

Date: 20 December 2019

Owner: Robert Bowles

Plan Reference: MG4694G

Development address: No. 128A Elanora Road, Elanora Heights

Development description:

- PRE-MANUFACTURE, DELIVERY + INSTALLATION OF A MANUFACTURED HOME
 - ASSOCIATED SERVICES
-

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1. Introduction

1.1 General

This Specification forms part of the Contract documents referred to in the building Contract and details the works to be executed and the materials to be used in carrying out those works at the site. This Specification shall be read as a general specification only. The extent of the works shall be governed by the approved drawings and other requirements under the Contract. Any works not fully detailed shall, where appropriate, be sufficiently performed if carried out in accordance with the National Construction Code of Australia (NCC), the relevant manufacturer's recommendations or Engineer's Recommendations.

1.2 Preliminary Use

This Specification forms part of the Contract and should be read in conjunction with the other contract documents.

1.3 Prevailing Documents

Where there is a difference between the quote, drawings, and the specification, the quote will take precedence.

1.4 Size and Dimensions

All sizes and dimensions given in this Specification are in millimetres unless otherwise stated and are nominal only.

1.5 Prime Cost and Provisional Sum Items

Prime cost items and provisional sum items are listed in the Schedule of Works.

1.6 Definitions

In this Specification:

- "NCC" refers to the publication entitled National Construction Code of Australia Class 1 and Class 10 Buildings, Housing Provisions, Volume 2 published by the Australian Building Codes Board.
- "Engineer's Recommendations" includes any soil classification report, preliminary footing report, construction footing report and any other report, recommendation, site or other instruction, calculations or drawings prepared by an engineer in respect of the works.
- Where the words "Local Authority" are mentioned they shall mean the local council, or other governing authority or private certifier with statutory responsibility for the compliance of the work performed.
- Where referred to in this Specification, "Regulations" shall mean the building Regulations and codes (including the NCC, as amended) statutorily enforceable at the time application is made for a construction certificate or other permits, consents or approvals relating to the Contract.

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2. Statutory Requirements

2.1 The Building Works

The building works shall be constructed in accordance with:

- The Regulations and in particular the Performance Requirements referred to in the NCC, Housing Provisions, Volume 2;
- Any conditions imposed by the relevant development consent or complying development certificate; and

In so far as the Builder is required in accordance with the Schedule of Works annexed to this Specification,

2.2 Compliance with Requirements of Authorities

The Builder is to comply with the requirements of all legally constituted authorities having jurisdiction over the building works and the provisions of the Home Building Act 1989.

2.3 Electricity

Where there is no existing building, The Builder is to make arrangements for any electrical power to be used in the construction of the building works and is to pay fees and costs incurred therein. The cost of providing and installing any additional poles, wiring, service risers or underground wiring etc., as may be required by the electricity supply authority, shall be borne by the Owner.

2.4 Sanitary Accommodation

Prior to the commencement of the building works, unless toilet facilities exist on the site, the Builder shall provide temporary toilet accommodation for the use of subcontractors. Where the Local Authority requires the temporary toilet to be connected to sewer mains, the additional cost of this work shall be borne by the Owner. On completion the Builder shall remove the convenience.

3. Owners Obligations

3.1 Engineer's Recommendations

If the Contract so indicates, the Owner shall, at the Owner's expense, provide the Builder with reports and recommendations (including soil classification) as to the foundations or footings requirements for the building works prepared by an engineer. In these circumstances, if the Builder instructs any party to provide such recommendations, the Builder does so only as agent for the Owner.

3.2 Trades Persons Engaged by Owner

The Owner shall not engage or employ any tradesperson, trade-contractor or any other person to work on the site without the consent of the Builder whose consent may be subject to such terms and conditions as the Builder may stipulate.

3.3 Items Supplied by Owner

For all items referred to in this Specification to be supplied by the Owner, it is the responsibility of the Owner to arrange payment for delivery of and protection against damage and theft of all these items.

3.4 Water Supply

Where there is no existing building on the site, the Owner shall, at the Owner's expense, supply adequate water to the site for construction purposes. Unless otherwise specified, the Builder shall pay the standard water meter connection fee to the water supply authority provided this service is pre-laid to the site ready for use. The Owner shall be responsible for any fee to be paid in excess of the standard water meter connection fee.

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3.5 Sanitation

Unless otherwise specified:

- The Owner shall, at the Owner's expense, supply sewerage connection riser or common effluent drainage connection riser on the site;
- The Owner shall pay the standard sewer connection fee to the sewerage supply authority provided this service is pre-laid to the site and ready for use; and.
- The Owner shall be responsible for any fee to be paid in excess of the standard sewer connection fee.

4. Plans, Permits + Application Fees

4.1 Permits and Fees

Subject to a contrary requirement under the Contract, the Builder shall lodge all necessary application notices, plans and details with the Local Authority for approval prior to commencement of construction.

4.2 Mines Subsidence

In areas affected by mines subsidence, the appropriate authority is to be consulted and any work carried out in accordance with the authority's requirements.

4.3 Setting Out

The Builder shall accurately set out the building works in accordance with the site plan and within the boundaries of the site.

5. Excavations

5.1 Excavations

The part of the site to be covered by the proposed building or buildings and an area at least 1000mm wide around that part of the site or to the boundaries of the site, whichever is the lesser, shall be cleared or graded as indicated on the site works plan. Top soil shall be cut to a depth sufficient to remove all vegetation. Excavations for all footings shall be in accordance with the Engineer's Recommendations or the NCC requirements.

6. Foundation + Footings

6.1 Underfloor Fill

Underfloor fill shall be in accordance with the NCC.

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6.2 Termite Risk Management

A termite barrier, or combination of barriers, shall be installed in accordance with the requirements of AS 3660.1; or, Clause 3.1.3.3 of the Housing Provisions for concrete slabs on ground; or Clause 3.1.3.4 of the Housing Provisions for suspended floors. For barrier options, refer to Table 3.1.3.1 of the Housing Provisions.

Upon completion, a durable notice must be permanently fixed to the building in a prominent location, such as a meter box or the like, indicating:

- The method of termite protection; and
- The date of installation of the system, and
- Where a chemical barrier is used, its life expectancy as listed on the National Registration Authority label; and
- The installer's or manufacturer's recommendations for the scope and frequency of future inspections for termite activity,

Appropriate certification being submitted to Council prior to occupation.

6.3 Vapour Barrier

The vapour barrier installed under slab-on-ground construction shall be 0.2 mm nominal thickness, medium impact resistance polyethylene film installed in accordance with the NCC.

6.4 Reinforcement

Reinforcement shall conform and be placed in accordance with the Engineer's Recommendations and the NCC. Support to all reinforcement shall be used to correctly position and avoid any undue displacement of reinforcement during the concrete pour.

6.5 Concrete

Structural concrete shall not be less than Grade N20 except where otherwise approved by the engineer and in accordance with the NCC. Pre-mixed concrete shall be manufactured in accordance with AS 1379 with delivery dockets kept on site and available for inspection by the engineer. Concrete shall be placed and compacted in accordance with good building practice and referenced standards in the NCC.

6.7 Footings

Concrete footings shall not be poured until approval to pour concrete is given by the engineer or the Local Authority.

NOTE: Bench levels and floor levels on the site works plan shall be regarded as nominal, unless specified otherwise.

6.9 Sub-Floor Ventilation

Adequate cross ventilation will be provided to the space under suspended ground floor where required. Construction is to meet the requirements of Part 3.4.1 of the NCC. No section of the under floor area wall to be constructed in such a manner that will hold pockets of still air and.

6.10 Sub-Floor Access

If required, access will be provided under suspended floors in position where indicated on drawings.

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7. Effluent Disposal/Drainage

7.1 Effluent Disposal/Drainage

In both sewered and unsewered areas:

(a) Bath, wash basin, kitchen, wash tubs, pedestal pan and floor grate shall be fitted to shower recess in positions shown on drawing; and

(b) Waste pipes with traps shall be provided to the above fittings and connected to the drainage system.

The whole of the work is to be performed in accordance with the rules and requirements of the sewerage authority concerned.

7.2 Septic System

The Builder will provide and install a septic system where applicable to the requirements of the Local Authority and in accordance with the manufacturer's recommendations.

7.3 Storm Water Drainage

Stormwater drainage shall be carried out in accordance with the NCC. The Builder will allow for the supplying and laying of stormwater drains where shown on the site plan

8. Timber Framing

8.1 Generally

All timber framework sizes, spans, spacing, notching, checking and fixing to all floor, wall and roof structures shall comply with the NCC or AS 168z. Alternative structural framing shall be to structural engineer's details and certification. The work shall be carried out in a proper and tradesperson like manner and shall be in accordance with recognised and accepted building practices.

8.2 Floor Framing

All floors not specified to be concrete are to be framed at the level shown. Span and spacing of bearers is to conform to the requirements of the span tables for the appropriate member size. Deep joists to upper floors, where shown, are to be fitted with solid blocking or herringbone strutting as required. All sizes and stress grades of timber members and tie down methods are to be in accordance with AS 1684.

8.3 Wall Framing

Plates may be trenched to provide uniform thickness where studs occur. Where plates are machine gauged to a uniform thickness, trenching may be omitted. Wall framing is to be erected plumb and straight and securely fastened to floor framing. The width of the wall cavity shall comply with the NCC. The Builder will provide a clear space of 40 mm between outer face of wall frame and inner face of brick veneer walls. The Builder will tie brickwork to studs with approved veneer ties. Ties are to slope downwards towards the veneer wall. Studs in each panel of walling shall be stiffened by means of solid noggings or bridging pieces at not more than 1350mm centres over the height of the wall. Bottom plates shall be fixed to the floor structure in accordance with AS 1684.

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8.4 Heads Over Opening (Lintels)

All sizes, stress grades and bearing areas shall conform to AS 1684. Heads exceeding 175 mm in depth shall be seasoned or a low shrinkage timber species will be used. Plywood web lintels conforming to the requirements of the Plywood Association of Australia may be used. Glue laminated beams conforming to AS 1328 or laminated veneer lumber beams to manufacturer's specification and data sheets maybe used.

8.5 Roof Trusses

Where roof truss construction is used, trusses shall be designed in accordance with AS 1720 and fabricated in a properly equipped factory and erected, fixed and braced in accordance with the fabricator's written instructions.

8.6 Bracing

Bracing units shall be determined and installed in accordance with AS 1684 as appropriate for the design wind velocity for the site. Bracing shall be evenly distributed throughout the building.

8.7 Flooring

Floor joists will be covered with strip or sheet flooring as shown on drawings with particular regard to ground clearance and installation in wet areas as required by the NCC. Thickness of the flooring is to be appropriate for the floor joist spacing. Strip and sheet flooring shall be installed in accordance with AS 1684. When listed in Schedule of Works, floors shall be sanded to provide an even surface and shall be left clean throughout.

8.8 Roof Framing

Roofs are to be pitched to the slope shown on drawings. The Builder will provide tie-down as required for the appropriate design, wind speed and roof covering. The Builder will provide all rafters, ridges, hips, valleys, purlins, struts, collar ties and wind bracing as appropriate with all sizes and stress grades in accordance with AS 1684. Metal fascia's shall be installed in accordance with the manufacturer's recommendations and shall meet the requirements of AS 1684.

8.9 Timber Posts

Posts supporting carports, verandas and porches shall be timber suitable for external use, or as otherwise specified, supported on galvanised or treated metal post shoes, unless otherwise specified. Posts shall be bolted to all adjoining beams as required by AS 1684 for the wind speed classification assessed for the site.

8.10 Corrosion Protection

All metal brackets, facing plates and other associated fixings used in structural timber joints and bracing must have appropriate corrosion protection.

9. Steel Framing

9.1 Generally

Steel floor, wall or roof framing shall be installed in accordance with the manufacturer's recommendations and the NCC.

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10. Roofing

All roof cladding is to comply with the relevant structural performance and weathering requirements of the NCC and be installed as per the manufacturer's recommendations.

10.1 Metal Roofing

The Builder will provide and install a metal roof together with accessories all in accordance with the manufacturer's recommendations. Except where design prohibits, sheets shall be in single lengths from fascia to ridge. Fixing of sheets shall be strictly in accordance with the manufacturer's recommendations as required for the appropriate design and wind speed. Incompatible materials shall not be used for flashings, fasteners or downpipes.

10.2 Gutters and Downpipes

Gutters and downpipes shall be manufactured and installed in accordance with the NCC. Gutters and downpipes are to be compatible with other materials used.

10.3 Sarking

Sarking under roof coverings must comply with and be fixed in accordance with AS/NZS 4200.1 for materials and AS/NZS 4200.2 for installation.

10.4 Sealants

Appropriate sealants shall be used where necessary and in accordance with manufacturer's recommendations.

10.5 Flashing

Flashings shall comply with, and be installed in accordance with the NCC.

11. Cladding + Linings

11.1 External Claddings

Sheet materials or other external cladding shall be fixed in accordance with the manufacturer's recommendations and any applicable special details. Where required in open verandas, porches and eaves soffits, material indicated on the drawings shall be installed.

11.2 Internal Wall and Ceilings Linings

The Builder will provide gypsum plasterboards or other selected materials to walls and ceilings. Plasterboard sheets are to have recessed edges and will be a minimum of 10mm thick. Internal angles in walls from floor to ceiling are to be set. Suitable cornice moulds shall be fixed at the junction of all walls and ceilings or the joint set as required. The lining of wet area walls shall be constructed in accordance with the NCC. Wet area lining is to be fixed in accordance with the manufacturer's recommendations. The ceiling access hole shall be of similar material to the adjacent ceiling.

11.3 Waterproofing

Waterproofing of wet areas and balconies over internal habitable rooms will comply with provisions of AS3740 and/or Part 3.8.1.2 of the NCC. A certificate from the licensed installer will need to be submitted prior to the issue of the Occupation Certificate.

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12. Joinery

12.1 General

All joinery work (metal and timber) shall be manufactured and installed according to accepted building practices.

12.2 Door Frames

External door frames shall be a minimum of 32mm thick solid rebated 12mm deep to receive doors. Internal jamb linings shall be a minimum of 18mm thick fit with 12mm thick door stops. Metal door frames shall be installed where indicated on drawings in accordance with the manufacturer's recommendations.

12.3 Doors and Doorsets

All internal and external timber door and door sets shall be installed in accordance with accepted building practices. Unless listed otherwise in the Schedule of Works, doors and door sets shall be manufactured in accordance with AS 2688 and AS 2689.

12.4 Window and Sliding Doors

Sliding and other timber windows and doors shall be manufactured and installed in accordance with AS2047. Sliding and other aluminium windows and doors shall be installed in accordance with manufacturer's recommendations and AS2047. All glazing is designed and installed in accordance with AS 1288, complies with the NCC and any commitments outlined in the relevant BASIX Certificate (if required).

12.5 Architraves and Skirting

The Builder will provide architraves and skirting as nominated on the plans or listed in the Schedule of Works.

12.6 Cupboards/Kitchens/Bathroom

Units shall be installed to manufacturer's recommendations. Bench tops shall be of a water-resistant material.

12.7 Stairs, Balustrades and other Barriers

The Builder will provide stairs or ramps to any change in levels, and balustrades or barriers to at least one side of ramps, landings and balconies as per the NCC.

Stair construction must comply with the provisions of Part 3.9.1 NCC. Treads minimum 240mm nosing to nosing; risers 115mm– 190mm; slope relationship (2R+G); handrail height 865mm above nosing; open treads maximum gap between treads is 125mm.

Balustrade construction must comply with the provisions of Part 3.9.2 of NCC. Balustrade height 1m above finished floor surface. Where ground height exceeds 4m from floor level of the deck / balcony balusters must be vertical / non-climbable between 150mm and 760mm above deck level.

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13. Services

13.1 Plumbing

All plumbing shall comply with the requirements of the relevant supply authority and AS 3500. The work is to be carried out by a licensed plumber. Fittings, as listed in the Schedule of Works, shall be supplied and installed to manufacturer's recommendations. Fittings, hot water systems and any rainwater harvesting facilities shall be appropriate to satisfy any commitment outlined in the relevant BASIX Certificate

13.2 Electrical

The Builder will provide all labour and materials necessary for the proper installation of the electricity service by a licensed electrician in accordance with AS/NZS 3000 and the requirements of the relevant supply authority. Unless otherwise specified, the electrical service shall be 240 volt, single phase supply.

13.3 Gas

All installation (including LPG) shall be carried out in accordance with the rules and requirements of the relevant supply authority.

13.4 Smoke Detectors

The Builder will provide and install smoke alarms in accordance with 3.7.2.3 of the NCC, AS3786 and manufacturer's specification. The smoke alarms will be connected to consumer mains power. The detector will be installed on or near the ceiling and located in a thoroughfare, and in any other storey not containing bedrooms. Certification will be supplied from a licensed electrician certifying that the alarm system has been installed in accordance with the requirements of (AS 3786 and Part 3.7.2 of the Building Code of Australia 2009 Volume 2).

13.5 Thermal Insulation

Where thermal insulation is used in the building fabric or services, such as air conditioning ducting or hot water systems, it shall be installed in accordance with manufacturer's recommendations to achieve the R-Values required by the NCC or as outlined in the relevant BASIX Certificate.

14. Tiling

14.1 Materials

Cement mortar and other adhesives shall comply with AS 3958.1 or tile manufacturer's recommendations.

14.2 Installation

Installation of tiles shall be in accordance with AS 3958.1, manufacturer's recommendations or accepted building practices. Where practicable, spacing between tiles should be even and regular. The Builder will provide expansion joints where necessary. All vertical and horizontal joints between walls and fixtures e.g. bench top, bath, etc. and wall/floor junctions to be filled with flexible mould resistant sealant. All joints in the body of tiled surfaces shall be neatly filled with appropriate grout material as specified by the tile manufacturer or accepted building practice. As tiles are made of natural products a slight variation in colour is acceptable.

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14.3 Walls

The Builder will cover wall surfaces where indicated on the drawings with selected tiles. Tiles are to be fixed to the wall substrate with adhesives compatible with the substrate material. The Builder will provide all required strips, vent tiles and recess fittings.

14.4 Floors

The Builder will lay selected floor tiles in sand and cement mortar, or adhesive compatible with the substrate material, to areas indicated on the drawings. Where required, the Builder will fit approved edge strips or metal angle to exposed edges in doorways or hobless showers in wet areas in accordance with the NCC. The Builder will provide adequate and even fall to wastes where required.

15. Painting

15.1 General

All paint used shall be of a quality suitable for the purpose intended and the application shall be as per the manufacturer's recommendations. The colours used shall be as listed in the Schedule of Works or other relevant contract document. All surfaces to be painted shall be properly prepared to manufacturer's recommendations.

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