

Ref: SY202213-SEL01-7

Stanton Dahl Architects  
18-20 Oxford St,  
Epping NSW 2121, Australia

Dear Michael,

**Re: LAHC Marylands - BASIX Pathway Summary**

## 1. BASIX Preliminary Pathway

The following summary is the final review for the BASIX pathway based on the documents provided for architectural and building services design (*Part 5 Issue Rev 3, dated 10/05/2023*) on 10.05.2023. With the following recommendations, the project modelling has indicated to achieve an average of 7-star NatHERS across all dwellings.

### 1.1 Water Efficiency

Water score required: 40%

Current score: **45%**

- Common Facilities:
  - **3000L Rainwater Tank** to collect rainwater from at least 315m<sup>2</sup> of roof area to supply irrigation to all private landscape, toilets, laundry for all units.
  - No common area showerheads, toilets, taps and clothes washers.
- Dwellings:
  - Showerheads: **4-star WELS rated (> 4.5 but <= 6.0 L/min)**
  - Toilets: **4-star WELS rated**
  - Kitchen Taps: **5-star WELS rated**
  - Bathroom Taps: **5-star WELS rated**
  - Clothes Washers: Not specified
  - Dishwashers: Not specified

### 1.2 Energy Efficiency

Energy score required: 50%

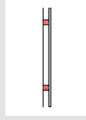
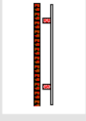
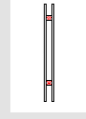

Current Score: **53%**

- Common Facilities:
  - No common area clothes dryers or laundry facility.
- Dwellings:
  - **5-Star Gas Instantaneous Hot Water** System for individual dwellings
  - **Individual fan ducted to roof or façade exhausts** for bathroom, laundry and kitchens.
  - All Bathroom, exhausts are controlled by manual switch on/off for Units 2,3,5 & 6.

- No Mechanical ventilation (i.e. natural, having external windows) for bathroom for Units 1,4,7,8 & 9.
- All Laundry, Kitchen exhausts are controlled by manual switch on/off for all units.
- **Ceiling Fan with manual on/off** for Living Room and Bedroom in all units.
- **Dedicated fluorescent or LED fittings** for all internal areas in ILUs.
- **Electric cooktop & electric oven**
- **Well Ventilated Fridge Space** for all units (as per plans).
- Dishwasher: not specified.
- Clothes Washer: not specified.
- Refrigerator and Clothes Dryer not specified.
- No Individual Heating / Cooling systems
- **Private Outdoor Clothing line** for All Units.
- Solar PV system: **1.0 kW** peak to **Unit 7, 8 & 9.**

### 1.3 Thermal Comfort

The following thermal comfort results are subject to change with the development of the design and details regarding window schedules, finishes and construction types for the building fabric.

External Walls	Metal Clad with <b>R3.0 Bulk insulation</b> (Total R-value of the wall system: <u>R3.06</u> )  Metal Clad Cavity Panel Direct Fix
	Brick Veneer with <b>R2.7Bulk insulation</b> (Total R-value of the wall system: <u>R2.94</u> )  Brick Veneer
External Wall Solar absorptance	Grey Brick ( <b>Medium – 0.50</b> ) – as per elevation Metal cladding ( <b>Dark – 0.85</b> ) – as per elevation
Internal Partitions	Lightweight Construction – Plasterboard Stud Cavity Wall, No Insulation  Cavity wall, direct fix plasterboard, single gap
Party Walls – walls to risers, shafts, neighbours	Cavity Brick Plasterboard – <b>No Insulation</b>  Cavity brick, plasterboard
Ceiling to Roof or Ceiling to Balcony	Plasterboard, <b>R3.0 Bulk insulation</b> : Reflective Side Down; Anti-reflective Up
Roof construction	Corrugated Iron, No Insulation, Skillion roof
Roof Solar absorptance	0.5 (Medium) – Finish MDR (1) 0.85 (Dark) – Finish MDR (2)
Ground Floor construction	Concrete Slab on Ground

<b>Internal Floor construction</b>	Timber floor, no insulation required.
<b>External Floor (Floor to open)</b>	Timber with <b>R2.5</b> bulk insulation (Total R-value of the floor system: R3.30).  <i>Note1: These areas correspond to all the rooms on the first level which fall on top of open areas (such as bedrooms on top of patios).</i>
<b>Floor coverings</b>	Tiles in wet areas (kitchen, laundry, toilet) Carpet in bedrooms, Living
<b>Window system performance</b>	<b>Awnings, Casement - U-Value of 4.50 and SHGC of 0.50</b> <i>(Sample: Aluminium Frame with 6mm Single Glazed - Energy Advantage Glass)</i>  <b>Sliding, Fixed - U-Value of 4.1 and SHGC of 0.52</b> <i>(Sample: Aluminium Frame with 6.38mm Single Glazed - Comfort Plus Neutral Glass)</i>  <i>Note1: While selecting the window, the U-value should not exceed the specified value, while the SHGC value should be within +/- 10% of the specified value.</i>
<b>Window operability</b>	Window operability according to the plans. Single Pane Awning windows on the ground floor have been modeled to <b>90% openness</b> . The combination of Awning and fixed windows on the ground floor are modelled to <b>45% openness</b> . Operable windows above 2m off the ground and not next to balconies or winter garden have been modelled to have a <b>10% openness</b> in the models.
<b>Ceiling Penetrations</b>	Surface mounted LED lights. Weather seals for all exhausts and vents have been assumed in all models. <b>Ceiling fans</b> in kitchen/living area and all bedrooms for all units.

Date	Rev	Issue	Author	Verifier
21.05.2021	1	Preliminary	A. Chacon	E. Tan
31.05.2021	2	Revised issue	A. Chacon	E. Tan
02.06.2021	3	Final	A. Chacon	E. Tan
15.09.2021	4	Revised Draft Issue	E. Tan	B. Park
19.04.2023	5	Draft Issue – Part 5 Activity Submission	S. Kulkarni	S. Padarath
21.04.2023	6	Draft Issue – Part 5 Activity Submission – Average 7 Star NatHERS	S. Kulkarni	-
11.05.2023	7	Final Issue – Part 5 Activity Submission – Average 7 Star NatHERS	S. Kulkarni	-