

**PROPOSED NEW STABLES  
COMPLEX  
At PENRITH PACEWAY  
LOT 9 DP 1176987,  
127 – 141 STATION STREET,  
PENRITH NSW  
FOR  
HARNES RACING NSW**



**Ref:13047 - SPa**

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**DOCUMENT 00200 INFORMATION FOR TENDERERS****1. The Project**

The project consists of the construction of a 2 storey 20 room extension to the existing 2 storey motel and a single storey Breakfast Room extension in the tender documents. Demolition of 2 cottages and construction of new driveway and car park.

**2. The Contract**

Fixed lump sum not subject to rise and fall .

**3. List of Conditions of Contract**

AS 2124 1992                      General conditions of contract.

**Contract details**

Particular provisions applicable to the proposed contract include the following:

General conditions of contract:

Type:	AS 2124
Cost adjustment:	The work is not subject to cost adjustment for labour and materials.
Separable parts:	The work is not divided into separable parts.
Contract period:	To be determined.
Liquidated damages:	\$ 1000.00 per day limited to 5% of the contract sum.
Retention Sum	5 % of contract sum with 2.5 % refunded on completion. 2.5% will be retained for the 12 month maintenance period.

**FURTHER INFORMATION****4. Tenders**

The proprietor reserves the right to reject the lowest or any tender or an otherwise conforming tender. Preference will be given to tenders with a brief construction period. Comply with AS 4120 1994 Code of tendering.

**5. Tender Documents**

Available without fee from the Superintendent. Further copies will be made available if required at \$200 per set.

**6. Alternative Proposals**

Submit tenders in accordance with the tender documents.  
No alternatives will be considered.  
Alternatives may be considered.

**7. Permission to Visit the Site**

Tenderers may visit the site by appointment only, arranged with the Superintendent. Refer Clause 9.

**8. Schedule**

Submit a statement of the number of working days required from start to finish date of the contract with proprietor occupancy date noted.

**9. Tender Enquiries**

All enquiries during the tender period should be directed to:

**10. Consultants**

For this project, the proprietor has appointed the following consultants:  
Comply with AS 4122-2000 General conditions of contract for engagement of consultants.

DOCUMENT 00200 INFORMATION FOR TENDERERS

Building Designer &  
Superintendent  
McKinnon Design

Name of Contact  
Craig McKinnon

Tel: (02) 6363 1780  
Fax: (02) 6362 8257  
Mobile: 0418 634 555  
Email [craig@mckinnondesign.com.au](mailto:craig@mckinnondesign.com.au)  
address:

Structural Engineer  
Cook Roe

Name of Contact  
Wayne Roe

Tel: (02) 6360 2561  
Fax: (02) 6360 2907  
Mobile: 0421 466 382  
Email [wroe@cookroe.com.au](mailto:wroe@cookroe.com.au)  
address:

Civil Engineer  
Heath Consulting Engineers

Name of Contact  
Roger Heath

Tel: (02) 6360 0755  
Fax: (02) 63600766  
Mobile: 0419 462228  
Email [roger@heathce.com](mailto:roger@heathce.com)  
address:

**END OF DOCUMENT**

**DOCUMENT 00210 GENERAL CONDITIONS OF TENDERING**

- 1. Tender Form**  
Refer document 00300 "TENDER FORM"
- 2. Tender Documents**  
The tender documents include the "The Conditions" or "the Agreement" or "General Conditions of Contract", tender form, specification, drawings, schedules and any other documents issued by the Superintendent for the purpose of tendering (available at point of issue of documents). Explanations or amendments to the tender documents will not be recognised unless in the form of written addendum issued by the Superintendent.
- 3. Tenderer to Inform Himself and Subcontractors**  
The tenderer is deemed to have :
  - A. Examined the tender documents, the site and its surroundings and other information made available.
  - B. Examined information relevant to the risks, contingencies, and other circumstances having an effect on his tender and which is obtainable by the making of enquiries.
  - C. Satisfied himself as to the correctness and sufficiency of his tender and that his tender covers the cost of complying with the obligations of the tender documents.
  - D. Advised suppliers and subcontractors of the requirements of the preliminary and trade sections of the specifications.
- 4. Discrepancies, Errors and Omissions in Tender Documents**  
If a tenderer finds any discrepancy, error or omission in the tender documents, notify the Superintendent, in writing, 5 days before the date and time for closing of tenders.
- 5. Submission of Tender**
  - A. Submit tender only on the tender form provided, document 00300.
  - B. Include an address for service of notices for the purpose of this tender and subsequent contact.
  - C. Sign the tender form, or if the tenderer is a corporation or company sign the tender with company seal.
  - D. The tender is to cover all of the work described in the tender documents.
  - E. Do not alter or add to tender documents except as required by these General Conditions of Tendering.
- 6. Lodgement of Tenders**
  - A. Lodge tender in a sealed envelope marked with the name of the project, lodge in the tender box at, or sent by prepaid post to, the Young Services Club office, Attn: Dean Cafe by the date and time for closing of tenders. See below.
  - B. Notwithstanding sub-clause A, fax, telegraphic or telexed tenders received by the date and time for closing of tenders may be admitted for consideration subject to the concurrent submission of a written tender. Oral tenders will not be received.
  - C. **Tenders close Friday 19<sup>th</sup> December 2014 at 4.00pm.**
- 7. Informal Tenders (Non-conforming Tenders)**  
Tenders which do not comply with the requirements of, or which contain provisions not required or allowed by the tender documents, will be declared informal.
- 8. Trade Names**  
Trade or proprietary names, brands, catalogue or reference numbers are specified in the tender documents. A successful tenderer may offer material or equipment of similar characteristics or type, quality, appearance, finish, method or construction and performance, after the Letter of Acceptance of tender has been issued.
- 9. Customs Duties**  
In the tender, all for customs duty and other similar charges applicable to imported materials, plant and equipment required for work described in the tender documents.
- 10. Pre requisites to Acceptance**
  - A. Notwithstanding other requirements of the tender documents, the proprietor or Superintendent may require a tenderer to submit additional information to allow further consideration of his tender.
  - B. Should the tenderer fail to submit the information so required by the date and time stipulated by the proprietor or Superintendent the tender may be treated as informal.

**11. Acceptance of Tender**

A tender will not be deemed to have been accepted unless and until a Letter of Acceptance is handed to the tenderer or is sent by prepaid post to, or is left at, the address stated in the tender form for service of notices.

**END OF DOCUMENT**

**DOCUMENT 00230 EXISTING CONDITIONS AT SITE**

The site is currently occupied by existing stabling and tie-ups that are to be demolished as described in the documents. The contractor is to allow to demolish and clear any existing structures as required in preparation for the planned works. The builder is to also allow to install a construction fence around the proposed building site.

**END OF DOCUMENT**

COMPLETE IN FULL AND LODGE WITH SUPERINTENDENT

I/We \_\_\_\_\_ (tenderer's name)

Licence no. \_\_\_\_\_ Registration no. \_\_\_\_\_

of \_\_\_\_\_ (address)

hereby tender(s) to perform the work for (proprietor name):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

in accordance with the following documents and specifications:

(add extra pages if needed)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

For the lump sum of:

\_\_\_\_\_  
\_\_\_\_\_

Schedule of working days. The number of working days required from date of Letter of Acceptance to complete the work is

\_\_\_\_\_ working days.

Signed by \_\_\_\_\_ (Company Directors)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Date this \_\_\_\_\_ (day) \_\_\_\_\_ (month) 20 \_\_\_\_\_

COMPANY SEAL



**DOCUMENT 00500 INSTRUMENT OF AGREEMENT**

(ADAPTED FROM AS 2127-1992)

AGREEMENT made \_\_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_\_

BETWEEN \_\_\_\_\_  
\_\_\_\_\_ (the contractor)

AND \_\_\_\_\_  
\_\_\_\_\_ (the principal/proprietor)

IT IS AGREED that the annexed documents listed below:

Tender,  
dated \_\_\_\_\_

Letter of acceptance,  
dated \_\_\_\_\_

General Conditions of Contract and Annexure.

(Agreement signed and all pages initialled by parties).

Documents and  
specification \_\_\_\_\_

Drawing no.s:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Other documents:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(Use extra sheets if necessary to list all documents and drawings)

together comprise the contract between the parties AND if the contractor or the principal is two or more persons then they will be regarded as being bound jointly and severally.

Signed by the contractor

\_\_\_\_\_  
COMPANY SEAL

Signed by the principal

\_\_\_\_\_  
COMPANY SEAL

**DOCUMENT 00610 PERFORMANCE BOND**

**APPROVED FORM OF UNCONDITIONAL UNDERTAKING**

(ADAPTED FROM AS 2124 - 1992)

At the request of \_\_\_\_\_ (the contractor)  
and in consideration of \_\_\_\_\_ (the principal, proprietor, owner)  
accepting this undertaking in respect of the contract for  
(name of project ) \_\_\_\_\_

\_\_\_\_\_ (name of the "financial institution")

unconditionally undertakes to pay on demand any sum or sums which may from time to time be demanded by  
the principal to a maximum aggregate sum of

\$ \_\_\_\_\_ ( \_\_\_\_\_ )

The undertaking is to continue until notification has been received from the principal that the sum is no longer  
required by the principal or until this undertaking is returned to the financial institution or until payment to the  
principal by the financial institution of the whole of the sum or such part as the principal may require.

Should the financial institution be notified in writing, purporting to be signed by

\_\_\_\_\_ for and on behalf of the principal that the principal desires payment to be made of the whole or any part or parts  
of the sum, it is unconditionally agreed that the financial institution will make the payment or payments to the  
principal forthwith without reference to the contractor and notwithstanding any notice given by the contractor not  
to pay same.

Provided always that the financial institution may at any time without being required so to do pay to the principal  
the sum of

\$ \_\_\_\_\_ ( \_\_\_\_\_ )

less any amount or amounts it may previously have paid under this undertaking or such lesser sum as may be  
required and specified by the principal and thereupon the liability of the financial institution hereunder will  
immediately cease.

DATED at \_\_\_\_\_ this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

**DOCUMENT 00650 CERTIFICATES OF INSURANCE**

Submit each certificate to the principal via the Superintendent *before commencement of work.*

1. COST OF DEMOLITION AND REMOVAL OF RUBBISH.
2. RESTORATION OF EXISTING OR BUILT STRUCTURES.
3. PERCENTAGE TO COVER FEES OF CONSULTANTS.
4. PERCENTAGE TO COVER ESCALATION COSTS.
5. PUBLIC LIABILITY INSURANCE.
6. WORKERS COMPENSATION AND EMPLOYER'S LIABILITY.

**END OF DOCUMENT**

**DOCUMENT 00800 SUPPLEMENTARY CONDITIONS OF CONTRACT**

- 1. Information to Subcontractors, Suppliers and Installers**

Advise subcontractors and suppliers and installers of material of the requirements of these Supplementary Conditions of Contract.
- 2. Amount of Security (Performance Bond)**

See Annexure or appendix to General Conditions of Contract. Refer document 00610.
- 3. Interpretation of Drawings**

Check dimensions on site before proceeding with the work of the contract. Notify Superintendent of omission or conflict in drawings and their relation to specifications.
- 4. Construction Progress Bar Graph**

Within FOURTEEN (14) calendar days after the date of Letter of Acceptance of tender, submit to the Superintendent a detailed chart of the plan of progress, in Bar Graph form. For each item of work provide graph showing planned progress with planned monthly quantities and with space or other provision for entering actual progress. The Superintendent may require the builder to provide an amended bar graph within SEVEN (7) days of being requested to do so. Submit bar-graph at monthly intervals showing actual progress.
- 5. Subcontractors and Suppliers**

Within SEVEN (7) days of receipt of the Letter of Acceptance, supply to the Superintendent a complete list of subcontractors and suppliers proposed for the Works. The proprietor, through the Superintendent, reserves the right to reject any so listed.
- 6. Indemnity of Proprietor**
  - A. Indemnify, and keep indemnified the proprietor against claim, demand, action, suit or proceeding that may be brought or made against the proprietor by any other person who has entered into a contract with the proprietor to execute work associated with the project.
  - B. Submit evidence of such insurance in respect of loss, damage or expense incurred by that other person by reason of an act, default or neglect of the builder in the performance of his obligations under the contract or arising out of or as a consequence of delay by the builder in executing or failing to complete work under the contract and also from costs and expenses that may be incurred by that other person in connection with such claim, demand, action, suit or proceeding.
  - C. Do not proceed with work under the contract until evidence of Indemnities and Insurances required herein, is submitted in writing to the Superintendent.
- 7. Approvals, Services, Fees and Tax**
  - A. The following documents have been submitted by the proprietor, via the Superintendent and fees paid for:
    - Planning permit and/or D.A.
    - Building Approval
    - Fire report and/or approval
  - B. Be responsible for the connection of services, water, sewerage, drainage, electricity and gas etc. Apply for such permits, pay for fees and charges levied by relevant bodies for such connections. Issue necessary notices to such bodies. Obtain and pay for scaffolding permit. In later trade sections where permits are required to be issued by local authorities a note to this effect is provided for the subcontractor: "Apply for permits and pay required fees and charges to responsible authorities. Provide permits and approval certificates to builder".
  - C. Pay Tax on items where such tax is applicable. If Tax is not applicable, request from the proprietor, via the Superintendent, a Tax exemption certificate for use when ordering specified materials.
  - D. Pay fees, where applicable, relating to "Workplace Health and Safety" Acts and other state or local government acts.
- 8. Site Control**
  - A. Be responsible for activities on the site including providing access for authorised persons and restricting access by unauthorised persons. Take necessary precautions to secure the assets of the proprietor.

- B. Except as otherwise provided in the contract, delivery of materials for the works, space for storage of same and for building sheds, office and workshops will be allowed only as directed by the builder.
- C. Do not store waste building materials and flammable liquids in the building.
- D. Take proper precautions to keep poisons and other injurious substances in places secured against access by unauthorised persons.

**9. Compliance with Ordinances, etc.**

Whenever work or type of plant or machinery, etc. is required either by the specification or by the relevant statutory authority, provide full details of such work, plant, etc. to the relevant statutory authority and make such applications, etc. as may be required within 2 weeks of receipt of Letter of Acceptance. In such cases, approval given by the Superintendent to data submitted by the builder will not necessarily imply that such data meet the requirements of the relevant statutory authority.

**10. Site Amenities and Meetings**

- A. Provide statutory and necessary amenities and sanitary facilities for site workers where such are not already available in suitable locations. Maintain in working condition and clean daily. Comply with union requirements.
- B. Provide accommodation on the site of sufficient size to hold regular site meetings of building foreman, Superintendent and consultants (assume total of twelve people), with table and chairs, lighting and heating.
- C. Arrange for site meetings to occur at regular intervals throughout the contract period. Advise Superintendent and consultants of meeting times, keep accurate records of each meeting, and issue to each Attendee a copy of the record within 3 days of each meeting.

**11. Temporary Fire Extinguishers**

Maintain fully charged, and accessible fire extinguishers as are necessary for the care and safety of the Works, as required by local Fire Authority.

**12. Telephone and Fax**

Provide either a mobile telephone or a telephone service and pay costs of installation, rental, calls and removal.  
Provide fax machine under similar conditions.

**13. Light and Power**

Provide temporary electric light and power supply during construction and pay charges connected therewith. Provide sufficient of each as required for execution of work specified.

**14. Water**

Provide and maintain a temporary water supply sufficient for executing the work under the contract. Disconnect and clear away same on completion and pay costs and charges in connection therewith. Provide tapping of main supply if required.

**15. Project Identification Sign**

Provide and erect a project identification sign in accordance with the drawing supplied by the Superintendent and amendment thereto and erect same on the site as directed and maintain same in good condition throughout the currency of the contract. The sign will remain the property of the builder. Remove same from the site on completion of the Works.

**16. Commencement of Work**

Notwithstanding that possession of the site has been given to the builder, the builder will not be permitted to commence work on the site until he has provided :

- A. Security required by the Conditions of Contract, as stated in the Annexure to the Conditions of Contract. Refer document 00200, Item 11 Annexure and 00610 Performance Bond.
- B. Insurances : refer Clause 6 above and DOCUMENT 00650 CERTIFICATE OF INSURANCE.

**17. Adjacent Premises**

Ensure that the work is carried out without damage to and with a minimum of nuisance or annoyance to the occupants of adjacent premises.  
Provide a thorough photographic record of surfaces of existing buildings adjacent to the site.

**18. General Attendance on Subcontractors**

General attendance will include taking delivery, assisting to unload, storing and protecting subcontractor's materials and for allowing subcontractors ample working space, free use of water, electricity (unless otherwise described), scaffolding, hoists and ordinary plant, etc., and messing and sanitary accommodation and for cutting away, building in and protecting finished work and making good.

**19. Precautions in Carrying Out Work Under the Contract**

Unless otherwise specified in the contract, observe, in the absence of statutory requirement to the contrary, the relevant current Australian Standard published by Standards Australia relating to storage, transport, use of materials, explosives, fire precautions in arc or flame cutting, flame heating and arc or gas welding operations, plant and equipment, work processes and safety precautions.

**20. Joining Up Existing Buildings**

Where the method of joining up of old and new work is not otherwise specified, the cut away and join up in a manner approved by the Superintendent and made good by relevant trades to match existing adjacent work.

**21. Interference with Existing Services**

Notify the Superintendent of connection, disconnection or interference with existing services. Repair, to the satisfaction of the Superintendent, damage which occurs to services during currency of the contract.

**22. Damaged Services**

Where existing services at or adjacent to the site are in non-optimum condition, arrange for an inspection by the Superintendent and the Officer-in-charge of the area responsible for such service. At such meeting, record the condition and follow instructions when issued in writing by the Superintendent.

**23. Solid, Liquid and Gaseous Contaminants**

- A. Be responsible for the proper disposal of solids, liquid and gaseous contaminants.
- B. Discharge gaseous contaminants in such a manner that they will be sufficiently diluted with fresh air that the toxicity will be reduced to an acceptable level.
- C. Subject to statutory and local requirements, liquid contaminant may be diluted with water to a level of quality acceptable in the sewer system or contained in approved vessels for disposal at sites approved by the relevant authority.
- D. Dispose of solid contaminants by removal from the site to locations approved by the relevant authority.

**24. Disposal of Refuse**

Remove refuse from construction operation (including food scraps and the like) from the site at frequent intervals.

**25. Explosive Devices**

Powder powered fixing tools may be used by a licensed operator.

**26. Dimensioning**

Do not scale drawings which are clearly diagrammatic and/or marked 'not to scale' or NTS.

**27. Shop drawings**

Shop drawings mean complete drawings showing details of fabrication, assembly, installation, fixing and waterproofing methods of specific items or components. Include necessary explanatory notes and specifications.

When preparing shop drawings, do the following :

- A. Include provision in construction programme for the production and distribution of shop drawings.
- B. Refer discrepancies discovered in the contract documents to the Superintendent for direction.
- C. Verify relevant dimensions. Dimension drawings so that the items or components fit accurately into the required positions.
- D. Ensure that shop drawings conform with the requirements of the contract.
- E. Produce drawings of consistent standard size and presentation.

- F. Submit 4 initial copies, 1 of each of the following : Specialist subcontractor, builder, Superintendent, relevant consultant. Subcontractor submits 4 and gets 1 back. builder submits 4 and gets 2 back. All parties retain 1 copy. If amendments are required, 1 copy will be marked and returned to the builder for amendments to the original shop drawings. (This process may be repeated until the Superintendent considers that the shop drawings are satisfactory.) Do not fax shop drawings as they are often illegible on receipt.
- G. When the shop drawings are satisfactory, 1 copy will be stamped by the Superintendent. Supply 2 additional copies of the satisfactory shop drawings to the Superintendent. Provide also as required for the builder's site office, manufacturers or subcontractors.
- H. Acceptance of shop drawings implies only that the builder's interpretations of the relevant requirements of the contract are generally correct, but in no way relieve the builder of his obligations under the contract to construct and complete the Works correctly and accurately.
- I. Do not order, manufacture, assemble or supply any item or component needed according to requirements of shop drawings until the Superintendent returns the applicable stamped drawings.

**28. Care of the Works**

- A. Delivery, handling and storage : Deliver, handle and store products in accordance with manufacturer's recommendations and by methods and means which will prevent damage, deterioration, and loss including theft. Control delivery schedules to minimise long-term storage of products at site and over-crowding of construction spaces. In particular, coordinate delivery and/or installation to ensure minimum holding or storage times for products recognised to be flammable, hazardous, easily damaged, or sensitive to deterioration, theft and other sources of loss.
- B. Limiting exposure of work : To the extent possible, through control and protection methods, supervise performance of work in a manner which will ensure that none of the work, whether completed or in progress, will be subjected to harmful, dangerous, or damaging exposures during construction period.
- C. Cleaning and protection of finished work : General : during handling and installation of work as project proceeds, clean site and protect work in progress and adjoining work on a basis of perpetual maintenance. Apply suitable protective covering on newly installed work where required to ensure freedom from damage or deterioration at a time of Practical Completion; otherwise, clean and perform maintenance on newly installed work as frequently as necessary throughout remainder of construction period. Adjust and lubricate operable components to ensure equipment operates as intended.

**29. General Product Compliance**

- A. Provide products which comply with requirements, and which are undamaged and unused at time of installation, and which are complete with accessories, trim, finish and features required by regulation, and other devices and details needed for a complete installation and for intended use and effect.
- B. Standard products: where available, provide standard products of types which have been produced and used previously and successfully on other projects and in similar applications.
- C. Continued availability: where additional amounts of a product, by its application, are likely to be needed by proprietor at a later date for maintenance and repair or replacement work, provide a standard, domestically produced product which is likely to be available to proprietor at such later date.
- D. Manufacturer's recommendations: where installations include manufactured products, comply with manufacturer's current and applicable recommendations for installation, to whatever extent these are more explicit or more stringent than applicable requirements indicated in contract documents. At completion of project, provide to the Superintendent a copy of each set of manufacturer's recommendations which have been used in the work of each trade.
- E. Manufacturer's data sheets: where this specification requires, obtain 2 copies of the current data sheets issued by the manufacturer of specified component. Retain 1 copy for use on site and submit the other to the Superintendent as a record of instructions followed on the site.

**30. Builder's Quality Control**

- A. Inspect each item of materials or equipment immediately prior to installation and reject damaged or defective items.

- B. Provide attachment and connection devices and methods for securing materials properly as they are installed, true to line and level, and within recognised industry tolerances unless otherwise indicated. Allow for expansion and building movements. Provide uniform joint widths in exposed Work, organised for best possible visual effect. Refer questionable visual effect choices to the Superintendent.
- C. Re-check measurements and dimensions of the Work as an integral step before starting each installation.
- D. Install work during conditions of temperature, humidity, exposure and weather which will ensure the best possible results for each part of the work, or component or treatment as necessary to prevent damage and deterioration.
- E. Coordinate enclosure and closing-in of work with required inspections and tests, so as to avoid necessity of uncovering work for that purpose.

**31. Occupational (Workplace) Health and Safety**

Be responsible for the maintenance of a satisfactory safety system on site. Provide evidence to the Superintendent of full compliance with the provisions of the relevant state Health and Safety Act. It is the responsibility of the contractor and subcontractors to use the safety equipment as required by law.

Be aware that the owner, designer, contractor and each party responsible for contributing to the project have a duty of care for compliance with legal requirements for Occupational Health and Safety both during construction and when the building is in use.

The parties should obtain local legal advice regarding relevant State law.

**32. Material/Colour Selections**

- A. The Superintendent/interior designer will prepare a master colour schedule indicating the required colour, finish, pattern, material, texture and other pertinent information in connection with interior and exterior finishes.
- B. Submit colour chips for items having colour unless otherwise directed or approved by Superintendent.
- C. To facilitate the preparation of such a schedule, submit within fifteen days following date of award of contract, unless otherwise extended by the Superintendent, the names and products of those manufacturers whose products are proposed for use within the framework of the specifications wherever colour, finish, pattern, texture and other related information is a consideration.

**33. Miscellaneous Completion Procedures**

- A. Removal of Protection: except as otherwise indicated or requested by Superintendent, remove temporary protection devices and facilities installed during course of the work to protect previously-completed work. Where secured to exposed-to-view new work or existing to remain, remove evidence of protection devices. Remove protection within 5 days before Practical Completion.
- B. Trade Cleaning: as each trade completes its work in each area of the building, the subcontractor is required to be responsible for "broom clean" standard of cleaning in that area.

**34. Final Cleaning**

Final Cleaning: provide final cleaning of the work of this specification, at time indicated, consisting of cleaning each surface of unit of work to normal 'clean' condition expected for a first class building cleaning and maintenance programme.

Examples of required cleaning are :

- A. Remove labels which are not required as permanent labels.
- B. Clean transparent materials, including mirrors and window/door glass, to a polished condition, removing substances which are noticeable as vision-obscuring materials. Replace broken glass and damaged transparent materials.
- C. Clean exposed exterior and interior hard surfaces finished, to a dirt free condition, free of dust, stains, fingermarks, films and similar noticeable distracting substances. Except as otherwise indicated, avoid disturbance of natural weathering of exterior surfaces. Restore reflective surfaces to original reflective condition.
- D. Wipe clean surface of mechanical and electrical equipment, including lift and similar equipment; remove excess lubrication and other substances.
- E. Remove debris and surface dust from limited access spaces.
- F. Clean concrete floors broom clean.
- G. Vacuum clean carpet and similar soft surfaces.



- H. Clean plumbing fixtures to a sanitary and polished condition, free of stains including those resulting from water exposure.
- I. Clean light fixtures and lamps so as to function with full efficiency.
- J. If permanent lighting fixtures have been used for construction purposes replace globes with new.
- K. Clean project site, including planted sections and footpaths, of litter and foreign substances. Sweep paved areas to a broom clean condition; remove stains, petro-chemical spills and other foreign deposits.
- L. Label keys for locks accurately and provide in duplicate to the Superintendent at the completion of the project.

**35. Clean Site and Access Roads**

Be responsible for maintaining clean roads and access. Remove and clean away mud, building debris from footpaths, gutters, drains, walls etc. when such occurs.

**36. Warranties**

Comply with the statutory requirements applicable in the site location.

**37. Authority Approvals and Certificates**

- A. Prior to the issue of Practical Completion Notice for the whole or section of the work, lodge with the Superintendent relevant certificates issued by local authorities.
- B. Produce to the Superintendent a certificate of clearance of reinstatement of damage to footpaths and road, etc. from the appropriate Road Authority or City Engineer before issue of Practical Completion Notice.

**38. Contract Stamp Duty**

If contract is liable to stamp duty, provide to the Superintendent at time of signing the contract, duty stamps to the value required by the state in which the project is being constructed, together with 1 new copy of the printed Conditions of Contract being used in this project.

**39. Asbestos**

Use no asbestos products or asbestos based materials in any part or parts of this building or its services and ensure that subcontractors, nominated subcontractors, suppliers and others are advised of this restriction.

No compensation will be paid if asbestos is brought on to the site and subsequently discovered and if discovered such removal and consequential making good or costs will be totally at the expense of the builder.

**40. Patent Rights**

Ensure that no patent is infringed and that unless otherwise specified, amounts payable and conditions imposed in respect of the manufacture, use or exercise of patented invention are paid and complied with. Indemnify the proprietor against claims, damages, costs, charges and expenses in any way whatsoever arising out of the manufacture, use or exercise by the builder of patented invention.

**41. Record of Services**

Obtain from the Superintendent, 2 additional copies of the drawings and mark thereon the exact position and route of underground piping as actually laid, by dimensions from boundaries, buildings and other fixed points. Dimension and check the position of valves, branches, inspection openings and the like before the work is covered up. Record on the drawings the invert levels of drains and other relevant piped services. Variations in position of size of the pipes, valves and the like within the building to be marked on these sets of drawings and be checked by the builder. Provide the dimensioned drawings to the Superintendent on completion to enable an exact record of the whole installation to be made for use in future maintenance.

**42. Payment of workers and subcontractors**

- A. Before the principal makes each payment to the contractor, the Superintendent may, NOT LESS THAN 5 DAYS before a payment certificate is due, in writing request the contractor –
  - 1. to give the Superintendent a statutory declaration by the contractor or, where the contractor is a corporation, by a representative of the contractor who is in a position to know the facts declared, that all workers who have at any time been employed by the contractor on work under the contract have at the date of the request been paid all moneys due and payable to them in respect of their employment on the work under the contract; and

2. to provide documentary evidence to the Superintendent that at the date of the request all workers who have been employed by a subcontractor of the contractor have been paid all moneys due and payable to them in respect of their employment on the work under the contract.
- B. Not earlier than 14 days after the contractor has made each claim for payment, and before the principal makes that payment to the contractor, provide to the Superintendent a statutory declaration by the contractor or, where the contractor is a corporation, by a representative of the contractor who is in a position to know the facts declared, that all subcontractors have been paid all moneys due and payable to them in respect of work under the contract.
- C. If the contractor fails-
1. within 5 days after a request by the Superintendent to provide the statutory declaration, or the documentary evidence (as the case may be) required, or fails :
  2. to comply with these requirements, payment of moneys to the contractor may be withheld by the principal until the statutory declaration or the documentary evidence (as the case may be) is received by the Superintendent.
- If the contractor provides to the Superintendent satisfactory proof of the maximum amount due and payable to workers and subcontractors by the contractor, the principal may not withhold any amount in excess of the maximum amount. At the written request of the contractor, from and out of, moneys payable to the contractor, the principal may on behalf of the contractor make payments directly to any worker or subcontractor. If any worker or subcontractor obtains a court order in respect of moneys referred to in clause B or C above and produces to the principal the court order and a statutory declaration that it remains unpaid, the principal may pay the amount of the order, and costs included in the order, to the worker or subcontractor and the amount paid will be regarded as a debt due from the contractor to the principal. After the making of a sequestration order or a winding up order in respect of the contractor, the principal may not make any payment to a worker or subcontractor without the concurrence of the official receiver or trustee of the bankrupt or the liquidator as the case may be.

**END OF DOCUMENT**

## **PART I MONETARY SCHEDULES**

### **Provisional Sums**

#### **Definition: Provisional Sum**

An amount of money included in the contract document to cover works proposed as part of the contract for which full information cannot be made available prior to the calling of tenders and letting of a contract. A provisional sum includes labour, materials and all costs and margins.

Allow for the following Provisional sum:

**\$5,100 (TO BE INCLUDED IN TENDER PRICE) for Split System A/c Units**

1 x split system – Race Office

1 x split system – Stewards Office

1 x split system – Owners and Trainers Room

### **Prime Cost Sums**

#### **Definition: Prime Cost Sum**

An amount included in the contract documents to cover the purchase by the contractor of a specified item, such as a particular fixture or fitting, but excluding any associated labour. In New Zealand, a prime cost sum is called a “Net Sum”.

### **Contingency**

#### **Definition: Contingency Sum**

A sum of money included in the contract documents to cover the cost of unforeseen items. It can be expended in full or in part as required by the Superintendent during the progress of the works under the contract.

Allow for the following sum for Contingencies:

**\$50,000 (TO BE INCLUDED IN TENDER PRICE)**

#### **Definitions are quotes from**

**(Standards Australia “Glossary of Building Terms”) SAA HB 50 - 2004**

**PART II BUILDER'S WORK SCHEDULES**

IN ALL CASES BELOW THE LOCATION OF AND SIZE OF OPENINGS IN EACH CASE IS TO BE DISCUSSED ON SITE WITH THE SUPERINTENDENT BEFORE STARTING WORK.

**SCHEDULE OF BUILDER'S WORK - HYDRAULIC SERVICES**

Provide for the hydraulics contractor:

1. Pit for Sewer pump.
2. Clear openings through building structure for passage of piping and fittings.
3. Access openings as required for hydraulic pipes.
4. Access doors as required for sewer inspection points.
5. Trenching and back filling and making good of existing road works, for underground hydraulic works, including gas.
6. Excavate hole for grease traps.
7. Signage for hose reel cupboards

**SECTION 02050 DEMOLITION**

**SCOPE OF WORK** *Perform work described here and shown on drawings including but not limited to:*  
Demolish in accordance with demolition drawings  
Clean site thoroughly on completion

**COOPERATE WITH THESE OTHER TRADES** *to resolve possible problems before starting work*  
Excavation & fill.

**COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS** *Current Edition.*  
AS 2187 Explosives - storage, transport and use. *.Parts 2187.0 – 2187.2 1998-2006.*  
AS 2436 1981 Guide to noise control on construction, maintenance and demolition sites.  
AS 2601 2001 Demolition of structures.  
Public and Property Protection: Provide measures required by municipal and state ordinances, laws, and regulations for the protection of surrounding property, footpaths, streets, kerbs, the public, occupants and workmen during demolition operations. Comply with the above ordinances, laws etc. in carrying out measures including barricades fences, warning lights and signs, rubbish chutes, etc.. No blasting for demolition purposes will be permitted. Exercise due care in executing this work. Make good to original condition, damage to structures to be retained and to adjacent property which results from demolition operations. Perform restoration work without expense to the proprietor. Pay fees in connection with this trade.  
*Comply throughout with the current edition of the Building Code.*

**MATERIALS****Item**

Material required to be demolished becomes the property of the contractor. Remove it from the site  
Supply equipment required to perform the work of sufficient capacity to meet the stated completion date.  
Provide disposal containers for disposal required.

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

Before demolishing and removing parts of building having electrical wiring, gas and water pipes, conduit or similar items embedded in them, notify the Building Designer and authorities having jurisdiction, and make sure that these items are out of service so that they can be removed without danger. Arrange for a professional quality photographic record of demolition. Produce for the proprietor 10" x 8" (250 x 200mm) prints of "before and after" demolition of typical work involved in demolition and surfaces of structures, street crossings, pavements etc.

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

Burn no debris on the site. Shoring: Provide necessary shoring in accordance with structural engineering instructions. Alter, adapt, and maintain temporary works as necessary, and strike or withdraw them progressively as the work proceeds. Obtain the written consent of the Building Designer/structural engineer if such works are to be left in position at the completion of the work.

Restore to original condition, without expense to the proprietor, any damage to remaining construction resulting from failure to provide adequate protection.

<b>COMPLETION</b>	<b>WARRANTY</b>	<b>Period</b>
Complete work in accordance with instructions and written variation orders.	Provide to the proprietor a Warranty covering stability of remaining structure.	5 years

**SECTION 02150 ASBESTOS REMOVAL****ADVICE TO OWNER, BUILDER & BUILDING DESIGNER REGARDING ASBESTOS REMOVAL**

The building owner is responsible for the detection of any asbestos material on an existing site, or in an existing building to be demolished or renovated. It is a responsibility of the owner, if it is suspected that asbestos exists in within the demolition area, to engage a specialist consultant to identify asbestos material, hazardous or toxic substances from the site or adjacent areas and to comply with applicable laws and regulations.

On inspection there is no visible sign that any such material will affect demolition works.

If any such material is discovered on the site after work has started the work will be authorised by the Superintendent to cease immediately, the client advised and asked to proceed in accordance with the previous paragraph. The Superintendent/Building Designer will require the client to indemnify the Building Designer against any claim relating to liability or loss relating to the detection, abatement, removal and disposal of asbestos, hazardous and toxic substances.

**COOPERATE WITH THESE OTHER TRADES** *to resolve possible problems before starting work.*

- A. Coordination: coordinate with other trades affecting or affected by the work of this section. Cooperate as necessary to ensure steady and satisfactory progress of the work.
- B. Unit prices: submit with tender a schedule of rates for work required to be done not identified at time of tender. The schedule of rates is required to reflect costs on a square metre rate for sheets or panels to be removed and on a metre run basis for other work.

**COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS** *Current Edition*

Perform asbestos removal in accordance with:

- A. National Code Practice for the Safe removal of Asbestos 2<sup>nd</sup> Edition[NOHSC: 2002 (2005)]. Visit <http://www.ascc.gov.au>.
- B. Relevant State Government Department or State statutory authority, which has jurisdiction over the work of this section, and which is in force at the time of tendering.
- C. Submit as and when required all of the reports and submissions required by the statutory authorities.
- D. Submit the data required in the National Code of Practice.
- E. Submit tenders conforming with documents.
- F. Provide notices to statutory authority which needs data relating to asbestos removal. Pay fees due to any statutory authority which require, by law, fees to be paid.

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

- A. Prepare for asbestos removal in full accordance with the requirements of the National Code of Practice.
- B. Install decontamination facilities in a location agreed upon with the Building Designer and other relevant parties.
- C. Install required labelling and warning signs.
- D. Remove from the work area items which may be damaged by the work of this section.
- E. Protect item of furniture, surface, equipment or plant which may be damaged or soiled during the preparation for and action of asbestos removal. Be responsible for damage resulting from asbestos removal actions, processes and other works.

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

- A. Advise the superintendent in advance of proposed removal methods.
- B. Comply with the requirements of the National Code of Practice and with the instructions of the authorised superintendent of the work.

Arrange with relevant local authorities the identification of the place to which asbestos material is to be taken from the demolition site. Comply with requirements of the authorities.

**CLEANING**

Thoroughly clean areas in which work has been performed and those adjacent to the work area. Remove and dispose of traces of the asbestos removal process, protective materials, etc.

**COMPLETION**

Complete contracted work in accordance with contract documents and written variation orders issued by the Building Designer, and/or superintendent. Leave the site in a condition suitable for the work of other trades, in cooperation with Building Designer and builder or contractor.

**SECTION 02315 EXCAVATION & FILL**

**SCOPE OF WORK** *Perform work described here and shown on drawings including but not limited to:*  
Prepare site, excavate for roads, paving, drains, pits, foundations, slabs. Remove trees and other vegetation, including roots, where they prevent building work, paving, trenches etc. Allow for installation of material required for termite control.

**COOPERATE WITH THESE OTHER TRADES** *to resolve possible problems before starting work*  
Water distribution, sanitary sewerage, storm drainage, pavements, concrete.

**COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS** *Current Edition.*

AS 1289 Methods of testing soils for engineering purposes. *There are 72 parts to this Standard 1991-2005.*  
1289.5.1.1 2003 Soil compaction and density tests.  
AS 2187 Explosives - Storage, transport and use. *(2187.0 -2187.2 1998-2006).*  
AS 3660 2000 Termite management. *There are 3 parts to this Standard, 2000.*  
AS 3798 2007 Guidelines on earthworks for commercial and residential developments.  
AS/NZS 4200 1994 Pliable building membranes and underlays. *There are 2 parts to this Standard.*  
AS 4678 2002 Earth-retaining structures.  
Comply with particular specifications in Building Regulations and/or Local Council publications.

Definitions:

Rock: natural or artificial material encountered in the excavation which cannot be removed until broken up by mechanical means such as rippers, jack-hammers or percussion drills.

Rippable Rock: Means rock which can be removed by a single tine, "D9" ripper.

Non-Rippable Rock: Means all other rock. Other than Rock: other material encountered in excavation.

Sub-Grade: The natural ground below the excavations. Filling: A general term for material spread and compacted over the sub-grade to make up levels to the underside of the base. Sub Base: Selected filling spread and completed over sub-grade to compacted over sub-grade to make up levels to the underside of the base.

Base: A selected filling layer spread and compacted to form an acceptable working surface directly under the building.

*Comply throughout with the current edition of the Building Code.*

**MATERIALS TO BE USED**

Item	Description	Manufacturer
Termite control		
Filling	Hardcore: 15 to 40mm, 100 mm thick Fine crushed rock: 5 to 15mm, 50mm thick Sand: clean, salt free, 50mm thick	
Waterproof membrane	0.2mm thick plastic film	
Back filling	Approved clean excavated inorganic material	

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

Clear site under building and paving of plants, trees, rocks shown on plan.

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

-Below slabs on ground: Hardcore

-Below footings, beams and other structural elements: Concrete of strength equal to the structural element, minimum 15MPa. - In service trenches: 1:2:4 concrete/approved compacted pipe bedding material.

Excavation for strip footings and edge beams, paving, water and piped supply and drains, pits. Apply termite protection. Provide fill and compact in 150 mm layers, to 95% of maximum density, by vibrating or watering.

Protect excavations from damage. Maintain excavations free of water. Install waterproof membrane over sand.

Seal laps. Take underlay in walls to level of top of slab. Seal service pipes. Inspect and repair membrane before concrete pour.

COMPLETION	WARRANTY	Period
Complete work in accordance with instructions and written variation orders.	Provide to proprietor a Warranty covering satisfactory performance of the complete installation.	5 years

**SECTION 02510 WATER DISTRIBUTION**

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

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

Supply and install pipes from hot water heater to each required outlet.

Apply for permits and pay required fees and charges to responsible authorities. Provide permits and approval certificates to builder.

**COOPERATE WITH THESE OTHER TRADES** *to resolve possible problems before starting work*

Sanitary sewerage, concrete, carpentry, plumbing fixtures and equipment.

**COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS** *Current Edition.*

AS/NZS 1260 2002 PVC-U pipes and fittings for drain, waste and vent application.

AS 1432 2004 Copper tubes for plumbing, gasfitting and drainage applications.

AS/NZS 1477 2006 PVC pipes and fittings for pressure applications.

AS 2492 1994 Cross-linked polyethylene (PE-X) pipe for hot and cold water applications.

AS/NZS 3500 2003 Plumbing and drainage.

*There are 10 parts to this Standard, 1996-2003.*

AS 3688 2005 Water supply - Metallic fittings and end connectors.

AS 4809 2003 Copper pipe and fittings – Installation and commissioning.

AS/NZS 5065 2005 Polyethylene and polypropylene pipes and fittings for drainage and sewerage applications.

*Comply throughout with the current edition of the Building Code.*

**MATERIALS TO BE USED-** refer to the Hydraulic Engineers drawings.

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

Prepare trenches and paths of pipes through structure.

builder to form cutouts of minimum size to take pipes. Not to be done by plumber.

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

Coordinate with others trades, connect supply pipes to fittings. Conceal where possible and discuss concealment with designer. Ensure correct pipe sizes and connect with complete seal. Jointing of pipes: On manufacturer's advice, select from: Capillary, brazed, compression, pushfit, solvent-welded. Chrome plating : all exposed pipes. Provide "as built" drawings to Superintendents showing actual dimensions and locations of pipes. Cover no pipes until local authority has issued certificate. Protect installation until completion of project.

<b>COMPLETION</b>	<b>WARRANTY</b>	<b>Period</b>
Complete work in accordance with instructions and written variation orders.	Provide to proprietor a Warranty covering satisfactory performance of the complete installation.	5 years



**SECTION 02530 SANITARY SEWERAGE**

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

Supply and install a complete system of sewer drains to discharge sewage waste to the authority's sewer main, or to on-site septic tank.

Apply for permits and pay required fees and charges to responsible authorities. Provide permits and approval certificates to builder.

**COOPERATE WITH THESE OTHER TRADES** *to resolve possible problems before starting work*

Excavation, water distribution, concrete, floor construction, wall construction.

**COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS** *Current Edition.*

AS/NZS 1260 2002 PVC-U pipes and fittings for drain, waste and vent application.

AS 2032 2006 Installation of PVC pipe systems.

AS/NZS 3500 2003 Plumbing and drainage.

*There are 10 parts to this Standard, 1996-2003.*

AS/NZS 3500.2 2003 Sanitary plumbing and drainage.

AS/NZS 3500.5 2000 Domestic installations.

AS/NZS 4494 1998 Discharge of commercial and industrial liquid waste to sewer - General performance requirements.

*Comply throughout with the current edition of the Building Code.*

**MATERIALS TO BE USED**

Item	Description	Manufacturer/Supplier
Sewer drain pipes	UPVC sewer grade with solvent joints	
Concrete for pits etc.	20MPa	
Pit covers	Cast iron or galv. pressed metal	
Septic tanks		

Schedule of Sanitary Items, see page 2

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

Preparation by Excavation & fill contractor. Provide a design for installation of sanitary sewerage prior to construction.

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

Form straight and true trenches, maintain size and keep free of water. Bottoms of trenches to provide constant fall. Lay pipes 600mm clear of walls. Connect sanitary fittings to sewer pipes with permanently secure joints. Comply throughout with requirements of local Council and/ or authority. Backfill only after inspection.

COMPLETION	WARRANTY	Period
Complete work in accordance with instructions and written variation orders.	Provide to proprietor a Warranty covering satisfactory performance of the complete installation.	5 years

**SECTION 02630 STORM DRAINAGE****SCOPE OF WORK** *Perform work described here and shown on drawings including but not limited to:*

Supply and lay a complete system of site storm water drainage including agricultural drains, drains below slabs and pavements, retaining wall drains, culverts, pits, frames, manhole covers.

Apply for permits and pay required fees and charges to responsible authorities. Provide permits and approval certificates to builder.

**COOPERATE WITH THESE OTHER TRADES** *to resolve possible problems before starting work*

Sanitary sewerage, concrete, concrete pavement, masonry pavers, excavation & fill, bituminous concrete pavement.

**COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS** *Current Edition.*

AS 1379 1997	Specification and supply of concrete.
AS/NZS 3500.3 2003	Stormwater drainage
AS/NZS 3500.3.1 1998	Stormwater drainage - Performance requirements.
AS/NZS 3500.5 2000	Domestic installations.
AS 3600 2001	Concrete structures.

*Comply throughout with the current edition of the Building Code.*

**MATERIALS TO BE USED**

Item	Description	Manufacturer/Supplier
A. Stormwater pipes	Reinforced concrete Un-reinforced concrete	
B. Stormwater pipes other	Untested vitrified clay with rubber joints UPVC stormwater grade pipes Low density	
C. Steel pipes	Galvanised steel	
D. Agricultural drains	Aggregate	
E. Culverts	Concrete, metal or plastic	
F. Pits	Concrete, plastic	
G. Manhole frames and covers	Concrete, metal	

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

Form straight and true trenches 600mm clear of walls, maintain sides, and 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.

Builder to form cutouts of minimum size to take pipes. Not to be done by plumber.

After inspection (and testing) where required, back-fill with material approved by Local Council Engineer and Superintendent.

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

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

Arrange for inspection by local authority. When issued, back fill with material approved by authority. Remove debris and clean areas beside excavation for drains.

COMPLETION	WARRANTY	Period
Complete work in accordance with instructions and written variation orders.	Provide to proprietor a Warranty covering satisfactory performance of the complete installation.	5 years

**SECTION 02769 TACTILE WARNING SURFACES**

**SCOPE OF WORK** *Perform work described here and shown on drawings including but not limited to:*  
Supply and install tactile warning surface material.

**COOPERATE WITH THESE OTHER TRADES** *to resolve possible problems before starting work*  
Concrete, floor finishes, tiles.

**COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS** *Current Edition.*

AS 1428 Design for access and mobility. *There are 4 parts to this Standard 1992-2002.*

AS 1428.4 - 2002 Tactile indicators.

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

AS/NZS 4586 - 2004 Slip resistance classification of new pedestrian surfaces materials.

AS/NZS 4663 - 2004 Slip resistance measurement of existing pedestrian surfaces.

Comply also with instructions of manufacturers of materials to be installed.

**MATERIALS TO BE USED**

Suppliers include:

Comcork Flooring – [www.comcork.com.au](http://www.comcork.com.au)

DTAC Pty Ltd – [www.dtac.com.au](http://www.dtac.com.au)

Item	Description	Manufacturer/Supplier
Hazard indicators	Materials	
	Stainless steel	
	Cork	
	Other	
	Colour	

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

Examine the surfaces to be treated. Ensure that flooring material is secure and clear.

Test the dryness of concrete.

Install the first area of indicators. Stop. When approved by Superintendent, continue.

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

Comply throughout with manufacturers current written instructions.

Remove excess adhesive and guide lines from completed areas.

COMPLETION	WARRANTY	Period
Complete work in accordance with instructions and written variation orders.	Provide to proprietor a Warranty covering complete installation that it will remain waterproof and weathertight. Warranty to include each roof penetration.	15 years

**SECTION 02820 FENCES & GATES**

**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 fences and gates all of timber or metal.

**COOPERATE WITH THESE OTHER TRADES** *to resolve possible problems before starting work*  
Carpentry, metalwork, concrete, painting.

**COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS** *Current Edition.*

AS 1379 1997                      Specification and supply of concrete.  
AS 1725 2003                      Chain-link fabric security fencing and gates.  
AS 1926                              Swimming pool safety. *There are 3 parts to this Standard 1993-2003.*  
AS 2820 1993                      Gate units for private swimming pools.  
*Comply throughout with the current edition of the Building Code.*

**MATERIALS TO BE USED – Refer to Architectural drawings for details**

**PREPARATION** *Inspect conditions at site before starting work*  
Prepare footings for posts of concrete or timber.

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

<b>COMPLETION</b>	<b>WARRANTY</b>	<b>Period</b>
Complete work in accordance with instructions and written variation orders.	Provide to proprietor a Warranty covering satisfactory performance of the complete installation.	25 years

**SECTION 03310 CONCRETE**

**SCOPE OF WORK** *Perform work described here and shown on drawings including but not limited to:*  
Supply and install termite control, concrete, reinforcing steel, formwork, for strip footings, floor slabs, paving, pits, curbs etc.

**COOPERATE WITH THESE OTHER TRADES** *to resolve possible problems before starting work*  
Excavation & fill, storm drainage, sanitary sewerage, pavements, concrete screeds.

**COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS** *Current Edition.*

CCA* T49 2003	Guide to Residential Floors (*Cement and Concrete Assoc).
AS 1012	Methods of testing concrete. <i>There are 27 parts to this Standard, 1991-2000.</i>
AS 1379 1997	Specification and supply of concrete.
AS 2870 1996 (Amended)	Residential slabs and footings - Construction.
AS 2876 2000	Concrete kerbs and channels (gutters) - Manually or machine placed.
AS 3600 2001	Concrete structures.
AS 3610 1995	Formwork for concrete.
AS 3727 1993	Guide to residential pavements.
AS/NZS 4586 2004	Slip resistance classification of new pedestrian surface materials.
AS/NZS 4671 2001	Steel re-inforcing materials.
SAA HB64 2002	Guide to concrete construction.
SAA HB71 2002	Re-inforced concrete design in accordance with AS 3600 2001.

*Comply throughout with the current edition of the Building Code.*

**MATERIALS TO BE USED**

Item	Description	Location
Formwork	Timber, steel, or manufactured formwork	
1. Highest quality finish		
2. Good quality		
3. To be painted		
4. To be rendered or concealed		
5. For footings or in ground		
Reinforcing steel:	Clean, no mud, oil or rust. Provide bar chairs	
Waterproofing membrane:	0.2mm thick plastic premium quality	
Concrete	Strength as specified by Structural Engineer at 28 days. Use no additives without authority	
Termite control	Refer to Excavation & Fill trade section	

**PREPARATION** *Inspect conditions at site before starting work*  
Prepare surfaces to receive concrete smooth, clean and stable under concrete load.

**ON-SITE ACTIONS** *Start of work means total acceptance of conditions*  
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. Finish exposed floor surfaces: broom & steel trowel as directed by Superintendent. Provide set downs for concrete screeds. Provide fall to outlets: See Schedule of Finishes. Cure finished slabs for 5 days with plastic film secured in place. Use packing sand for curing concrete paving. Keep damp for 5 days. Slump Tests: 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 Superintendents and/or proprietors satisfaction at no cost to proprietor.

COMPLETION	WARRANTY	Period
Complete work in accordance with instructions and written variation orders.	Provide to proprietor a Warranty covering satisfactory performance of the complete installation, and required strength at 28 days	28 days

**SECTION 05100 STRUCTURAL STEEL**

**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. Submit shop drawings to Superintendent.

**COOPERATE WITH THESE OTHER TRADES** *to resolve possible problems before starting work*  
Concrete, wall construction, roof construction, painting.

**COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS** *Current Edition.*

AS/NZS 1554 Structural steel welding, *There are 7 parts to this Standard 1994-2006.*  
AS 1627 Metal Finishing - Preparation and pretreatment of surfaces. *There are 7 parts to this Standard, 1997-2005.*  
AS 4100 1998 Steel structures.  
AS/NZS 4680 2006 Hot-dip galvanised (zinc) coatings on fabricated ferrous articles.  
SAA HB 48 1999 Steel structures design handbook.  
*Comply throughout with the current edition of the Building Code.*

**MATERIALS TO BE USED – Refer to Structural Engineers drawings.**

**PREPARATION** *Inspect conditions at site before starting work*  
Advise structural engineer when fabrications may be inspected before delivery. Steel components bent or buckled before erection may be rejected.

**ON-SITE ACTIONS** *Start of work means total acceptance of conditions*  
Provide holding down bolts to concretor for building in. Comply with structural engineer's 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 engineer when erected steel is ready for inspection. Adjust as required. Grout under base plates in high strength mortar. Touch up steel with zinc-rich paint after installation.

<b>COMPLETION</b>	<b>WARRANTY</b>	<b>Period</b>
Complete work in accordance with instructions and written variation orders.	N/A	

**SECTION 05580 ARCHITECTURAL METALWORK**

**SCOPE OF WORK** *Perform work described here and shown on drawings including but not limited to:*  
Supply and install metalwork items shown on the schedule.

**COOPERATE WITH THESE OTHER TRADES** *to resolve possible problems before starting work*  
Electrical installation, gas installation.

**COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS** *Current Edition.*

AS/NZS 1554 Structural steel welding, *There are 7 parts to this Standard 1994-2006.*  
AS 1627 Metal finishing – Preparation and pretreatment of surfaces. *There are 7 parts to this Standard, 1997-2005.*  
1627.5 2003 Pickling  
AS/NZS 1664 1997 Aluminium structures, *There are 2 parts to this Standard.*  
AS/NZS 1841 Portable fire extinguishers:  
*Part 1 1997 General requirements, Part 2 1997 Specific..... water type, Part 3 1997 Specific..... wet chemical type, Part 4 1997 Specific..... foam type, Part 5 1997 Specific..... powder type, Part 6 1997 Specific.....carbon dioxide type, Part 7 1997 Specific..... vaporising-liquid type, Part 8 1997 Specific..... non-rechargeable type.*  
AS/NZS 4353 1995 Portable fire extinguishers - Aerosol type.  
AS/NZS 4680 2006 Hot-dip galvanised (zinc) coatings on fabricated ferrous articles.  
*Comply throughout with the current edition of the Building Code.*

**MATERIALS TO BE USED**

Refer Schedule following.

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

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

Provide smooth finishes to exposed surfaces with sharp well-defined lines and arrises. Mill to a close fit machined joints. Design necessary lugs, brackets and similar items so that work can be assembled and installed in a neat, substantial manner.

Provide holes and connections as required to accommodate the work of other trades and for site assembly of metalwork. Drill or punch and ream in the shop.

Fasteners : Provide required bolts, screws, inserts, fasteners, templates and other accessories required for a complete installation. Coordinate with other trades as to the proper fastening systems suitable for the substrates to which the item is to be secured. Refer to Superintendent if in doubt.

Fasten galvanised items with galvanised fasteners.

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

Inspect fabrication on arrival at site. Do not repair on site. Replace damage items. Install each item by bolting or screwing to structural elements of building. Locate anchorages accurately and ensure secure installation. Do not cut metal on site. Remove weld spatter and touch up with zinc rich paint immediately. Protect work until project completion.

Install whitegoods and similar items in accordance with manufacturer's instructions.

<b>COMPLETION</b>	<b>WARRANTY</b>	<b>Period</b>
Complete work in accordance with instructions and written variation orders.	Provide to proprietor a Warranty covering satisfactory performance of the complete installation.	20 years

**SECTION 06100 CARPENTRY**

**SCOPE OF WORK** *Perform work described here and shown on drawings including but not limited to:*  
Supply and erect framing both structural and substructural. Include floor panels, wall cladding, roof framings, incidental framing. Refer Schedule following.

**COOPERATE WITH THESE OTHER TRADES** *to resolve possible problems before starting work*  
Concrete, brickwork, wall lining, plumbing, electrical, insulation, painting, fibre cement products.

**COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS** *Current Edition.*

AS/NZS 1170 Structural design actions. *There are 5 parts to this Standard 1993-2003.*  
AS 1684 Residential timber-framed construction.

1684.2 2006 Non-cyclonic areas.

1684.3 2006 Cyclonic areas.

1684.4 2006 Simplified - Non-cyclonic areas.

AS 1720 Timber structures. *There are 3 parts to this Standard, 1997-2006.*

AS 1860.2 2006 Particleboard flooring – Installation.

AS 4055 2006 Wind loads for housing.

SAA HB 44 1993 Guide to AS 1684 1992, The National Timber Framing Code.

*Comply with recommendations of the National Assoc. of Forest Industries Technical bulletins.*

*Comply throughout with the current edition of the Building Code.*

**MATERIALS TO BE USED**

Refer Schedule following

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

Store timber on site above ground, flat and horizontal. Protect from rain, damage and other material.

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

Comply with National framing code.

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

Perform operations including grooving, rebating, framing, housing, beading, mitring, scribing, nailing, screwing and gluing as necessary to carry out the works. Use timber in single lengths whenever possible. If joints are necessary, make them over supports unless otherwise shown or specified.

Arris visible edges in sawn work and in dressed work arris with sandpaper to 1.5mm radius unless otherwise shown or specified.

Back plough boards liable to warping (for example, if exposed on one face). Make the width, depth number and distribution of ploughs appropriate to the dimensions of the board and the degree of its exposure.

Provide necessary templates, linings, blocks, stops, ironwork and hardware, screws, bolts, plugs and fixings generally.

Trim framing where necessary for openings, including those required by other trades.

<b>COMPLETION</b>	<b>WARRANTY</b>	<b>Period</b>
Complete work in accordance with instructions and written variation orders.	Provide to proprietor a Warranty covering satisfactory performance of the complete installation.	5 years



**SECTION 06400 JOINERY (SITE BUILT)**

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

The work of this section covers the supply and installation of site built joinery items. It includes: Service cupboards, wardrobes, coat cupboards, benches, shelves, rails, stairs, handrails, architraves, skirting, pelmets.

**COOPERATE WITH THESE OTHER TRADES** *to resolve possible problems before starting work*

Floor, wall and ceiling construction, window and door installations, finishing trades, electrical.

**COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS** *Current Edition.*

AS/NZS 1859	Reconstituted wood-based panels - Specifications
	1859.1 2004 Particleboard
	1859.2 2004 Dry processed fibreboard. <i>There are 2 other parts to this Standard.</i>
AS 2754.2 1991	Adhesives for timber and timber products – Polymer emulsion adhesives
AS 2796	Timber - Hardwood - Sawn and milled products. <i>There are 3 parts to this Standard, 1999-2006.</i>
AS/NZS 4364 1996	Adhesives, phenolic and aminoplastic for load-bearing timber structures: Classification and performance requirements.
AS/NZS 4785	Timber – Softwood - Sawn & milled products
	4785.1 2002 Product specification
	4785.2 2002 Grade description
	4785.3 2002 Timber for furniture components

*Comply throughout with the current edition of the Building Code.*

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

Construct a sample installation of door frame and door, bench, shelves, architraves and other trim. Stop. When approved by Superintendent, complete remaining work.

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

Provide necessary anchoring devices. Use concealed shims to install work plumb, level, straight and distortion free within the following tolerances:

- 1mm in 800mm for plumb and level.
- 0.5mm maximum offsets in flush adjoining surfaces.
- 0 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 or blocking built-in or directly attached to substrates. Secure to grounds, stripping and blocking with countersunk, concealed fasteners and blind nailing as required to complete the installation.

Except where prefinished matching fastener heads are required, use fine finishing nails, countersunk and filled flush. Use a matching filler where a transparent finish is required. Install without distortion.

COMPLETION	WARRANTY	Period
Complete work in accordance with instructions and written variation orders.	Provide to proprietor a Warranty covering satisfactory performance of the complete installation.	5 years

**SECTION 07140 WET AREA MEMBRANE**

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

Location

Refer Waterproofing Schedule and drawings.

Typically to floors and walls of wet areas: Including bathrooms, ensuites, laundries and garbage rooms, and to walls areas immediately adjacent 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.

To a minimum height of 2100mm to walls of shower recess extending 300mm beyond the horizontal extent of the designated tiled wall area.

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

**COOPERATE WITH THESE OTHER TRADES** *to resolve possible problems before starting work.*

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

**COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS** *Current Edition*

AS 3740 2004                      Waterproofing of wet areas within residential buildings.

Current written instructions provided by tanking material manufacturer.

*Comply throughout with the current edition of the Building Code.*

**MATERIALS TO BE USED**

Type: Liquid applied, moisture curing, polyurethane liquid membrane.

Proprietary item: "Vulkem Non-exposed" system by Tremco Pty Ltd, phone (02) 9638 2755.

Alternatives

Type: Any proposed alternatives to the system specified below: provide a proprietary liquid applied or sheet membrane system which: has a current Australian Building Product and Systems Certification Scheme certificate (Australian Building Codes Board); or has a current technical opinion issued by the Australian Building Systems Appraisal Council (CSIRO) stating that the system is suitable for use as a waterproofing system for use in wet areas, shower recess bases and associated floors and wall/floor junctions which are to be tiled.

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

Curing: Allow concrete to cure for a minimum of 28 days prior to the application of the membrane.

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.

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

Fillet: Wherever a vertical penetration or upstand occurs install a 12mm x 12mm fillet of Tremflex PU1 at the intersection of the vertical and horizontal surfaces.

Primer: Prime porous substrate (concrete/cement) typically with Vulkem 171.

Prime non-porous materials (metals/plastics) typically with Tremco Primer No 181.

Joints and penetrations: On the same day of priming, seal joints and penetrations with Vulkem 931 sealant.

First coat: On the same day as priming, apply a coat of Tremco Vulkem Non-exposed 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 manufacturers 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.

SECTION 07140 WET AREA MEMBRANE

<b>COMPLETION</b>	<b>WARRANTY</b>	<b>Period</b>
Complete work in accordance with instructions and written variation orders.	Provide a Warranty for materials and application of the membrane for a period of ten (10) years from the date of Practical Completion, to be in a form approved by the principal.	10 years

**SECTION 07200 THERMAL INSULATION**

**SCOPE OF WORK** *Perform work described here and shown on drawings including but not limited to:*  
The supply and installation of thermal insulation.

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

**COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS** *Current Edition.*

AS 3999 1992	Thermal insulation of dwellings - Bulk insulation - Installation requirements.
AS/NZS 4200	Pliable building membranes and underlays.
	4200.1 1994 Materials.
	4200.2 1994 Installation requirements.
AS/NZS 4859.1 2002	Materials for the thermal insulation of buildings.
SAA HB 63 1994	Home insulation in Australia.

*Comply throughout with the current edition of the Building Code.*

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

Prepare surfaces and or framing material and ensure that no obstructions will prevent rapid and effective installation.

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

Comply with manufacturer's current written instruction. Install insulation to the following areas and structures.

<b>COMPLETION</b>	<b>WARRANTY</b>	<b>Period</b>
Complete work in accordance with instructions and written variation orders.	Provide to proprietor a Warranty covering satisfactory performance of the complete installation.	20 years

**SECTION 07610 METAL ROOFING, SIDING & PLUMBING**

**SCOPE OF WORK** *Perform work described here and shown on drawings including but not limited to:*  
Metal roofing and sarking, downpipes, gutters, skylights, translucent roofing.

**COOPERATE WITH THESE OTHER TRADES** *to resolve possible problems before starting work*  
Roof framing, wall cladding, storm drainage, fall arrest equipment (mandatory).

**COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS** *Current Edition.*

AS/NZS 1170	Structural design actions. <i>There are 5 parts to this Standard, 1993-2003.</i>
AS 1273 1991	Unplasticized PVC (UPVC) downpipe and fittings for rainwater.
AS 1562	Design and installation of sheet roof and wall cladding, <i>There are 3 parts to this Standard 1992-2006.</i>
AS/NZS 3500.3 2003	Plumbing and drainage – Stormwater drainage
AS 3500.3.1 1998	Plumbing and drainage – Stormwater drainage – Performance requirements
AS 3999 1992	Thermal insulation of dwellings – Bulk insulation – Installation requirements
AS 4285 1995	Skylights.
AS/NZS 4389 1996	Safety mesh.
SAA HB 39 1997	Installation code for metal roof and wall cladding.
SAA HB 63 1994	Home insulation in Australia.
SAA HB 114 1998	Guidelines for the design of eaves and box gutters.

Comply with State requirements and codes of practice in relation to work on roofs.  
*Comply throughout with the current edition of the Building Code.*  
Refer Fall Arrest equipment trade section.

**PREPARATION** *Inspect conditions at site before starting work*  
Ensure framing is in place and secure. Terrain Category:  
Ensure safety equipment is in place.  
Install safety mesh in accordance with AS/NZS 4389 Safety mesh.

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

Comply with recommendations in HB 39 (see above), Installation code for metal roof and wall cladding. 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. Test on completion.

<b>COMPLETION</b>	<b>WARRANTY</b>	<b>Period</b>
Complete work in accordance with instructions and written variation orders.	Provide to the proprietor a Warranty covering any penetrations through the roof and the satisfactory performance of the complete installation.	15 years

**SECTION 03470 TILT-UP PRE-CAST CONCRETE**

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

Compliance with structural engineer's drawings and instructions and specifications.

Complete installation of tilt-up panel work with cast-in fittings, inserts, panel erection, support, joint sealers and accessories.

Provide related services including construction shop drawings, hoisting and supports,

**CO-OPERATE WITH THESE OTHER TRADES:**

Concrete, structural steel, waterproofing and tanking, painting, cladding

**COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS** *Current Edition*

Comply with applicable portions of the following Australian Standards:

AS 1012	Methods of testing concrete. <i>There are 27 parts to this Standard, 1991 – 2000.</i>
AS 1379 2007	Specification and supply of concrete.
AS 1478.1 2000	Chemical admixtures for concrete, mortar and grout – Admixtures for concrete.
AS/NZS 1554	Structural steel welding.
	1554.1 2004 Welding of steel structures.
	1554.2 2003 Stud welding (steel studs to steel).
	1554.3 2008 Welding of reinforcing steel
	1554.4 2004 Welding of high strength quenched and tempered steels
	1554.5 2004 Welding of steel structures subject to high levels of fatigue loading
	1554.6 1994 Welding stainless steels for structural purposes
	1554.7 2006 Welding of sheet steel structures
AS 3600 2009	Concrete structures.
AS 3610 1995	Formwork for concrete. <i>There are 2 Supplements to this Standard.</i>
AS 3799 1998	Liquid membrane-forming curing compounds for concrete.
AS 3850 2003	Tilt-up concrete construction.
AS/NZS 4671 2001	Steel reinforcing materials.
	Comply throughout with the current edition of the Building Code.

**MATERIALS TO BE USED**

Connection devices and inserts:

Refer to structural engineers details and NP002 2006 Precast Industrial Buildings Detailing Manual.

Concrete: Refer structural engineer's details of reinforcing and connective strength.

Jointing material: fire rated material determined by the local council engineer, over closed cell backer rod.

External and internal walls: refer engineer.

**PREPARATION** *Inspect conditions at site before starting work to ensure conditions are satisfactory.*

Prepare reinforcement as detailed.

Design formwork and construct to provide off-form surfaces of a standard not lower than class 2 as described in AS 3610 Formwork for concrete.

Obtain engineer's approval for methods and systems, finishes, tolerances.

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

Support formwork during pouring of concrete.

Do not stack cast without engineer's approval. Steam curing is not permitted.

Prepare for bracing to be connected immediately after panels are lifted.

Install levelling pads.

Maximum variation from plane is not to exceed 3mm under 3 metre straight edge.

Do not lift panels until Engineer instructs.

Ensure all cast-in fittings are correctly placed, and that both building designer and consulting engineer approve of the completed installation.

**REMOVE**

Non-conforming installations and replace correctly at no cost to the proprietor.

**JOINT SEALING**

After completion of installation of panels by an approved specialist subcontractor.

Protect vulnerable surfaces edges and corners until completion of the contract. Clean all visible surfaces.

**COMPLETION**

Complete work in accordance with instructions and written variation orders.

**WARRANTY**

Forward to the consulting engineer a statement guaranteeing that the concrete panels are in accordance with the strengths specified before attempt is made to lift the panels.

**END OF SECTION**

**SECTION 07725 FALL-ARREST EQUIPMENT**

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

Supply and install fall arrest equipment in accordance with OH and S legislation.

Equipment to be provided includes:

Anchor points, static lines, harness gear, eaves platforms and fences and safety signs.

Refer to document 00800 Supplementary Conditions of Contract Clause 31, OH and S.

**Ensure that every person working above ceiling or eaves level is fully trained in use of the equipment.**

**COOPERATE WITH THESE OTHER TRADES** *to resolve possible problems before starting work*

Roof framing, roof installation, eaves construction.

**COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS** *Current Edition.*

AS/NZS 1891 Industrial fall-arrest systems and devices. *There are 4 parts to this Standard 1995-2001.*

AS/NZS 4801 2001 Occupational health and safety management systems - Specification with guidance for use.

Comply with State requirements and codes of practice in relation to work on roofs.

*Comply throughout with the current edition of the Building Code.*

**MATERIALS TO BE USED**

Submit relevant drawings to suppliers or manufacturers of suitable equipment.

Obtain suppliers lists of recommended materials and included lists here.

Item	Description	Manufacturer
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**PREPARATION** *Inspect conditions at site before starting work*

Check roof framing and other items to which safety equipment is to be fixed.

Ensure that structures local to the installed items are secure.

A senior technical representative of the material supplier is required to be present to check each part of the installation.

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

Secure each item in accordance with Australian Standards.

Arrange with the builder and roofer for penetrations if required through roof materials.

Ensure that penetrations are completely watertight after installation and on completion of the work.

Erect equipment and install eaves platforms and fences.

Check again that each person is fully trained in use of the equipment.

COMPLETION	WARRANTY	Period
Complete work in accordance with instructions and written variation orders.	Provide to proprietor a Warranty covering complete installation that it will remain waterproof and weathertight. Warranty to include each roof penetration.	15 years



**SECTION 08200 DOORS & DOOR FRAMES**

**SCOPE OF WORK** *Perform work described here and shown on drawings including but not limited to:*  
Supply and install door frames and doors for external and internal door openings. Refer Schedule following.  
Timber frames, metal frames, doors, glazed, solid core, waterproof, louvred, flyscreen, security, acoustic, flush panel - hollow core, expressed framed doors.

**COOPERATE WITH THESE OTHER TRADES** *to resolve possible problems before starting work*  
Carpentry, door hardware, wall construction, glass, painting.

**COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS** *Current Edition.*

AS 1288 2006	Glass in buildings - Selection and installation.
AS 4145	Locksets. There are 4 parts to this Standard, 1993-2002.
AS 5039 2003	Security screen doors and security window grilles.
AS/NZS 5040 2003	Installation of security screen doors and window grilles.

*Comply throughout with the current edition of the Building Code.*

**PREPARATION** *Inspect conditions at site before starting work*  
Prepare openings in walls. Install fixing grounds to secure frames.  
Erect a sample frame and door of each type complete. Stop. When approved by Superintendent, continue.

**ON-SITE ACTIONS** *Start of work means total acceptance of conditions*  
Erect frames plumb and true. Comply with named Standard listed. At head and jambs allow 3mm clearance.  
At floor allow 10 mm over floor covering. Check and clean on completion.

**SECTION 08520 METAL WINDOWS & GLAZING**

**SCOPE OF WORK** *Perform work described here and shown on drawings including but not limited to:*  
Supply and install metal window frames and glass, glazed door, flyscreens, hardware, flashing, sun control material.

**COOPERATE WITH THESE OTHER TRADES** *to resolve possible problems before starting work*  
Carpentry, frames, brickwork, blockwork, wall framing.

**COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS** *Current Edition.*  
AS/NZS 1170 Structural design actions. *There are 5 parts to this Standard, 1993-2003.*  
AS 1288 2006 Glass in buildings – Selection and installation.  
AS 2047 1999 Windows in buildings – Selection and installation.  
AS 3715 2002 Metal finishing - Thermoset powder coatings for Architectural applications...  
AS 3959 1999 Construction of buildings in bushfire-prone areas.  
AS/NZS 4680 2006 Hot-dip galvanised (zinc) coatings on fabricated ferrous articles.  
*Comply throughout with the current edition of the Building Code.*

**MATERIALS TO BE USED**

Item	Description	Supplier
<b>Aluminium</b>	Extruded aluminium alloy 6063, temper T5 or T6	
Window frames		
Frames		
Sashes		
Doors		
Hardware		
Finish	Polyester powder coat. Minimum 50 microns	
<b>Steel</b>		
Window frames		
Sashes		
Doors		
Hardware		
Finish	Galvanised or powder coat	
<b>Glass: refer AS 1288 for glass thickness. Do not list thickness here.</b>		
Clear float, laminated, patterned, obscured, wired, spandrel		
Glazing	Neutral curing silicone rubber Bond breaker tape Primer/sealer Backer rod Glazing tape	
<b>Insect screens</b>		
Mesh	Aluminium, steel, brass, stainless steel, fibreglass	
Hardware		
<b>Sun control material</b>	Colour:	
<b>Louvre windows: Refer <a href="http://www.breezway.com.au">www.breezway.com.au</a></b>		

**PREPARATION** *Inspect conditions at site before starting work*  
Prepare for installation of aluminium frames. Isolate aluminium from steel wall frames.  
Provide necessary anchors for building into masonry openings.

**ON-SITE ACTIONS** *Start of work means total acceptance of conditions*  
Ensure frame anchors are already built in. Comply with AS 2047. Install glass to manufacturer's instructions with correct sealants. Install flyscreens fixed, hinged, or removable, where directed. Install window winders catches locks etc

SECTION 08520 METAL WINDOWS & GLAZING

<b>COMPLETION</b>	<b>WARRANTY</b>	<b>Period</b>
Complete work in accordance with instructions and written variation orders.	Provide to proprietor a Warranty covering satisfactory performance of the complete installation.	10 years

**SECTION 08710 DOOR HARDWARE**

**SCOPE OF WORK** *Perform work described here and shown on drawings including but not limited to:*  
Supply and install door hardware listed in the Schedule for doors.

**COOPERATE WITH THESE OTHER TRADE** *to resolve possible problems before starting work*  
Doors and door frames, Metal windows, Timber windows.

**COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS** *Current Edition.*  
AS 4145 1993 Locksets. *There are 3 parts to this Standard 1993-2002.*  
*Comply throughout with the current edition of the Building Code.*

**PREPARATION** *Inspect conditions at site before starting work*  
Install a complete set of hardware as scheduled.  
Install samples of each type. Stop. When approved by Superintendent, continue.

**ON-SITE ACTIONS** *Start of work means total acceptance of conditions*  
Install with accordance with AS 4145 and written instructions of each manufacturer. Check deliveries on arrival. Lock away until needed and assume responsibility for hardware. Fit accurately at correct heights and protect until completion of project. Lubricate hinges and locks and provide two keys to each lock.

<b>COMPLETION</b>	<b>WARRANTY</b>	<b>Period</b>
Complete work in accordance with instructions and written variation orders.	Provide to proprietor a Warranty covering satisfactory performance of the complete installation.	5 years

**SECTION 09250 PLASTERBOARD**

**SCOPE OF WORK** *Perform work described here and shown on drawings including but not limited to:*  
Supply and install plasterboard, water-resistant plasterboard, flexible plasterboard, lining of masonry walls, ceilings, dropwalls, bulkheads. Fire-rated walls.

**COOPERATE WITH THESE OTHER TRADES** *to resolve possible problems before starting work*  
Wall, frames, carpentry, brickwork, blockwork, suspended ceiling, electrical.

**COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS** *Current Edition.*  
AS/NZS 2589 Gypsum linings in residential and light commercial construction – Application and finishing – Gypsum plasterboard. *There are 2 parts to this Standard, 1997.*  
AS 3740 2004 Waterproofing of wet areas within residential buildings.  
*Comply throughout with the current edition of the Building Code.*  
*Comply with manufacturer's technical bulletins:*

**PREPARATION** *Inspect conditions at site before starting work*  
Ensure framing is complete and electrical and other wiring is in place.  
Install a sample, width of one wall (about 3 metres). Stop. When approved by Superintendent, continue.

**ON-SITE ACTIONS** *Start of work means total acceptance of conditions*  
Comply with plasterboard manufacturer's current written instructions. Form dropwalls, recesses, manholes as required.  
In wet areas ensure compliance with AS 3740 Waterproofing of wet areas. Install cornices.

<b>COMPLETION</b>	<b>WARRANTY</b>	<b>Period</b>
Complete work in accordance with instructions and written variation orders.	Provide to proprietor a Warranty covering satisfactory performance of the complete installation.	5 years

**SECTION 09300 CERAMIC TILE**

**SCOPE OF WORK** *Perform work described here and shown on drawings including but not limited to:*  
Prepare surfaces to be tiled. Supply and install bedding as required. Wall tile, floor tiles, external paving tiles.  
Cleaning of finished work.

**COOPERATE WITH THESE OTHER TRADES** *to resolve possible problems before starting work*  
Concrete, carpentry, plasterboard.

**COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS** *Current Edition.*

AS 2358 1990 Adhesives - For fixing ceramic tiles.  
AS/NZS 3661.2 1994 Slip resistance of pedestrian surface – Guide to the reduction of slip hazards.  
AS 3740 2004 Water proofing of wet areas within residential buildings.  
AS 3958 Ceramic Tiles. *There are 2 parts to this Standard, 1992-2007.*  
AS/NZS 4586 2004 Slip resistance classification of new pedestrian surface materials.  
AS/NZS 4663 2002 Slip resistance classification of existing pedestrian surfaces.  
*Comply throughout with the current edition of the Building Code.*  
*Comply with material manufacturer's current written instructions.*

Screed for walls and floors: 1 part cement 4 parts sand. Adhesives: to be supplied by:  
Expansion joints, walls: 5mm. Floors: 8mm. Fill both with 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).

**PREPARATION** *Inspect conditions at site before starting work*  
Ensure surfaces are clean and dry and no variation on walls greater than 5mm under a 2000 long straight edge.  
Tile a sample panel of each type, 3 square metres. Stop. When approved by Superintendent, continue.

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

<b>COMPLETION</b>	<b>WARRANTY</b>	<b>Period</b>
Complete work in accordance with instructions and written variation orders.	Provide to proprietor a Warranty covering satisfactory performance of the complete installation.	5 years

**SECTION 09680 CARPET**

**SCOPE OF WORK** *Perform work described here and shown on drawings including but not limited to:*  
Supply and installation of underlay, carpet and accessories. Provide spare carpet.

**COOPERATE WITH THESE OTHER TRADES** *to resolve possible problems before starting work*  
Concrete, carpentry, installation of floors, joinery, preparation of surfaces under and adjacent to floors to receive carpet.

**COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS** *Current Edition.*

AS 1385 1985 Textile floor coverings - Metric units and commercial tolerances for measurement.  
AS/NZS 2455 Textile floor coverings - Installation practice.  
2455.1 1995 General  
2455.2 1996 Carpet tiles.  
AS 4288 2003 Soft underlays for textile floor coverings.  
*Comply throughout with the current edition of the Building Code.*

**MATERIALS TO BE USED – refer to drawings**

Item	Description				Manufacturer/Supplier
Underlay	Type:		Name		
Carpet fixings	Name				
Metal finishing bar	Heavy duty hammer finish aluminium bar				
Adhesives	Direct stick or dual fix. Non solvent type				
	Carpet Type	Name	Colour	Pile Height	
Carpet Type A					
Carpet Type B					

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

Ensure floors are dry, clean with no hills or valleys. Comply with AS/NZS 2455.1.

Comply with Appendix B to ensure moisture content of concrete does not exceed the stated limit. Repair imperfection of the floor surface which might impair the finished carpeted surfaces. Broom clean or vacuum clean surfaces upon which carpet is to be laid.

Install carpet in one room. Stop. When approved by Superintendent, continue.

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

Test concrete for moisture content to AS/NZS 2455. Secure carpet fixings to manufacturer's instructions. Lay underlay. Stretch carpet and secure to fixings. On completion of laying each section of carpet, vacuum the surface clean. Provide spare carpet of each type laid, 3 % of area laid. Store where instructed.

COMPLETION	WARRANTY	Period
Complete work in accordance with instructions and written variation orders.	Provide to proprietor a Warranty covering satisfactory performance of the complete installation.	7 years

**SECTION 09650 RESILIENT FLOORING**

**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 or tile material and skirtings.

**CO-OPERATE WITH THESE OTHER TRADES** *to resolve possible problems before starting work*  
Concrete, carpentry, floor construction.

**COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS** *Current Edition.*

AS 1884 1985 Floor coverings – Resilient sheet and tiles – Laying and maintenance practices.  
AS/NZS 3661.2 1994 Slip resistance of pedestrian surfaces – Guide to the reduction of slip hazards.  
AS/NZS 4586 2004 Slip resistance classification of new pedestrian surface materials.  
AS/NZS 4663 2004 Slip resistance classification of existing pedestrian surfaces.  
Comply throughout with the current edition of the Building Code

**MATERIALS TO BE USED**

Item	Material	Thickness	Name	Colour	Manufacturer/Supplier
Floor backing board					
Flooring sheet					
Flooring tile					
Skirting					

Obtain written statement from supplier that material complies with AS 3661.

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

Prepare concrete floor; Fill cracks with Ardit. Remove lumps. Produce dead flat surface. Test for moisture content, which is required to be 5.5% or less. Refer to AS 1884 Appendix A.  
Install a sample of 3 square metres. Stop. When approved by building designer, continue.

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

Install to manufacturer's instructions. Weld joints in sheet vinyl. Clean thoroughly, allow to dry. Cover completed floors until completion of project.  
Form junctions of different materials (eg. tiles to carpet) so that they occur under the centre line of doors.

**COMPLETION**

Complete work in accordance with instructions and written variation orders.

**WARRANTY**

Provide to proprietor a Warranty covering satisfactory performance of the complete installation.

**END OF SECTION**



**SECTION 09910 PAINTING**

**SCOPE OF WORK** *Perform work described here and shown on drawings including but not limited to:*  
Supply and apply paints and other finish coatings. Refer Schedule of Finishes.

**COOPERATE WITH THESE OTHER TRADES** *to resolve possible problems before starting work*  
Each trade as listed to be painted. Refer Schedule.

**COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS** *Current Edition.*

AS/NZS 2311 2000 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.

*Comply throughout with the current edition of the Building Code.*

**MATERIALS TO BE USED**

Surface or Item	Catalogue/Product No.	Manufacturer/Supplier
<b>Internal</b>		
Walls: dry areas		
Walls: wet/other areas		
Ceilings: dry areas		
Ceilings: wet areas		
Joinery: trim		
Block/brickwork		
Concrete		
Steel		
<b>External</b>		
Block/brickwork		
Concrete		
Fibre cement		
Timber		
Steel		

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

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

Prepare a sample panel of 2 square metres of each paint type. Stop. When approved by Superintendent, continue.

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

Superintendent 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.

Delivery storage and handling:

- A. Store materials in designated spaces in a manner which meets the requirements of applicable codes and fire regulations. When not in use, keep such spaces locked and inaccessible to those not employed under this section. Provide each space with a fire extinguisher of carbon dioxide or dry chemical type bearing a tag of recent inspection.
- B. 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 advance of the time needed in order that work will not be delayed in any way.

COMPLETION	WARRANTY	Period
Complete work in accordance with instructions and written variation orders.	Provide to proprietor a Warranty covering satisfactory performance of the complete installation.	7 years

**SECTION 10810 METAL FRAMED MIRRORS**

**SCOPE OF WORK** *Perform work described here and shown on drawings including but not limited to:*  
Supply and install mirrors with metal frames as detailed herein.

**COOPERATE WITH THESE OTHER TRADES** *to resolve possible problems before starting work.*  
Wall framing, wall lining, drywall partitions, plasterboard, fibre cement, ceramic tile, painting.

**COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS** *Current Edition*

AS 1231 2000	Aluminium and aluminium alloys – Anodic oxidation coatings.
AS 1288 2006	Glass in buildings – Selection and installation.
AS 1627	Metal finishing – Preparation and pretreatment of surfaces. 1627.6 2003 Chemical conversion treatment of metals.
AS/NZS 2208 1996	Safety glazing materials in buildings.

**MATERIALS TO BE USED**

**NOTE:** Refer AS 1288 for glass thickness. Do not list thickness here.

Item	Description	Manufacturer/Supplier
Metal surround	12.70 x 9.53 x 1.57 H9660 or similar clear, anodised aluminium angle.	Alcan
Screws	Aluminium or stainless steel at 150mm centres, securing angle to wall lining or masonry.	
Fixing tape	Double-sided foam adhesive tape 24mm wide.	
Glass mirror	<ul style="list-style-type: none"> <li>▪ 4, 5 or 6mm thick silver quality twin coated glass mirror.</li> <li>▪ Fully toughened silver quality as above.</li> <li>▪ Colour: Select from: clear, bronze, gold, green,</li> <li>▪ Clear acrylic mirror, 3mm thick.</li> <li>▪ Backboard: 8mm waterproof plywood.</li> </ul>	
Mirror clips	<ul style="list-style-type: none"> <li>▪ Chrome-plated solid brass clips. Flannelette pads between mirror and clip.</li> <li>▪ Brass fixing screws with domed brass heads (chrome-plated) screwed onto fixing screws.</li> </ul>	
Sliding glass	<ul style="list-style-type: none"> <li>▪ Select from glass as above. Grind edges smooth, arised and polished. Grind finger recesses 75mm long, 20mm wide, 3mm deep to each slider.</li> <li>▪ Aluminium anodised sliding door track.</li> </ul>	
Sealants	Silicone rubber to selected colour.	

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

Prepare surfaces affected by the installation in accordance with manufacturer's written instructions. Clean surfaces to receive silicone sealants.

Clear backing boards or wall surfaces to remove dust and dirt. Seal new plasterboard or fibre cement with 1 coat of pigmented sealer.

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

Before wall finishes are installed around mirrors, install anodised angle with the 12.70mm flange at right angles to the backing with countersunk head screws at 150mm centres. Apply 2 pack epoxy glue to the back of the angle before screwing. Ensure that the angles are installed truly horizontal and/or vertical.

**FACE FIXING OF MIRRORS**

Fasten mirrors to the backing with two part brass screws through predrilled holes in the mirror. Provide CD dome caps screwed onto the threaded outer ends of the fixing screws.

**CLEANING**

Thoroughly clean areas in which work has been performed and those adjacent to the work area.

## SECTION 10810 METAL FRAMED MIRRORS

<b>COMPLETION</b>	<b>WARRANTY</b>	<b>Period</b>
Complete work in accordance with instructions and written variation orders.	Provide to proprietor a Warranty covering complete installation that it will remain waterproof and weathertight. Warranty to include each roof penetration.	10 years

**SECTION 15150 FLOOR DRAINS**

**SCOPE OF WORK** Perform work described here and shown on drawings including but not limited to:  
Supply and install floor drains recessed into floor surface constructed of concrete, timber, .  
Location for floor drains: Bathrooms, shower rooms, balconies .

**COOPERATE WITH THESE OTHER TRADES** to resolve possible problems before starting work  
Concrete, resilient flooring, ceramic, carpentry, waterproofing, storm drainage.  
Perform the entire installation in accordance with the requirements of the statutory authority having jurisdiction.

**COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS** Current Edition.  
AS 3500.3.1 1998 Stormwater drainage – Performance requirements.  
AS/NZS 3500.3 2003 Plumbing and drainage - Stormwater drainage.  
AS/NZS 3500.5 2000 National Plumbing and Drainage - Domestic installations.  
Comply throughout with the current edition of the Building Code.

**PREPARATION** Inspect conditions at site before starting work  
Ensure that adequate depth, falls and other conditions exist before ordering and installing floor drains.  
Prepare for installation of formwork and pipes through structures.  
Cooperate fully with each trade involved with the installation.

**ON-SITE ACTIONS** Start of work means total acceptance of conditions  
Comply fully with manufacturers' written instructions. Locate accurately the depth and falls required. Install formwork and provide for openings to drain pipes, before pouring concrete or constructing floor. Arrange for inspection by manufacturer and local authority. Ensure that surface level of installed work matches that of finished floor surfacing material  
Connect to stormwater drains or sanitary drains as advised by local authority.

COMPLETION	WARRANTY	Period
Complete work in accordance with instructions and written variation orders.	Provide to proprietor a Warranty covering satisfactory performance of the complete installation.	10 years

**SECTION 16350 ELECTRICAL DISTRIBUTION**

**SCOPE OF WORK** *Perform work described here and shown on drawings including but not limited to:*  
Design, supply and installation of electrical transmission and reticulation materials from mains supply to required electrical power and light outlets, telephone, internal communication system and television antenna.

**CO-OPERATE WITH THESE OTHER TRADES** *to resolve possible problems before starting work*  
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.

**COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS** *Current Edition.*

AS 1680	Interior lighting. <i>There are 14 parts to this Standard, 1991 - 2009.</i>
AS/NZS 2293	Emergency escape lighting and exit signs for buildings. <i>There are 3 parts to this Standard, 1995 – 2005 plus Amendments.</i> 2293.2 1995 Emergency evacuation lighting for buildings – Inspection and maintenance.
AS/NZS 3000 2007	Electrical installations (Australian/New Zealand Wiring Rules) (Amended).
AS/NZS 3018 2001	Electrical installations - Domestic installations.
AS 3786 1993	Smoke alarms.

Comply throughout with the current edition of the Building Code.

**PREPARATION** *Inspect conditions at site before starting work*  
Provide necessary safety or security controls where required to ensure safe practices and installations.  
The following preparatory actions are to be performed by the builder 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 where required.
- E. Provision of electrical riser.
- F. Provision of signwriting to main switchroom and distribution board.
- G. Forming, trimming, patching and making good of openings for luminaires to sizes required by the electrician.
- H. Provision of concrete.
- I. Making good existing roadway etc.

**ON-SITE ACTIONS** *Start of work means total acceptance of conditions*  
Comply with 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.  
Cable: Secure cable, using materials specified above, at centres recommended by regulations and/or manufacturer.

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

**WARRANTY**  
Provide to proprietor a Warranty covering satisfactory performance of the complete installation.

**END OF SECTION**

**SECTION 16710 COMMUNICATION CABLING**

**SCOPE OF WORK** *Perform work described here and shown on drawings including but not limited to:*  
Supply and installation of communication including ISDN, systems for offices. It covers telephone and high speed data communication systems with a limit of 4 lines into each unit.

The work includes:

Connection to the carrier's main cable (by carrier)  
Cabling routing design  
Use of cabling  
Distribution devices  
Compliance with Australian Standards

**CO-OPERATE AND CO-ORDINATE WITH THESE OTHER TRADES** *to resolve possible problems before starting work*

Electrical installation, floor construction, wall construction, ceiling construction, finishing trades.

**COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS** *Current Edition.*

ISO/IEC 15018:2005 Information technology – Generic cabling for homes.

AS/ACIF S008 2006 Requirements for customer cabling products.

AS/ACIF S009 2006 Installation requirements for customer cabling (Wiring Rules).

Perform work employing experienced tradespeople familiar with the quality of work required and who are L-licensed in accordance with requirements of AS/ACIF S009.

Arrange for a conference with relevant other trades to decide upon matters which affect them.

*Comply throughout with the current edition of the Building Code.*

**MATERIALS TO BE USED**

Refer to ISO/IEC 15018 2005.

Before ordering materials submit to the carrier a list of components and their descriptions, for carrier's approval.

Provide and install the equipment specified in the Standard and AS/ACIF instructions.

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

Examine carefully the proposed route for cable installation and installation of other components. Obtain building designer's approval before executing the work.

Provide necessary safety or security controls where required to ensure safe practices and installations.

Provide needed penetration, openings, chases and structures for safe secure and effective installation of cable.

If installation is required in the electrical riser, co-operate with the electrician.

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

Comply with codes listed above.. Refer also to installation clauses for each item.

Refer to drawings for locations of connections, equipment and outlets.

Provide field quality control

A. Where requested by supply authority supply test data obtainable from component manufacturer.

B. Arrange for inspections by component manufacturer's representative to ensure correct application, use and installation.

Adjust installations of components to ensure proper fit and alignment.

Remedy items of inefficient operation or of doubtful performance.

Clean visible items to original condition.

Remove debris from installation in concealed spaces.

**COMPLETION**

Complete work in accordance with instructions and written variation orders.

**WARRANTY**

Provide to proprietor a Warranty covering the complete installation, and that it will remain intact and operational for .

**END OF SECTION**

**SECTION 15738 AIRCONDITIONING**

**SCOPE OF WORK** *Perform work described here and shown on drawings including but not limited to:*  
Supply, install and commission airconditioning consisting of but not limited to a separate condenser unit and wall or ceiling mounted reverse cycle unit which supply heated or cooled air.

**COOPERATE WITH THESE OTHER TRADES** *to resolve possible problems before starting work*  
Wall, floor and ceiling construction, finishing trades, electrical installation.

**COMPLY WITH APPLICABLE CLAUSES OF THESE BUILDING STANDARDS** *Current Edition.*  
AS 1324 Air filters for use in general ventilation and airconditioning. *There are 2 parts to this Standard, 2001-2003*  
AS 1668 The use of Ventilation and Air-conditioning in buildings. *There are 3 parts to this Standard, 1998-2002.*  
AS/NZS 3000 2000 Electrical installations (Australian/New Zealand Wiring Rules) (Amended).  
AS 4254 2002 Ductwork for air-handling systems in buildings.  
*Comply throughout with the current edition of the Building Code.*

**PREPARATION** *Inspect conditions at site before starting work*  
Provide necessary safety or security controls where required to ensure safe practices and installations.  
Provide needed penetration, openings, chases and structures for safe secure and effective installation of components. If installation is required in a duct or riser cooperate with the other relevant trades.

**ON-SITE ACTIONS** *Start of work means total acceptance of conditions*  
Comply with the written requirements of the manufacturer and those of the relevant Australian Standards.  
Ensure that the structure required to support the equipment is adequate for the purpose. Make good any surfaces damaged or marked during the installation. Arrange for inspection of installation by manufacturer's representative to ensure correct installation.

**PROVISIONAL SUM**

Allow for the following Provisional sum:

**\$5,100 (TO BE INCLUDED IN TENDER PRICE) for Split System A/c Units**

- 1 x split system – Race Office
- 1 x split system – Stewards Office
- 1 x split system – Owners and Trainers Room

<b>COMPLETION</b>	<b>WARRANTY</b>	<b>Period</b>
Complete work in accordance with instructions and written variation orders.	Provide to proprietor a Warranty covering satisfactory performance of the complete installation.	10 years