Requirements - Ventilation Fans

Any fans of a mechanical ventilation system installed must comply with BCA Specification J5.2a.

### 26. Construction Requirements - Ventilation Time Switch Control

Any mechanical ventilation system with an air flow rate of more than 1000 L/s must be controlled by a time switch in compliance with BCA Specification J6.

### 27. Construction Requirements - Miscellaneous Exhaust

An exhaust system which has an air flow rate of more than 1000 L/s and is associated with equipment having a variable demand must have the ability for the operator to stop the motor when the system is not in use and must also have a variable speed fan (or similar control system).

## Part J6 - Artificial Lighting and Power

### 28. Construction Requirements - Maximum Interior Illumination Power Load

The total maximum allowed interior illumination power load for the development is 6,446 W.

The aggregate design illumination power load must not exceed this allowed wattage.

Note emergency lighting and signage lighting are exempted from this requirement.

See Appendix for detailed calculation of allowed interior illumination power load.

### 29. Construction Requirements - Lighting Control

Artificial lighting of a room or space must be individually operated by a switch or other control device.

### 30. Construction Requirements - Lighting Control (Switching)

Artificial lighting switches must be located in a visible position in the room or space being switched or in an adjacent room or space from where the lighting being switched is visible. Switches must not operate lighting for an area of more than 250 m<sup>2</sup>.

### 31. Construction Requirements - Time Switch or Occupant Sensing Device

95% of the lighting in the building must be controlled by a time switch in accordance with BCA Specification J6 or an occupant sensing device such as a security card reader that registers a person entering and leaving the building or a motion detector in accordance with BCA Specification J6.

### 32. Construction Requirements - Decorative or Display Lighting

Interior decorative and display lighting (such as for foyer mural art display), shall be controlled separately from other lighting by a manual switch for each area (where the operating times of the displays are the same in multiple areas, they may be combined).

Where the decorative/display lighting exceeds 1 kW, it must be controlled by a time switch in accordance with BCA Specification J6.

### 33. Construction Requirements - Window Display Lighting

Window display lighting must be controlled separately from other display lighting.

### 34. Construction Requirements - Perimeter Lighting

Artificial lighting around the perimeter of the building must be controlled by a daylight sensor or a time switch in accordance with BCA Specification J6.

When the total perimeter lighting load exceeds 100 W it shall have an average light source efficacy of not less than 60 Lumens/W or be controlled by a motion detector in accordance with BCA Specification J6.

### 35. Construction Requirements - Decorative Perimeter Lighting

Where external lighting for decorative or signage purposes is installed, it must be controlled by a time switch (separate from other external lighting) in accordance with BCA Specification J6.

### 36. Construction Requirements - Boiling/Chilled Water Storage Units

The power supply to a boiling water or chilled water storage unit must be controlled by a time switch in accordance with BCA Specification J6.

### Part J7 - Heated Water Supply and Swimming Pool and Spa Pool Plant

### 37. Construction Requirements - Hot Water Heater

Any heated water service for food preparation or sanitary purposes must be designed and installed in accordance with Part B2 of NCC Volume Three - Plumbing Code of Australia.

### Part J8 - Access for Maintenance and Facilities for Monitoring

### 38. Construction Requirements - Gas and Electricity Consumption

The building has a floor area of more than 500 m<sup>2</sup> and therefore must have the facility to record the consumption of gas and electricity.