

Annexure A

Architectural Guidelines for Miller's Corner Community Scheme

GENERAL DESCRIPTION

The architectural concept designs by Hafren Architecture for Miller's Corner Community scheme dated March 2014, are intended to embody principles for sustainability, including environmental, social, and wellbeing considerations for the site planning and housing designs. Design decisions have been made with consideration towards significant principles of 'life enhancing design', which have informed the layout, forms, and materials specifications. A series of concept drawings have been prepared for dwellings on specific lots in the community, and a concept site master plan with a concept streetscape. (Attachment xxx). The principles generally incorporate the following significant considerations:-

- *Unity of physical, life enhancing, social, and ecological sustainability, including harmony with nature and the site, embodying a dynamic equilibrium of spatial and atmospheric experiences.*
- *The building envelopes and footprint locations relate to the movement of the sun, in particular the passive solar northern aspect, and the natural landscape 'arc' of the site. Building envelope forms, relate to an 'up and down'/'back and forth' wave form for both the streetscape of roofs and for building setbacks from the street, incorporating life enhancing rhythm and flow. Roofs rise and fall in such that the lower edges of roofs preserve the neighbouring dwelling's passive solar access, including for designated garden areas for the growing of fruits and vegetables. Living spaces are orientated to have direct access to winter sun with roof overhangs and pergolas designed for summer shading, and winter solar access. Upper level areas are intended to be approximately a 40% to 60% ground floor level are for semi-detached dwellings, and approximately 30% upper to 70% lower for detached dwellings. The significant intention is to limit upper level floors to the roof envelope form shown on the drawings (Appendix xx). Further to this, roof forms intentionally reflect the roof forms of the existing stone house, through the use steeply angular roof planes that rise and fall to a similar eaves height as the existing dwelling. External stone walls, intentionally located on streetscape elevations, are to match the stonework of the existing house for reasons of aesthetic resonance with the deeply articulated stone walls of the existing house.*
- *The building cross-sectional forms, and elevation articulation, allow for an integration of narrow and wider, higher and lower volumes. This augments cross ventilation, variety in scale, and has thermal effects. Roof forms encourage the 'stack effect' of passive heating and cooling. An important consideration is the vertical cross ventilation from ground floor level to upper level clerestory windows or roof vents.*
- *There are various floor area options for upper floor areas. These are: 1) an open mezzanine with an internal balcony (size and layout not specified), 2) a closed attic mezzanine with adjacent open void (size and layout not specified), and 3) a whole of*

attic floor area. There are also options for the placement of additional floor area on the ground level, typically suited to but not limited to an optional ensuite, dressing room or nursery.

- *The rear gardens have at least one significantly sized space with northern winter sunlight access for recreational and vegetable growing purposes, and a pergola covered deck with northern solar access, which is a continuation of the internal living spaces. New trees planted in rear gardens must not impede upon the solar access of these areas in neighbouring allotments. Rear gardens also have a designated location for a small garden shed, and a location for above ground rainwater tanks. Deck shapes are indicative only, and any roof coverings over decks are intended to maintain winter solar access to living spaces, and to be constructed in timber and of low scale.*
- *The front garden area and street elevations aim to contribute to the community atmosphere, with timber front balconies, 'front room' windows, entry courtyard areas, and front verandas providing community gestures of inclusivity and individual expression. These elements are intended to offer opportunities for artistic- crafting expression. It is envisaged that the front garden areas would be used for vegetable growing as part of the larger community's desire towards producing as much food as possible onsite. New trees planted in front gardens should be considerate to the solar access of neighbouring front garden areas for growing vegetables.*
- *Materials selections have a primary selection based on environmental sustainability, including low embodied energy, and low toxicity. Materiality and colour will also contribute strongly to the atmospheric qualities of the environment. The general aim of material selection is also to achieve a contemplative, gentle, yet also lively ambience, as an integrated, holistic atmosphere for the whole site. External material selections, including the variety of material placement and colour selections are intentional to support this effect. The designs intentionally avoid extensive continuous, uniform areas of manufactured external claddings or the use of external face brickwork, favouring opportunities for natural finishes, although and offering opportunities for a mixture of selected timber frame claddings.*
- *The entry courtyards (where designed) are intended to provide a space that provides a transition from the more open public street atmosphere to the private sanctuary of the houses, and provide shelter from open view to the main entry door of a house. These courtyards are intended to contain a small covered shelter for bikes.*
- *Best practice sustainable energy and water use, including rain water harvesting considerations are intended. Walls, floors and roofs are to have high levels of insulation. Thermal mass is to be achieved primarily through concrete floor slabs and internal thermal mass walls, aiming to achieve thermal capacitance heat distribution.*
- *The recommendation of the materials are considered as the minimum guidelines for building and more suitable material or higher standards will be accepted*

BUILDING MATERIALS

The concept drawings, by Hafren Architecture dated March 2014 are the guidelines for the external material appearance, building footprints, building envelopes and house footprint positioning within allotment boundaries. The drawings include : A1 concept master plan and streetscape, a 1:500 site plan, 1:200 site plan for lots 1-6, and building plans, sections and elevations for lots, 2,3,4. The semi-detached dwellings on Lots 6 and 7 are intended to generally replicate the semi-detached dwellings on lots 3 and 4. Lot 1 and 5 intended street elevation is shown on the streetscape.

Materials and glazing are to be compliant with any relevant bushfire attack level, and all local planning authority development approvals requirements.

For reasons of ecological and for detailed material appearance, the materials specifically are as follows:

TIMBER :

Timber used in structural framing, and for exterior cladding, and decking is to be sustainably resourced and from Australian managed forests, or recycled timber. Ecowood products, LVL, plywood products (with source material from within Australia), and also non- Australian Bamboo products or any recycled timber products are also permissible. Western Red cedar may be used for the purposes of window and door joinery. The use of exposed CCA or LOSP treated timber in building structures is to be avoided.

Structural framing including wall framing studs and ceiling joists are to be timber members, and not steel.

FLOORS:

Ground floors can be a concrete floor slab, preferably with recycled aggregate or other well insulated floor framing alternative. Concrete floor slab edges are to be insulated to min R 3.0. Termite protection is to be non – toxic, preferably termimesh with slab edge inspection method.

EXTERNAL WALLS:

Ground floor storey external walling may be 300-400 mm tk ‘Hempcrete’ or similar alternative , or as otherwise shown on the architectural concept drawings.

External walling to the upper level storey may be 300-400 mm tk ‘Hempcrete’ or similar alternative, or as otherwise shown on architectural concept drawings. Timber frame walls are to be min 120mm tk stud framing. External claddings on timber frame walls may be painted shadow clad vertical groove cladding, sustainably resourced timber weatherboard (natural or painted), or Colorbond ‘custom orb or mini- orb profile’ cladding as generally indicated on architectural drawings. Barges and clerestory window walls may be Colorbond

'custom Orb or miniorb profile' cladding. *All timber frame claddings are preferably of vertical orientation on timber spaced battens, on wall sarking on insulated timber stud framing.*

Stone walling:

Stone walling is to match the stonework on the existing residence, with stone sizes and coursing of a similar appearance, however it may be applied as an external wall leaf to insulated cavity walling, insulated timber framing, or Hempcrete. Freestanding stone walling such as to entry courtyards is to match the stonework on the existing residence external courtyard walls.

INTERNAL WALLING

Internal walls shown on drawings at or around 200mm tk are to be thermal mass capacitance walls, built of Hempcrete, rendered brickwork or other solid mass walling.

ROOFS:

Roofs are to be Colorbond 'custom orb' profile, pitched and shaped with window edge awnings as shown on architectural drawings. Gutters and roof vents to be Colorbond to match roofing colour, dps to be Colorbond or zincalume.

DECKS:

Roof coverings on decks may be clear polycarbonate sheeting, vine wires, or timber shade battens. Colorbond to match roof colour, Danpalon, or opaque polycarbonate sheeting may be used for deck coverings, however only in such a design as to admit northern winter solar access. Structures for the support of roof coverings over decks to be timber, and no higher or greater pitch than adjacent ground floor level roof pitches.

EAVES OVERHANGS:

Eaves overhangs are to be open, (no eaves linings), with expressed timber framing viewable with chamfered rafter ends. Generally upper level eaves overhangs are 600- 1100mm, and lower level eaves overhangs are to be 450-900mm. Barge overhangs are typically 600mm.

INSULATION LEVEL:

Minimum insulation levels are to be as follows:

Roofs	min R 4.6
External Walls:	min R 3.5 typically R4.2 for hempcrete

EXTERNAL DOORS AND WINDOWS:

External windows and doors are to be timber, natural or painted finish.

INTERNAL FINISHES:

Low toxicity finishes, including low toxicity paints, biopaints, and low radon/ low radioactivity finishes are to be selected.

PLUMBING:

No PVC pipes are to be used for potable water. Water pipes in the ground can be PE.

FENCES AND LANDSCAPE STRUCTURES:

Fences and other landscape structures material selections are to preference natural materials, and structures which promote the growth of vegetation, such as open wire espalier, and exclude the use of colorbond, fc sheet or similar manufactured sheet steel fencing or structures. No permazine or other CCA OR LOSP treated timber is to be used in fences or any landscaping retaining walls, or other landscape structures.

RAINWATER COLLECTION TANKS:

2 No. 3000 L or similar rainwater tanks are to be installed behind the line of the front elevation of the house to the approximate locations show on architectural plans. Rainwater is to be plumbed at minimum to be reused for toilets, laundry, landscaping watering systems, and hot water service.

PERIMETER LANDSCAPING:

Perimeter landscaping/ paving surfaces are generally to be max 150mm from the top of the exposed floor slab edge to all external elevations visible from the streetscape.

SOLAR HOTWATER/ SOLAR PANELS, HEATING AND COOLING SYSTEMS:

Solar hotwater systems and solar panels or other roof mounted services are to be located to approval .

PAINT FINISHES AND INTERNAL MATERIALS

Preferably floor finishes are to be selected from the following: bamboo or timber flooring, low toxicity carpet, tiles, marmoleum, or buffed/ polished concrete. Tiles and stoneware to have non- radioactive glazing. Paints, including cabinet making sealants are to be natural, low toxicity paints eg Livos.