SPECIFICATION

ALTERATIONS & ADDITIONS TO EXISTING BUILDING

EMU PLAINS PUBLIC SCHOOL (FORMER)

For PENRITH CITY COUNCIL

Issue for Tender

Prepared by

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1 SCOPE OF WORKS

1.1 GENERALLY

Site: EMU PLAINS PUBLIC SCHOOL

This Specification is for alterations & additions to the existing Emu Plains Public School. The works are to include all necessary service connections to new and existing service lines.

Where an item is usual or necessary, or is reasonably or properly to be inferred in the type of work generalised in this specification but not specifically mentioned, it shall be deemed to be included in the specification.

Except where otherwise noted, all plant, materials and labour inferred by the general requirements here-in, and all items and materials noted, are to be provided by the Builder (contractor).

This Specification is to be read in conjunction with the following documents:

Architect: **JUSTIN LONG DESIGN (P: 0413 268 725)**

A00	TITLE SHEET
A01	EXISTING GROUND FLOOR PLAN
A02	PROPOSED GROUND FLOOR PLAN
A03	PROPOSED ELEVATIONS
A04	PROPOSED ELEVATIONS
A05	PROPOSED SECTIONS
A06	PROPOSED SECTION
A07	SITE & ROOF PLAN
A08	DEMOLITION PLAN
A09	WINDOW & DOOR SCHEDULE
A10	WINDOW & DOOR SCHEDULE
A10A	SECURITY SCREEN SCHEDULE
A11	UNISEX / ACCESS WC DETAIL
A12	UNISEX / ACCESS WC DETAIL
A13	UNISEX / ACCESS WC DETAIL
A14	UNISEX / ACCESS WC DETAIL
A15	UNISEX / ACCESS WC DETAIL
A16	UNISEX / ACCESS WC DETAIL
A17	UNISEX AMBULANT WC DETAIL
A18	UNISEX AMBULANT WC DETAIL
A19	UNISEX AMBULANT WC DETAIL
A20	UNISEX AMBULANT WC DETAIL
A21	KITCHENETTE 1 DETAIL
A22	KITCHENETTE 1 DETAIL
A23	KITCHENETTE 2 DETAIL
A24	KITCHENETTE 2 DETAIL
A25	ACCESS RAMP DETAIL
A26	GROUND FLOOR RCP & ELECTRICAL PLAN

Structural Engineer: **PELENG (P: 02 9939 2786)**

S0101	CONSTRUCTION NOTES – SHEET 1 OF 2
S0102	CONSTRUCTION NOTES – SHEET 1 OF 2
S0201	FOOTING PLAN
S0202	FOOTING DETAILS
S0301	GROUND FLOOR PLAN
S0302	GROUND FLOOR MEMBER SCHEDULE
S0303	GROUND FLOOR DETAILS
S0401	ROOF MARKING PLAN

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DEFINITIONS of TERMS
The Project Manager is referred to as the Architect and vice versa throughout this Specification.
The Project Manager is Penrith City Council
The Builder is referred to as the Contractor and vice versa throughout this Specification.
The Structural Engineer is referred to the Engineer throughout this Specification

1.2 CONTRACT

General contract terms to comply with provisions for current edition of **AS.4000 Lump Sum Contract.**

Proprietors:	Penrith City Council
Building Contractor:	to tender
Date for Possession	per contract
Date for Practical Completion	per contract
Defects Liability Period	52 Weeks
Insurance including fees and cost escalation	by Contractor
Public Liability and Workers Compensation	per contract
Interest on Overdue Payments	per contract
Liquidated Damages	per contract
Retention	per contract

In addition to the requirement under the contract, the Builder is to nominate a 'Wet-day Allowance' for wet weather conditions that do not permit work activities that are identified on the critical path of the project, as per the program of works provided by the Builder.

The builder is to refer to proprietors contract preliminaries for reference to wet weather conditions that do not permit work activities that are identified on the critical path program for the project, as per the contract form.

1.3 INSURANCE

Pursuant to the contract, there is no mention of Insurance provisions. The contractor must obtain and maintain current the following insurance coverage for the length of the building works:

Contract Works Insurance, with the Proprietor named as principal, including the following provisions;
1. Indemnify the Proprietor against loss and damage to property.
2. Indemnify the Proprietor against claims for injury to persons.
3. Provide cover to the public against injury or death.
4. Provide cover for Workers Compensation and Employers Liability and ensure subcontractors comply with similar requirements.

Public Liability Insurance
Provide Public Liability Insurance of not less than $10,000,000.

Important note:
All insurance **Certificates of Currency** for insurance are to be provided to the Proprietor.

1.4 APPROVALS, FEES AND PERMITS

All work is to be done to the approval of the Proprietor.

The Proprietor will pay prior to work commencement;
- -Building Application fee and damage deposit
- -Building Services Corporation Insurance Premium, as required
- -Long Service Leave Levy

All other fees and permits and inspections to be arranged and paid by Builder who shall comply with requirements of statutory authorities as appropriate. On completion provide compliance notices for electrical and plumbing work to Proprietor.

1.5 WORKMANSHIP

Good trade practice and attention to detail and finish shall be expected. All detailing, finishes and materials must be fixed in a manner that meets applicable and current Australian Standards.

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All workmanship must comply with the relevant clauses for performance of building components listed in the Building Code of Australia.

Warranty Requirements

1. The Builder or other approved Warrantors shall provide written warranties where so specified elsewhere in this specification.
2. Each warranty shall be in approved form and shall specifically include the provisions required in writing.
3. Warranty periods shall commence from the date of the Notice of Practical Completion.
4. Warranties as required under the department of fair trading Act.

1.6 BUILDING CODE of AUSTRALIA

All work must comply with all relevant sections of the Building Code of Australia.
The provision of Natural Light must comply with the clause 3.8.4 of the Building Code of Australia.
The provision of Natural Ventilation must comply with the clause 3.8.5 of the Building Code of Australia
The provision of Sound Insulation must comply with the clause 3.8.6 of the Building Code of Australia
Structural Design Manuals, as required by the Building Code of Australia, will be provided by the appointed Structural Engineer, to comply with Clause 3.11 of the Building Code of Australia. The manual is to take the form of a certificate obtained from the Structural Engineer stating that the Australian Standards listed in Clause 3.1 of the BCA have formed the basis for the structural design of the project.

1.06.01 BCA Certification and Australian Standards
At the completion of the project a Structural Engineer, or their suitable qualified person, is to certify that the design and construction of the building is in accordance with the following Australian Standards:-

AS 1170.1,2,4	Dead and Live Loads, Wind Loads and Earthquake Loads
AS 3700	Masonry Construction
AS 3600	Concrete Construction
AS 1250, AS 4100	Steel Structures
AS/NZS 4600	Cold-formed Steel Structures
AS/NZS1664.1,2	Aluminium Construction
AS 1228	Glass Installation
AS 1562.1	Metal Roofing

1.06.02 Fire Resistance Levels(FRL)
The Fire Resistance Levels (FRL) of the Building elements will comply with the provisions for Type C Construction in accordance with Specification C1.1 of the BCA.

1.06.03 Material Fire Hazard Properties
The Materials, linings, and surface finishes used in the building will comply with the fire hazard properties in accordance with Specification C1.10 of the BCA. At the completion of the project certificates are to be submitted detailing compliance with this specification.

106.04 Fire-Isolated Stairways/Passageways
Doorways opening onto the fire-isolated stairways/passageways will be protected by -/60/30 self-closing fire doors in accordance with Clause C3.8 of the BCA.

106.05 Fire-Isolated Exits
Fire-isolated exits will not be penetrated by any services other than electrical wiring associated with emergency lighting or water supply pipes for fire services, in accordance with Clause C3.9 of the BCA.

106.06 Concrete Slab Openings
Openings in floor, shafts, openings for service installations, and construction joints will be protected in accordance with Part C3 of the BCA.

106.07 Egress
The provisions for egress from the building will comply with Part D1 of the BCA.

106.08 Required Exit Doors
All required exit doors will have an unobstructed height of 1,980mm and an unobstructed width of 750mm in accordance with Clause D1.6 of the BCA.

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106.09 Required Exit Widths
The unobstructed widths in the required exits and in the paths of travel to the required exits, except for doorways, will not be less than 1m in accordance with D1.6 of the BCA.

106.10 Exit Discharge
Exits will not be blocked at the point of discharge in accordance with Clause D1.10 of the BCA.

106.11 Construction of Exits
The construction of Exits will comply with Part D2 of the BCA.
1.06.12 Construction of Service Cupboards
All electrical/distribution boards, or central telecommunication distribution boards located in the paths of travel, will be enclosed in noncombustible construction or a fire protective covering, with doors provided with smoke seals in accordance with Clause D2.7 of the BCA.

1.06.13 Fire Isolated Passageways
Fire-isolated passageways will be constructed in accordance with Clause D2.11 of the BCA.

1.06.14 Treads and RisersTreads and Risers tot he stairways will be constructed in accordance with Clause D2.13 of the BCA.

1.06.15 Landings and Thresholds
Landings and Thresholds will be provided in accordance with Clauses D2.14 and D2.15 of the BCA.

1.06.16 Balustrades and Handrails
Balustrades and handrails will be provided in accordance with Clauses D2.14 and D2.15 of the BCA.

1.06.17 Door Swings
Swinging doors in a required exit or forming part of a required exit will swing in the direction of egress in accordance with Clause D2.20 of the BCA.

1.06.18 Required Exit Doors
Required exit doors will be readily operable without a key from the side that faces a person seeking egress, by a single handed downward action on a single device which is located between 900mm and 1.2m above the floor, in accordance with D2.21 of the BCA.

1.06.19 Door Signage
Signage to fire doors will be provided in accordance with Clause D2.23 of the BCA and Section 80GG of the Environmental Planning and Assessment Regulation 1994.

1.06.20 Fire Hydrants
Fire Hydrants will be provided in accordance with Clause E1.3 of the BCA and AS 2419.1

1.06.21 Fire Hose Reels
Fire hose Reels will be provided in accordance with Clause E1.4 of the BCA and AS 2441.

1.06.22 Portable Fire Extinguishers
Portable fire extinguishers will be provided in accordance with Clause E1.6 of the BCA and AS 2444.

1.06.23 Smoke Detectors
An automatic smoke detection and alarm system will be provided in accordance with specification E2.2a of the BCA.

1.06.24 Emergency Lighting
Emergency lighting will be provided in accordance with Clauses E4.2 and E4.4 of the BCA and AS 2293.1.

1.06.25 Exit Signs
Exit Signs will be provided in accordance with Clauses E4.5, E4.6 and E4.8 of the BCA and AS 2293.1

1.06.26 Stormwater Drainage
Stormwater Drainage will be provided in accordance with Clause F1.1 of the BCA and AS/NZS 3500.3.2.

1.06.27 Water-proofing of Wet Areas

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Water-proofing of Wet Areas will be provided in accordance with Clause F1.7 of the BCA and AS 3740.

1.06.28 Floor Wastes
Floor wastes will be provided in accordance with Clause F1.11 of the BCA.

1.06.29 Light and Ventilation
Light and ventilation will be provided in accordance with Part F4 of the BCA.

1.06.30 Essential Services Certificates
At the completion of the building project, certificates certifying that all essential fire or other safety measures have been designed and installed in accordance with the required standards, will be provided by a suitable qualified person.

1.06.31 BCA Compliance Certification
The Essential Fire or Other Safety Measures applicable to the building are to be listed by BCA order upon assessment of the final design documentation.

1.7 MANUFACTURED ITEMS

Manufactured items are to be installed or applied or finished as recommended by the Manufacturer. Written evidence of compliance with manufacturers recommendations will be required.

1.8 OCCUPATION, RESPONSIBILITY AND SAFETY

The Proprietor will not occupy any part of the premises, with the exception of designated areas of the Building for storage, prior to certificate of Practical Completion unless Builder agrees otherwise and preferably in writing.

The Builder shall occupy site and the building and be responsible for all action occasioned directly by the works and any employed by him thereon.

Building works and excavations may require temporary provision of nominal barriers as will free edges of elevated slabs and decks.

The Builder shall provide as part of this contract all incident/accident reporting schedules, safety equipment, toilets and amenities as required by relevant Occupational Health and Safety Regulations 'OHS Act 2001', and standard trade practice.

1.9 SERVICES

Proprietor is to make available all power and water on site. All other contractors to be given access and use of these services.

1.10 CLAIMS

All claims for progress payments, including the first, including variations are to be in writing. Variations excluded or included without written authority from the Project Manager will result in non-payment of that part of claim.

1.11 PROVISIONAL ALLOWANCES

These items are collected in schedule at the end of this document. Work covered by these sums are intended to be arranged or executed by the Builder and prices given to Architect shall be inclusive of overheads, attendance and profit. Credit and debits shall be balanced in final statement.

Where an item is noted for attendance and basic cooperation by Builder such attendance etc. shall be included in lump sum tender price and will not be separately costed unless extent or other detail varies to indicate that such costing is a reasonable inclusion and is so directed.

1.12 CONTINGENCY

Allow the sum scheduled for contingencies. Such to be expended only on the direction of the Proprietor.

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1.13 TENDERS

To be delivered at a time nominated, together with all tender documents. Anticipated commencement and completion dates to be included as such may affect award of contract.
Proprietor reserves the right not to accept any tender, to negotiate with a tender or to re-tender as is deemed fit by the Proprietor.

Tenders to be submitted as lump sum with breakdowns to reflect the specific works in each property, complete with specific assumptions, excavation requirements, PC items etc.

1.14 DAMAGE TO COUNCIL PROPERTY

Builder is to be aware of the existing dilapidation report and will be responsible for damage to any public assets

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2 DEMOLISHER

2.1 GENERALLY

COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS *Current Edition.*
AS 2187 - Explosives - storage, transport and use, there are 5 parts to this standard 1993-1999.
AS 2436:1981 - Guide to noise control on construction, maintenance and demolition sites.
AS 2601:2001 - Demolition of structures.

Public and Property Protection
Provide measures required by municipal and state ordinances, laws, and regulations for the protection of surrounding property, footpaths, streets, kerbs, the public, occupants and workmen during demolition operations. Comply with the above ordinances, laws etc. in carrying out measures including barricades fences, warning lights and signs, rubbish chutes, etc. No blasting for demolition purposes will be permitted. Exercise due care in executing this work. Make good to original condition any damage to structures to be retained and to adjacent property resulting from demolition operations. Perform restoration work without expense to the Proprietor. Pay fees relating to this trade.

Comply throughout with the current edition of the Building Code.

As indicated on architectural drawings and noted elsewhere, remove and demolish external and internal walls and roof as directed, doors and door frames as indicated. Close, seal, and where necessary remove existing service lines to redundant services connection internally and externally.

2.2 PROPPING AND BRACING

Prop and brace brickwork as required during the construction period. Repair existing brickwork, lintels.

2.3 WEATHER AND DUST PROTECTION

Provide temporary covers to prevent water penetration into existing structure. Provide dust-proof screens, bulkheads and covers to protect existing finishes and the immediate environment from dust and debris.

2.4 SECURITY

Where the walls and roof are demolished, provide adequate security against unauthorised entry to the building.

2.5 MATERIALS AND COMPONENTS

Hazardous materials
Give notice immediately if any hazardous or contaminated materials or conditions are found.

Demolished materials
Except for materials to be salvaged or re-used, demolished materials are the property of the contractor and must be removed from the site. Do not burn or bury demolished materials on the site.

Provide appropriate containers for waste material, and certification for removal of Asbestos to appropriate transfer station, as required by State Law.

Re-use only materials recovered from the demolitions in a sound and suitable condition. Store in an approved location any materials to be re-used.

2.6 MATERIALS TO BE SALVAGED

To be confirmed by Penrith city council

2.7 MISCELANEOUS

Contractors may elect to carry out demolition by alternative methods and programming, i.e. staged demolition. All alternative proposals should be discussed and approved by the Project Manager/Architect. All previous building debris must be removed from under the existing building.

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3 EXCAVATOR

3.1 GENERALLY

It is held that all tenders have inspected the site, assessed material quantities to be excavated. Allow to cut, clear, excavate material as found. Reduce levels to those appropriate for required construction.

COOPERATE WITH THESE OTHER TRADES to resolve potential problems before starting work:
Water Distribution, Sanitary Sewerage, Storm Drainage, Pavements, Concrete.

COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS *Current Edition.*
AS 1289 Methods of testing soils for engineering purposes, there are 74 parts to this standard 1991-2001.
AS 3660 2000 Termite management, there are 3 parts (2000) and 2 supplements (1993) to this standard.
AS 3798 1996 Guidelines on earthworks for commercial and residential developments.
AS/NZS 4200 1994 Pliable building membranes and underlays, there are 2 parts to this standard.

Comply throughout with the current edition of the Building Code and with any specifications in Building Regulations and/or Local Council publications.

Definitions:

- Rock: natural or artificial material encountered in the excavation which cannot be removed until broken up by mechanical means such as rippers, jack-hammers or percussion drills.
- Rippable Rock: Means rock which can be removed by a single tine, “D9” ripper.
- Non-Rippable Rock: Means all other rock.
- Other than Rock: other material encountered in excavation.
- Sub-Grade: The natural ground below the excavations.
- Filling: A general term for material spread and compacted over the sub-grade to make up levels to the underside of the base.
- Sub Base: Selected filling spread and completed over sub-grade to be compacted over sub-grade to make up levels to the underside of the base.
- Base: A selected filling layer spread and compacted to form an acceptable working surface directly under the building.

All earthworks must comply with the provisions listed in clauses 3.1.1 and 3.1.2 if the Building Code of Australia.

Give sufficient notice so that an inspection may be made by the **Structural Engineer**.

Where rock is to be measured for payment purposes, whether as extra over excavation of material other than rock or for adjustment of provisional measurements, do not remove the rock until the level, quantity and class of rock have been determined.

Excavations to be held safe at all times. Prop, shore and sheet as necessary to the requirements of the department of industrial relations and technology. ***Give sufficient notice so that inspection may be made by the* Structural Engineer**.

Note: All underpinning to be completed in sections to Structural Engineers detail.

3.2 MECHANICAL ROCK PICK MACHINES

The use of mechanical rock pick machines is prohibited without council approval.

3.3 EROSION CONTROL

Plan and carry out the work to avoid erosion, contamination, and sedimentation of the site, surrounding areas, and drainage systems. Keep ground works free of water. Provide and maintain slopes, crowns and drains on excavations and embankments to ensure free drainage. Place construction, including masonry, concrete and services, on ground from which free water has been removed.
Hay bales and cloth sediment traps are to be used during the construction period as well as any measures and/or methods as detailed in the Erosion and Sediment Control Plan in accordance with Development Application conditions. Comply with 'Urban Erosion Control' Handbook published by the NSW Department of Conservation and Land Management (CALM). Comply in all instances.

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4 DRAINER

4.1 GENERALLY

All sewerage and drainage must comply with the requirements of the relevant authorities. All work is to be carried out by a Licenced Plumber and Drainer.

COOPERATE WITH THESE OTHER TRADES to resolve potential problems before starting work
Sanitary Sewerage, Concrete, Carpentry, Plumbing fixtures and equipment.

COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS *Current Edition.*
AS/NZS 1260:1999 - PVC Pipes and fittings for drain, waste and vent applications.
AS 1432:1996 - Copper tubes for plumbing, gas fitting and drainage applications.
AS 3500 - National plumbing and drainage code, Storm water drainage - Performance requirements, and 3.2:1998 Storm water drainage - Acceptable solutions, there are 10 parts to this standard 1995-2000.
AS 1379:1997 - Specification and supply of concrete, plus 1 supplement.

Comply throughout with the current edition of the Building Code.

4.2 EXISTING LANDSCAPING TO BE RETAINED

Check with Architect on location of runs etc. prior to executing so that landscape considerations can be checked.

Note: In the event that any tree roots are discovered during the course of excavation, contractor is to stop work immediately and verify size and extent of root. Hand dig around any tree roots taking care not to damage without approval to remove by proprietor and Architect.

Under no circumstances are there to be any exposed drainage, storm water, or sewer pipes.

Take care of fencing, footings and landscaping to neighbouring property. The builder shall be responsible to re-instate any damage caused to neighbouring properties as a consequence of building works.

4.3 STORMWATER DRAINAGE

Refer to the Roof and Drainage Plan.

Allow to run new trenches, AG lines and storm water lines as required to connect new downpipes and pits to the existing storm water system connected to council's kerb outlet and existing absorption trench where applicable.

Reticulate storm water drainage for existing building as indicated on plans. Note storm water lines to be lagged at fence, slab and wall junctions.

4.4 WASTE DRAINAGE

Provide drains from all outlets, complete reticulation with inspection covers, traps, vent risers and carry to existing sewer connection. Location of vent pipe to W.C. to Architect's approval, on site.

4.5 SUBSOIL DRAINAGE

Install AG lines adjacent to new footings along the rear of the property.

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5 CONCRETOR

5.1 GENERALLY

Concrete work to detail generally. Refer Structural Engineers Drawings for footing and reinforcement details.

COOPERATE WITH THESE OTHER TRADES to resolve potential problems before starting work
Excavation and Fill, Storm Drainage, Sanitary Sewerage, Pavements, Concrete screeds.

COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS *Current Edition.*
SAA HB64:1994 - Guide to concrete construction.
SAA HB71:2002 - Reinforced concrete design in accordance with AS 3600 2001.
AS 1012 - Methods of testing concrete, there are 21 parts to this standard, 1991-2000.
AS 1304:1991 - Welded wire reinforcing fabric for concrete.
AS 2870:1996 - Residential slabs and footings, plus 1 supplement.
AS 3600:2001 - Concrete structures, plus 1 supplement.
AS 3610:1995 - Formwork for concrete, plus 2 supplements 1995-1996.
AS 3727:1993 - Guide to residential pavements.
AS/NZS 4586:1999 - Slip resistance classification of new pedestrian surface materials.

Comply throughout with the current edition of the Building Code.

5.2 EXCAVATION

Excavations
Keep excavations perfectly square, accurate to shape and profile and free from debris, loose earth, stones, etc.

If the sectional area of excavation is exceeded as a consequence of any injudicious working, slips, falls or for any cause other than by direction of the Architect, then the cost to remove such extra material and making good and filling in extra excavation with concrete, sand or approved filling as may be directed shall be borne by the Builder.

Fill any faults or fissures to bases of detailed excavations with 20 MPa concrete.

Clean out bottom of all excavations preparatory to pouring concrete.

All excavations shall be inspected and passed and the bearing surfaces approved by the Architect prior to any further work being commenced.

5.3 FOOTINGS

Strip Footings/Pads/Piers
Thickened edges, strip footings as shown. In trenches cut for wall bases and assuming adequate foundation material occurs generally below walls allow to install 25MPa concrete for levelling, filling, and shoring as required by structural engineer.

All footings are to be on subject property. Provide certificate from Registered Surveyor, refer Certificates Required section at the end of this specification

All Concrete Footings and Slabs must comply with the provisions outlined in Clause 3.2 of the Building Code of Australia and AS 2870 'Residential slabs and footings'.

5.4 SLABS

Slab on Ground
To Engineers details, form and build reinforced concrete slab throughout finish steel trowel, include post anchors, plumbing lines and fixtures, conduits and any fixing plugs required.

All Concrete Footings and Slabs must comply with the provisions outlined in Clause 3.2 of the Building Code of Australia and AS 2870.

All slab on ground to be minimum 150mm thick 25Mpa. All termite treatment to be a tapped wire mesh system similar to Termi-Mesh to all penetrations within the slab.

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5.5 CURING

Minimise moisture loss from slabs by an approved method, allow 7 days curing after pour before working/applying load to slab on ground, suspended slabs to Engineer's instructions. If such requires watering, ensure weekend spraying is arranged.

5.6 SAND BEDS TO SLABS

Provide approved sand beds of thickness detailed under concrete slabs on ground as shown and compact to approval.

Beds shall be continuous under and to sloping sides of slab thickenings, etc. unless otherwise detailed.

The R.L. of the finished surface of sand beds shall be plus 0, minus 5 max. tolerance.

5.7 TERMITE PROTECTION

Install 'Termimesh' or similar approved to all slab penetrations and mesh barrier above wheepholes in external cavity brickwork.

Note: All Termite Risk Management must comply with the provisions outlined in Clause 3.1.3 of the Building Code of Australia and AS 3660.1-2000 'Protection of Buildings from Subterranean Termites'. Contractor to provide compliance certificate.

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6 BRICKLAYER

6.1 GENERALLY

COOPERATE WITH THESE OTHER TRADES to resolve potential problems before starting work
Concrete, Structural Steel, Wall Framing, and Doors and Windows.

COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS *Current Edition.*
SAA HB33:1992 - Domestic open fireplaces.
AS/NZS 2904:1995 - Damp-proof courses and flashings.
AS 3700:2001 - Masonry structures, plus 1 supplement 1999.

Comply throughout with the current edition of the Building Code.

All materials and workmanship shall comply with AS 1640.

All Masonry construction work must comply with the provisions outlined in Clause 3.3 of the Building Code of Australia, and AS 3600.

The Fire Safety of built components must comply with the provisions outlined in Clause 3.7.1.3 of the Building Code of Australia for External walls, and generally Clause 3.7.1 for fire separating walls.

Brick veneer wall construction per BCA 3.3.4.2, build walls and form openings as shown on drawings, using sound dry press bricks. Install brick vents to underside of eaves linings and construct weep holes at 1.2m centres.

Dampen bricks before laying. Do not use clay bricks less than 3 weeks from kiln and use sound commons.

Mortar to be 1:3.5 cement sand mix below d.p.c. and compo above. Ensure sand for mortar is adequately washed and rinsed of all chemicals. **Excessive lime stains will lead to rejection.**

Any metalwork in external brickwork to be Stainless Steel or rust resisting to approval. Give adequate notice to allow for inspection of laid d.p.c.'s and clearing of brickwork cavities.

6.2 BUILT IN ITEMS

Build in the following items:

1. For new work build in stainless steel cavity wall ties, plastic or galv. fittings not acceptable, fixed as per AS 2699 and AS 2175 Accessories for Masonry Construction.
2. Build in tie down straps, m.s. posts, and steelwork generally as per the Engineer's detail drawings, see Metalworker. Note custom galvanised metal straps and hangers for brickwork.
3. Plugs for steelwork/joinery items.
4. Flashings and d.p.c.'s, weep holes over and brick vents to AS/NZS 2904 Damp-proof Course and Flashings.
5. 'Termimesh' barrier above weep holes in external cavity brickwork.

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7 METALWORKER

7.1 GENERALLY

Supply, engineer and install required general and architectural metalwork items including but not limited to:
All external steelwork, portal frames, bollards, custom formed sections, stair balustrades, and misc. ties etc...

All structural steelwork to be fully galvanised where noted on structural engineers plans and touched up after installation to AS/NZS 4680 1999 Hot-dip galvanised (zinc) coatings on fabricated ferrous articles, excessive touch-up due to poor handling will lead to rejection.

COOPERATE WITH THESE OTHER TRADES to resolve potential problems before starting work
Concrete, Wall Construction, Roof construction, Mechanical Services, Painting.

COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS *Current Edition.*
SAA HB48:1999 - Steel structures design handbook.
AS/NZS 1554 - Structural steel welding, there are 6 parts to this standard 1983-2000.
AS 1627 - Metal Finishing - Preparation and pretreatment of surfaces, there are 9 parts to this standard, 1988-1997.
AS 4100:1998 - Steel structures, plus 1 supplement 1999.
AS/NZS 4680:1999 - Hot-dip galvanised (zinc) coatings on fabricated ferrous articles.

Comply throughout with the current edition of the Building Code.

Generally, all steelwork is to be designed, fabricated and installed in accordance with the Structural Engineers documentation, specifications, and subsequent site instructions.

Protect fabricated items from damage, and prefinished surfaces from mortar splash.

7.2 LINTELS

Replace existing external window lintels with new galvanised lintel bars where worn or rotten, as required, or as per Structural Engineers documentation.

7.3 STRUCTURE/FRAME

Generally, to Structural Engineer's detail

Contractor must obtain structural certificates for the new frame/structure prior to roofing/closing-in or cladding. Certificates must be provided to Proprietor.

7.4 BUILT IN ITEMS

As noted above, steel posts, beams and lintels.

All masonry anchors for the structural elements are to be inspected by the Structural Engineer for satisfactory structural soundness.

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8 CARPENTER AND JOINER

8.1 GENERALLY

All Timber Framing work must comply with the provisions outline in Clause 3.4 of the Building Code of Australia.

COOPERATE WITH THESE OTHER TRADES to resolve potential problems before starting work
Concrete, Brickwork, Wall Lining, Plumbing, Electrical, Insulation, Painting, Fibre Cement products.

COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS *Current Edition*.
SAA HB44:1993 - Guide to AS 1684 1992 The National Timber Framing Code, 4 supplements 1995.
AS 1684 - National Timber Framing Code, Current Edition.
AS 1720 - Timber structures, there are 3 parts to this standard, 1990-1997.
AS 1860:1998 - Installation of particleboard flooring.
AS 4055:1992 - Wind loads for housing.

Comply with recommendations of the National Assoc. of Forest Industries Technical bulletins.
Comply throughout with the current edition of the Building Code.

All external timber is to be primed/ or stained all round prior to joining and fixing. Contractor must use seasoned hardwoods. Staining, poor priming, warping etc. will lead to rejection.

All cold formed steel members must comply with AS 1250, AS 3623 and AS 4100.

The Fire Hazard Properties of Materials must comply with the provisions outlined in Clause 3.7.1.9 of the Building Code of Australia.

All Room Heights must comply with the provisions outlined in Clause 3.8.2 of the Building Code of Australia.

Contractor must provide evidence that the timbers are seasoned. No kiln dried timbers.

Generally, all exposed timber members, posts, beams, rafter ends, decorative bracing and trimming pieces shall all be in solid hardwood. All salient edges are to be raised to a consistent dimension with consistent start and finish setouts per elevation.

8.2 RAMPS AND STEPS

Refer to detail drawings.

8.3 DECKING

Refer to schedule of finishes 7 install to manufacturers requirements

8.4 CLADDING

Refer to schedule of finishes & plans for extent of cladding to be replaced & existing to be sanded, primed & re-painted.

8.5 INTERNAL TRIMS

<u>Skirting</u>
Refer to Schedule of Finishes.

<u>Architrave</u>
Refer to Schedule of Finishes.

<u>Cornice</u>
Refer to Schedule of Finishes.

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9 ROOFER AND ROOF PLUMBER

9.1 GENERALLY

COOPERATE WITH THESE OTHER TRADES to resolve potential problems before starting work
Carpentry, Steel House frames, Drainage.

COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS Current *Edition*.
AS/NZS 2179.1 1994 Specifications for rainwater goods, accessories and fasteners.
SAA HB39 1997 Installation code for metal roof and wall cladding, plus 1 supplement 1997.
AS 1562 Design and installation of sheet roof and wall cladding, there are 3 parts to this standard 1992-1999.
AS 2180 1986 Metal rainwater goods - Selection and installation.

Comply throughout with the current edition of the Building Code.

All Roofing must comply with the provisions outlined in Clause 3.5.1 of the Building Code of Australia.

The Fire Hazard Properties of Materials must comply with the provisions outlined in Clause 3.7.1.7 and 3.7.1.9 of the Building Code of Australia.

Care is to be taken against damage, rust, and discolouration. Provide straight lines, even edges, proper falls.

Ensure flashing and penetrations are appropriate with roofing type and general rainwater goods.

9.2 GUTTERS, RAIN WATER HEADS & DOWNPIPES

Gutters, rainwater heads and downpipes must comply with the provisions outlined in Clause 3.5.2 of the Building Code of Australia.

Downpipes are to be Colorbond and 90mm in diameter and are to be fixed to the wall with wide braces to minimise slip and provide bends around all changes in wall surface including flashings.

Gutters are to be prefinished Colorbond, refer to the Schedule of Finishes.

9.3 ROOFING

Existing roof generally

Make good to existing roofing where A/C condensers are removed from; profile to match existing, refer to the Schedule of Finishes.

New roof generally

Pre-finished colorbond profile to match existing, refer to the Schedule of Finishes.

9.4 RAINWATER TANK

N/A

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10 INSULATION

10.1 GENERALLY

COOPERATE WITH THESE OTHER TRADES to resolve potential problems before starting work
Wall and roof framing, roofing, wall lining, brickwork, blockwork, suspended ceiling.

COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS *Current Edition.*
SAA HB63:1994 - Home Insulation in Australia.
AS 2627.1:1993 - Thermal insulation of dwellings.

Comply throughout with the current edition of the Building Code.

GENERAL
The Contractor shall provide all labour, materials and equipment required to complete the insulation works.

EXECUTION
Prior to the installation of any insulation materials within the roof/ceiling spaces, allow to relocate all the existing electrical wiring clear of the new insulation.

Vacuum clean all building debris and accumulated dust and dirt from the entire area of the roof/ceiling spaces that are to be acoustically treated.
(Note: Where any existing soft fibre insulation is removed as part of the Scope of Works then it is not necessary to vacuum the area)
All fibre materials in either batt or blanket form shall be installed between the ceiling joists/rafters in the pitched areas of the roof all in accordance with the manufacturers written instructions.

The Contractor is to protect all ceilings by either stapling continuous galvanised chicken wire mesh blanket or by fixing 25mm x 1.0mm or 25mm x 1.2mm galvanised hoop iron strips placed at max. 500 cts using self-embedding screws or equal to the top of ceiling joists.

The following screw spacings are required when fixing hoop iron;

- Ceiling rafters/purlins @ 450 cts can be fixed every second rafter/purlin
- Ceiling rafters/purlins greater than 600mm cts must be fixed every rafter/purlin

The maximum spacing between fixing shall be 900mm.

Chicken wire/galvanised mesh and hoop iron is to be stressed sufficiently tight to hold the weight of the loaded thermal blanket without transferring the load to the ceiling lining.

Ensure that all insulation materials installed in the ceiling areas extends to and beyond the edges of salient corners, other junction points and wall intersections.

Fittings liable to emit heat such as downlights, transformers etc. are to be isolated from any insulation material. All insulation materials, which surround these items, shall be insulated in accordance with the manufacturers' instruction in order to maintain the integrity of the thermal/acoustic treatment.

All penetrations of the thermal barrier shall be treated. Air conditioning ducts and exhaust fans etc. shall be treated on all surfaces, horizontal, vertical, and the full external surface of circular ducts etc.

Metal vent pipes, condensation pipes, and similar required penetrations that may have varying thermal loads, i.e. hot and/or cold, are to be separated from the polyester and/or blanket ceiling insulation by installing fibreglass batt surrounding the penetration pipe. Weight and thickness of the fibreglass to match the rating of insulation of the main roof to maintain integrity of the installation.

Ceiling/access hatches are to be acoustically treated to match adjacent installation rating. Note acoustic seal to the perimeter of the hatch.

Upon completion leave all work areas clean and free of debris.

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Ceiling insulation
165mm Gold batts 3.0 between rafters between existing rafters.

Internal timber framed wall insulation (all internal timber walls)
88mm SoundScreen R2.5.

Note: Contractor to allow for wool sound insulation to all timber framed internal & bathroom walls.

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11 DOORS WINDOWS & GLAZIER

11.1 GENERALLY

COOPERATE WITH THESE OTHER TRADES *to resolve possible problems before starting work*
Carpentry, Steel frames, Brickwork, Painting.

COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS *Current Edition.*
AS 1288- 2006 Glass in Buildings, *Amended 1997*.
AS 2047-1999 Windows in buildings.
All Glazing to comply with the provisions outlined in Clause 3.6 of the Building Code of Australia
Comply throughout with the current edition of the Building Code.

Generally to detail. All work to comply with minimum trade standards and AS2208-1978, Safety glazing material for use in Buildings. All glazing to be clear glass, unless otherwise stated, refer Window Schedule for further details.

All general window new glazing to be min. 6.38mm laminated safety glass or as per Door & Window schedule.

All internal doors to be 4 Panel doors, refer to schedule of finishes & window schedule

Refer to door & Window Schedule

11.2 LOCKING

All external doors and windows to be lockable and keyed alike.

11.3 TIMBER FRAMED WINDOWS & DOOR UNITS

All timber window and door frames are to be manufactured in solid Western Red Cedar sections or similar approved plantation timber, sample to be provided to project manager for approval prior to ordering any materials.

Note: All timber used in door and window frames is to be of consistent colouring. Timber is a natural product, so colour variation is expected, but miss matched sections and obvious poor workmanship in selection will lead to rejection.

Note: All door and window frames are to be of a solid construction, with storm moulds and bedding facing out to weather side. All sill pieces to be solid Spotted Gum or similar approved.

All frames and fixed units are to be fully flashed including sides, top and bottom sections.

All frames are to be oiled prior to installation, and then oiled or primed and painted to Specification, refer to the Painter.

All flashing pieces to be custom formed in prefinished Colorbond. External edges are to have a full folded edge. Internal lip to be an upturn concealed by hardwood window/door frames.

11.4 SEALANTS & ACCESSORY MATERIALS

1. Provide non-structural external weatherproofing sealants of low modulus neutral curing silicone rubber compounds by approved manufacture.
2. Generally comply with AS 1288, Part 2, Section 6 or 8. Supply spacer gaskets, glazing tapes and setting blocks compatible with sealants, which do not contribute to sealant colour change or affect the sealants adhesion to substrates when exposed to ultraviolet light. Prior to application, samples of materials receiving the silicone, including elastomeric sealants are to be evaluated by the silicone sealant manufacturer for compatibility and primer selection. Clearly identify the submitted materials as to manufacturer and product number. Silicone sealants generally will be clear in colour.

11.5 FLY SCREENS

Refer to the Door and Window Schedule for extent of fly screens.

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11.6 PROTECTION

3. ***Framing System:*** Protect metal surfaces as necessary during erection. Finish surfaces free from mechanical imperfections such as scratches, scrapes, dents, spots, stains and streaks.
4. ***Glass:*** Protect glass from breakage immediately upon installation and until Practical Completion. Remove and replace glass and metal panels which are broken, cracked, abraded, chipped or damaged in other ways, before, during or after installation, at no additional cost to Proprietor.
5. Contractor responsible for breakage and damage to installation until Practical Completion.

11.7 CLEANING

6. Remove labels, excess glazing compounds, stains, spots and other foreign matter from glass, frames, hardware and other finished surfaces immediately upon installation of glazing for each light.
7. ***Debris:*** Remove rubbish and debris resulting from glazing operations, each day.

11.8 MISCILANEOUS

Internal Door Hardware
All internal door hardware, latch sets, privacy nibs, door stops, self-closing mechanisms, finishes, locking/keying and Master Key schedule, refer to door and window schedule.

External Door Hardware
Refer Door and Window Schedule for external door hardware.

11.9 SECURITY SCREENS

Refer to Window & door schedule

11.10 MISC

Internal Door Hardware
All internal door hardware, latch sets, privacy snibs, door stops, self closing mechanisms, finishes, locking/keying and Master Key schedule, refer to door & window schedule.

External Door Hardware
Refer Door & Window Schedule for external door hardware for all hinged doors. Architect to approve operating handle, Flush bolts & deadlocks to all aluminium sliding doors & windows.

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12 PLUMBER

12.1 GENERALLY

COOPERATE WITH THESE OTHER TRADES to resolve potential problems before starting work
Excavator, Water distribution Concrete, Floor Construction, Wall Construction, Carpentry, Pavior, Excavation and Fill, Bituminous Concrete Pavement

COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS *Current Edition.*
AS 3500 - National Plumbing and Drainage code 3500, there are 10 parts to this standard, 1995-2000.
AS/NZS 1260:1999 - PVC Pipes and fittings for drain, waste and vent applications.
AS 1432:1996 - Copper tubes for plumbing, gas fitting and drainage applications.
AS 1379:1997 - Specification and supply of concrete, plus 1 supplement.

Comply throughout with the current edition of the Building Code.

All Wet Area Work must comply with the provisions outlined in Clause 3.8.1 of the Building Code of Australia, and AS 3740.

All Sanitary Facilities must comply with the general provisions outlined in Clause 3.8.3 and 3.8.3.3 of the Building Code of Australia.

All new plumbing must comply with the requirements of appropriate authorities. All work is to be carried out by a licenced Plumber and Drainer in accordance with AS 3500.

Standards
To AS 3500.2 and SAA MP52.

Copper tubing for lines under pressure, silver soldered joints. There is to be no exposed copper or p.v.c. tubing without express consent from the Architect. Provide necessary traps, inspection eyes, fittings, vents. Wall penetrations to be sealed or fitted with rose. Ensure access is provided to inspection eyes etc. Chasing of wall pipes to be cut with masonry saw only, no mechanical hammers to be used.

Local authorities
Obtain the drainage plans from the relevant authority that are necessary for the connection of sanitary drains. If the authority elects to perform or supply part of the works, make arrangements and pay the fees payable for the work.

Connection to Water Supply
Carry out the excavation necessary to locate and expose the connection point. On completion reinstate surfaces and elements that have been disturbed such as roads, pavements, kerbs, footpaths and nature strips.

Connection to Sewer Service
Carry out the excavation necessary to locate and expose the connection point. On completion reinstate surfaces and elements that have been disturbed such as roads, pavements, kerbs, footpaths and nature strips.

Connection to Gas Supply
Carry out the excavation necessary to locate and expose the connection point. On completion reinstate surfaces and elements that have been disturbed such as roads, pavements, kerbs, footpaths and nature strips.

Pipe supports
Materials: The same as the pipe, or galvanised or non-ferrous metals, with suitable sleeves where needed to separate dissimilar metals. Steel fasteners: Hot-dip galvanised to AS 1214.

Fixing to masonry: Fix supports to masonry and concrete with galvanised steel or non-ferrous metal bolts or screws with expanding metal masonry or chemical anchors. Do not use explosive powered fixings. All tubing under pressure to be firmly held but with allowance for movement at saddles and direction changes.

Water hammer will be considered a defect and will be rectified at the expense of the Contractor.

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12.2 WATER

Provide runs to all new outlets as shown on drawing from existing mains service in 19mm copper.
Isolate cistern with stopcocks.

12.3 HOT WATER

Connect all new services to existing Hot water System

12.4 GAS

Generally existing to remain.

12.5 STORMWATER

Generally existing to remain.

12.6 SUBSOIL DRAINAGE

All sub soil drainage and agricultural pipes are to connect to storm water drainage.

12.7 PLUMBING FITTINGS

Builder to supply and install all fittings complete with all necessary grout, sealants, tape and washers, incidental clips and fixings, stop cocks etc.

Refer to the Schedule of Finishes.

Set floor waste outlets, white p.v.c. piping with floor waste to bathrooms as per the Schedule of Finishes.

Serve all basins, low down suites etc.

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13 ELECTRICIAN

13.1 GENERALLY

COOPERATE WITH THESE OTHER TRADES to resolve potential problems before starting work
Floor construction, Wall Construction, Ceiling construction, Carpentry, Joinery, Wall Construction and Finishes.

COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS *Current Edition.*
AS/NZS 3000:2000 - Electrical Installations (Australian/New Zealand Wiring Rules).
AS/NZS 3018:2001 - Electrical installations - Domestic installations.
AS 1680 - Interior lighting. There are 9 parts to this standard, 1990-2001.
AS 3786:1993 - Smoke alarms.

Comply throughout with the current edition of the Building Code.

Licenced electrical technicians only may perform work, experienced in the requirements of the project. Licences are those issued by the State Authority having direct control or interest in the work.

Perform the entire installation in accordance with the requirements of the Statutory Authority having jurisdiction.

Provide outlet points, plates etc. locations as per proprietor's instructions.

Except as noted Contractor to supply all light fittings, refer to proprietor for further instructions.

Connection to Supply
Contractor to confirm supply company requirements for point of attachment.

13.2 T.V.

Reinstate TV aerial from roof and make good to any penetrations.

13.3 POWER

Provide new double GPO's to all levels as per electrical layout.

Where regulations require minimum clearances from taps or sinks, locate outlets to suit.

Switch Plates as per the Schedule of Finishes.

13.4 LIGHTING

Refer to the RC and Electrical Plan and the Schedule of Finishes.

13.5 SMOKE DETECTORS

All new Smoke Detectors must comply with the provisions outlined in Clause 3.7.2 of the Building Code of Australia and AS 3786. Provide 1 x Detector unit to each floor to be installed as per manufacturers' specifications for position, proximity to potential fire sources and ease of servicing and battery replacement.

13.6 TELEPHONE

Run Telstra compatible telephone cabling, position as directed on site by owner.

13.7 EXHAUST FANS

Refer to the Reflected Ceiling Plan and the Schedule of Finishes.

13.8 AIR CONDITIONING

Remove existing A/C units for new ducted system to offices, etc. with separate zone to hall. Condenser located away from building in plant yard) approx. 25kW & approx. 15kW respectively.

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14 PLASTERER

14.1 GENERALLY

COOPERATE WITH THESE OTHER TRADES to resolve potential problems before starting work
Wall, Frames, Carpentry, Brickwork, Blockwork, Suspended ceiling, Electrical, Roof Framing.

COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS *Current Edition.*
AS/NZS 2589.1:1997 - Gypsum linings in residential and light commercial construction.
AS 3740:1994 - Waterproofing of wet areas within residential buildings.
AS/NZS 2785:2000 - Suspended ceilings - Design and installation.
AS/NZS 1859 - Reconstituted wood-based panels, 1859.1 1997 Particleboard, 1859.2 1997 MDF, there are 2 other parts plus amendments to this standard, 1996-2001.
AS 3623:1993 - Domestic metal framing.
AS 2946:1991 - Suspended ceilings, recessed luminaires and air diffusers - Interface requirements for physical compatibility.

Comply throughout with the current edition of the Building Code.

For additions extend wall finish to new and existing noted under Brickwork - Rendered Brickwork, white set plaster to match adjacent finish.

White set plaster to internal brick walls generally.

For all other areas, ensure walls to be rendered are clean and free of material that may stain or inhibit addition. Framed ceilings/walls to be of even plane, note allowance for timber shrinkage. Excessive shrinkage and cracking may lead to rejection of affected area.

14.2 INSULATION

Refer to section 10 'Insulation' in this Specification.

14.3 SET PLASTER

Rub down new and render patched areas and edges where defects/projections occur and apply coat of set plaster.

Note: All affected areas and new areas to be white set prior to painting.

14.4 CORNICE

Generally to match existing

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15 PAVIOR, TILER AND FLOOR FINISHER

15.1 GENERALLY

COOPERATE WITH THESE OTHER TRADES to resolve potential problems before starting work
Excavation, concrete, storm water drainage. Concrete, concrete screeds, Carpentry, Plasterboard

COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS *Current Edition.*
AS 3727:1993 - Guide to residential pavements.
AS 4586:1999 - Slip resistance classification of new pedestrian surface materials.
AS/NZS 3661 - Slip resistance of pedestrian surface, there are 2 parts to this standard, 1993-1994.
AS 3740:1994 - Waterproofing of wet areas within residential buildings.
AS 3958 - Ceramic Tiles, there are 2 parts to this standard, 1991 - 1992.
SAA HB64:1994 - Guide to concrete construction, Chapter 8, Part 2 Finishing concrete flat work provides full descriptions of methods of finishing concrete floors
SAA HB71:2002 - Reinforced concrete design in accordance with AS 3600 2001.
AS 1379:1997 - Specification and supply of concrete, plus 1 supplement.
AS 2870:1996 - Residential slabs and footings, plus 1 supplement.

Comply throughout with the current edition of the Building Code.

Comply with material manufacturer's current written instructions.

Set free edges of internal floor tiling against stiff aluminium angle. Provide minimum grade sloping out to all internal/external thresholds, especially sliding doors where the base of the tracks is set flush with tiling.

Grout wall tiles in white and use flexible grout at basin/tub joint. Floor grout to match floor tile colour, to be approved on site sample, with an anti-mould admix.

Should specification change for tiling, Contractor is to follow suppliers' specifications for laying of tiles, grouting specifications and finishing. Grinding of stone and man-made products to be performed by licenced tradesmen.

Contractor to prepare all internal and external surfaces for tiling and paving.

15.2 EXTERNAL PAVING

Allow for relaying existing pavers where uneven.

15.3 INTERNAL TILING

Extent
Allow to provide tiles over the new in-fill slab on ground floor and to first floor bathroom floor and walls where indicated. Refer to the Schedule of Finishes.

Note: Use only laticrete 'Spectra Lock' grout to all tiles, colour to match tile colour to be approved by Justin Long Design. Refer tiling layout pattern setouts on detail drawings, **2mm. max grout joints throughout.** Use flexible grout at basin/tub joint.

Note: On light coloured mosaics use white wall adhesive ONLY, dark adhesive will be rejected and replaced at Contractors expense.

New bathroom floor to be set level with adjacent floor finishes with Aluminium flat transition bar, refer to the Schedule of Finishes.

15.4 WATERPROOF MEMBRANES

Contractor to install waterproof membranes in accordance with the Building Code of Australia, Part 3.8.1 Wet Areas, 3.8.1.0 - 3.8.1.6 inclusive, refer to section Concretor of this Specification.

Contractor to provide compliance certificate on completion.

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16 PAINTER

16.1 GENERALLY

COOPERATE WITH THESE OTHER TRADES to resolve potential problems before starting work, Plasterer, Carpenter, Concretor and Tiler.

COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS *Current Edition*.
AS 1580 - Methods of Test for Paints and Related Materials
AS 2311 - The Painting of Buildings
AS 3730 - A Guide to the Properties of Paint for Buildings

Architect to approve brands and types before use, including recommendation of contractor involved.

Prime all external timbers as work proceeds. Rub down, fill and sand to provide good class of finish. Generally, colours to detail.

WORKMANSHIP
All the painting is to be done by skilled tradespeople in a manner conforming to the best trade practice.

Unless otherwise specified before commencing to paint, complete the work of all other trades within the area to be painted.

PREPARATION
Fill, sand and prepare all imperfections in substrate, cracks and holes with sealants, fillers or grouting cements as appropriate for the finishing system and substrate and sand smooth.

CONTAMINATION
Apply the first coat of paint immediately after cleaning and before contamination of the substrate can occur. Where contamination of intermediate coats occurs, clean in accordance with the paint manufacturer's recommendations prior to re-coating.

WET PAINT WARNING
Place notices conspicuously and do not remove until paint is dry.

TOUCH-UP
Clean off all marks, paint spots and stains throughout, restore damaged surfaces to the original condition. Making good of painted surfaces must occur across the whole plain of the affected area. Patches of repaired paintwork are very visible and such workmanship will lead to rejection.

16.2 EXTERNAL PAINTING

Inex Maxideck
Inex Ultra Clear Anti-Slip R12, P4 and P5(65) (min. 2 coats)
Refer to schedule of finishes

Timberwork, Paint finish
Weathershield acrylic, Semi-gloss minimum 3-part application, refer to the Schedule of Finishes.

Steelwork
Weathershield acrylic Low sheen minimum 2 coats over galvanised primer.

Timber windows
Weathershield acrylic, Semi-gloss minimum 3-part application, refer to the Schedule of Finishes.

16.3 INTERNAL PAINTING
Minimum 3-part application, refer to Schedule of Finishes.

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17 MISCELLANEOUS

17.1 CAULKING & SEALANTS

GENERAL
The Contractor shall provide all labour, materials, and equipment required to complete the caulking and sealant works.

REFERRED DOCUMENTS
The following standards are referred to in this section:
TT S00230C(2) - Interim Federal Specification sealing compounds
(COM-NBS) - Elastometric tape, single component
TT S001543A - Interim Federal Specification for Sealing Compounds
(COM-NBS) - Silicone rubber base for building applications

PRODUCT
Conventional caulking compounds where used for bulk filling major gaps between existing windows and masonry and not exposed to view shall be equal to Fullers “Fulafoam” expanding polyurethane foam.

All acoustic sealing where visible shall be carried out using an elastometric sealant equal to “Seal n Flex” by Bostik.

For narrow gaps/cracks where sealant is not exposed to view or between surfaces where an airtight fit is required the acoustic sealing is to be a continuous bead of silicone.

All caulking and sealant shall be suitable for contact with timber, aluminium, UPVC, masonry, and shall be of the non-hardening type.

All visible sealants are to be capable of being paint finished.

EXECUTION
Clean all contact surfaces immediately before installation of the sealants or caulking compounds. Remove all dirt, dust, grease, oil, water and other substances that would interfere with adequate bonding.

Do not allow sealants or caulking compounds to overflow or spill onto the adjoining surfaces or to migrate into the voids of adjoining surfaces. Clean all surfaces to eliminate evidence of any spillage.

Do not use any sealants around glazing that may cause deterioration of the seals in the secondary window frames.

Acoustic caulking and sealants shall be installed in strict accordance with the manufacturers written instructions. Install sealants to locations and depths as required by the make and profile of the window frame, prior to architraves or trims being installed.

GLAZING SEALANTS
All new and reworked existing glazing is to be fully bedded and sealed using either traditional putty or clear silicone glazing compounds, to manufacturers specification.

FINISH
All exposed sealant shall be finished with a smooth slightly concave surface using a purpose tool – remove all surplus materials and leave the work area clean and free of debris.

17.2 LANDSCAPING

Builder to ensure existing trees are not damaged and to provide suitable level surface upon completion for landscaping by the owners.

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18 COMPLETION

The building shall be completed in every trade and all available services connected complete with fittings, and left in working order.

The builder is to remove from the site temporary sanitary accommodation, all plant, surplus building materials and rubbish removed.

The builder is to complete a full building clean, including for example; all windows, doors, brickwork, timberwork, gutters, downpipes, sumps, paving and tiling, and left fit for occupation.

In addition to the above all plant equipment is to be commissioned and operational. All certificates and maintenance agreements and contacts must be provided.

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19 APPENDIX ITEMS

19.1 ITEMS TO BE SUPPLIED BY PROPRIETOR

TBC

19.2 SCHEDULE OF ITEMISED QUOTES

REFER TO TRADE BREAKDOWN

19.3 ITEMS TO BE SALVAGED

TBC

19.4 SCHEDULE OF CERTIFICATES REQUIRED

1. STRUCTURAL DESIGN CERTIFICATE FOR UNDERPINING OF EXISTING BUILDING
2. STRUCTURAL ENGINEERS INSPECTION CERTIFICATES
3. DRAINAGE/PLUMBING WATER BOARD CERTIFICATE/INSTALLATION APPROVAL
4. GLAZING CERTIFICATE
5. ELECTRICAL INSTALLATION/SMOKE DETECTORS CERTIFICATE
6. WATERPROOF MEMBRANE(S) INSTALLATION CERTIFICATE

19.5 APPENDICES

1. Council Conditions

Builder to familiarise themselves with Council Conditions and ensure council requirements are adhered to, any discrepancy on plans is to be clarified with Architect.

2. Schedule of Finishes

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