

**SPECIFICATION FOR THE PROPOSED  
DEMOLITION & UPGRADES TO EXISTING  
GRANDSTAND, CANTEEN & AMENITIES AT  
COONAMBLE SPORTSGROUND**

**FOR**

**Coonamble Shire Council**

**AT**

**Coonamble Sports Ground, Castlereagh  
Street, Coonamble, NSW, 2870**

**Issue A  
29.3.2023**

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### SCOPE

Scope of work of this specification is the architectural as well as the services components of the works.

Provide all work as shown on the attached drawings and where scheduled.

The scope and extent of work are subject to the attached Conditions of Approval and to specific requirements of the principal certifying authority.

Ensure full compliance with relevant statutory regulations and the supply authorities and to Australian Standards listed in this specification.

Comply with all relevant conditions of the NCC.

Ensure full coordination with all services components and provide works to meet thermal compliance as applicable, and listed performance requirements of NatHERs or similar protocols and relevant sections of NCC.

The specification is to be read in conjunction with signed Conditions of Contract, BCA (NCC) report, the Access Report and any other included documentation as applicable.

### ASSOCIATED DOCUMENTS

Read the specification in conjunction with the following:

Associated documents and reports as listed with this specification.

Structural engineer's documents.

Services engineer's documents

Energy Compliance Report.

Conditions of Approval and the associated reports.

Note that where the information contained in these reports is incorporated into the design, it remains the responsibility of the contractor to certify all items listed for compliance are fully certified.

### QUALITY CONTROL

Provide all materials and components to required level of finish and performance, all subject to submission of samples, control panels and technical data as applicable.

Submit in timely manner for approval and keep protected for ongoing reference during the construction of the works.

Submit samples, control panel installation and technical data and obtain approval prior to commencing work or ordering the components.

Refer to Hold Point requirements where listed on the Conditions of Contract and ensure compliance.

#### Samples

Provide all samples minimum size 200mm x 200mm and paint suppliers brush-out samples A4 size minimum for approval and to meet the listed performance levels.

### AUSTRALIAN STANDARDS AND REFERENCES

Read this component of the specification with reference to current Australian Standards as applicable for each trade section and refer to the product manufacturer's specification or CodeMark details where no specific Australian Standards exist.

Refer to Workcover regulations having jurisdiction over the site.

Refer: Model Code of Practice, Preventing Falls in Housing Construction:

<https://www.safeworkaustralia.gov.au/system/files/documents/1705/mcop-preventing-falls-in-housing-construction-v2.pdf>.

Read this trade section in conjunction with the council conditions of approval and other supply authority regulations.

Confirm compliance with appropriate Australian Standards and ensure full approval of the principal certifying authority (responsible building surveyor) on completion of the works.

### DEFINITIONS

Ensure that all definitions listed in signed Conditions of Contract are coordinated with the Preliminaries (where applicable) and are not in conflict with the consultant documentation.

Refer also to definitions within the conditions of approval and coordinate as necessary.

Seek clarification from the building designer if in doubt.

### SITE MANAGEMENT

Provide all necessary site management components such as provision of site facilities, sediment control measures and temporary works as listed on the council approved conditions or as required by statutory regulations for the works.

Provide all storage and sanitary facilities during the procurement of the works and all structural and non-structural works such as hoardings and dewatering measures.

Refer to full list of temporary provisions and confirm adequacy of all components at the submission stage of the works.

**Set out of the works:** to be done by a licenced land surveyor unless otherwise authorised in writing by the building designer.

### MATERIALS

Provide all materials necessary for the proper procurement of the works.

Where specifically named materials or goods are scheduled or noted, no substitution is to be made unless approved in writing by the building designer.

Where no specific materials are listed, ensure that all are fit for the intended use and provide the necessary information confirming compliance with relevant Australian Standards, the suitability, fire hazard characteristics and chemical compatibility of all components.

### ON SITE ACTION

Investigate site conditions and evaluate the site with commencement of on-site work meaning total acceptance of site conditions.

Note that reports such as geotechnical information are given as a guide only and the contractor is to evaluate site conditions following thorough site investigations. Notify building designer and geotechnical engineer of any revealed conditions differing from the report for on-going guidance.

**PERFORMANCE**

Refer to drawings for listed performance of building components and the items of equipment where listed.  
Ensure that all listed components are in full compliance with statutory regulations such as fire and sound rating levels.  
Seek clarification and certify for compliance on completion.

**WARRANTIES**

Provide valid warranties for all listed components with the required procedures for maintenance of warranty condition included as part of the submission.  
Refer with specific attention to finishes and equipment items where listed.

**CERTIFICATION**

Certify all items listed for certification on the council approved Conditions of Approval or where specifically listed on the supply authority requirements.  
Refer to Basix or similar and Section J reports as well as the Acoustic Report where items are listed for certification and confirm compliance with the listed performance levels.

**END OF SECTION**

**SCOPE OF WORK** Perform work described here and shown on drawings including but not limited to:

Pay fees in connection with this trade to authorities having jurisdiction.

Demolish building components and services in accordance with demolition drawings or as required for new work and in compliance with relevant authorities having jurisdiction.

Investigate site conditions and identify material containing hazardous materials such as asbestos and take responsibility for safe, authorised removal and disposal, according to relevant authorities having jurisdiction.

Provide all temporary structural and non-structural components of the works as required for this trade section of the specification and remove on completion.

Complete all contract works in accordance with instructions. Execute written variation orders for changes to existing documentation or new work.

Clean site thoroughly on completion.

Comply with all relevant occupational health, safety and environmental requirements of relevant authorities having jurisdiction.

Refer to GENERAL REQUIREMENTS before proceeding.

## GENERAL

**Cooperate** and comply with relevant authority requirements for Excavation & Fill so as to resolve possible problems before starting work.

**Australian Standards:** comply with the applicable clauses of current editions of these and other relevant Australian Standards:

AS/NZS 1576.1 2019 Scaffolding – general requirements.

AS 2436 2010 (R2016) Guide to noise and vibration control on construction, demolition and maintenance sites.

AS 2601 2001 The demolition of structures.

Refer: Model Code of Practice, Preventing Falls in Housing Construction:

<https://www.safeworkaustralia.gov.au/system/files/documents/1705/mcop-preventing-falls-in-housing-construction-v2.pdf>.

Comply with any other relevant codes of practice in the State where the structure will be built.

National Code Practice for the Safe removal of Asbestos 2<sup>nd</sup> Edition [NOHSC: 2002 (2005)]

Comply throughout with the current edition of the NCC - National Construction Code (BCA).

**Explosives:** no blasting for demolition purposes is permitted.

**Restoration:** make good to original condition, any damage to retained structures and adjacent property resulting from demolition operations, or damage caused from failure to provide adequate protection.

**Provide dilapidation report** with photographic record of the works and adjacent structures, buildings, roads etc., before commencement of demolition and again at completion so as to identify any damage created by demolition works. Submit documentation, including photographs, to the building designer, and perform restoration work without expense to the proprietor.

**Noise, dust, erosion and sediment:** ensure requirements of relevant authorities having jurisdiction for environment management are known and complied with without exception, so as to maintain adjoining neighbour "quiet enjoyment".

**Submissions:** Prepare erosion and sediment control plans and information for removal of demolished material should this be required.

## MATERIALS

Provide all materials for temporary works, dewatering and diversion of services.

Supply sufficient equipment, competent and experienced operators and labour to complete the work to meet the contract completion date.

Provide Code compliant containers for disposal required. Provide for safe removal of any identified toxic substances (e.g. asbestos – see notes in 00800 Supplementary Conditions of Contract in the Preliminaries) in compliance with relevant authority requirements.

Material required to be demolished becomes the property of the contractor. Remove it from the site and ensure the demolished material is disposed of in compliance with relevant authority requirements. Coordinate fully this component of the works with the Excavation & Fill trade section as applicable.

## ON-SITE ACTIONS

**Inspection:** undertake a dilapidation survey and report of the surrounding area including buildings, structures, roads, etc., adjacent to the works of the contract and inspect conditions at site before starting work. Provide a copy of the dilapidation report and any unsatisfactory situation to the building designer prior to commencing work. Start of work means total acceptance of conditions.

**Existing services:** obtain and comply with relevant service provider requirements for working on or near existing services to ensure unwanted existing utilities, such as gas reticulation, electrical wiring and other installed services, are legally disconnected. Ensure details of types of services, depths and physical location of disconnected services are documented and copies provided to the building designer at the earliest possible time after disconnection. Obtain confirmation of disconnection, in writing, by service provider where relevant.

**Protection:** provide measures required by laws and regulations for the protection of the public, occupants, workmen, surrounding property, footpaths, streets and kerbs during demolition operations. Comply by means of barricades, hoardings, fences, warning lights, signs, rubbish chutes, etc. Protect and indicate vegetation which is to be preserved (refer to planning conditions).

**Execution:** exercise due care in executing this work.

No debris to be burnt on the site.

Provide shoring as necessary in accordance with geotechnical engineer or qualified structural engineer's instructions. Alter, adapt, and maintain temporary works as necessary, and strike or withdraw them progressively as the work proceeds.

## COMPLETION

Leave site ready for construction work and ensure that all services components are in accordance with services installation requirements.

## END OF SECTION

**SCOPE OF WORK** Perform work described here and shown on drawings including but not limited to:

Prepare site, excavate for pads, foundations, slabs, paving, drains, pits and roads. Remove trees and other vegetation authorised for removal, including any roots where they prevent building work, (obtain building designer's approval if root removal will destabilise trees) paving, trenches etc. Remove topsoil from building footprint, stockpile and protect, as per relevant environmental requirements on site for later re-spreading as directed.

Complete all contract works in accordance with instructions. Execute written variation orders for changes to existing documentation or new work.

Provide for installation of material required for termite control, where shown on the drawings or required under specific conditions of the principal certifying authority.

Refer to GENERAL REQUIREMENTS before proceeding.

**GENERAL**

**Consult with existing service providers and coordinate** with relevant trades to resolve possible problems before starting work: water distribution, sanitary sewerage, storm drainage, pavements, concrete.

**Australian Standards:** comply with the applicable clauses of current editions of these Australian Standards:

AS 1289	Methods of testing soils for engineering purposes. <i>There are many parts to this standard.</i>
AS/NZS 3500.3 2018	Plumbing and drainage – Stormwater drainage.
AS/NZS 3660 2014	Termite management set.
AS 3798 2007	Guidelines on earthworks for commercial and residential developments.
AS 4200.2 2017	Pliable building membranes and underlays - Installation requirements. <i>Amdt 2018.</i>
AS 4678 2002	Earth-retaining structures. <i>(Incorporates Amdts 1 and 2, 2003, 2008)</i>

Refer: Model Code of Practice, Preventing Falls in Housing Construction:

<https://www.safeworkaustralia.gov.au/system/files/documents/1705/mcop-preventing-falls-in-housing-construction-v2.pdf>

Comply with any other relevant codes of practice in the State where the structure will be built.

Comply with particular specifications in building regulations and/or local council publications.

Comply throughout with the current edition of the NCC - National Construction Code (BCA).

**Explosives:** no blasting for excavation purposes is permitted.

**Restoration:** make good to original condition, any damage to retained structures and adjacent property resulting from excavation operations, or damage caused from failure to provide adequate protection. Photograph (date-stamped) pre-existing damage before commencing work and submit to building designer, and perform restoration work of all subsequent damage to approval of the building designer without expense to the proprietor.

**Noise, dust, erosion and sediment:** ensure requirements of relevant authorities having jurisdiction for environment management are known and complied with without exception, so as to maintain adjoining neighbour "quiet enjoyment".

Provide equipment needed to affect a termite treatment which complies with the applicable Australian Standards.

**QUALITY CONTROL****ON-SITE ACTIONS**

**Inspection:** inspect conditions at site before starting work. Start of work means total acceptance of conditions.

**Site drainage:** on all sloping sites or where clay is present, arrange for a geotechnical report from a qualified professional.

**Erosion and sediment control:** install erosion and sediment controls in consultation with geotechnical engineer to protect adjacent properties, waterways etc. from harm. Prepare the sediment control plan if not available as part of the documentation.

**Protection:** prepare to protect excavations from damage and ensure protection of existing structures or new work.

**Clear site** under building and paving of plants, trees, rocks shown on plan. Leave surface free of any ponding depressions.

**Execution:** install surface and sub-soil drainage to the satisfaction of the authorities and the structural engineer. Excavate for strip footings and edge beams, paving, water and piped supply and drains, pits. Provide fill and compact in 150 mm layers, to 95% of maximum density, by vibrating or watering – refer method to structural engineer for site specific approval. Maintain excavations free of water. Install waterproof membrane over 50mm minimum packing sand bed. Seal laps. Underlay to extend to top of slab level and under base of wall flashing and protect from damage. Seal, and lag against slab movement damage, service pipe penetrations. Inspect and repair membrane/taping damage before concrete pour. Monitor pour to ensure no puncturing of membrane occurs and rectify if it occurs before proceeding further.

Below footings and slabs on ground, install hardcore, beams and other structural elements, plant mixed blinding concrete to be of strength, minimum 15MPa.

In service trenches: site mixed 1:2:4 concrete or approved compacted pipe bedding material.

Apply termite protection.

**END OF SECTION**

## PLUMBING (WATER, GAS ), DRAINAGE (SEWER & STORMWATER) & WATER STORAGE

**SCOPE OF WORK** Perform work described here and shown on drawings including but not limited to:

Supply and install or lay: pipes to distribute water from water main supply to each required outlet.

- insulated pipes and fittings from hot water heater to each required outlet.
- reticulate a complete system as required to connect scheduled appliances to gas supply mains.
- a complete system of sewer drains to discharge sewage waste to the authority's sewer main, or to on-site septic tank, bio-cycle, pump out tank etc.
- a complete system of site stormwater drainage including agricultural drains, drains below slabs and pavements, retaining wall drains, culverts, pits, frames, manhole covers, including treatment of same prior to discharge to water course in compliance with local authority requirements.
- water storage materials and equipment for storage of rain and other potable water, including tanks, stands, filters, reticulation
- Roof plumbing.

Apply for permits and pay required fees and charges to authorities having jurisdiction. Provide permits and approval certificates to contractor.

Complete all contract works in accordance with instructions. Execute written variation orders for changes to existing documentation or new work.

**Preparation:** by Excavation & Fill contractor.

**Design:** provide a design to the building designer for installation of sanitary sewerage prior to construction.

Refer to GENERAL REQUIREMENTS before proceeding.

### GENERAL

**Cooperation:** to resolve possible problems before starting work cooperate and coordinate with each trade involved in the construction of the building including: concrete, carpentry, plasterer, and tiler.

**Australian Standards:** comply with the applicable clauses of current editions of these Australian Standards:

AS 1056.1 1991	Storage water heaters - General requirements. 5 Amdts, 1992- 2005.
AS/NZS 1260 2017	PVC-U pipes and fittings for drain, waste and vent applications.
AS 1432 2004 (R2016)	Copper tubes for plumbing, gas fitting and drainage applications.
AS/NZS 2032 2006	Installation of PVC pipe systems. 1 Amdt 2018.
AS/NZS 3500 2018	Plumbing and drainage. 3500.2 2018 Sanitary plumbing and drainage. 3500.4 2018 Heated water services. 3500.5 2000 National Plumbing and drainage - Domestic installations. 4 Amdts 2002 – 2006.
AS 3688 2016	Water supply and gas systems - Metallic fittings and end connectors.
AS 4809 2017	Copper pipe and fittings - Installation and commissioning.
AS/NZS 5065 2005 (R2017)	Polyethylene and polypropylene pipes and fittings for drainage and sewerage applications.
AS/NZS 5601.1 2013	Gas installations - General installations. 2 Amdts 2015, 2016.
HB 230 2008	Rainwater Tank Design and Installation Handbook.
HB 326 2008	Urban Greywater Installation Handbook for Single Households.

Refer: Model Code of Practice, Preventing Falls in Housing Construction:

<https://www.safeworkaustralia.gov.au/system/files/documents/1705/mcop-preventing-falls-in-housing-construction-v2.pdf>.

Comply with particular specifications in Building Regulations and/or Local Council publications.

Comply throughout with the current edition of the NCC - National Construction Code (BCA).

### ON-SITE ACTIONS

Investigate site conditions and prepare fully approved plans for this trade section.

**Inspection:** visit site and inspect conditions, comparing conditions to the drawings before delivery of materials to site. Start of work means total acceptance of conditions. Report any situations requiring preparatory work to the building designer.

**Spoil and materials:** Ensure spoil and materials brought to site are protected and located clear off and do not impact on erosion and sediment controls installed by the builder. Ensure spoil and materials to be taken from the site are compliant with statutory or local authorities requirements, i.e. fire ants, contaminants etc.

**Execution:** form straight and true trenches minimum 600mm clear of walls and not deeper than adjacent footings unless approved by geotechnical engineer in writing. Maintain sides, and keep free from water. Form trenches and bedding to provide constant falls as approved by the local authorities.

Prepare trenches and paths of pipes through structure.

Contractor to form cutouts of minimum size to take pipes. Not to be done by plumber. Penetrations to the fabric of the building to be sealed for air/moisture leakage.

Ensure correct pipe sizes. Provide upstands and connect (vermin proof) to bottom of downpipes. Provide inspection openings where authority requires (maximum 6 metre intervals), bends and junctions. Provide complete seals at junctions and ends in accordance with manufacturer's written instructions.

Arrange for inspection by local authority. When issued, provide a copy to building designer and back fill with material approved by local council, principal certifying authority and building designer. Remove debris and clean areas beside excavation for drains.

Connect sanitary fittings to sewer pipes with permanently secure joints.

**Jointing of pipes:** on manufacturer's advice, select from: capillary, brazed, compression, push fit, solvent-welded. Chrome plate all exposed pipes. Provide mini stop taps to hot and cold connections to all fixtures.

**Gas reticulation:** to comply with supply authority regulations and relevant standards.

**Roof plumbing:** provide gradients, flashings, sealing and related work to ensure that no water penetrates to the inner part of the building. Ensure compliance with AS 3959 requirements for 3mm maximum gap size where applicable.

**Installation of water tank(s):** ensure that each part of the site or building to which equipment will be connected is secure and will permanently support components. Connect a minimum of 50 square metres of roof catchment to the rainwater tank.

Ensure that falls will promote water flows.

Arrange installed components in logical sequence. Form secure connections without causing damage to existing building or structures. Connect other services (mains supply/ electrical power) as required by specified equipment to ensure operability to manufacturer's recommendations. House electrical equipment (pressure pump, switching system) in weatherproof accessory covers.

Install reticulation pipes to match where possible the materials described in this trade section

**As built:** provide "as built" drawings to building designer showing, types of services, depths of services and dimensioned locations of services to fixed references, i.e. site boundary peg, structure or building. Cover no pipes until local authority or responsible consultant has issued certificate. Protect installation until completion of project.

See Schedule of Sanitary & Equipment Items.

**END OF SECTION**



**SCOPE OF WORK** *Perform work described here and shown on drawings including but not limited to:*

Supply and install material required for termite control, all in-situ concrete, reinforcing steel, formwork for strip footings, floor slabs, paving, pits etc.

where applicable, allow for environmental termite baiting systems in conjunction with 'Termimesh' and approved sleeves for pipe penetrations. Avoid the spraying of building footprint or impregnation of soil with any product labelled as a poison.

Install waterproof membrane to manufacturer's recommendations over 50m sand beds as shown on drawings before pouring concrete slab directly on the ground.

Excavations to be adjusted to accommodate the thickness of insulation.

**Cooperation:** to resolve possible problems before starting work, cooperate and coordinate with other trades, in particular excavation & fill, storm drainage, sanitary sewerage, other services, pavements, concrete screeds.

Concrete finishes, built in items, concrete encasing, waterproofing, termite management, services engineer's documentation. Refer to GENERAL REQUIREMENTS before proceeding.

**GENERAL:**

**Australian Standards:** comply with the applicable clauses of current editions of these Australian Standards:

AS 1012	Methods of testing concrete. <i>There are numerous parts, 1991-2018.</i>
AS 1379 2007 (R2017)	Specification and supply of concrete.
AS/NZS 1576.1 2019	Scaffolding – general requirements.
AS/NZS 2327 2017	Composite structures - Composite steel-concrete construction in buildings.
AS 2870 2011	Residential slabs and footings.
AS 2876 2000	Concrete kerbs and channels (gutters) - Manually or machine placed.
AS 3600 2018	Concrete structures.
AS 3610	Formwork for concrete. <i>There are Supplements.</i>
	3610.1 2018 Specifications.
AS/NZS 3660 2014	Termite management set.
AS/NZS 3661.2 1994	Slip resistance of pedestrian surfaces - Guide to the reduction of slip hazards.
AS 3727.1 2016	Pavements – Residential.
AS 3740 2010	Waterproofing of domestic wet areas.
AS 4200.2 2017	Pliable building membranes and underlays - Installation. <i>1 Amdt 2018.</i>
AS 4586 2013	Slip resistance classification of new pedestrian surface materials.
AS 4654	Waterproof membranes for external above ground use.
	4654.1 2012 Materials.
	4654.2 2012 Design and installation.
AS/NZS 4671 2001	Steel reinforcing materials.
AS/NZS 4858 2004	Wet area membranes.
AS 5216 2018	Design of post-installed and cast-in fastenings in concrete.
AS 6669 2016	Plywood – Formwork.
HB 64 2002	Guide to concrete construction.
HB 71 2011	Reinforced concrete design in accordance with AS 3600 2009.
SA HB 84 2018	Guide to concrete repair and protection.
HB 197 1999	An introductory guide to the slip resistance of pedestrian surface materials.
SA HB 198 2014	Guide to the specification and testing of slip resistance of pedestrian surfaces.
CCAA* T49-2003	Guide to Residential Floors (*Cement Concrete & Aggregates Australia) Available from <a href="https://www.ccaa.com.au/imis_prod/documents/Library%20Documents/CCAA%20Technical%20Publications/CCAA%20Guides/CCAAGUIDE2003-T49-Res%20Floors%20Web-TBR.pdf">https://www.ccaa.com.au/imis_prod/documents/Library%20Documents/CCAA%20Technical%20Publications/CCAA%20Guides/CCAAGUIDE2003-T49-Res%20Floors%20Web-TBR.pdf</a>
CCAA T57 2006	Guide to Off-form Concrete Finishes (Available <a href="https://www.ccaa.com.au/imis_prod/documents/Library%20Documents/CCAA%20Technical%20Publications/CCAA%20Guides/CCAAGUIDE2006-T57-finishesguide%20(1).pdf">https://www.ccaa.com.au/imis_prod/documents/Library%20Documents/CCAA%20Technical%20Publications/CCAA%20Guides/CCAAGUIDE2006-T57-finishesguide%20(1).pdf</a> )

Refer: Model Code of Practice, Preventing Falls in Housing Construction:

<https://www.safeworkaustralia.gov.au/system/files/documents/1705/mcop-preventing-falls-in-housing-construction-v2.pdf>.

**Comply with:** statutory authorities having jurisdiction, the current edition of the NCC, structural engineer's documentation, service engineer's documentation.

**Performance:** fire and sound rating requirements:

No site-mixed concrete is to be used for structural elements (including blinding) only plant mixed concrete placed within 60 minutes of adding water. Ensure specified slump is provided at the plant, to be maintained at the point of placement.

**PREPARATION** *Inspect conditions at site before starting work*

Prepare surfaces to receive concrete smooth, clean and stable under concrete load.

**QUALITY CONTROL**

**ON-SITE ACTIONS** *Start of work means total acceptance of conditions*

**NOTE:** do not place concrete when temperature exceeds 30 degrees or is less than 10 degrees Celsius

Arrange for installation of pipes, cables, conduits etc. Over prepared surface, install WP membrane. Place reinforcement, secure in place and prevent movement during pour, maintain required concrete cover.

Comply with structural engineer's requirements for joints, splices etc. of reinforcement.

Where critical off-form finishes are scheduled, ensure all details of required finish are discussed with building designer and understood prior to installation of formwork materials and release agents.

Cure finished slabs for 5 days with plastic film secured in place if final surface is to be covered with finishes to cover marking stains. Use packing sand for curing concrete paving. Keep damp for 5 days.

**Slump tests:** refer to structural engineer's specification. Provide and pay for slump test reports: one on first batch and one for every 15 cubic meters of concrete delivered thereafter. Tests and rejection criteria in accordance with AS 3600. Vibrate concrete to achieve compaction. Do not "travel" vibrators. Strip formwork in accordance with Table in AS 3610 Minimum stripping times. Exposed concrete edges to be free from all imperfections, membrane ripples, air pockets, honeycombing etc. Substandard surface: finishes cement rendered/made good to building designers and/or proprietor's satisfaction at no cost to proprietor.

**Termite treatment:** under slab foams should be encapsulated and have boron-based additives or alternatives that are non-toxic to occupants. Ensure that vertical face of slab edge is smooth off-form and does not contain areas of honeycombing, folds or rough surface. Rectify any discrepancy or unsuitability of substrata if needed to comply with AS/NZS 3660 and arrange for ongoing cooperation of other trades to ensure effective pest control. Take care of materials. Prevent damage before and during installation. Protect personnel and surrounding work, including other finishes, equipment and components during installation. Provide protective covering where necessary. Install barriers per council preference Part A or Part B in accordance with AS/NZS 3660. Comply in all respects with manufacturer's recommendations contained in technical bulletins. Call for technical advice where necessary. Remove surplus material. Protect finished work.

**Concreting:** NOTE: relevant building inspector to inspect all preparatory work, including reinforcing before beginning concrete pour for any footings, pads and slabs. Comply with structural engineer's requirements for concrete/brick stumps, joints, splices etc. of reinforcement.

Provide uniform 1:60 maximum fall to outlets: dispose of concrete waste, including liquids containing cement product in compliance with local environmental requirements.

**Paving:** 75mm thick, 20Mpa. Grade paving away from external walls of building. All paving to be located at minimum 10mm below vents and weepholes.

Clean the site where work of this trade is performed.

#### **COMPLETION**

Complete work in accordance with instructions and written variation orders.

#### **WARRANTY**

Provide to proprietor a warranty covering satisfactory performance of the complete installation and required strength at 28 days.

#### **END OF SECTION**

**SCOPE OF WORK** Perform work described here and shown on drawings including but not limited to:

Concrete finishes on a prepared base, with coves, risers, kerbs, margins, pit covers etc.

Waterproofing materials, curing and protection. Install compliant waterproof membrane below finishes to wet area walls and floor and adjacent to plumbing fixtures as required in NCC.

Pay all fees relating to this trade to relevant authority having jurisdiction.

Complete all contract works in accordance with instructions. Execute written variation orders for changes to existing documentation or new work.

See Schedule of Finishes.

Refer to GENERAL REQUIREMENTS before proceeding.

**GENERAL**

**Coordination:** to resolve possible problems before starting work, cooperate and coordinate with other trades, in particular: excavation & fill, storm drainage, sanitary sewerage, other services, pavements, concrete screeds.

**Australian Standards:** comply with the applicable clauses of current editions of these Australian Standards:

- AS 1379 2007 (R2017) Specification and supply of concrete.
- AS 2870 2011 Residential slabs and footings.
- AS 2876 2000 Concrete kerbs and channels (gutters) - Manually or machine placed.
- AS 3600 2018 Concrete structures.
- AS 3610.1 2018 Formwork for concrete - Specifications.
- AS/NZS 3660 2014 Termite management set.
- AS 3727.1 2016 Pavements – residential.
- AS 3740 2010 Waterproofing of domestic wet areas.
- AS 3972 2010 General purpose and blended cements.
- AS 4586 2013 Slip resistance classification of new pedestrian surface materials.
- AS/NZS 4671 2001 Steel reinforcing materials.
- HB 197 1999 An introductory guide to the slip resistance of pedestrian surface materials.
- SA HB 198 2014 Guide to the specification and testing of slip resistance of pedestrian surfaces.

Comply throughout with the current edition of the NCC - National Construction Code (BCA).

**ON SITE ACTIONS:**

**Submission:** submit sample panels for each of the listed concrete finishes and ensure approvals prior to commencing work. With applied finishes, ensure that all work is in accordance with the product manufacturer’s specifications and that all non-slip performance levels are certified for compliance.

**Inspection:** visit site and inspect conditions. Report any situations requiring preparatory work to the building designer. Start of work means total acceptance of conditions.

**Execution:** coordinate with and ensure preparatory work by other trades is done prior to commencement of work and arrange for provision and fixing grounds.

Finish exposed floor surfaces. Refer table. Provide set downs for concrete finishes to maintain required floor or pavement levels.

Provide fall to outlets: see Schedule of Finishes for further details.

**END OF SECTION**

**SCOPE OF WORK** Perform work described here and shown on drawings including but not limited to:

Supply, fabricate, apply surface treatment, anchor bolts and other attachments, field welding, permanent grouting and cold-formed steel framing. All work to be fully coordinated with structural engineer's requirements including specific coatings in harsh environments.

Submit steel fabricator's shop drawings to building designer.

Complete all contract works in accordance with instructions. Execute written variation orders for changes to existing documentation or new work.

Refer to GENERAL REQUIREMENTS before proceeding.

### GENERAL

**Cooperation:** to resolve possible problems before starting work, cooperate and coordinate with other trades, in particular: concrete, wall construction, roof construction, painting.

**Australian Standards:** comply with the applicable clauses of current editions of these Australian Standards:

AS/NZS 1163 2016 Cold-formed structural steel hollow sections. 1 Amdt 2017.

AS/NZS 1554 Structural steel welding.

AS/NZS 1576.1 2019 Scaffolding – general requirements.

AS 1627.0 1997 (R2017) Metal Finishing - Preparation and pre-treatment of surfaces - Method selection guide.

AS/NZS 3679.1 2016 Structural steel - Hot-rolled bars and sections.

AS 4055 2012 Wind loads for housing.

AS 4100 1998 (R2016) Steel structures.

AS/NZS 4680 2006 (R2017) Hot-dip galvanised (zinc) coatings on fabricated ferrous articles.

AS/NZS 4994.1 2009 Temporary edge protection – General requirements.

AS/NZS 5131 2016 Structural steelwork – Fabrication and erection.

Refer: Model Code of Practice, Preventing Falls in Housing Construction:

<https://www.safeworkaustralia.gov.au/system/files/documents/1705/mcop-preventing-falls-in-housing-construction-v2.pdf>.

Comply throughout with the current edition of the NCC - National Construction Code (BCA).

### MATERIALS TO BE USED

Provide all structural steel work and secondary steel support members for items such as the external cladding in full coordination with structural requirements and to structural engineer's detailed drawings, as applicable.

Ensure that all work is subject to approved submission of samples and shop drawings for all listed components of the works.

Coordinate fully with other structural components such as concrete.

Advise building designer when fabrications may be inspected before delivery. Steel components bent or buckled before erection will be rejected.

### ON-SITE ACTIONS

**General:** All structural work to approved submission of steel fabricator's shop drawing and fully approved by the structural engineer. Store uncoated steel under cover or protect from moisture or high humidity.

**Inspection:** visit site and inspect conditions, comparing to drawings before delivery of materials to site. Report any situations requiring preparatory work to the building designer. Start of work means total acceptance of conditions.

**Work methodology:** Ensure the method of delivery, unloading, storage, erection and sign-off of works is compliant with relevant occupational health, safety and environmental requirements.

**Execution:** use bolt connections in preference to welded connections. Minimum on site welding –refer to building designer before executing. Provide holding down bolts to concrete for building in. Comply with instructions.

Erect plumb and secure in place. Erect so that components can be fixed without distortion. Provide temporary bracing against wind and other stresses. Weld in accordance with AS/NZS 1554. Advise building designer when erected steel is ready for inspection.

Adjust as required. Grout under base plates in high strength grout/mortar. Touch up steel with zinc-rich paint after installation, if acceptable given the location and exposure to salt or other substances that could have deleterious effects.

### END OF SECTION

**SCOPE OF WORK** Perform work described here and shown on drawings including but not limited to:

Supply and erect framing both structural and non-structural. Components Include floor panels, wall framings & cladding, roof framings, verge, fascia, eave, barge, lining boards, decking, balustrades, steps and stairs, incidental framing.

Supply, install and finish timber strip flooring on floor framing members.

Supply and install fibre cement and associated equipment and fixing to:

Wall linings internal, ceiling linings, internal, fire-rated walls, external cladding, wet area wall lining, eaves lining, fascias, partitions, wet area flooring, underlays, external decks, lattice, bracing panels, ceramic faced panels, fibre cement pipe columns. Complete all contract works in accordance with instructions. Execute written variation orders for changes to existing documentation or new work. Refer to Wall Types drawings showing the construction type and the required performance levels for each of the listed wall types. Note that in wet areas specific detailing for wet areas are to be shown on the drawings. Refer to manufacturer's details and submit for approval prior to commencing work.

Refer to GENERAL REQUIREMENTS before proceeding.

**GENERAL**

**Cooperation:** to resolve possible problems before starting work, cooperate and coordinate with other trades, in particular: concrete, masonry, wall lining, plumbing, electrical, insulation, painting, fibre cement products.

**Australian Standards:** comply with the applicable clauses of current editions of these Australian standards:

- AS 1428.1 2009 Design for access and mobility - General requirements for access – New building work. 2 Amdts 2010, 2017.
- AS 1530 Methods for fire tests on building materials, components and structures -
  - 1530.1 1994 (R2016) Combustibility test for materials.
  - AS/NZS 1530.3 1999 (R2016) Simultaneous determination of ignitability, flame propagation, heat release and smoke release.
  - AS 1530.4 2014 Fire-resistance tests for elements of construction.
- AS/NZS 1576.1 2019 Scaffolding – general requirements.
- AS 1684.3 2010 Residential timber-framed construction - Cyclonic areas. 1 Amdt 2012.
  - 1684.4 2010 Residential timber-framed construction – Simplified - Non-cyclonic areas
- AS 1720 Timber structures.
  - 1720.4 2006 Fire resistance for structural adequacy of timber members.
  - 1720.5 2015 Nail plated timber roof trusses.
- AS/NZS 1859.4 2018 Reconstituted wood-based panels - Specifications - Wet process fibreboard.
- AS/NZS 2269.0 2012 Plywood - Structural – Specifications 1 Amdt 2015.
- AS 2796.2 2006 (R2016) Timber - Hardwood - Sawn and milled products - Grade description.
- AS/NZS 2908.2 2000 Cellulose-cement products - Flat sheet.
- AS 3959 2018 Construction of buildings in bush-fire prone areas. 1 Amdt 2019.
- AS 4055 2012 Wind loads for housing.

Refer: Model Code of Practice, Preventing Falls in Housing Construction:

<https://www.safeworkaustralia.gov.au/system/files/documents/1705/mcop-preventing-falls-in-housing-construction-v2.pdf>.

Comply with recommendations of the National Assoc. of Forest Industries technical bulletins.

Comply with relevant technical bulletins and published instructions produced by manufacturer.

Comply throughout with the current edition of the NCC - National Construction Code (BCA).

**Storing timber:** store on site neatly stacked above ground to allow for water run-off. Protect from rain, damage and other material.

**MATERIALS TO BE USED:**

**GENERAL** No variations to selected materials will be accepted without building designer's written approval.

Any wood panel products are to be certified formaldehyde emission level of E1 or E0.

Any other panels to be asbestos or hazardous substance free.

**FIBRE CEMENT** No variations to selected materials will be accepted without building designer's written approval.

JAMES HARDIE PRODUCTS		CSR BUILDING MATERIALS EQUIVALENT (Cemintel)	
HardieFlex	Thickness: 4.5,6.0	Cladding sheet	4.5, 6.0
Villaboard	Thickness: 6.0, 9.0, 12.0	Wallboard FC	6.0, 9.0, 12.0
Versilux	Thickness: 6.0	sq. edge	6.0
HardiePlank Smooth	230, 300 wide, 7.5	cladding plank, smooth	230, 300
Eaves - HardieFlex	4.5mm	Eaves lining	4.5
HardiePanel Compressed sheet	6.0, 9.0, 12.0, 15.0, 18.0, 24.0	Compressed sheet decking	6.0, 9.0, 12.0, 15.0, 18.0, 24.0
Pineridge (impact resistant)		X	
Underlay for ceramic tile		CT Underlay	6
Underlay for vinyl and cork		X	
Hardietex (external sheet)	7.5	X	
Hardiebrace	5.0	X	
Partitions toilet and shower		X	

## QUALITY ASSURANCE

### ON-SITE ACTIONS

**General:** Coordinate work with provision of insulation material and sarking and ensure that all components meet the structural and timber species for the intended use requirement. Seek clarification if unclear.

**Inspection:** visit site and inspect conditions, comparing to drawings before delivery of materials to site. Report any situations requiring preparatory work to the building designer. Start of work means total acceptance of conditions.

**Work methodology:** Ensure the method of delivery, unloading, storage, erection, placement and sign-off of works is compliant with relevant occupational health, safety and environmental requirements.

**Execution:** review drawings when erecting framing and provide additional framing at every location where extra loads will be applied to finished walls.

**Timber flooring execution:** Check moisture content of timber; coastal areas maximum 13 % moisture, dry areas and air-conditioned spaces 9%.

Install flooring in the smallest room of the building. Stop. When approved by building designer, continue.

Form junctions of different materials (e.g. tiles to carpet) so that they occur under the centre line of doors.

#### **Face nailed flooring**

Provide expansion gaps of 10-15mm around the edges of each floor area. Nail at minimum 20mm from edge of the board. Two nails for wide boards. Pre-drill nail holes in dense boards. Nails to be no less than 2.5 times the thickness of the board. Punch nails a minimum of 3mm below the surface.

#### **Secret nailed flooring**

Fix boards up to 80mm wide with secret nailing gun and apply polyurethane adhesive to top of floor joist before nailing.

#### **Floor finishing**

Fill nail holes with fast drying filler. Rough then fine sand. Comply with AS 4786.2. Finish with an approved method and to an approved sample and ensure nonslip is met in commercial installations.

Comply throughout with the written instructions of the manufacturer of a selected material.

**Eaves, fascias and barges:** secure each of these boards to the framing. Line soffit with fibre cement 4.5mm thick fixed to framing members and finish with moulds, jointing strips or straps.

**Box or concealed gutters:** provide timber framing for support of box or concealed gutters. Provide constant fall to the top of the downpipe in each gutter.

#### **Timber decking:**

##### **External Cladding**

**Timber cladding:** unless otherwise specified, all timber to be primed and treated with a penetrating wood preservative to all exposed faces and edges before fixing. Fix with galvanised nails.

**Weatherboards:** select quality timber in long lengths, lapped vertically not less than 25mm. Butt joints at studs or corners over galvanised steel angles.

**Fibre cement sheeting:** or other external cladding to be fixed in accordance with manufacturer's instructions. Provide and fix all necessary flashings and other materials required to ensure weathertight joints.

**END OF SECTION**

## WET AREA WATERPROOFING MEMBRANES

**SCOPE OF WORK** *Perform work described here and shown on drawings including but not limited to:*

Location: refer Waterproofing Schedule and drawings.

Provide waterproofing membranes to all wet area locations, fully coordinated with all adjacent floor and wall finishes.

Note that in Access Requirements of the NCC a level floor finish is required between wet areas and adjacent floor finishes. Ensure that flush floor finishes are coordinated with installation of waterproofing membranes and all associated components.

Typically to floors and walls of wet areas: including bathrooms, ensuites, laundries and garbage rooms, and to wall areas immediately adjacent to and behind a bath, sink or similar fixture.

Carry the membrane under fixtures, baths, shower bases, toilets, vanities and the like and extend into the full area of shower recess.

Install membrane to a minimum height of 2100mm to walls of shower recess extending 300mm beyond the horizontal extent of the designated tiled wall area or as required by specific provisions of the NCC for the building type.

Install membrane to a height and width not less than 450mm to wall areas immediately adjacent and behind a bath, sink or similar fixture.

### GENERAL

**Cooperation:** to resolve possible problems before starting work, cooperate and coordinate with other trades, in particular:

Blockwork and brickwork, concrete, cement render, fibre cement, plasterboard, ceramic tile.

Insulation for provision of sound insulation to locations where tiles are installed over living areas in the floor below, refer to specific provisions of the NCC for this requirement.

Metalwork for selection of gratings to wet areas

#### **Associated documents**

Read this trade section in conjunction with the following:

Hydraulic engineer's documentation for provision of surface gratings to wet areas.

Access report requirements for provision of access listed components.

**Australian Standards:** comply with the applicable clauses of current editions of these Australian Standards:

AS 3740 2010                      Waterproofing of domestic wet areas. *1 Amdt 2012.*

AS/NZS 4858 2004                Wet area membranes.

Current written instructions provided by the selected product manufacturer,

Comply throughout with the current edition of the NCC National Construction Code (BCA).

### MATERIALS TO BE USED

**NOTE: ENSURE THAT IMPORTED PRODUCTS HAVE WRITTEN EVIDENCE OF COMPLIANCE WITH THE REQUIREMENTS OF RELEVANT AUSTRALIAN STANDARDS AND NCC PERFORMANCE GUIDELINES.**

Provide waterproofing membrane to wet areas that meets the listed requirements of the NCC and that is chemically compatible with adjacent building components including the tile adhesive and the insulating material to floor finishes,

Install waterproofing membrane to approved submission of samples and technical data, all confirmed by a written certification from the product manufacturer.

Any proposed alternatives to the system specified below: provide a proprietary liquid applied or sheet membrane system which complies with AS/NZS 4858 and is suitable for use as a waterproofing system in wet areas, shower recess bases and associated floors and wall/floor junctions which are to be tiled.

Ensure that both the sheet membrane and the applied liquid membrane are installed to the product manufacturer's specifications.

### ON-SITE ACTIONS *Inspect conditions at site before starting work.*

**Submission:** submit detailing and samples for approval as well as confirmation that the proposed preparation work is completed and is in accordance with the product manufacturer's specifications.

Submit shop drawing showing the proposed detailing for approval, all confirmed by the product manufacturer.

**Inspection:** review Material Safety Data Sheets and ensure all OHS&E risks are considered and appropriate controls documented. Visit site and inspect conditions. Report any situations requiring preparatory work to the building designer. Start of work means total acceptance of conditions.

**Execution:** prepare the substrate as required by the membrane manufacturer and ensure that all falls where required are to the required project specific levels.

Provide sample installations, where listed by the building designer.

Curing: allow concrete to cure for a minimum of 28 days prior to the application of the membrane or as required by the selected membrane manufacturer.

Cleaning: clean down the substrate surface to remove all curing agents, wax, grease, oil, dirt, dust and other foreign material and leave it clean, dry, dust free, smooth and free of undulations.

Voids: patch with a non-shrinking quick setting grout and allow to cure for a minimum of 7 days prior to applying the membrane.

Fillet: wherever a vertical penetration or upstand occurs install a 12mm x 12mm fillet of a compatible joint filler (equal to Tremflex PU1) at the intersection of the vertical and horizontal surfaces. or similar approved method.

Primer: prime porous substrate (concrete/cement) typically with a quick drying, one part, moisture-curing primer for porous surfaces (equal to Vulkem 171 or similar approved system).

Prime non-porous materials (metals/plastics) typically with a quick drying, one part, moisture-curing primer for non-porous surfaces (equal to Tremco Primer No 181 or similar approved system).

Joints and penetrations: on the same day of priming, seal joints and penetrations with a quick drying, one part, moisture-curing fast skinning, polyurethane sealant (equal to Vulkem 931 sealant).

First coat: on the same day as priming, apply a coat of a one-part polyurethane waterproofing membrane (equal to Tremco Vulkem Non-exposed membrane) to a minimum wet film thickness of 1.5mm to floors and walls in a single operation. If delayed beyond that day reprime-prime in accordance with manufacturer's instructions.

**Detailing:** detail the membrane in accordance with the manufacturer's recommendations, as shown on the drawings and as follows:

Turn the membrane down into the puddle flange of outlets.

Turn the membrane up at and seal to all penetrations, pipes, waste outlets, etc.

Turn the membrane up for 100mm at all walls, plinths, and other upstands.

Dress the membrane over the horizontal leg of angle tile trims at doorways and turn up the vertical face of the angle to terminate level with the bottom of the floor tiles.

Similarly dress the membrane up the face of door jambs to terminate at the underside of the floor tiles.

The membrane turn up is to create a complete waterproof envelope to the floor area of the space being treated.

Detail the membrane at movement joints in the substrate as detailed on the drawings.

Membrane curing: Allow 72 hrs for the membrane to cure prior to carrying out water tests or applying finishes, toppings etc.

**Completion:** Complete work in accordance with instructions and written variation orders.

#### **WARRANTY**

Provide a warranty for materials and application of the membrane for a period of 10 years from the date of Practical Completion.

**END OF SECTION**



**SCOPE OF WORK** *Perform work described here and shown on drawings including but not limited to:*

Provide complete roof installations of the type specified with associated gutters and down pipes, sarking, safety mesh and skylights.

Provide in accordance with the product manufacturer's specifications and technical data, i.e. zinc/Colorbond compatibility. Metal roofing and sarking, downpipes, gutters, translucent roofing.

Comply with Bushfire Attack Level (BAL level and AS 3959 2018 requirements) site assessment requirements for roof installation.

Comply with condensation requirements for relevant State; this may require site/plan assessment for roof installation. Refer to ABCB publication, Condensation in Buildings (non-mandatory document).

Complete all contract works in accordance with instructions. Execute written variation orders for changes to existing documentation or new work.

Refer to GENERAL REQUIREMENTS before proceeding.

**GENERAL**

**Cooperation:** to resolve possible problems before starting work, cooperate and coordinate with other trades, in particular: carpentry, steel house frames, drainage.

**Australian Standards:** comply with the applicable clauses of current editions of these Australian Standards:

AS/NZS 1214 2016	Hot-dip galvanized coatings on threaded fasteners.
AS 1273 1991 (R2018)	Unplasticized PVC (UPVC) downpipe and fittings for rainwater.
AS 1530	Methods for fire tests on building materials, components and structures - 1530.1 1994 (R2016) Combustibility test for materials.
	AS/NZS 1530.3 1999 (R2016) Simultaneous determination of ignitability, flame propagation, heat release and smoke release.
AS 1562.1 2018	Design and installation of sheet roof and wall cladding – Metal.
AS/NZS 1576.1 2019	Scaffolding – general requirements.
AS 1720.5 2015	Timber structures - Nail plated timber roof trusses.
AS 2049 2002 (R2015)	Roof tiles.
AS 2050 2018	Installation of roof tiles.
AS/NZS 2179.1 2014	Specifications for rainwater goods, accessories and fasteners - Metal shape or sheet rainwater goods, and metal accessories and fasteners.
AS 3999 2015	Bulk thermal insulation- Installation.
AS 4055 2012	Wind loads for housing.
AS 4200.2 2017	Pliable building membranes and underlays - Installation. / Amdt 2018.
AS 4285 2019	Roof lights.
AS/NZS 4389 2015	Roof safety mesh.
AS 4654	Waterproofing membranes for above-ground external use. 4654.1 Materials. 4654.2 Design and installation.
SA HB 39 2015	Installation code for metal roof and wall cladding.

Comply with state requirements and codes of practice in relation to work on roofs.  
Refer: Model Code of Practice, Preventing Falls in Housing Construction:  
<https://www.safeworkaustralia.gov.au/system/files/documents/1705/mcop-preventing-falls-in-housing-construction-v2.pdf>  
Comply throughout with the current edition of the NCC - National Construction Code (BCA).  
Roof is to be designed and installed to comply with site Terrain Category

**MATERIALS TO BE USED**

Install to manufacturer's recommendations any man-proof mesh to AS/NZS 4389 Roof Safety Mesh.

**QUALITY CONTROL**

Provide quality control measures such as submission of samples and shop drawings as may be required by the building designer.

**ON-SITE ACTIONS – METAL ROOFING**

**General:** Provide all components complete with an insulation layer and installed in full accordance with the product manufacturer's specifications.

**Fall arrest system:** Where fall arrest system is required by statutory regulations provide the necessary design and construct information and provide all necessary components for the item. Obtain approval prior to commencing work. Ensure safety equipment is in place. Install safety mesh in accordance with AS/NZS 4389 Roof safety mesh.

Install each item in accordance with manufacturer's current written instructions. Form penetration flashings neatly with material matching roofing material or install EPDM collars. Provide flashings at all upstands lapped 150mm at junctions. Step flashings evenly. Finish top corners to a line parallel to the roof slope.

Close and seal ends of cut ribs. Form back gutters not less than 100mm wide with falls towards the sides of the penetration collars. Seal joints with compatible sealant. Secure downpipes through cladding to structure. Seal at stormwater pipe upstands. Remove debris from gutters and downpipes. Ensure entire gutter system drains uniformly to downpipe outlets with no ponding.

Test on completion.

**Glass, plastic, fibreglass or other roofing material**

**Note:** Ensure, where glass, plastic, fibreglass or other material is used as a trafficable surface during installation, end user use and maintenance, it has been certified as trafficable and is compliant with manufacturer's instructions for delivery, storage, installation and maintenance.

If non-trafficable, ensure the way it is installed prevents a person, object or materials used in installing it from falling through the working surface.

**END OF SECTION**

**SCOPE OF WORK** Perform work described here and shown on drawings including but not limited to:

Supply and install metal window frames and glass, flyscreens, hardware, flashing, sun control material.

Comply with Bushfire Attack Level site assessment requirements for windows.

Comply with fall protection for window openings installed above 2 metres from ground level.

Comply with requirements in NCC for openings to pool areas.

Refer to Window Schedule. Complete all contract works in accordance with instructions. Execute written variation orders for changes to existing documentation or new work.

Refer to GENERAL REQUIREMENTS before proceeding.

**GENERAL**

**Cooperation:** to resolve possible problems before starting work, cooperate and coordinate with other trades, in particular: carpentry, frames, masonry, wall framing, energy efficiency consultants and safety consultants.

**Australian Standards:** comply with the applicable clauses of current editions of these Australian Standards:

AS 1288 2006 (R2016) Glass in buildings - Selection and installation. 3 Amdts 2011 - 2016

AS/NZS 1576.1 2019 Scaffolding – general requirements.

AS 2047 2014 Windows and external glazed doors in buildings. 2 Amdts 2016, 2017.

AS 4055 2012 Wind loads for housing.

AS 4145.2 2008 (2017) Mechanical locksets for doors and windows in buildings

AS 4666 2012 Insulating glass units.

AS 5218 2018 Acoustic performance of windows and doors – Methods of test.

Refer: Model Code of Practice, Preventing Falls in Housing Construction:

<https://www.safeworkaustralia.gov.au/system/files/documents/1705/mcop-preventing-falls-in-housing-construction-v2.pdf>.

Comply throughout with the current edition of the NCC - National Construction Code (BCA).

**QUALITY CONTROL.**

**ON-SITE ACTIONS**

**General:** check all sizes and dimensions on job.

**Inspection:** visit site and inspect conditions, comparing to drawings before delivery of materials to site. Report any situations requiring preparatory work to the building designer. Start of work means total acceptance of conditions.

**Work methodology:** ensure the method of delivery, unloading, storage, installation and sign-off of works is compliant with relevant occupational health, safety and environmental requirements and prevents falls of workers, materials and objects from locations at height and through unprotected openings in working surfaces. Ensure windows and doors etc. are installed as per manufacturer's fixing instructions and ensure site supervisor inspects and signs off on installation of same.

**Execution:** prepare for installation of window frames. Isolate aluminium from steel wall frames and any dissimilar metals. Provide necessary anchors for building into masonry openings. Ensure wall sarking is undamaged and tape sealed to window frames following installation. Ensure frame anchors are already built in. Install glass to manufacturer's instructions with correct sealant and weather seals. Weather seal frames/reveals. Install flyscreens fixed, hinged, or removable, where directed. Install window winders, catches locks etc. Ensure windows and external door perimeters are installed in walls to ensure zero air leakage can occur. Seal all wall penetrations to be airtight.

**WARRANTIES**

Hand over warranties on completion.

**END OF SECTION**

**SCOPE OF WORK** Perform work described here and shown on drawings including but not limited to:

Refer to Door Schedule and drawings for details of all door types and the performance rated installations as applicable to each of the listed door types.

Supply and install:

- Door frames of the type listed together with the doors for external and internal door openings.
- Door frames: timber frames, metal frames, doors, glazed, solid core, waterproof, louvre doors, flyscreen, security, acoustic, flush panel, hollow core, expressed framed doors.
- Door hardware listed in the Door Hardware Schedule prepared by the lock hardware manufacturer.

Complete all contract works in accordance with instructions. Execute written variation orders for changes to existing documentation or new work.

Refer to GENERAL REQUIREMENTS before proceeding.

### GENERAL

**Cooperation:** to resolve possible problems before starting work, cooperate and coordinate with other trades, in particular: carpentry, door hardware, wall construction, glass and painting.

**Australian Standards:** comply with the applicable clauses of current editions of these Australian Standards:

AS 1288 2006 (R2016) Glass in buildings - Selection and installation. 3 Amdts 2011 – 2016.

AS 2047 2014 Windows and external glazed doors in buildings. 2 Amdts 2016, 2017.

AS 4055 2012 Wind loads for housing.

AS 4145 Locksets and hardware for doors and windows.

4145.2 2008 (R2017) Mechanical locksets for doors and windows in buildings.

AS 5039 2008 Security screen doors and security window grilles.

AS 5040 2003 (R2016) Installation of security screen doors and window grilles.

Comply throughout with the current edition of the NCC - National Construction Code (BCA).

Comply with Bushfire Attack Level site assessment requirements for glazed doors.

Comply with requirements in NCC for openings to pool areas.

### SUBMISSION

Submit samples of components, shop drawings for all door types and contractor door schedule as applicable. Obtain approval prior to ordering and commencing work.

Note that there are specific requirements for Access listed locations and these need to be coordinated with the Access provisions of the NCC.

Confirm at submission stage of the works.

### ON-SITE ACTIONS

**General:** Check all sizes and dimensions on job. Coordinate work with specific electrical work as may be applicable to electrically controlled components of the locking system,

**Inspection:** visit site and inspect conditions, comparing to drawings before delivery of materials to site. Report any situations requiring preparatory work to the building designer. Start of work means total acceptance of conditions.

**Work methodology:** ensure the method of delivery, unloading, storage, installation and sign-off of works is compliant with relevant occupational health, safety and environmental requirements and prevents falls of workers, materials and objects from locations at height and through unprotected openings in working surfaces.

**Execution:** check all deliveries on arrival. Lock away until needed and assume responsibility for hardware.

Prepare openings in walls. Install fixing grounds to secure frames. Erect a sample frame and door of each type complete. Install samples of each door hardware type in accordance with AS 4145 and written instructions of each manufacturer. Arrange for a timely installation inspection by the building designer to avoid any delay and when approved, continue.

Erect frames plumb and true. At head and jambs allow 3mm clearance. At floor allow 10 mm over floor covering.

Fit accurately at correct heights and protect until completion of project.

**External doors:** install weather stripping. Ensure door frame perimeters are sealed to be airtight to wall surfaces as well as door to frame.

Lubricate hinges and locks and provide two keys to each lock.

Check and clean on completion.

### WARRANTIES

Hand over warranties on completion.

**END OF SECTION**

**SCOPE OF WORK** Perform work described here and shown on drawings including but not limited to:

Supply labour and install materials. Build in miscellaneous materials (flashing, wall ties, damp proof course, anchors etc.)

Include staging, scaffolding and cleaning.

Complete all contract works in accordance with instructions. Execute written variation orders for changes to existing documentation or new work.

Refer to GENERAL REQUIREMENTS before proceeding.

#### GENERAL

**Cooperation:** to resolve possible problems before starting work, cooperate and coordinate with other trades, in particular: concrete, structural steel, wall framing, doors and windows.

**Australian Standards:** comply with the applicable clauses of current editions of these Australian Standards:

AS 1316 2003 (R2016)	Masonry cement.
AS/NZS 1576.1 2019	Scaffolding - General requirements.
AS/NZS 2699	Built-in components for masonry construction.
	2699.1 2000 Wall ties.
	2699.3 2002 Lintels and shelf angles (durability requirements).
AS/NZS 2904 1995	Damp-proof courses and flashings.
AS 3700 2018	Masonry structures.
AS 4055 2012	Wind loads for housing.
AS 4200.2 2017	Pliable building membranes and underlays - Installation. / <i>Amdt 2018</i> .
AS 4773	Masonry in small buildings -
	4773.1 2015 Design.
	4773.2 2015 Construction.

Refer: Model Code of Practice, Preventing Falls in Housing Construction:

<https://www.safeworkaustralia.gov.au/system/files/documents/1705/mcop-preventing-falls-in-housing-construction-v2.pdf>.

Comply throughout with the current edition of the NCC - National Construction Code (BCA).

**MATERIALS TO BE USED** *No variations to selected materials will be accepted without building designer's written approval.*

**Brickwork:** Provide all brickwork to approved submission of samples and to an approved sample panel constructed on site and incorporated into the works. For all face work ensure that efflorescence control measures are submitted with applications made to the sample panel.

Coordinate work with structural engineer's requirements for all structural components and ensure that exposure category of the site is incorporated into the detailing of all brickwork.

**Blockwork:** Provide all blockwork including face work and core filled blockwork as applicable to the works. Read this component of the specification in conjunction with Wall Types drawings and structural engineer's documentation.

#### ON-SITE ACTIONS

**Inspection:** visit site and inspect conditions, comparing to drawings before delivery of materials to site. Report any situations requiring preparatory work to the building designer. Start of work means total acceptance of conditions.

**NOTE:** Block or brick walls should be provided with temporary bracing when they reach an unstable height. AS 3700 Supplement 1 Masonry Structures states, in part "Generally new masonry walls lacking support from cross walls or returns can be built to a height not exceeding 10 times the thickness of the wall without the need for temporary support. Lesser heights may apply in regions subject to extremely high winds, or when lightweight masonry is used."

**Execution:** review work with other trades, piping, ducts etc. Clean base before laying masonry. Set doors and windows plumb, square and braced. Construct a sample wall of 3 square metres. Stop. Arrange for a timely inspection to be approved by the building designer before continuing.

Machine mix. Mortar life: 2 Hours.

**Joints:** . Weep holes at 1200mm centres.

Check Bushfire Attack Level for weep hole ember proofing insert requirements. Service pipe, cables, etc. all wall penetrations to be sealed airtight, using purpose-made sealing grommets and tapes.

**Bonding:** Stretcher bond,

**Bed joints:** 10mm. Install DPC, wall ties, reinforcement, flashing to AS 3700.

Install ties to anchor masonry to structure, doors, windows etc. Remove excess mortar from rear of masonry and wall ties in cavity walls at the end of each day. Construction joints at max 6000mm centre. Clean with 5% hydrochloric acid or other manufacturer recommended product, to face work. Bagged finish on completion same material as for mortar. Chase walls no more than 1/3 thickness for conduits and refer to specific requirements, where listed on the attached reports.

Install heavy-duty scaffolding, including access and edge protection, to accommodate workers and materials as required by relevant authority requirements.

#### LINTELS in Masonry walls

#### HOT DIP GALVANISE LINTELS TO EXTERNAL OPENINGS.

#### END OF SECTION

**SCOPE OF WORK** Perform work described here and shown on drawings including but not limited to:

Scope of work of this trade section is the provision of external cladding. Read in conjunction with the External Finishes Schedule and refer to NATHERS, or similar and NCC requirements for provision of insulation to external walls.

Coordinate this trade section with provision of wall framing and secondary framing components as may be applicable with proprietary wall systems. Provide the following components: Provide for ventilated draining cavity between sarking and cladding where detailed.

External cladding of the types shown on the drawings fixed to cross battens over sarking. Provide for cavity drainage. Vapour permeable sarking to cladding where required by the cladding manufacturer.

Insulation material to R or U values indicated on the drawings.

All fixings and trims recommended by material manufacturer or standard practice for material selected.

Coordinate work with installation of external glazing, flashing, trims, mouldings, services.

Refer to GENERAL REQUIREMENTS before proceeding.

**GENERAL**

**Cooperation:** to resolve possible problems before starting work, cooperate and coordinate with timber or metal frame doors and windows, floor and wall construction, painting.

**Australian Standards:** comply with the applicable clauses of current editions of these Australian Standards:

AS/NZS 1170	Structural design actions. <i>There are many parts, 1990 - 2017 and Supplements as Commentaries, Amdts.</i>
AS 1366	Rigid cellular plastics sheets for thermal insulation. <i>There are 4 parts, 1989 – 1992 (All R 2018).</i>
AS 1530	Methods for fire tests on building materials, components and structures - 1530.1 1994 (R2016) Combustibility test for materials. AS/NZS 1530.3 1999 (R2016) Simultaneous determination of ignitability, flame propagation, heat release and smoke release.
AS 1562	Design and installation of sheet roof and wall cladding, <i>There are 3 parts, 1992-2018.</i>
AS/NZS 1576.1 2019	Scaffolding – general requirements.
AS/NZS 2908.2 2000	Cellulose – cement products - Flat sheet.
AS 3600 2018	Concrete structures.
AS/NZS 3660 2014	Termite management set.
AS 3999 2015	Bulk thermal insulation– Installation.
AS 4055 2012	Wind loads for housing.
SA HB 39 2015	Installation code for metal roof and wall cladding.

Current written instructions issued by manufacturers of specified products. Comply with the requirements of statutory authorities having jurisdiction on this project.

Comply throughout with the current edition of the NCC.

**Manufacturer's specifications:** read this trade section in conjunction with the product manufacturer's specifications and install in full accordance with the listed manufacturer's instructions and data

**MATERIALS TO BE USED**

**NOTE : ENSURE THAT IMPORTED PRODUCTS HAVE WRITTEN EVIDENCE OF COMPLIANCE WITH THE REQUIREMENTS OF ALL RELEVANT AUSTRALIAN STANDARDS AND NCC PERFORMANCE GUIDELINES.**

Include accessories provided by selected manufacturer.

**CLADDING TYPES**

Provide cladding types as shown on the drawings and to the following requirements:

Cladding type:

Location: refer to the drawings and the External Finishes Schedule.

Components:

Finish: refer to the External Finishes Schedule.

Submission: submit samples, technical data from the product manufacturer and shop drawings as applicable to each type of wall cladding. Where conditions of approval from the council require verification, provide prior to commencing work.

**ON-SITE ACTIONS**

**Inspection:** inspect conditions at site before starting work. Start of work means total acceptance of conditions.

**General:** only tradesmen with wide experience and knowledgeable in this class of work to undertake the work.

Coordinate with other trades prior to commencement of work and arrange for fixing grounds required for satisfactory execution of the work of this trade including penetrations.

Fully coordinate with provision of insulation material and adjacent building components.

**Work methodology:** ensure the method of delivery, unloading, storage, erection and sign-off of works is compliance with relevant occupational health, safety and environmental requirements. Provide an approved control panel as directed on site by the building designer. When approved by building designer, apply cladding as specified in compliance with manufacturer's detailed instructions and drawings where applicable. When approved by building designer, continue.

**Execution:** take care of and protect surrounding work, including other finishes, equipment and components, during installation.

Provide protective covering where necessary.

Stop.

Finish joints and secure fasteners. Remove surface defects to achieve uniform appearance of each type of installation. Make good damage in every respect at no additional cost to the proprietor.

Clean exposed surfaces including trim, edge mouldings, and comply with manufacturer's instructions for cleaning and touch-up of minor finish damage.

Remove splatterings, droppings and surplus material.

Complete each part of the work in accordance with instructions of manufacturer before starting next stage of the work.

**Completion:** complete work in accordance with instructions and written variation orders. Certify that the completed installation meets the product manufacturer's specifications and that all Basix, or similar, and Section J performance levels are met.

**WARRANTY**

Provide to the proprietor a warranty covering complete installation that it will remain waterproof and weathertight, including integrity of any/all penetrations through the walling and the satisfactory performance and security of the complete installation against weather for a period of 15 years.

**END OF SECTION**

**SCOPE OF WORK** Perform work described here and shown on drawings including but not limited to:

Electrical Layout drawings and Schedules.

This is a Design and Construct package and the contractor is to complete the schematic design shown on architectural drawings and to coordinate work with the supply authority to ensure full compliance with statutory and supply authority requirements.

Design, supply and installation of electrical transmission and reticulation materials from mains supply to required electrical power and light outlets, telephone, NBN, internal communication system, security, smoke alarms, fans and television antenna.

Meter box located as shown on drawings or as required by the supply authority. Provide full coordination if specific items of equipment are used in the works such as the swimming pool equipment or AC systems.

The maximum total wattage for a Class 1 building is not to be exceeded. (Refer to ABCB Calculator resource)

Complete all contract works in accordance with instructions. Execute written variation orders for changes to existing documentation or new work.

Refer to GENERAL REQUIREMENTS before proceeding.

## GENERAL

**Cooperation:** to resolve possible problems before starting work, cooperate and coordinate with other trades, in particular: floor construction, wall construction, ceiling construction, carpentry, joinery.

Licensed 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.

**Australian Standards:** comply with the applicable clauses of current editions of these Australian Standards:

AS/NZS 1576.1 2019 Scaffolding – general requirements.

AS/NZS 1680.2.1 Interior and workplace lighting – General principles and recommendations.

AS/NZS 3000 2018 Electrical installations (Australian & New Zealand Wiring Rules).

AS/NZS 3010 2017 Electrical installations - Generating sets.

AS/NZS 3012 2010 Electrical installations - Construction and demolition sites. 1 Amdt 2015.

AS 3786 2014 Smoke alarms using scattered light, transmitted light or ionization.

AS 5389 2019 Space heating and cooling and ventilation systems - Calculation of energy and comfort performance.

Refer: Model Code of Practice, Preventing Falls in Housing Construction:

<https://www.safeworkaustralia.gov.au/system/files/documents/1705/mcop-preventing-falls-in-housing-construction-v2.pdf>.

## SUBMISSION

Submit confirming specification data for all components and submit samples and technical information to allow building designer's timely evaluation of the proposed installation of components into the works.

**MATERIALS TO BE USED** *No variations to selected materials will be accepted without building designer's written approval.*

Supply only products which bear the required indication of approval of the statutory authority having jurisdiction.

## ON-SITE ACTIONS

The following preparatory actions are to be performed by the contractor for the electrician:

- A. Slab penetrations for floor-mounted GPO's, telephone outlets etc.
- B. Chasing and making good for conduit access for skirting
- C. Chasing and wiring duct, GPO's switches etc.
- D. Supply and installation for access opening(s) where required.

**Inspection:** visit site and inspect conditions, comparing to drawings before delivery of materials to site. Report any situations requiring preparatory work to the building designer. Start of work means total acceptance of conditions.

**Work methodology:** Ensure the method of delivery, unloading, storage, installation and sign-off of works is compliant with relevant occupational health, safety and environmental requirements. **NOTE:** No person is to work live or be exposed to unprotected live installation or equipment. Use lock out procedure to ensure worker safety.

**Execution:** provide necessary safety or security controls where required to ensure safe practices and installations.

Comply with Australian Standards throughout and requirements of supply authority. Install light fittings, switchboard and distribution board, metre board and box. Arrange for inspection by supply authority inspector. Obtain compliance certificate. Connect to main supply.

## WARRANTIES

Provide all warranties on completion and ensure that all components are certified for compliance with the supply authority requirements.

**END OF SECTION**

**SCOPE OF WORK** Perform work described here and shown on drawings including but not limited to:

Supply and installation of thermal insulation to walls, ceilings, roofs in full compliance with NatHERS or similar and NCC requirements and installed in full accordance with the product manufacturer's specifications.

Fit counter battens to create an air gap above the reflective foil sarking at the top of rafters of cathedral ceilings and roof material.

Maintain an air gap between bulk insulation at ceiling level and sarking.

Installation is to be certified to provide required Energy Rating.

Complete all contract works in accordance with instructions. Execute written variation orders for changes to existing documentation or new work. Where installed as part of the external cladding system, coordinate with provision of sarking material.

Refer to GENERAL REQUIREMENTS before proceeding.

Comply with condensation requirements for relevant State. Refer to ABCB publication, Condensation in Buildings (non-mandatory document).

Alterations and additions: comply with energy protocols required by relevant State and local governments, including PN-55 (Vic only).

## GENERAL

**Cooperation:** to resolve possible problems before starting work, cooperate and coordinate with other trades, in particular: wall and roof framing, roofing, wall lining, masonry.

**Australian Standards:** comply with the applicable clauses of current editions of these Australian Standards:

AS 1530	Methods for fire tests on building materials, components and structures. 1530.1 1994 (R2016) Combustibility test for materials. AS/NZS 1530.3 1999 (R2016) Simultaneous determination of ignitability, flame propagation, heat release and smoke release.
AS/NZS 1576.1 2019	Scaffolding – general requirements.
AS 3959 2018	Construction of buildings in bushfire-prone areas. / <i>Amdt 2019</i> .
AS 3999 2015	Bulk thermal insulation - Installation.
AS/NZS 4200.1	Pliable building membranes and underlays - Materials. AS 4200.2 2017 Pliable building membranes and underlays - Installation. <i>Amdt 2018</i> .
AS/NZS 4859	Thermal insulation materials for --buildings. 4859.1 General criteria and technical provisions.
HB 63 1994	Home insulation in Australia - Recommended insulation levels for all States as per AS 2627.1 (this standard had been withdrawn).

Refer: Model Code of Practice, Preventing Falls in Housing Construction:

<https://www.safeworkaustralia.gov.au/system/files/documents/1705/mcop-preventing-falls-in-housing-construction-v2.pdf>.

Comply throughout with the current edition of the NCC - National Construction Code (the BCA).

## MATERIALS TO BE USED *No variations to selected materials will be accepted without building designer's written approval.*

Read this trade section in conjunction with relevant reports such as Basix (in NSW) or similar or Section J of the NCC.

Check with the PCA prior to commencing work.

## ON-SITE ACTIONS

**Inspection:** visit site and inspect conditions, comparing to drawings before delivery of materials to site. Report any situations requiring preparatory work to the building designer. Start of work means total acceptance of conditions.

**Work methodology:** Ensure the method of delivery, unloading, storage, installation and sign-off of works is compliant with relevant occupational health, safety and environmental requirements.

**Execution:** prepare surfaces and or framing material and ensure that no obstructions will prevent rapid and effective installation. Install insulation to all new floors, walls, ceilings and roofs forming the building envelope, so as to prevent moisture contact. Install insulation accurately and snugly without compression between framing members, forming a continuous relaxed barrier without affecting safe effective operation of services or fittings. Do not plug holes or cracks between batts – replace with accurately cut pieces. Any improper installation will not be approved. Building designer to inspect on completion of the installation.

**Reflective insulation:** Install with necessary airspace between reflective side and building lining or cladding. To be closely fitted, taped or sealed to any penetration, door or window opening and adequately supported. Comply with manufacturer's current written instruction.

**Roll membrane:** each sheet to be lapped not less than 150mm and taped at joints.

**Bulk insulation:** installed so as to maintain position and thickness, except where crossing roof battens, pipes, cables. Protect any down-lights with insulated covers to allow close fitting of insulation. Where required, comply with AS 3959. Provide certification that the installation is installed according to NCC standards.

## END OF SECTION



**SCOPE OF WORK** Perform work described here and shown on drawings including but not limited to:

Read this trade section of the specification in conjunction with the Wall Types drawings.

Supply and install plasterboard, fire-rated plasterboard, impact resistant plasterboard, acoustic plasterboard, water-resistant plasterboard, flexible plasterboard, lining of masonry walls, ceilings, drop walls and bulkheads. Fire-rated wall system.

Complete all contract works in accordance with instructions. Execute written variation orders for changes to existing documentation or new work.

Refer to Finishes Schedule and contract drawings for product requirements and locations.

Refer to GENERAL REQUIREMENTS before proceeding.

#### GENERAL

**Cooperation:** to resolve possible problems before starting work, cooperate and coordinate with other trades, in particular: wall, frames, carpentry, masonry, suspended ceiling, electrical.

**Australian Standards:** comply with the applicable clauses of current editions of these Australian Standards:

AS/NZS 2589 2017 Gypsum linings - Application and finishing.

AS 3740 2010 Waterproofing of domestic wet areas.

Refer: Model Code of Practice, Preventing Falls in Housing Construction:

<https://www.safeworkaustralia.gov.au/system/files/documents/1705/mcop-preventing-falls-in-housing-construction-v2.pdf>.

Comply throughout with the current edition of the NCC - National Construction Code (BCA).

Comply with manufacturer's technical bulletins:

#### ON-SITE ACTIONS

**General:** Check all sizes and dimensions on job.

**Inspection:** visit site and inspect conditions, comparing to drawings before delivery of materials to site. Start of work means total acceptance of conditions. Report any situations requiring preparatory work to the building designer.

**Work methodology:** Ensure the method of delivery, unloading, storage, installation and sign-off of works is compliant with relevant occupational health, safety and environmental requirements and prevents falls of workers, materials and objects from locations at height and through unprotected openings in working surfaces.

**Execution:** ensure framing is complete, planar within 3mm/3000mm tolerances and electrical, other wiring and services are in place.

Install a sample, width of one wall (about 3 metres). Arrange for a timely installation inspection by the building designer to avoid any delay and when approved, continue. .

Comply with plasterboard manufacturer's current written instructions. Form dropwalls, recesses, manholes as required.

In wet areas ensure compliance with AS 3740. Install cornices.

#### END OF SECTION

**SCOPE OF WORK** *Perform work described here and shown on drawings.*

Supply and installation of cabinetry items, including but not limited to kitchen cabinets and cupboards, shelving, display units, bathroom cabinets, laundry cabinets, counters, wardrobes.

Refer to Finishes Schedule for material and colour selections.

Complete all contract works in accordance with instructions. Execute written variation orders for changes to existing documentation or new work. All work in wet areas is to be done using high moisture resistant materials only.

Refer to GENERAL REQUIREMENTS before proceeding.

**GENERAL**

**Cooperation:** to resolve possible problems before starting work, cooperate and coordinate with other trades, in particular: carpentry, wall finishes, floor finishes, ceiling finishes, water distribution, sanitary plumbing and electrical installation.

**Australian Standards:** comply with the applicable clauses of current editions of these Australian Standards:

AS/NZS 1859.1 2017 Reconstituted wood-based panels - Specifications - Particleboard.

AS 2754.2 1991 Adhesives for timber and timber products - Polymer emulsion adhesives.

AS/NZS 2924 High pressure decorative laminates - Sheets made from thermosetting resins.

AS 4386 2018 Cabinetry in the built-in environment – Commercial and domestic.

Comply throughout with the current edition of the NCC - National Construction Code (BCA).

**ON-SITE ACTIONS**

**General:** check all sizes and dimensions on job.

**Inspection:** visit site and inspect conditions, comparing to drawings before delivery of materials to site. Report any situations requiring preparatory work to the building designer. Start of work means total acceptance of conditions.

**Work methodology:** ensure the method of delivery, unloading, storage, installation and sign-off of works is compliant with relevant occupational health, safety and environmental requirements.

**Termite resistance:** ensure that all surface floor drainage and condensation is isolated from timber surfaces.

**Execution:** construct by screwing and gluing or other approved method. A stapled assembly will not be approved. Fabricate bench tops as recommended by the materials' manufacturers. Locate openings accurately using templates or roughing-in diagrams for proper size and shape. Where located in bench tops, seal edges of cut-outs with a water-resistant coating. Back prime concealed solid timber surfaces prior to installation. Install fasteners hinges etc. in accordance with manufacturer's instructions.

Use concealed shims as required to install the work plumb, level, straight and distortion free within the following tolerances: 1mm in 800mm for plumb and level (including bench tops), 0.5mm maximum offsets in flush adjoining surfaces, 2mm maximum offsets in revealed adjoining surfaces. Scribe and cut to fit adjoining work; refinish cut surfaces or repair damaged finishes at cuts. Secure joinery with anchors to substrates, or secure to grounds, stripping and blocking with countersunk, concealed fasteners and blind nailing. Install casework without distortion so that doors will fit openings properly and be accurately aligned. Install door and joinery hardware as scheduled.

Adjust joinery to achieve a uniform appearance. Lubricate and clean hardware making final adjustments needed for proper operation. Remove handling marks from visible joinery surfaces.

**WARRANTIES**

Provide all warranties on completion and ensure that all sealing around services in fire and sound rated components of the building are in accordance with relevant parts of the NCC.

Certify that all components are in full accordance with statutory regulations including fire and sound rating of the penetrations for the joinery items.

**END OF SECTION**

**SCOPE OF WORK** *Perform work described here and shown on drawings including but not limited to:*

Supply and install metalwork items shown on drawings and Metalwork Schedule.

Complete all contract works in accordance with instructions. Execute written variation orders for changes to existing documentation or new work.

Refer to GENERAL REQUIREMENTS before proceeding.

#### GENERAL

**Cooperation:** to resolve possible problems before starting work, cooperate and coordinate with other trades, in particular: electrical installation, gas installation, building finishes.

Coordinate with other trades as to the proper fastening systems suitable for the substrates to which the item is to be secured. Refer to building designer if in doubt.

**Fastenings:** fasten galvanised items with galvanised fasteners.

**Australian Standards:** comply with the applicable clauses of current editions of these Australian Standards:

AS/NZS 1214 2016 Hot-Dip galvanised coatings on threaded fasteners.

AS/NZS 1554 Structural steel welding.

AS 1627.0 1997 (R2017) Metal finishing - Preparation and pre-treatment of surfaces - Method selection guide.

AS/NZS 1664 Aluminium structures code.

AS/NZS 1841.1 2007 Portable fire extinguishers - General requirements.

AS/NZS 4680 2006 (R2017) Hot-dip galvanised (zinc) coatings on fabricated ferrous articles.

Comply throughout with the current edition of the NCC - National Construction Code (BCA).

Drill or punch and ream in the workshop and not on site.

Design necessary lugs, brackets and similar items so that work can be assembled and installed in a neat, substantial manner.

**MATERIALS TO BE USED** *No variations to selected materials will be accepted without building designer's written approval.*

**Fasteners:** Provide bolts, screws, inserts, fasteners, templates and other accessories required for a complete installation.

Refer Metalwork Schedule.

#### ON-SITE ACTIONS

**Inspection:** visit site and inspect fabrication and conditions, comparing to drawings before delivery of materials to site. Report any situations requiring preparatory work to the building designer. Start of work means total acceptance of conditions.

Do not repair fabrication or cut metal on site.

**Work methodology:** Ensure the method of delivery, unloading, storage, installation and sign-off of works is compliant with relevant occupational health, safety and environmental requirements and prevents falls of workers, materials and objects from locations at height and through unprotected openings in working surfaces.

**Execution:** do not delay job progress for field measurements. Allow for adjustments and fitting of the work in the field where taking of measurements might cause delay.

Provide holes and connections as required to accommodate the work of other trades and for site assembly of metalwork.

Smooth finishes to exposed surfaces with sharp well-defined lines and arrises. Mill machined joints to a close fit.

Each item to be installed by bolting or screwing to structural elements of building. Locate anchorages accurately and ensure secure installation.

Whitegoods and similar items to be installed in accordance with manufacturer's instructions.

Protect glass and other finished surfaces from potential weld or other substance splatter till completion of the works. Remove weld spatter and touch up with zinc-rich paint immediately.

Protect work until project completion.

Replace damaged items.

#### WARRANTIES

Hand over warranties on completion.

**END OF SECTION**

**SCOPE OF WORK** Perform work described here and shown on drawings including but not limited to:

Prepare the substrate and fix tiles with acoustic layer where applicable and in accordance with the product manufacturer's specifications.

Prepare surfaces to be tiled. Supply and install bedding as required.

Install compliant waterproof membrane to wet area walls and floor and adjacent to plumbing fixtures as required in NCC. Ensure membrane application is approved by the responsible building surveyor and building designer before proceeding.

Wall tiles, floor tiles, external paving tiles. Cleaning of finished work.

Refer to Finishes Schedule for material details and locations.

Complete all contract works in accordance with instructions. Execute written variation orders for changes to existing documentation or new work.

Refer to GENERAL REQUIREMENTS before proceeding.

## GENERAL

**Cooperation:** to resolve possible problems before starting work, cooperate and coordinate with other trades, in particular: concrete, carpentry, plasterboard.

**Australian Standards:** comply with the applicable clauses of current editions of these Australian Standards:

AS/NZS 3661.2 1994 Slip resistance of pedestrian surfaces - Guide to the reduction of slip hazards.

AS 3740 2010 Waterproofing of domestic wet areas.

AS 3958.1 2007 Ceramic tiles - Guide to the installation of ceramic tiles.

AS 4586 2013 Slip resistance classification of new pedestrian surface materials.

AS/ISO 13007.2 2013 Ceramic tiles – Test methods for adhesives - Grouts and adhesives.

HB 197 1999 An introductory guide to the slip resistance of pedestrian surface materials.

SA HB 198 2014 Guide to the specification and testing of slip resistance of pedestrian surfaces.

Comply throughout with the current edition of the NCC - National Construction Code (BCA).

Comply with material manufacturer's current written instructions.

Spare tiles: supply spare matching tiles equal to 5% of laid area.

Screed for walls and floors: 1 part cement 4 parts sand. Adhesives: to be supplied by: ABA, Laticrete.

Expansion joints, walls: 5mm. Floors: 8mm. Fill both with matching colour silicone rubber.

**Grout for wall:** Epoxy based mildew resistant. Grout for floors: prepared grout acid resistant.

Over floor screed apply waterproof membrane (ABA or similar).

## ON-SITE ACTIONS

**General:** check all sizes and dimensions on job.

**Inspection:** visit site and inspect conditions, comparing to drawings before delivery of materials to site. Report any situations requiring preparatory work to the building designer. Start of work means total acceptance of conditions.

**Work methodology:** ensure the method of delivery, unloading, storage, installation and sign-off of works is compliant with relevant occupational health, safety and environmental requirements.

**Execution:** ensure surfaces are clean and dry and no variation on walls greater than 5mm under a 2000 long straight edge.

Apply waterproofing membrane to floor and walls in compliance with the NCC requirements. Ensure manufacturer recommendations, to prevent respirable vapours to workers and others, are complied with before application. Arrange inspection.

Tile a sample panel of each type, 3 square metres. Arrange for timely inspection for approval by building designer to avoid delays.

Install floor backing boards as required for floor tile on timber. Form expansion joints no more than 2500mm apart. Comply with adhesive manufacturer's instructions. Install wall tiles with expansions joints not more than 2500mm apart and at floor level and at corners of walls, and at change of background material. Alternatively, apply cement render to masonry wall to smooth even surface for wall tiling. Install grout of selected colour to manufacturer's instructions. Clean each surface on completion.

Form junctions of different materials (e.g. tiles to carpet) so that they occur under the centre line of doors.

## END OF SECTION

**SCOPE OF WORK** Perform work described here and shown on drawings including but not limited to:

Supply and apply paints and other finish coatings (e.g. acrylic render). Refer Schedule of Finishes.

Complete all contract works in accordance with instructions. Execute written variation orders for changes to existing documentation or new work.

Refer to GENERAL REQUIREMENTS before proceeding.

#### GENERAL

**Cooperation:** to resolve possible problems before starting work, cooperate and coordinate with other trades, in particular: each trade as listed to be painted. Refer Painting Schedule.

**Australian Standards:** comply with the applicable clauses of current editions of these Australian Standards:

AS/NZS 2311 2017 Guide to the painting of buildings.

AS/NZS 2312 2014 Guide to the protection of structural steel against atmospheric corrosion by the use of protective coatings.

Refer: Model Code of Practice, Preventing Falls in Housing Construction:

<https://www.safeworkaustralia.gov.au/system/files/documents/1705/mcop-preventing-falls-in-housing-construction-v2.pdf>.

Comply throughout with the current edition of the NCC - National Construction Code (BCA).

Use low VOC emitting paints internally.

#### *Delivery storage and handling:*

- A. Bring materials to the building and store in manufacturer's original sealed containers, bearing the manufacturer's standard label, indicating type and colour. Deliver materials in sufficient quantities in order that work will not be delayed.
- B. Store materials in designated spaces in a manner which meets the requirements of applicable codes and fire regulations. Provide each space with a fire extinguisher of carbon dioxide or dry chemical type bearing a tag of recent inspection.
- C. Ensure contractor leaves adequate left-over paint (min 0.5 litre of each colour or type in airtight & labelled container) for touching up and maintenance.

#### ON-SITE ACTIONS

**Inspection:** visit site and inspect conditions, comparing to drawings before delivery of materials to site. Report any situations requiring preparatory work to the building designer. Start of work means total acceptance of conditions.

**Work methodology:** Ensure the method of delivery, unloading, storage, installation and sign-off of works is compliant with relevant occupational health, safety and environmental requirements.

**NOTE:** Ensure manufacturer recommendations for Occupational Health, Safety and Environment as listed on Australian material safety data sheets (MSDS) are implemented as a minimum to protect persons from harm.

#### **Execution:**

Prepare each surface to be painted in accordance with manufacturer's instructions.

Prepare a sample panel of 2 square metres of each paint type. Arrange for a timely inspection by the building designer to avoid any delay. Building designer will check each prepared surface. Do not proceed with painting until check completed. Apply scheduled coats and paint types to manufacturer's instructions, and AS/NZS 2311.

**END OF SECTION**

**SCOPE OF WORK** Perform work described here and shown on drawings including but not limited to:

Supply and install vinyl, linoleum, cork or other sheet, laminated or floating floor or tile materials and skirtings.

Refer to Finishes Schedule for material details and locations.

Install compliant waterproof membrane to wet area walls and floor and adjacent to plumbing fixtures as required in NCC.

Complete all contract works in accordance with instructions. Execute written variation orders for changes to existing documentation or new work.

Refer to GENERAL REQUIREMENTS before proceeding.

## GENERAL

**Cooperation:** to resolve possible problems before starting work, cooperate and coordinate with other trades, in particular: concrete, carpentry, floor and wall construction.

**Australian Standards:** comply with the applicable clauses of current editions of these Australian Standards:

AS 1428.1 2009 Design for access and mobility - General requirements for access – Newbuilding work. 2 Amdts 2010, 2017.

AS 1860.2 2006 Particleboard flooring – Installation.

AS 1884 2012 Floor coverings - Resilient sheet and tiles - Installation practices.

AS/NZS 3661.2 1994 Slip resistance of pedestrian surfaces - Guide to the reduction of slip hazards.

AS 4586 2013 Slip resistance classification of new pedestrian surface materials.

AS 4786.2 2005 (R2016) Timber flooring - Sanding and finishing.

HB 197 1999 An introductory guide to the slip resistance of pedestrian surface materials.

SA HB 198 2014 Guide to the specification and testing of slip resistance of pedestrian surfaces.

Refer: Model Code of Practice, Preventing Falls in Housing Construction:

<https://www.safeworkaustralia.gov.au/system/files/documents/1705/mcop-preventing-falls-in-housing-construction-v2.pdf>.

Comply throughout with the current edition of the NCC - National Construction Code (BCA).

## ON-SITE ACTIONS

**General:** check all sizes and dimensions on job.

**Inspection:** visit site and inspect conditions, comparing to drawings before delivery of materials to site. Report any situations requiring preparatory work to the building designer. Start of work means total acceptance of conditions.

**Work methodology:** ensure the method of delivery, unloading, storage, installation and sign-off of works is compliant with relevant occupational health, safety and environmental requirements.

Install a sample of 3 square metres. Obtain building designer's approval of workmanship before continuing.

**Execution:** prepare concrete floor; fill cracks with a self-levelling type compound e.g. Ardit. Remove lumps. Produce dead flat and level surface. Test for moisture content, which is required to be 5.5% or less. Refer to AS 1884 Appendix A.

Apply waterproofing membrane to floor and walls in compliance with the NCC requirements. Ensure manufacturer recommendations, to prevent respirable vapours to workers and others, are complied with before application. Arrange inspection.

**Prepare timber floor:** ensure moisture content is stabilised. Rough sand the floor to achieve level and flat plane. Install underlay to manufacturer's recommendations. Apply waterproofing membrane to floor and walls in compliance with the NCC requirements. Arrange inspection.

Install a sample of 3 square metres. Stop. When approved by building designer, continue to approved standard.

Install to manufacturer's instructions. Weld joints in sheet vinyl. Clean thoroughly, allow to dry. Cover completed floors until completion of project.

Floating floors to be entirely secure and free from movement noise or clacking. Rectification to be at contractor's expense.

Form junctions of different materials (e.g. tiles to carpet) so that they occur under the centre line of doors. Install trims as selected and/or scheduled in Finishes Schedule.

## WARRANTY

## END OF SECTION

**SCOPE OF WORK** Perform work described here and shown on drawings including but not limited to:

Supply and installation of boundary, site and swimming pool safety fences and gates all of timber or metal.

Complete all contract works in accordance with instructions. Execute written variation orders for changes to existing documentation or new work. Have locations of boundary fences checked by a licenced land surveyor.

Refer to GENERAL REQUIREMENTS before proceeding.

**GENERAL**

**Cooperation:** to resolve possible problems before starting work, cooperate and coordinate with other trades, in particular:

Carpentry, metalwork, concrete and painting.

**Australian Standards:** comply with the applicable clauses of current editions of these Australian Standards:

AS 1725.1 2010 Chain link fabric fencing - Security fencing and gates - General requirements.

AS 1926 Swimming pool safety.

1926.1 2012 Safety barriers for swimming pools.

1926.2 2007 (R2016) Location of safety barriers for swimming pools. AS 2820 1993 Gate units for private swimming pools.

Comply throughout with the current edition of the NCC - National Construction Code (BCA).

**ON-SITE ACTIONS**

**Inspection:** visit site and inspect conditions, comparing to drawings before delivery of materials to site. Report any situations requiring preparatory work to the building designer. Start of work means total acceptance of conditions.

**Work methodology:** Ensure the method of delivery, unloading, storage, installation and sign-off of works is compliant with relevant occupational health, safety and environmental requirements.

**Execution:** prepare footings for posts of concrete or timber or provide adequate grounds for post support to manufacturer's requirements.

Place concrete or timber bracing for footings. Construct fence vertical, straight and brace at corners. Construct to manufacturer's instructions, and according to detail drawing.

**END OF SECTION**