

Project No. 20472  
14/12/2020

Mark Jeavons  
Hassell  
Level 1 Commonwealth Bank Building  
242 Murray Street  
Perth WA 6000

Dear Mark,

**RE: 88 Mill Point Road – Building Services DA Statement**

Further to the email from NS Projects dated 7 December 2020, we provide our updated building services DA Statement to confirm that each service will be designed to conform to the Green star requirements by Full Circle Design Services (FCDS), as deemed necessary to achieve a 5 Star Green star rating.

**Mechanical**

The Mechanical design has considered and will be designed to include the following as part of the base design planning:

- Commissioning in accordance with CIBSE commissioning codes or other internationally accepted commissioning standard;
- Provision of Operation and Maintenance manuals in editable and electronic, online versions for future maintenance and management;
- All kitchens will be provided with dedicated, ducted exhausts to outside.
- Low toxicity (VOC) adhesives and sealants
- Mechanical fan systems will be sized at 15% reduced power consumption in comparison to BCA 2019 minimum
- Mechanical air conditioning units will be selected at 5% improved COP in comparison to BCA / MEPS minimum
- Mechanical plant will have occupancy and/or timer-based control to avoid being left on when not in use
- Best practice PVC for cables, conduits and piping
- Building to be pressure tested for façade leakage at practical completion. At least 20% of all occupied space shall be tested, including all commercial space, each typical apartment and 100% of the top two floors of each apartment tower.



## Electrical

The Electrical design has considered and is designed to include the following as part of the base design planning:

- Commissioning in accordance with CIBSE commissioning codes or other internationally accepted commissioning standard.
- Provision of Operation and Maintenance manuals in editable and electronic, online versions for future maintenance and management.
- Low toxicity (VOC) adhesives and sealants.
- Best practice PVC for cables, conduits and piping.
- Provision of metering and monitoring to comply with BCA 2019.
- Provision of 100kW PV array located to avoid overshadowing (or sized appropriately based on available free area). Given the current roof size and panel arrangement, 110kW of generation is achievable.
- Lighting Quality;
  - Light fittings are expected to have CRI's of at least 80, with diffusers to prevent direct sight of luminaire. Residential fittings to have no more than 3 MacAdam Elipses.
- Energy Efficiency;
  - Light fittings shall consume 10% less power than BCA 2019 allowances on average.
  - Light fittings shall have occupancy and/or timer-based control to avoid being left on when not in use
- Light Emissions;
  - Design will comply with AS 4282:1997 for Control of the Obtrusive Effects of Outdoor Lighting and ensure no external light has an Upward Light Output Ratio (ULOR) of >5%.
- Provide a meter and meter monitoring system which will track all major uses, can self-check and provide automatic reports.
- Provide task lighting over work surfaces – kitchen benchtops, bathroom vanities etc.
- Provide power points adjacent beds and within living areas for future installation of task lighting.
- Provide infrastructure for electric vehicle parking (indicatively 5 bays).

## Hydraulic

The Hydraulic design has considered and will be designed to include the following as part of the base design planning:

- Commissioning in accordance with CIBSE commissioning codes or other internationally accepted commissioning standard

- Provision of Operation and Maintenance manuals in editable and electronic, online versions for future maintenance and management.
- Low toxicity (VOC) adhesives and sealants.
- Best practice PVC for cables, conduits and piping.
- Low flow tapware, sanitary fixtures (note that appliance provision is considered an Owner action):

Fixture Type	Minimum WELS rating	Maximum Flow Allowable
Taps	5 stars	4.5-6 L/min
Urinals	5 stars	1.0 L / Flush + Smart demand flush device
Toilets	4 stars	<3.5 L average flush <4.7L full flush <3.2 half flush
Showers	3 stars	6.0 – 7.5 L/min

- Utilise an electric heat pump with COP >3.5 for domestic hot water.
- Provide UV sterilization to central hot water systems to minimise risk of Legionella growth.
- Roof, Podium and Balcony stormwater drainage to be designed in accordance with the local authority (City of South Perth) requirements outlined in Policy M354 – Stormwater Drainage Requirements for Proposed Buildings.
- Stormwater shall be retained onsite and discharge to the authority network through the use of a Private Drain Connection (PDC) at a calculated rate specified in Policy Document M354.
- Stormwater retention will be sized to the greatest volumetric demand of a storm of a given intensity and duration.

## Fire

The Fire design has considered and is designed to include the following as part of the base design planning:

- Commissioning in accordance with CIBSE commissioning codes or other internationally accepted commissioning standard.
- Commissioning in accordance with AS 2118.1 – Section 15, AS 2419 – Section 10 and AS 2941 – Section 13.
- Commissioning in accordance with AS 1670.1 – Appendix J and AS 1670.4 – Appendix D.
- Provision of Operation and Maintenance manuals in editable and electronic, online versions for future maintenance and management.
- Low toxicity (VOC) adhesives and sealants

# Floth

- Best practice PVC for cables, conduits and piping
- The fire protection system includes temporary storage for 85% of the routine fire protection system test water and maintenance drain-downs for reuse on-site calculated on the basis that any single zone is drained down annually.
- Sprinkler systems is fitted with isolation valves or shut-off points for floor-by-floor testing.

Yours sincerely,

Floth Pty Limited

A handwritten signature in blue ink, appearing to read 'A. Petrides', is placed over a light blue rectangular background.

Andrew Petrides

Senior Electrical Engineer