

SPECIFICATION

FOR

**FIRE SPRINKLER & HYDRANT
SUPPLY TANK INSTALLTION**

AT

**156 OCEAN STREET
NARRABEEN**

FOR

WESLEY MISSION

**Maitland & Butler Pty Ltd
Architects
ABN 68 002 759 346**

**10 Calderwood Road
GALSTON NSW 2159**

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PRELIMINARIES

1 GENERAL**1.1 GENERAL**

The project involves the installation of a fire sprinkler system to the aged care part of the facility and the basement car park. Because of insufficient water mains pressure available from the street, extra underground storage tanks and a pump room are included.

General conditions

General The general conditions of contract will be AS 4000-1997, as amended by Wesley Mission

Interpretation

Cross reference The clause **INTERPRETATION**, in the *General requirements* worksection, also applies

1.2 THE SITE**Site restrictions**

Site limitations Comply with the following restrictions on the use of the site. The building is an aged care facility and operates 24 hours a day, 7 days a week and continuous access must be maintained to all areas.

Access Access on to and within the site, use of the site for temporary works and constructional plant, including working and storage areas, location of offices, workshops, sheds, roads and parking, is subject to the needs of the facility in providing care for the residents. Management requests and need will be conveyed via the superintendent to the Contractor. The Tender is to allow for occasional disruptions to the flow of work.

Occupied premises

General For the parts of the site designated as occupied premises in the **Occupied premises schedule**

- Allow residents and staff to continue in secure possession and occupancy of the premises
- Make available safe access for occupants
- Arrange work to minimise nuisance to occupants and ensure their safety
- Protect occupants against weather, dust, dirt, water or other nuisance, by such means as temporary screens

Occupied premises schedule

Occupants	Occupied premises	Period of occupancy
WG Taylor Village Narrabeen	All buildings on the site	Throughout the period of the Works

Protection of persons and property

Temporary works Provide and maintain required barricades, guards, fencing, shoring, temporary roadways, footpaths, signs, lighting, watching and traffic flagging.

Accessways and services Do not obstruct or damage roadways and footpaths, drains and watercourses and other existing services in use on or adjacent to the site. Determine the location of such services.

Property Do not interfere with or damage property which is to remain on or adjacent to the site, including adjoining property encroaching onto the site, and trees.

The Contractor shall undertake a pre-commencement inspection of adjoining areas and provide a dilapidation report.

Rectification

Accessways and services Rectify immediately any obstruction or damage to roadways and footpaths, drains and watercourses and other existing services in use on or adjacent to the site. Provide temporary services whilst repairs are carried out.

Property Rectify immediately any interference or damage to property which is to remain on or adjacent to the site, including adjoining property encroaching onto the site, and trees

Existing services

General Attend to existing services as follows

- If the service is to be continued, repair, divert or relocate Submit proposals
- If the service crosses the line of a required trench, or will lose support when the trench is excavated, provide permanent support for the existing service Submit proposals
- If the service is to be abandoned, remove redundant parts and make safe

Proposals Submit proposals for action to be taken with respect to existing services before starting this work Minimise the number and duration of interruptions

- Purpose of submission For review

1 3 CONSTRUCTION PLANT

Access

Access route Access via Ocean Street only

Parking

Use only designated parking areas within the Construction Site area, as shown on the drawings

Use of existing services

General Existing services may be used as temporary services for the performance of the contract subject to conditions stated in the **Existing services schedule**

Existing services schedule

Service	Conditions of use
Water	Due diligence
Electricity	Due diligence

Temporary services

Requirement Contractor to provide own toilets and ablution facilities

Project signboards

General Provide project-specific signboards to Council's requirements and the following

- Locate where directed
- Maintain in good condition for duration of the work
- Obtain permission for removal
- Remove on completion

1 4 BUILDING THE WORKS

Surveys

Setting out Obtain approval from the Superintendent for set out

Check surveys Confirm levels and setout of tanks progressively

Final survey Provide an as built survey at completion of the Works, or as required by Council

Survey marks

Definition The term survey mark means a survey peg, bench mark, reference mark, signal, alignment, level mark or any other mark used or intended to be used for the purpose of setting out, checking or measuring the work

Care of survey marks Preserve and maintain the principal's survey marks in their true positions

Rectification If the principal's survey marks are disturbed or obliterated, immediately give notice and rectify the disturbance or obliteration

Safety

Accidents Promptly notify the contract administrator of the occurrence of the following

- Accidents involving death or personal injury
- Accidents involving loss of time
- Incidents with accident potential such as equipment failure, slides and cave-ins

Accident reports Submit reports of accidents

- Purpose of submission Information only

Contractor's representative

General Must be accessible, and fluent in English and technical terminology

Subcontracting

General Submit a complete list of proposed subcontractors and suppliers

Protective Clothing

Make available protective clothing for the use of visitors

1 5 COMPLETION OF THE WORKS

Reinstatement

General Before the date for practical completion, clean and repair damage caused by installation or use of temporary work and restore existing facilities used during construction to original condition

Adjoining Council property

Evaluation At practical completion, inspect the properties with the architect, recording any damage that has occurred since the pre-commencement inspection

Removal of plant

General Within 10 working days after practical completion, remove temporary works and construction plant no longer required Remove the balance before the end of the defects liability period

1 6 MISCELLANEOUS

Contractor and owner to observe confidentiality

Publicity Do not issue information concerning the project for publication in the media without prior written approval of the owner Refer to the owner enquiries from the media concerning the project

Compliance with the law

Requirements of authorities The owner, before entering into the contract, has given the notices, paid the fees, and obtained the permits, approvals and other authorisations stated in the **Prior applications and approvals schedule**

Prior applications and approvals schedule

Prior notices given and applications made	Fees paid	Permits, approvals and authorisations received
Development Application	Yes	Not yet approved
Construction Certificate	Yes	Not yet approved

Authority conditions schedule

Authority	Document	Condition
Warringah Council		See Addendum A

Tenderers shall allow for normal Council Conditions for developments such as this in residential zones Once the specific Council Conditions are known, and prior to acceptance of the Tenders, tenderers will be requested to verify whether the Conditions will affect their Tender in any way

1 7 APPROVALS

The Owner has appointed the following to provide Contract Administration and Certification

Architect & Superintendent's Representative	Maitland & Butler Pty Ltd	Greg Butler
Structural Engineers	Ashbly Doble Pty Ltd	Geoff Doble
Hydraulic/Electrical Engineers	Niven Donnelly Pty Ltd	Peter Donnelly
Fire Sprinkler Engineer	Niven Donnelly Pty Ltd	David Sinclair

1 8 CERTIFICATES AND PAYMENTS

Payment claims break-down

Break down With each progress claim submit a statement of amounts claimed in respect of each worksection or trade heading designated in the specification, together with variations included in the claim

1 9 PROGRESS AND PROGRAMMING OF THE WORKS

Program of work

Construction program Within 14 days after the date for possession of the site, submit a construction program showing the following

- Sequence of work
- Critical paths of activities related to the work
- Allowance for holidays
- Activity inter-relationships
- External dependencies including provision of access, document approvals and work by others
- Periods within which various stages or parts of the work are to be executed

Revisions Revise the construction program as required by the progress of the work Submit revisions with each progress claim Identify changes since the previous issue, and show the estimated percentage of completion for each item of work

Program chart Display in the contractor's site office an up-to-date bar chart and network diagram based on construction program

Purpose of submissions Information only

Site meetings

Attend site meetings throughout the contract conducted by the Superintendent and ensure attendance of appropriate subcontractors

Frequency Generally fortnightly

Contacts At the first site meeting, submit names and telephone numbers of responsible persons who may be contacted after hours during the course of the contract

1 10 ENVIRONMENTAL MANAGEMENT PLAN

The Builder is to submit a Construction Environmental Management Plan (CEMP) with the Tender outlining the measures to be taken to ensure protection of the site, surrounding properties, and environs, in accordance with current environmental legislation and as required by Council

GENERAL REQUIREMENTS**1 GENERAL****1.1 APPLICABILITY****General**

Requirement Conform to *General requirements*, as appropriate, in all worksections

1.2 STANDARDS**Current editions**

General Use referenced Australian or other standards (including amendments), and the BCA including state and territory variations which are current three months before the date of the contract except where other editions or amendments are required by statutory authorities

1.3 INTERPRETATION**Definitions**

General For the purposes of this document the definitions given below apply

- Owner Owner has the same meaning as client, principal or proprietor and is the party to whom the contractor is legally bound to construct the works
- Contractor Means the same as builder
- Metallic-coated Steel coated with zinc or aluminium-zinc alloy via a continuous hot-dip process
- Hot-dip galvanized Zinc coated to AS/NZS 4680 after fabrication
- Professional engineer As defined by the BCA
- Proprietary Proprietary means identifiable by naming manufacturer, supplier, installer, trade name, brand name, catalogue or reference number
- Provide Provide and similar expressions mean supply and install and include development of the design beyond that documented
- Required Means required by the contract documents, the local council or statutory authorities
- Supply Supply, furnish and similar expressions mean supply only

1.4 SUBSTITUTION**Identified proprietary items**

Identification of a proprietary item does not necessarily imply exclusive preference for the item so identified, but indicates the necessary properties of the item

Alternatives

If alternatives to the documented products, methods or systems are proposed, submit sufficient information to permit evaluation of the proposed alternatives

2 PRODUCTS**2.1 GENERAL****Manufacturers' or suppliers' recommendations**

General Provide and select, if no selection is given, transport, deliver, store, handle, protect, finish, adjust and prepare for use the manufactured items in accordance with the current written recommendations and instructions of the manufacturer or supplier

Proprietary items/systems/assemblies Assemble, install or fix to substrate in accordance with the current written recommendations and instructions of the manufacturer or supplier

Sealed containers

General If materials or products are supplied by the manufacturer in closed or sealed containers or packages, bring the material or products to point of use in the original containers or packages

Fire Hazard Properties

The Contractor shall ensure that all materials used in the Works comply with the current requirements for Fire Hazard Properties for the Class of Building

2.2 TIMBER

Moisture content

General Make milled products from timbers seasoned

- To within 3% of the equilibrium moisture content appropriate to the timber and its intended conditions of use
- With no more than 3% difference between any 2 pieces in any one group

2.3 STEEL

Durability

General Provide steel products protected from corrosion to suit the conditions of use

Corrosion resistance

Compliance Conform to the **Corrosion resistance table** or provide proprietary products with metallic and/or organic coatings of equivalent corrosion resistance and as follows

Built-in products below damp proof course Stainless steel 316 or engineered polymer

Corrosion resistance table

Atmospheric corrosivity category to AS/NZS 2312	Heavy steel members including lintels more than 3.2 mm thick	Steel cladding, lining, trims and flashings
A and B (Low)	Galvanize after fabrication 600g/m ²	Metallic-coated sheet AZ150
C (Medium)	Galvanize after fabrication 600g/m ²	Metallic-coated sheet AZ200
D and F (High)	Stainless steel 316 or 316L or galvanize after fabrication 600g/m ² plus organic coating	Metallic-coated sheet AZ200 plus organic coating

Galvanizing

General Galvanize mild steel components (including fasteners) to AS 1214 or AS/NZS 4680, as appropriate, if

- Exposed to weather
- Embedded in masonry
- Exposed to or in air spaces behind external leaves of masonry walls
- In contact with chemically treated timber

2.4 PROTECTIVE COATINGS

General

Environment To AS/NZS 2312 clause 2.3

Coating designation To AS/NZS 2312 Table 6.3

CCA (copper chrome arsenic) treated timber

Greasing Before placing bolts or other metal components in contact with CCA-treated timber, paint contact surfaces or coat in grease or a bituminous coating

Unseasoned timber

General Do not fix in contact with steel framing without fully painting the contact surfaces of timber and steel

2.5 FASTENERS

Self drilling screws

Corrosion resistance To AS 3566 2 Table 1 and the **Fastener corrosion resistance table**

Fastener corrosion resistance table

Atmospheric corrosivity category to AS/NZS 2312	Corrosion resistance class	
	Internal	External
A and B (Low)	1	3
C (Medium)	2	4
D and F (High)	3	Stainless steel 316

2 6 VAPOUR BARRIER

General

Vapour barrier to slabs To AS 2870 clause 5 3 3

Minimum thickness 0 2 mm

3 EXECUTION

3 1 WALL CHASING

Holes and chases

General Make holes and chases required in masonry walls so that the structural integrity of the wall is maintained Do not chase walls nominated as fire or acoustic rated

Parallel chases or recesses on opposite faces of a wall Not closer than 600 mm to each other

3 2 FIXING

General

Suitability If equipment is not suitable for fixing to non-structural building elements, fix directly to structure and trim around penetrations in non-structural elements

Fasteners

Sufficiency Use proprietary fasteners capable of transmitting the loads imposed, and sufficient for the rigidity of the assembly

3 3 FOOTPATH CROSSING

General

Requirement Repair any damage to the existing footpath and kerb crossing caused by the Works

3 4 COMPLETION

General

Removal of temporary work, services and plant Remove temporary work services and construction plant within 10 working days after occupation of the works

Final cleaning Remove rubbish and surplus material from the site and clean the works throughout including interior and exterior surfaces exposed to view Vacuum clean carpeted and soft surfaces Clean debris from the site, roofs, gutters, downpipes and drainage systems

Samples Remove non-incorporated samples, sample panels and prototypes

Warranties Register with manufacturers, as necessary, and provide copies of manufacturers' warranties

Instruction manuals Provide the manufacturers' instruction manuals

Operation Make sure moving parts operate safely and smoothly

Surveyor's certificate Provide a certificate which confirms that the work has been correctly located

Services layout Provide a plan which shows the location of underground services

Authorities' approvals Provide evidence of approval of the local authority or principal accredited certifier and statutory authorities whose requirements apply to the work

Keys Provide two keys for each set of locks keyed alike and two keys for each lock keyed to differ

SITE MANAGEMENT**1 EXECUTION****1.1 CONTROL AND PROTECTION****Erosion control**

General Plan and carry out the work so as to avoid erosion, contamination, and sedimentation of the site, surrounding areas, and drainage systems

Water quality

Wash out Make sure that wash out does not enter waterways or stormwater drains

Cross connection Make sure that there are no cross connections between the stormwater and the public sewerage system

Dewatering

General Keep earthworks free of water Provide and maintain slopes, crowns and drains on excavations and embankments to make sure free drainage Place construction, including fill, masonry, concrete and services, on ground from which free water has been removed Prevent water flow over freshly laid work

1.2 TREE PROTECTION**Standard**

General Comply with the recommendations of those parts of AS 4970 which are referenced in this worksection

Trees to be retained

Extent All trees NOT marked for removal

Tree protection

Tree protection zone To AS 4970 Section 3

Tree protective measures To AS 4970 Section 4

Work near trees

Harmful materials Keep the area within the dripline free of sheds and paths, construction material and debris

Work under trees Do not remove topsoil from, or add topsoil to, the area within the dripline of the trees

Hand methods Use hand methods to locate, expose and cleanly remove the roots on the line of excavation

1.3 SITE CLEARING**Extent**

General Clear only the following site areas

- Areas to be occupied by tank works including excavation, regrading and landscaping
- Garden areas nominated on the drawings

Clearing and grubbing

Clearing Remove everything on or above the site surface, including rubbish, scrap, grass, vegetable matter and organic debris, scrub, trees, timber, stumps, boulders and rubble

Grubbing Grub out stumps and roots over 75 mm diameter to a minimum depth of 300 mm below the finished surface in unpaved areas Backfill holes remaining after grubbing with sand material to prevent ponding of water Compact the material to the relative density of the existing adjacent ground material

Disposal

Spoil Stockpile cleared and grubbed material for reinstatement of the garden area at completion

EARTHWORK**1 GENERAL****1.1 STANDARDS****General**

Earthworks To AS 3798

1.2 INTERPRETATION**Definitions**

General For the purposes of this worksection the following definitions apply

- Site classification To AS 2870 and BCA 3.2.4
- Bad ground Ground unsuitable for the purposes of the works, including fill liable to subsidence, ground containing cavities, faults or fissures, ground contaminated by harmful substances and ground which is, or becomes, soft, wet or unstable
- Rock Monolithic material with volume greater than 0.5 m³ which cannot be removed until broken up by rippers or percussion tools
- Subgrade The trimmed or prepared portion of the formation on which the pavement, footing or slab is constructed. Generally taken to relate to the upper line of the formation
- Zone of influence A foundation zone bounded by planes extending downward and outward from the bottom edge of a footing, slab or pavement and defining the extent of foundation material having influence on the stability or support of the footings, slab or pavement

1.3 NOTICE**As found site conditions**

General If the rock or badground are encountered, give notice immediately and obtain instructions before carrying out any further work in the affected area

2 EXECUTION**2.1 REMOVAL OF TOPSOIL****General**

Extent Areas of cut or fill and areas occupied by structures, pavements and embankments

Maximum depth 200 mm

Topsoil stockpiles

General Stockpile site topsoil intended for re-use

Protection Protect the topsoil stockpiles from contamination by other excavated material, weeds and building debris

2.2 EXCAVATION**Extent**

Site surface Excavate over the site to give correct levels and profiles required as the basis for structures, paving and landscaping. Make allowance for compaction or settlement or heaving

Footings Excavate for footings to the required sizes and depths. Confirm that the foundation conditions meet the design bearing capacity

Rock

General Do not use explosives

Existing footings

Requirement If excavation is required within the zone of influence of an existing footing, use methods including (temporary) shoring and underpinning which maintain the support of the footing and make sure that the structure and finishes supported by the footing are not damaged

Existing services

Utility services Contact DIAL BEFORE YOU DIG to identify location of underground utility services pipes and cables

Bearing surfaces

General Provide even plane bearing surfaces for loadbearing elements including footings Step to accommodate level changes Make the steps to the appropriate courses if supporting masonry

Geotechnical report

The Geotechnical Report at Addendum F is provided for information only and shall be verified by the Contractor on site Excavation shall be assumed to be in sand or sandy loam The Tender shall reflect this assumption Any other material encountered will be assessed as a variation to the Contract

2.3 PLACING FILL**Placing fill**

Placement To BCA 3.2.2

Suitable Material To AS 3798

Layers Place fill in near-horizontal layers of uniform thickness no greater than 150 mm after compaction, deposited systematically across the fill area

Placing at structures Place and compact fill in layers simultaneously on both sides of structures, culverts and pipelines to avoid differential loading

Moisture content Adjust the moisture content of fill during compaction within the range of 85 – 115% of the optimum moisture content determined by AS 1289 5.1.1 or AS 1289 5.2.1 as appropriate, in order to achieve the required density

Density Compact the subgrade and each layer of fill to the required depth and density, as a systematic construction operation and to conform to the **Compaction table** Shape surfaces to provide drainage and prevent ponding

2.4 LANDSCAPING

Upon completion, provide 150mm of approved topsoil and turf the disturbed area to match existing The Contractor shall be responsible for the care and maintenance of the turf for a period of 3 months

The Tender is to allow for a Provisional Amount of 900 square metres of turf Any change to this amount will be adjusted as a Provisional Sum Adjustment

SERVICE TRENCHING**1 PRODUCTS****1.1 FILL MATERIALS****General**

Backfill material Use sand or sandy loam from the excavated materials stockpile

2 EXECUTION**2.1 EXISTING SURFACES****Concrete and asphalt pavements**

Method Sawcut trench set out lines for the full depths of the bound pavement layers except where the set out line is located along expansion joints

Segmental paving units

Removal Take up segmental paving units both full and cut by hand, between the trench set out lines, and neatly stack on wooden pallets at locations as directed

2.2 EXCAVATING**Excavation**

General Excavate for underground services in conformance with the following

- To required lines and levels, with uniform grades
- Straight between access chambers, inspection points and junctions
- With stable sides

Trench widths

General Keep trench widths to the minimum consistent with the laying and bedding of the relevant service and construction of access chambers and pits

2.3 TRENCH BACKFILL**General**

Timing Backfill service trenches as soon as possible after laying and bedding the service, if possible on the same working day

Place fill To **Placing fill** in the *Earthwork* worksection

Layers Compact all material in layers not exceeding 150 mm compacted thickness Compact each layer to the relative compaction specified before the next layer is commenced

2.4 SURFACE RESTORATION**General**

Reinstatement Reinstatement existing surfaces removed or disturbed by trench excavation to match existing and adjacent work

CONCRETE

See Structural Engineers Specification

BRICK AND BLOCK CONSTRUCTION

See Structural Engineers Specification

Construct the underground Pump Room as indicated on the Drawings between the two underground water storage tanks (tanks supplied and installed as specified under Hydraulic Design and Install)

Provide reinforced concrete slabs and walls, with an approved waterproofing membrane to form a complete waterproof tanking system Provide agricultural drainage as shown

Seal against the concrete water tank walls

Form up the concrete stairs as shown on the Drawings and provide waterproofing and agricultural drainage all round

Upon completion, backfill as specified under Earthworks and restore landscaping

LIGHT TIMBER FRAMING**1 GENERAL****1.1 STANDARDS****General**

Framing To AS 1684 2, AS 1684 3 or AS 1684 4, as appropriate

Design To AS 1720 1

All timber used is to come from ethical and ecologically sustainable and to be a 'good wood' in accordance with the classifications indicated in the Good Wood Guide (www.goodwoodguide.org.au) or a 'Certified FSC Wood' (Forest Stewardship Council)

1.2 EXTENT OF WORK

This section is applicable to timber framing of bulkheads and alterations to existing timber framing if necessary

2 PRODUCTS**2.1 SHEET PRODUCTS****Structural plywood**

Standard To AS/NZS 2269 0

Bond Type A to AS/NZS 2754 1 (Int)

Wet-processed fibreboard (including hardboard)

Standard To AS/NZS 1859 4

2.2 COMPONENTS**Fasteners**

Installation Do not split or otherwise damage the timber

Coating Before placing bolts in contact with CCA treated timber, coat the shank of the bolt in a grease or bituminous coating

3 EXECUTION**3.1 TRANSPORT AND DELIVERY****General**

Handling and protection Do not distort or damage timber or timber products

Moisture content Maintain the equilibrium moisture content of seasoned timber

3.2 COMPLETION**Tightening**

General Tighten bolts, screws and other fixings so that joints and anchorages are secure at practical completion

COMMERCIAL DOORS AND ACCESS PANELS**1 GENERAL****1.1 INTERPRETATION**

Refer to Door Schedule WES93-C14D

Definitions

General For the purposes of this worksection the following definitions apply

- **Balanced construction** Flush door construction where the facings on one side of the core are nominally equal in thickness, grain direction, properties and arrangement to those on the other side of the core, such that uniformly distributed changes in moisture content will not cause warpage
- **Door frame** Includes jamb linings
- **Doorset** An assembly comprising a door or doors and supporting frame, guides and tracks including the hardware and accessories necessary for operation
 - Fire-doorset** A doorset which retains its integrity, provides insulation and limits, if required, the transmittance of radiation in a fire
 - Smoke-doorset** A doorset which restricts the passage of smoke
 - Solid core door** A flush door with a solid core continuous between stiles and rails or edge strips and fully bonded to the faces

2 PRODUCTS**2.1 FRAMES****Steel frames**

General Continuously welded from metallic-coated steel sheet sections, including accessories such as buffers, strike plates, spreaders, mortar guards, switch boxes, fixing ties or brackets, and cavity flashing with provision for fixing documented hardware and electronic security assemblies, and prefinished with a protective coating

Finish Grind the welds smooth, cold galvanize the welded joints and shop prime

Hardware and accessories Provide 4 mm backplates and lugs for fixing hardware including hinges and closers. Screw fix the hinges into tapped holes in the backplates

Base metal thickness

- General ≥ 1.1 mm
- Fire rated doorsets ≥ 1.5 mm
- Security doorsets ≥ 1.6 mm

Metallic-coated steel sheet To AS 1397

- Coating class interior ZF100

2.2 DOORS**General**

Doors Proprietary products manufactured for interior or exterior applications and for the finish required

Materials

Standards Conform to the following

- Decorative laminated sheets To AS/NZS 2924.1
- Wet processed fibreboard (including hardboard) To AS/NZS 1859.4
- Dry processed fibreboard (including medium density fibreboard) To AS/NZS 1859.2
- Particleboard To AS/NZS 1859.1

- Plywood and blockboard for interior use To AS/NZS 2270
- Plywood and blockboard for exterior use To AS/NZS 2271
- Seasoned cypress pine To AS 1810
- Timber – hardwood To AS 2796 1
- Timber – softwood To AS 4785 1

Flush doors

General Provide flush doors of balanced construction

Solid core Solid flush doors as follows

- Flush door with blockboard Core plate of timber strips laid edge to edge, fully bonded to each other and to facings each side of no less than two sheets of timber veneer
- Flush doors with particleboard Core plate of particleboard fully bonded to facings each side of no less than two sheets of timber veneer

Construction

Adhesives

- Internal To AS/NZS 2270
- External To AS/NZS 2271

Door thickness

- External doors and doors over 900 mm wide 40 mm

Cut outs If openings are required in flush doors (e.g. for louvres or glazing), do not make cut outs closer than the width of the stiles at the edges of the doors

Edge strips Minimum thickness 10 mm Increase overall thickness to greater than 15 mm to accommodate the full depth of the rebate in rebated doors Apply to the external edges of door after the facings are bonded to the door framing/core and finish flush with outside surface of the facings

Louvre grilles Construct by inserting the louvre blades into a louvre frame, and fix the frame into the door

Duct access panels

General Proprietary products comprising metal-faced doors side hung to steel door frames, including hardware and accessories such as hinges and lock and installation lugs

Fire-resistant doorsets

Standard To AS 1905 1 and BCA Spec C3 4

Floor access panels

Frame Weld from 50 x 50 x 6 mm angle, with two 40 mm cogged fixing lugs each side and shop prime

Covers 6.5 mm chequer plate, on 40 x 40 x 6 mm angle welded frame with 32 x 6 mm diagonal stiffening flats Cut, radius and grind off 100 x 25 mm lifting slots in each end of covers

3 EXECUTION

3.1 FRAMES

General

Frames Install the frames as follows

- Plumb, level, straight and true
- Fixed or anchored to the building structure
- Isolated from any building loads, including loads caused by structural deflection or shortening

Frame fixing

Brackets Metallic-coated steel

- Width \geq 25 mm
- Thickness \geq 1.5 mm

Depth of fixing for building into masonry

- Brackets \geq 200 mm
- Expansion anchors \geq 50 mm

- Plugs ≥ 50 mm

- Rods ≥ 60 mm

Jamb fixing centres ≤ 600 mm

Joints

General Make accurately fitted joints where fasteners, pins, screws, adhesives and pressure indentations are not visible on exposed surfaces

Steel frames

Building in to masonry Attach galvanized steel rods to jambs, build in and grout up

Fixing to masonry openings Build in hairpin anchors and install locking bars, or use proprietary expansion anchors and screw twice through jambs at each fixing

Finishing

Trim Provide mouldings, architraves, reveal linings, and other internal trim using materials and finishes matching the door frames to make neat and clean junctions between the frame and the adjoining building surfaces

Seals

General Provide the fixings, rebates, grooves, and clearances required for installation and operation of the seals Allow seals unwound from coils to settle before use

3 2 DOORS**Priming**

General Prime timber door leaves on top and bottom edges before installation

3 3 LOCKSET

Provide a deadlock to the Valve Room equal to Lockwood 303 with stainless steel escutcheon plate
Master key to existing system for the facility (Contact Barrenjoey Locksmiths Brookvale 1300 739 384)

3 4 COMPLETION**Operation**

General Ensure moving parts operate freely and smoothly, without binding or sticking, at correct tensions or operating forces and that they are lubricated where appropriate

Protection

Temporary coating On or before the date for practical completion, or before joining up to other surfaces, remove all traces of temporary coatings used as a means of protection

4 SELECTIONS

See Door Schedule WES93-C14D

Hatch doors are to be Floor Doors available from Gortter Hatches Pty Ltd (8580 4436), sizes as shown on the Drawings, lockable (master keyed to existing system) with permanent ventilation as detailed

- a) Stair hatch 1200 x 4250), aluminium checkerplate cover in aluminium frame, stainless steel hinges, weathertight gasket cylinder lock, hold-open arm
- b) Pump access hatch (1260 x 1700) as for a) above
- c) Valve Room door – solid core flush door 35mm with steel frame, and lockset

LINING

1 PRODUCTS

1.1 MATERIALS AND COMPONENTS

Plasterboard

Standard To AS/NZS 2588

Fibre cement

Standard To AS/NZS 2908.2

Wall and ceiling linings Type B, Category 2

Minimum thickness 4.5 mm

2 EXECUTION

2.1 CONSTRUCTION GENERALLY

Substrates or framing

General Before fixing linings check and, if necessary, adjust the alignment of substrates or framing

Accessories and trim

General Provide accessories and trim necessary to complete the installation

2.2 PLASTERBOARD LINING

Supports

General Install timber battens or proprietary cold-formed galvanized steel furring channels as follows

- Where framing member spacing exceeds the recommended spacing
- Where direct fixing of the plasterboard is not possible due to the arrangement or alignment of the framing or substrate
- Where the lining is the substrate for tiled finishes

Installation

Gypsum plasterboard To AS/NZS 2589

Joints

Flush joints Provide recessed edge sheets and finish flush using perforated paper reinforcing tape

External corner joints Make joints over metallic-coated steel corner beads

Control joints Provide purpose-made metallic-coated control joint beads at not more than 12 m centres in plasterboard linings or 7.2 m centres in fibre cement lining in walls and ceilings and to coincide with structural control joints

Wet areas Install additional supports, flashings, trim and sealants as required

Joints in tiled areas Do not apply a topping coat after bedding perforated paper tape in bedding compound

2.3 FIBRE CEMENT LINING

Supports

General Install timber battens or proprietary cold-formed galvanized steel furring channels as follows

- Where framing member spacing exceeds the recommended spacing
- Where direct fixing of the fibre cement is not possible due to the arrangement or alignment of the framing or substrate
- Where the lining is the substrate for tiled finishes

Installation

General Run sheets across the framing members. In flush jointed applications, stagger end joints in a brick pattern and locate them on framing members, away from the corners of large openings. Provide supports at edges and joints.

Timber framed construction Nail only or combined with adhesive.

Wall framing

- Do not fix to top and bottom plates or noggings
- In tiled areas. Provide an extra row of noggings immediately above wall-to-floor flashings. Fix sheet at 150 mm centres to each stud and around the perimeter of the sheet.

Ceilings Fix using screw or screw and adhesive to ceiling furring members. Do not fix sheets to the bottom chords of trusses.

Wet areas Do not use adhesive fixing alone.

Joints

Flush joints Provide recessed edge sheets and finish flush using perforated paper reinforcing tape.

External corner joints Make joints over metallic-coated steel corner beads.

Dry joints Provide square edged sheet and finish with a UPVC joining section.

Control joints Provide purpose-made metallic-coated control joint beads at ≤ 7.2 m centres in walls and ceilings and to coincide with structural control joints.

Wet areas Provide additional supports, flashings, trim and sealants as required.

Joints in tiled areas Bed perforated paper tape in bedding compound. Do not apply a topping coat.

- Control joints ≤ 4.2 m centres and space to suit joints required in tiling.
- Internal corners. Reinforce with metallic-coated steel angles. In corners subject to continuous moisture, flash over the angle and under the sheeting with continuous bitumen coated aluminium flashing.

2.4 TRIM**General**

Match adjacent finishes.

General Provide timber or medium density fibreboard trim, such as beads, skirtings, architraves, mouldings and stops to make neat junctions between components, finishes and adjacent surfaces.

3 SELECTIONS**3.1 SCHEDULE****Lining schedule**

Item	Description
Lining - Type	Wall and ceilings 13mm plasterboard water resistant Wet areas fibre cement sheeting
Cornice - Type - Sheet thickness	At ground level, where flat ceiling and required, to match existing At upper level and void area, no cornices All junctions of walls and ceilings raked or otherwise to be 'square set'

PAINTING**1 GENERAL****1.1 STANDARDS****Painting**

General To the recommendations of those parts of AS/NZS 2311 which are referenced in this worksection

2 PRODUCTS**2.1 PAINTS****Paint brand**

Quality If the product is offered in a number of levels of quality, provide premium quality lines

Low VOC emitting paints

VOC limits for low odour/low environmental impact paint types

- Primers and undercoats < 65 g/litre
- Low gloss white or light coloured latex paints for wall areas < 16 g/litre
- Coloured low gloss latex paints < 16 g/litre
- Gloss latex paints for timber doors and trims < 75 g/litre

Combinations

General Do not combine paints from different manufacturers in a paint system

Clear timber finish systems Provide only the combinations of putty, stain and sealer recommended by the manufacturer of the top coats

Delivery

General Deliver paints to the site in the manufacturer's labelled and unopened containers

Putty and fillers

Material To the recommendation of the paint system manufacturer as suitable for the substrate and compatible with the primer

Tinting

General Provide only products which are colour tinted by the manufacturer or supplier

3 EXECUTION**3.1 PREPARATION****Order of work**

Other trades Before painting, complete the work of other trades as far as practicable within the area to be painted, except for installation of fittings, floor sanding and laying flooring materials

Clear finishes Complete clear timber finishes before commencing opaque paint finishes in the same area

Protection

General Before painting, clean the area and protect it against dust entry Use drop sheets and masking to protect finished surfaces or other surfaces at risk of damage during painting

Internal and external fixtures and furniture Remove door furniture, switch plates, light fittings and other fixtures before starting to paint, and refix in position on completion of painting

Adjacent surfaces Protect adjacent finished surfaces liable to damage from painting operations

Wet paint warning

General Place notices conspicuously and do not remove them until the paint is dry

Repair

General Clean off marks, paint spots and stains progressively and restore damaged surfaces to their original condition Touch up new damaged decorative paintwork or misses with the paint batch used in the original application

Substrate preparation

General Prepare substrates to receive the painting systems

Cleaning Clean down the substrate surface Do not cause undue damage to the substrate or damage to, or contamination of, the surroundings

Filling Fill cracks and holes with fillers, sealants, putties or grouting cements as appropriate for the finishing system and substrate, and sand smooth

Clear finish Provide filler tinted to match the substrate

Clear timber finish systems Prepare the surface so that its attributes will show through the clear finish without blemishes, by methods which may involve the following

- Removal of bruises
- Removal of discolourations, including staining by oil, grease and nailheads
- Bleaching where necessary to match the timber colour sample
- Puttying
- Fine sanding (last abrasive no coarser than 220 grit) to show no scratches across the grain

Unpainted surfaces

Standard To AS/NZS 2311 Section 3

Previously painted surfaces

Preparation of a substrate in good condition To AS/NZS 2311 clause 7 4

Preparation of a substrate in poor condition To AS/NZS 2311 clause 7 5

Preparation of steel substrates with protective coatings To AS/NZS 2312 Section 10 and AS 1627 1

3 2 PAINTING**Light levels**

General ≥ 400 lux

Paint application

Standard To AS/NZS 2311 Section 6

Timing Apply the first coat immediately after substrate preparation and before contamination of the substrate can occur Apply subsequent coats after the manufacturer's recommended drying period has elapsed

Priming before fixing

General Apply one coat of wood primer (2 coats to end grain) to the back of the following before fixing in position

- External fascia boards
- Timber door and window frames
- Bottoms of external doors
- Associated trims and glazing beads
- Timber board cladding

Spraying

General If the paint application is by spraying, use conventional or airless equipment which does the following

- Satisfactorily atomises the paint being applied
- Does not require the paint to be thinned beyond the maximum amount recommended by the manufacturer
- Does not introduce oil, water or other contaminants into the applied paint

Paint with known health hazards Not permitted on site

Sanding

Clear finishes Sand the sealer using the finest possible abrasive (no coarser than 320 grit) and avoid cutting through the colour Take special care with round surfaces and edges

Repair of galvanizing

General For galvanized surfaces which have been subsequently welded, or which have been welded, prime the affected area

Primer Organic zinc rich coating for the protection of steel to AS/NZS 3750 9 Type 2

Tinting

General Tint each coat of an opaque coating system so that each has a noticeably different tint from the preceding coat, except for top coats in systems with more than one top coat

Services

General If not embedded, paint new services and equipment, except chromium, anodised aluminium, GRP, UPVC, stainless steel, non-metallic flexible materials and normally lubricated machined surfaces Repaint proprietary items only if damaged

3.3 PAINT SYSTEMS**Paint system description**

Generally The paint system is referred to by its final coat

Primers and undercoats Provide primers and undercoats recommended by the manufacturer of the selected final coat as suitable for the substrate and the final coat

Number of coats Unless specified as one or two coat systems, each paint system consists of at least 3 coats

Selection Provide paint systems that conforms to the **Paint final coat table**

Paint final coat table

Final coat	Applicable Australian Standard
Interior	
Flat latex	AS 3730 1
Floor varnish – moisture cured	AS 3730 27
Floor varnish – two pack isocyanate cured	AS 3730 27
Low gloss latex	AS 3730 3
Semi gloss latex	AS 3730 2
Gloss latex	AS 3730 12
Exterior	
Full gloss solvent-borne	AS 3730 6
Flat latex	AS 3730 7
Low gloss latex	AS 3730 8
Gloss latex	AS 3730 10
Stain, lightly pigmented	AS 3730 28
Latex stain, opaque	AS 3730 16
Semi gloss latex	AS 3730 9
Paving	
Paving paint, semi gloss	AS 3730 29
Paving paint, gloss	AS 3730 29

3.4 EXTENT OF WORK

Allow to paint

- whole ceiling of Ground Floor Common Room
- whole ceiling of Ground Floor kitchen
- new plasterboard bulkheads
- new mdf pelmets
- any exposed sprinkler pipework (including basement car park)
- repairs to plasterboard ceilings

- repairs to rendered wall and columns

All painted surfaces to match existing to the satisfaction of the architect

HYDRAULIC DESIGN AND INSTALL

Refer to Hydraulic Engineers Documentation

11 CONCRETE WATER STORAGE TANKS

Provide two 160,000 litre concrete storage tanks underground as shown on the Drawings, supplied and installed by an approved supplier

The tanks are to be equal to Economy Tanks (Contact Bert Slager 1800 227 466)

The tank supplier will design and install the tanks including

- concrete base slabs
- concrete walls
- concrete top, with supports as designed by the tank supplier

The Contractor is to excavate as required and provide the required foundation for the tanks, compacted to the tank supplier's requirements

-sand subgrade generally 150mm compacted to a Density Index of at least 80%

-base layer 300mm thick, comprised of "structural fill" with PI<12%, Fines Content <20% and CBR should achieve >30% Supplier to supply samples to NATA accredited testing laboratory for approval prior to placement Compacted Base shall be density tested Compact to a ratio of at least 98% of the Modified Maximum Dry Density

Upon completion, the Contractor is to backfill as specified under Earthworks

The access hatches for the tanks, together with the masonry upstands, are to be constructed by the Contractor subsequent to the tank installation by the tank installer Provide reinforced concrete upstands and galvanised steel checkerplate hatch covers as indicated on the Drawings Provide a keyhole access slot for removal of the checkerplate covers

The upstands shall be waterproofed with an approved waterproofing membrane, including the joints with the tank top, and extending a distance of 600mm around the upstand

Provide for, and seal, all penetrations for pipework

ELECTRICAL DESIGN AND INSTALL

Refer to Electrical Engineers Documentation

SCHEDULE OF TENDER DOCUMENTS

- This Architectural Specification, pages 1 – 37

- Architectural Drawings by Maitland & Butler Pty Ltd, Architects
 - WES93-C01D
 - WES93-C02D
 - WES93-C03D
 - WES93-C04D
 - WES93-C05D
 - WES93-C06D
 - WES93-C07D
 - WES93-C08D
 - WES93-C09D

- Sprinkler Documents by Niven Donnelly & Partners Pty Ltd

- Structural Documents by Ashby Doble Pty Ltd

- Hydraulic and Electrical Documents by Niven Donnelly & Partners Pty Ltd

REFERENCED DOCUMENTS

AS/CA S008	2010	Requirements for authorised cabling products
AS/ACIF S009	2006	Installation Requirements for Customer Cabling (Wiring Rules)
AS/NZS 1080		Timber - Methods of test
AS/NZS 1080 1	2012	Moisture content
AS/NAS 1163	2009	Structural steel hollow sections
AS/NZS 1170		Structural design actions
AS/NZS 1170 1	2002	Permanent, imposed and other actions
AS 1214	1983	Hot-dip galvanized coatings on threaded fasteners (ISO metric coarse thread series)
AS 1231	2000	Aluminium and aluminium alloys – Anodic oxidation coatings
AS 1288	2006	Glass in buildings – Selection and installation
AS 1289	2009	Methods of testing soils for engineering purposes
AS 1289 5 1 1	2003	Soil compaction and density tests- Determination of dry density/moisture content relation of a soil using standard compactive effort
AS 1289 5 2 1	2003	Soil compaction and density tests - Determination of the dry density/moisture content relation of a soil using modified compactive effort
AS 1289 5 4 1	2007	Soil compaction and density tests - Compaction control test - Dry density ratio, moisture variation and moisture ratio
AS 1289 5 6 1	1998	Soil compaction and density tests - Compaction control test - Density index method for a cohesionless material
AS 1324		Air filters for use in general ventilation and airconditioning
AS 1324 2	2003	Methods of test
AS 1366		Rigid cellular plastics sheets for thermal insulation
AS 1366 1	1992	Rigid cellular polyurethane (RC/PUR)
AS 1366 2	1992	Rigid cellular polyisocyanurate (RC/PIR)
AS 1366 3	1992	Rigid cellular polystyrene – Moulded (RC/PS – M)
AS 1366 4	1989	Rigid cellular polystyrene – Extruded (RC/PS-E)
AS/NZS 1367	2007	Coaxial cable systems for the distribution of analogue television and sound signals in single and multiple unit installations
AS 1379	2007	Specification and supply of concrete
AS 1397	2011	Continuous hot-dip metallic coated steel sheet and strip - Coatings of zinc and zinc alloyed with aluminum and magnesium
AS 1478		Chemical admixtures for concrete, mortar and grout
AS 1478 1	2000	Admixtures for concrete
AS/NZS 1546		On-site domestic wastewater treatment units
AS/NZS 1546 1	2008	Septic tanks
AS/NZS 1546 2	2008	Waterless composting toilets
AS/NZS 1546 3	2008	Aerated wastewater treatment units
AS/NZS 1547	2012	On-site domestic wastewater management
AS 1562		Design and installation of sheet roof and wall cladding
AS 1562 1	1992	Metal
AS 1562 3	2006	Plastic
AS/NZS 1571	1995	Copper – Seamless tubes for airconditioning and refrigeration
AS 1604	Various	Specification for preservative treatment
AS 1627	Various	Metal finishing - Preparation and pretreatment of surfaces
AS 1627 1	2003	Removal of oil, grease and related contamination
AS 1657	1992	Fixed platforms, walkways, stairways and ladders - Design, construction and installation
AS 1668		The use of mechanical ventilation and air-conditioning in buildings
AS/NZS 1668 1	1998	Fire and smoke control in multi-compartment buildings
AS 1668 2	2012	Mechanical ventilation in buildings
AS 1672		Limes and limestones
AS 1672 1	1997	Limes for building
AS/NZS 1677		Refrigerating systems
AS/NZS 1677 2	1998	Safety requirements for fixed applications
AS 1684		Residential timber-framed construction
AS 1684 2	2010	Non-cyclonic areas
AS 1684 3	2010	Cyclonic areas
AS 1684 4	2010	Simplified – Non-cyclonic areas
AS 1720		Timber structures
AS 1720 1	2010	Design methods
AS 1810	1995	Timber - Seasoned cypress pine - Milled products
AS/NZS 1859		Reconstituted wood-based panels – Specifications
AS/NZS 1859 1	2004	Particleboard
AS/NZS 1859 2	2004	Dry-processed fibreboard
AS/NZS 1859 3	2005	Decorative overlaid wood panels
AS/NZS 1859 4	2004	Wet-processed fibreboard
AS/NZS 1860		Particleboard flooring
AS/NZS 1860 1	2002	Specifications
AS 1860 2	2006	Installation
AS 1866	1997	Aluminium and aluminium alloys - Extruded rod, bar, solid and hollow shapes
AS 1884	2012	Floor coverings – Resilient sheet and tiles – Installation practices
AS 1926		Swimming pool safety

AS 1926 1	2012	Safety barriers for swimming pools
AS 1926 2	2007	Location of Safety barriers for private swimming pools
AS 2047	1999	Windows in buildings – Selection and installation
AS 2049	2002	Roof tiles
AS 2050	2002	Installation of roofing tiles
AS 2070	1999	Plastics materials for food contact use
AS 2082	2007	Timber - Hardwood - Visually stress-graded for structural purposes
AS/NZS 2098		Methods of test for veneer and plywood
AS/NZS 2098 1	2006	Moisture content of veneer and plywood
AS/NZS 2098 11	2005	Determination of formaldehyde emissions for plywood
AS/NZS 2179		Specifications for rainwater goods, accessories and fasteners
AS/NZS 2179 1	1994	Metal shape or sheet rainwater goods, and metal accessories and fasteners
AS/NZS 2201		Intruder alarm systems
AS/NZS 2201 1	2007	Client's premises - Design, installation commissioning and maintenance
AS/NZS 2208	1996	Safety glazing materials in buildings
AS/NZS 2269		Plywood – Structural
AS/NZS 2269 0	2012	Specifications
AS/NZS 2270	2006	Plywood and blockboard for interior use
AS/NZS 2271	2004	Plywood and blockboard for exterior use
AS/NZS 2311	2009	Guide to the painting of buildings
AS/NZS 2312	2002	Guide to the protection of structural steel against atmospheric corrosion by the use of protective coatings
AS 2327		Composite structures
AS 2327 1	2003	Simply supported beams
AS 2358	1990	Adhesives – For fixing ceramic tiles
AS 2427	2004	Smoke/heat release vents
AS/NZS 2455		Textile floor coverings – Installation practice
AS/NZS 2455 1	2007	General
AS/NZS 2588	1998	Gypsum plasterboard
AS/NZS 2589	2007	Gypsum linings – Application and finishing
AS 2601	2001	The demolition of structures
AS 2663		Textiles – Fabrics for window furnishings
AS 2663 1	1997	Uncoated fabrics
AS 2663 2	1999	Coated curtain fabrics
AS 2665	2001	Smoke/heat venting systems – Design installation and commissioning
AS/NZS 2699		Built in components for masonry construction
AS/NZS 2699 1	2000	Wall ties
AS/NZS 2699 3	2002	Lintels and shelf angles (durability requirements)
AS/NZS 2712	2007	Solar and heat pump water heaters - Design and construction
AS/NZS 2728	2007	Prefinished/prepainted sheet metal products for interior/exterior building applications – Performance requirements
AS 2754	2008	Adhesives for timber and timber products
AS 2754 1(Int)	2008	Adhesives for manufacture of plywood and laminated veneer lumber (LVL)
AS 2796		Timber – Hardwood – Sawn and milled products
AS 2796 1	1999	Product specification
AS 2796 2	2006	Grade description
AS 2796 3	1999	Timber for furniture components
AS 2858	2008	Timber - Softwood – Visually stress - graded for structural purposes
AS 2870	2011	Residential slabs and footings
AS 2876	2000	Concrete kerbs and channels (gutters) - Manually or machine placed
AS/NZS 2904	1995	Damp-proof courses and flashings
AS/NZS 2908		Cellulose-cement products
AS/NZS 2908 2	2000	Flat sheets
AS/NZS 2918	2001	Domestic solid fuel burning appliances – Installation
AS/NZS 2924		High pressure decorative laminates – Sheets made from thermosetting resins
AS/NZS 2924 1	1998	Classification and specifications
AS/NZS 3000	2007	Wiring rules
AS/NZS 3008		Electrical installations – Selection of cables
AS/NZS 3008 1 1	2009	Cables for alternating voltages up to and including 0.6/1 kV – Typical Australian installation conditions
AS/NZS 3017	2007	Electrical installations – Testing and inspection guidelines
AS/NZS 3080	2003	Telecommunications installations - Generic cabling for commercial premises (ISO/IEC 11801 2002, MOD)
AS 3439		Low-voltage switchgear and controlgear
AS 3439 3	2002	Particular requirements for low-voltage switchgear and controlgear assemblies intended to be installed in places where unskilled persons have access for their use – Distribution
AS/NZS 3500		Plumbing and Drainage
AS/NZS 3500 1	2003	Water services
AS/NZS 3500 2	2003	Sanitary plumbing and drainage
AS/NZS 3500 3	2003	Stormwater drainage
AS/NZS 3500 4	2003	Heated water services
AS/NZS 3500 5	2012	Domestic installations
AS 3566		Self-drilling screws for the building and construction industries

AS 3566 2	2002	Corrosion resistance requirements
AS 3600	2009	Concrete structures
AS 3610	1995	Formwork for concrete
AS 3610 1	2010	Documentation and surface finish
AS 3660		Termite management
AS 3660 1	2000	New buildings
AS/NZS 3666		Air-handling and water systems of buildings – Microbial control
AS/NZS 3666 1	2011	Design, installation and commissioning
AS 3705	2003	Geotextiles - Identification, marking and general data
AS 3715	2002	Metal finishing – Thermoset powder coatings for architectural applications of aluminium and aluminium alloys
AS 3727	1993	Guide to residential pavements
AS 3730		Guide to the properties of paints for buildings
AS 3730 1	2006	Latex - Interior - Flat
AS 3730 2	2006	Latex - Interior - Semi-gloss
AS 3730 3	2006	Latex - Interior - Low-gloss
AS 3730 6	2006	Solvent-borne - Exterior - Full gloss enamel
AS 3730 7	2006	Latex - Exterior - Flat
AS 3730 8	2006	Latex - Exterior - Low-gloss
AS 3730 9	2006	Latex - Exterior - Semi-gloss
AS 3730 10	2006	Latex - Exterior - Gloss
AS 3730 12	2006	Latex - Interior - Gloss
AS 3730 16	2006	Latex - Timber finish - Exterior
AS 3730 27	2006	Floor varnish - Two pack - Isocyanate cured
AS 3730 28	2006	Wood stain - Solvent-borne - Exterior
AS 3730 29	2006	Solvent-borne - Exterior/interior - Paving paint
AS 3740	2010	Waterproofing of domestic wet areas
AS 3743	2003	Potting mixes
AS/NZS 3750		Paints for steel structures
AS/NZS 3750 9	2009	Organic zinc-rich primer
AS 3798	2007	Guidelines on earthworks for commercial and residential developments
AS 3799	1998	Liquid membrane-forming curing compounds for concrete
AS 3818		Timber - Heavy structural products - Visually graded
AS 3818 2	2010	Railway track timbers
AS/NZS 3823		Performance of electrical appliances – Airconditioners and heat pumps
AS/NZS 3823 1 1	2012	Non-ducted airconditioners and heat pumps – Testing and rating for performance
AS/NZS 3823 1 2	2012	Test methods – Ducted airconditioners and air-to-air heat pumps – Testing and rating for performance
AS/NZS 3823 2	2011	Energy labelling and minimum energy performance standard (MEPS) requirements
AS 3958		Ceramic tiles
AS 3958 1	2007	Guide to the installation of ceramic tiles
AS 3959	2009	Construction of buildings in bushfire prone areas
AS 3972	2010	General purpose and blended cements
AS 3999	1992	Thermal insulation of dwellings – Bulk insulation – Installation requirements
AS/NZS 4200		Pliable building materials and underlays
AS/NZS 4200 1	1994	Materials
AS/NZS 4200 2	1994	Installation requirements
AS 4254	2002	Ductwork for air-handling systems in buildings
AS 4254 1	2012	Flexible duct
AS 4254 2	2012	Rigid duct
AS 4256		Plastic roof and wall cladding materials
AS 4256 2	2006	Unplasticized polyvinyl chloride (uPVC) building sheets
AS 4256 3	2006	Glass fibre reinforced polyester (GRP)
AS 4256 4	2006	Unplasticized polyvinyl chloride (uPVC) wall cladding boards
AS 4256 5	2006	Polycarbonate
AS/NZS 4266		Reconstituted wood-based panels - Methods of test
AS/NZS 4266 16	2004	Formaldehyde emission - Dessicator method
AS 4285	2007	Skylights
AS 4288	2003	Soft underlays for textile floor coverings
AS/NZS 4386		Domestic kitchen assemblies
AS/NZS 4386 1	1996	Kitchen units
AS 4419	2003	Soils for landscaping and garden use
AS 4440	2004	Installation of nailplated timber trusses
AS 4454	2012	Composts, soil conditioners and mulches
AS/NZS 4455		Masonry units, pavers, flags and segmental retaining wall units
AS/NZS 4455 1	2008	Masonry units
AS/NZS 4455 2	2010	Pavers and flags
AS/NZS 4455 3	2008	Segmental retaining wall units
AS/NZS 4505	2012	Garage doors and other large access doors
AS 4552	2005	Gas fired water heaters for hot water supply and/or central heating
AS/NZS 4552 2	2010	Minimum energy performance standards for gas water heaters
AS/NZS 4586	2004	Slip resistance classification of new pedestrian surface materials
AS/NZS 4600	2005	Cold-formed steel structures
AS 4654		Waterproofing membrane systems for exterior use- Above ground level

AS 4654 1	2012	Materials
AS 4654 2	2012	Design and installation
AS/NZS 4663	2004	Slip resistance measurement of existing pedestrian surfaces
AS 4667	2000	Quality requirements for cut-to-size and processed glass
AS/NZS 4680	2006	Hot-dip galvanized (zinc) coatings on fabricated ferrous articles
AS/NZS 4692		Electric water heaters
AS/NZS 4692 1	2005	Energy consumption, performance and general requirements
AS/NZS 4692 2	2005	Minimum Energy Performance Standard (MEPS) requirements and energy labelling
AS 4766	2006	Polyethylene storage tanks for water and chemicals
AS 4773		Masonry in small buildings
AS 4773 1	2010	Design
AS 4773 2	2010	Construction
AS/NZS 4782		Double-capped fluorescent lamps – performance specifications
AS/NZS 4782 2	2004	Minimum Energy Performance Standard (MEPS)
AS/NZS 4783		Performance of electrical lighting equipment – Ballasts for fluorescent lamps
AS/NZS 4783 2	2002	Energy labelling and minimum energy performance standards requirements
AS 4785		Timber - Softwood - Sawn and milled products
AS 4785 1	2002	Product specification
AS 4785 2	2002	Grade description
AS 4785 3	2002	Timber for furniture components
AS 4786		Timber flooring
AS 4786 2	2005	Sanding and finishing
AS 4809	2003	Copper pipe and fittings – Installation and commissioning
AS/NZS 4847		Self-ballasted lamps for general lighting services
AS/NZS 4847 2	2010	Minimum Energy Performance Standards (MEPS) requirements
AS/NZS 4858	2004	Wet area membranes
AS/NZS 4859		Materials for the thermal insulation of buildings
AS/NZS 4859 1	2002	General criteria and technical provisions
AS/NZS 4934		Incandescent lamps for general lighting service - Test methods
AS 4934 2	2011	Minimum Energy Performance Standards (MEPS) requirements
AS 4970	2009	Protection of trees on development sites
AS 5039	2008	Security screen doors and security window grilles
AS 5040	2003	Installation of security screen doors and window grilles
AS 5067	2003	Timber - Non-structural glued laminated - Performance and production requirements
AS/NZS 5601		Gas installation
AS/NZS 5601 1	2010	General installations
AS 5604	2005	Timber – Natural durability ratings
AS 6002	1999	Domestic electric meter enclosures
AS 6669	2007	Plywood – Formwork
AS ISO 13006	2013	Ceramic tiles - Definitions, classification, characteristics and marking (ISO 13006 1998)
AS ISO 13007		Ceramic tiles
AS ISO 13007 1	2013	Grouts and adhesives - Terms, definitions and specifications for adhesives
AS/NZS ISO/IEC 15018	2005	Information technology - Generic cabling for homes
AS/NZS 60598		Luminaires
AS/NZS 60598 1	2003	General requirements and tests
ATS 5200		Technical specification for plumbing and drainage products
ATS 5200 460	2005	Grey water diversion device (GWDD)
SAA HB 29	2007	Communications Cabling Manual, Module 2 Communications Cabling Handbook
SAA HB 40		The Australian Refrigeration and Air Conditioning Code of Good Practice
SAA HB 40 1	2001	Reduction of emissions of fluorocarbon refrigerants in commercial and industrial refrigeration and airconditioning applications
SAA HB 40 2	2001	Reduction of Emissions of Fluorocarbons in Residential Airconditioning Applications
SAA HB 230	2008	Rainwater tank design and installation handbook
SAA HB 252	2007	Communications Cabling Manual, Module 3 Residential communications cabling handbook
SAA HB 276	2004	A guide to good practice for energy efficient installation of residential heating cooling & air conditioning plant & equipment
SAA HB 301	2001	Electrical installations - designing to the Wiring Rules
SAA HB 326	2008	Urban greywater installation handbook for single households
AIRAH DA09	1998	Load estimation and psychrometrics
ASTM C534	2011	Standard Specification for Preformed Flexible Elastomeric Cellular Thermal Insulation in Sheet and Tubular Form
BCA 3 1 3 2(b)		Acceptable construction – Site preparation – Termite risk management – Installation of termite barriers
BCA 3 2 2		Acceptable construction – Footings and slabs - Preparation
BCA 3 2 4		Acceptable construction - Site classification
BCA 3 4 2 2		Acceptable construction – Framing – Steel framing – General
BCA Table 3 5 1 1a		Acceptable corrosion protection for sheet roofing
BCA 3 8 1 2		Acceptable construction - Health and amenity - Wet areas
BCA 3 9 1		Acceptable construction - Safe movement and access - Stair construction - General requirements
NASH 1	2005	Residential and low-rise steel framing Part 1 Design criteria
FWPA PN 1039	2008	Interim industry standard recycled timber – visually graded recycled decorative products

ADDENDUM A – FIRE SPRINKLER DOCUMENTS
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ADDENDUM B – STRUCTURAL DOCUMENTS
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ADDENDUM C – HYDRAULIC DOCUMENTS

ADDENDUM D – ELECTRICAL DOCUMENTS
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ADDENDUM E – GEOTECHNICAL REPORT

ADDENDUM F – DEVELOPMENT APPROVAL

ADDENDUM G – DOOR SCHEDULE

Refer Drawing No WES93-C09D