

SPECIFICATION OF WORK
to be done and the Materials to be used
in the construction of:

71 Housing Units
A Community Centre
Lock-up Garages
and
Associated road and landscape works

for the:

Urambi Community Advancement Society Ltd
Canberra

at:

Crozier Circuit, Kambah (Section 149)
Canberra, A.C.T.

ARCHITECTS AND PLANNERS

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INTRODUCTION

The Urambi Community Advancement Society Ltd, whose registered office is:

c/o Abbott, Tout, Creer & Wilkinson
Solicitors
92-96 Northbourne Avenue
CANBERRA CITY A.C.T. 2601

has been formed by members who under the Body Corporate are jointly contributing to a self contained communal development.

The Works comprise a Community Centre, 71 housing units, 39 lock-up garages, carparking spaces, roadways, access paths, covered way, and landscaping.

Drawings have been prepared for the Housing units which are classified into the following basic types, but are to be built in various mixed Groups.

U1	Split Level	Single storey 1 bedroom flat
U1a	Split Level	Single storey 2 bedroom flat
U2	Split Level	2 bedroom house
U3	Split Level	2 bedroom & study house
U4	Split Level	3 bedroom & study house
UC1	Single storey	3 bedroom courtyard house
UC2	Single storey	4 bedroom courtyard house
UC3	Single storey	3 bedroom & study courtyard house
UC5	Single storey	4 bedroom & study courtyard house
UC8	Single storey	4 bedroom & study & seperate laundry courtyard house
UCSP	Single storey	courtyard house of special layout

Each house is numbered on the Site Plan.

The Addendum refers to each house by number and includes all details required by the Member proposing to purchase that house to be included extra and over the standard specification.

The Contractor shall price each house unit's variations described in the Addendum and submit these prices seperately.

For internal costing purposes, a breakdown of each house type cost will be required. This will be measured from and including the slab in the case of the UC series, and the bearers and joists in the case of the U series.

A. PRELIMINARIES

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A. PRELIMINARIES

A1. CONTRACT

The successful tenderer for the Works set out in the accompanying specification and plans will be required to enter into a contract Edition 5b as issued by the Royal Australian Institute of Architects and the Master Builders Federation with amendments and appendix as detailed, with the Urambi Community Advancement Society Ltd. The contractor shall allow for paying the requisite stamp duty in the signing of the contract and affixing the stamp to the Articles of Agreement.

A2. TENDERS

Shall be lodged with the Architect on the Tender Form provided which shall state:

- (a) A Fixed Lump Sum Price or
- (b) A price allowing for Rise & Fall adjustments

A3. RISE & FALL

Rise and fall shall be subject to the current National Capital Development Commission agreement clause, and calculated in accordance with Part A and Part B of their special conditions. The contract sum shall be adjusted accordingly.

Calculations made in accordance with the provisions of this Special Condition, including the calculation of the value of uncompleted work, shall be subject to re-calculation by the Architect prior to the issue of the Final Certificate. The decision of the Architect shall be final, binding and conclusive as to the amount resulting from calculations or re-calculations made under this Special Condition.

A4. SCHEDULE OF RATES

Tenderers are to submit with their tenders a schedule of rates for each Provisional Quantity specified and for any other item for which a schedule rate is called for in the specification. If a rate is not so tendered, the schedule rate shall be determined by the Architect before acceptance of the successful tender.

A5. VISIT SITE

Tenderers shall visit the site, inspect the conditions as found, and satisfy themselves as to the true nature and extent of the works.

No claim arising from neglect of this precaution shall be admitted.

A6. CONTRACTORS RESPONSIBILITY

Before entering into the contract the Builder shall be deemed:

- (i) to have carefully examined the drawings, the form of Contract and this specification
- (ii) to have fully informed himself as to the site, the physical conditions upon and below the surface of the site, uncertainties of climatic conditions, water supply, facilities for handling and storing materials transportation facilities, availability of labour and other conditions affecting the carrying out of the works.
- (iii) to have made his own interpretations, deductions and conclusions as to the difficulties and cost of carrying out of the works, and to have himself formulated an estimate of facilities available and needed to fulfil all his obligations under the Contract.

Failure by the Builder to have done the things he is deemed to have done shall not relieve the Builder of the responsibility for satisfactorily performing the works complete as required.

A7. SOURCE OF MATERIAL

Notwithstanding any provisions of the specification regarding the use of locally manufactured materials, tenders shall satisfy themselves as to the availability of such materials and, if necessary, include in their tender prices any additional costs involved in obtaining from other sources materials not available from local manufacturers.

A8. ALTERNATIVE MATERIALS

Where any material is specified as being similar or equal to a particular brand of material or a product of a particular manufacturer, the particular brand or product specified is to be allowed for by tenderers. Should a tenderer desire to use an alternative material he is to submit with his tender a description of such material and advice of the variation to his tender price that would result from its use. Unless a variation of the work specified is agreed to before the signing of the contract or is ordered by the Architect in accordance with the General Conditions of the Contract, the brand or product specified shall be used in the works.

A9. WORKMANSHIP

All work shall be carried out in a tradesmanlike manner by competent workmen to ensure a good finish throughout all trades, and where necessary, by skilled tradesmen under the charge of a general foreman.

A10. DEFINITIONS

For the purpose of this Contract and Specification the following definitions shall be applicable.

The Proprietor shall mean the body Corporate of the Urambi Community Advancement Society Ltd

The site shall mean Section 149 of Kambah 2, A.C.T., fronting Crozier Circuit and bounded to the rear by Golf Club land. The site is unfenced.

The Architect shall mean, Michael Dysart & Associates Pty. Ltd
105 George Street, Sydney Cove, Sydney 2000, Telephone 421 2157

The Structural, Civil & Hydraulic Engineer shall mean Taylor Thomson & Whitting Pty. Ltd, 48 Chandos Street,

The Electrical Engineer shall mean Barry Webb & Associates Pty. Ltd
33 Alexander Street, Hunters Hill, N.S.W. 2110, Telephone 896 2738

The Contractor shall mean the successful tenderer responsible for the construction and completion of the whole of the Works.

The Works shall mean the Community Centre, the 71 housing units (comprising variations to 10 basic designs), the car parking areas including garages and carports, the approach roads, crossovers, footpaths, pergolas, landscaping and fencing, and all hydraulic, electrical and other services associated with the project.

The Specification has been prepared to describe the basic split level (U) design and the courtyard (UC) design.

Each unit shall be referred to by its Group and number on the site plan.

The addendum at the end of this specification shall contain specific requirements for each unit that is not covered by the general clauses.

A10. DEFINITIONS

The Works shall include all establishment and plant, labour and materials necessary to achieve completion.

The "approval of the Architect" shall mean the Architect or his authorised representative.

The "approval of the Engineer" shall mean the Engineer whose consultancy is related to the Trade or Section for which the approval is called.

The Sub-Contractor shall mean a specialist labour or manufacturer engaged by the Contractor, whether nominated or not in the specification to carry out certain work as described in that sub-contractors trade or section. The sub-contractor whose prices are acceptable will enter into a Form of Sub-Contract (with variations and amendments ruling at the time of agreement) with the Contractor, and such agreement shall not be in conflict with the terms of the Head Contract. The Sub-Contractor shall be approved by the Architect.

The Supplier shall mean a specialist supplier of nominated products. The supplier shall be approved by the Architect.

A11. EXPLANATION OF TERMS

- (a) "C.P." shall mean chromium plated in the best manner, steel or wrought iron shall be heavily coppered, heavily nickelled and finally chromium plated; copper or brass shall be heavily nickelled and then chromium plated.
- (b) Selected shall mean selected by the Architect.
- (c) "Monetary Sum" shall mean a sum specified to be included in the tender price in respect of work or material not specified in detail or in respect of contingencies. The only allowance to be made in the tender price for such work or material is the total of the amounts shown in the Schedule of Monetary Sums, if any, included in this Specification.

Monetary Sums are to be expended only on the written direction of the Architect. Any Monetary Sum, or part thereof, not so expended shall be deducted from the contract price.

"P.C." shall mean Prime Cost, For Conditions regarding Prime Cost items, if any, included in this Specification, see the "Schedule of Prime Cost Items".

"Provisional Quantity" and "P.Q." shall mean a quantity specified as being provisionally included for the purpose of tendering.

In the event of the actual quantity carried out under the contract, as measured on the job, being more or less than the Provisional Quantity, an adjustment shall be made to the contract price for the difference between the actual and provisional quantities at the schedule rate.

The Architect shall determine the extent of the work to be carried out against the Provisional Quantity.

A11. EXPLANATION OF TERMS (cont)

Upon completion of the work covered by a Provisional Quantity or an estimated variation to the contract, the contractor (or his representative) shall measure with the Architect the work done. If the contractor fails to take action in this regard within one month from the date of completion of the particular item of work or if he fails to reach agreement with the Architect as to the measurements, the quantity carried out shall be determined by the Architect.

"Provisional Sum" shall mean a sum specified to be included in the tender price in respect of nominated sub-contract works.

"Supply" shall mean supply and fix.

A12. NOMINATED SUPPLIES &
NOMINATED SUBCONTRACTORS

The contractors attention is directed to clauses Nos. 13, 16, 17 and 18 of the Conditions of Building Contract.

The contractor shall be held fully responsible for the placing of orders and arranging delivery and for unloading, storing as required, fixing, care, protection and maintenance of all materials or goods selected by the Architect to be supplied by nominated suppliers and fixed by the Builder.

A13. GUARANTEES

The guarantees shall state that workmanship materials and installation are guaranteed for a period as specified from the date of completion and that any defects that may arise during that period shall be made good at the expense of the firm doing the work upon written notice from the Architects to the Contractor to do so.

This guarantee shall not be enforced if the work is damaged by structural defects in the building in which case the responsibility for replacement will rest entirely with the Contractor.

The Architect shall be the sole judges of what cause is responsible for defects in the work and their ruling shall be final and binding.

The guarantees under this specification are:

ITEM	GUARANTEE OR WARRANTY PERIOD
Roofing	20 Years
Roof Tiles	50 Years
Drainage	2 Years
Vinyl & Tile Floor Finishes	2 Years
Wall Tiles	2 Years
Plumbing & Fixtures	1 Year
Painting	2 Years
Plastering	1 Year

A13. GUARANTEES (cont)

Doors	2 Years
Window Frames & Glazing	5 Years
Carpet	5 Years

Allow for guaranteeing the due performance of work done by sub-contractors and that all materials in the works are of the required quality. Allow for obtaining warranty in writing from sub-contractors where required by the Specification for their section of the works and for forwarding same to the Architects on receipt.

Guarantees are to be lodged with the Architects before payment of Final Certificate where specified and/or required for materials/goods and performance under P.C. Items and Provisional Sums.

A14. S.A.A. SPECIFICATIONS

Except where otherwise specified, all materials and workmanship are to comply with the relevant specification or code of the Standards Association of Australia,

A15. NOTICE BOARD

Within fourteen days of commencing building operations provide and erect on site where directed an approved post and plank notice board painted white with black printed lettering thereon giving the Architect, Contractor and Engineers, each separate description shall be shown on a separate plank, to detail by Architect.

A16. WORKSHOPS

The contractor shall site and erect site administration and workshop sheds by agreement with the Architect.

The storage area of materials shall be clearly defined and sited so as to cause the minimum of damage to existing trees.

The workshops and storage areas shall be kept clean and tidy at all times.

A17. TEMPORARY FENCES & HOARDING

The contractor shall consult with the Architect and provide temporary fences and hoardings of approved construction and neat appearance if required by the N.C.D.C., D.C.T. or any authority.

Take down and clear away temporary fences and hoardings when directed or when no longer required and make good all works disturbed.

A18. LATRINES

The contractor shall provide temporary latrine accommodation for all workmen employed upon the works in accordance with the requirements of the local authority and in the proportion of not less than one closet for every fifteen men. He shall maintain same in a clean and sanitary condition and obliterate all traces of same upon completion of the works.

A19. ARCHITECT'S APPROVAL

Wherever the terms "approved" or "to approval" are used in this Specification they shall mean approved by the Architect or to the Architects approval.

Samples of all work described as "approved" or "to approval" shall be submitted to the Architect prior to commencing such work.

A20. MATERIALS IN COMMON TO SEVERAL TRADES

Cement: to be best Portland Cement which has been tested and is in accordance with the Australian Standards Association and method of test for Portland Cement (A.S. No. A2 -1953)

Sand: is to be clean and sharp, free from saline, vegetable and other impurities and, if so required or directed, is to be well washed when used with cement.

Lime: is to be best fresh burnt stone lime

Water: is to be clean and fresh. The contractor is to meet all costs for water required in connection with this contract. If the supply is taken from a metered service, the contractor is to provide and fix a sub-meter and pay for all-water so used.

A21. SITE OFFICE

The contractor shall provide and erect, where directed and for the exclusive use of the Architect and his consultants, an approved office, not less than 3500 x 3000, having a window fitted with steel mesh affording a clear view of the works and door fitted with a coat hook, padlock and hasp. The office shall be fitted with a drawing table, a stool, waste paper basket, and two shelves fixed above the table. The office shall have racks fitted to receive complete sets of drawings which shall be collected in sets and placed between battens screwed together and hung from the racks vertically.

The office shall have an electric light, a power point and be fitted with a telephone. A portion of the wall shall be finished in Caneite to provide a pin-up board.

A21. SITE OFFICE (cont)

The office is to be used for the location of site meetings and is to be kept tidy and swept clean by the contractor.

The contractor shall provide sufficient chairs in sound condition for the use of site meetings.

Access to the office will be limited to authorized persons and the key is to be in the custody of the Site Foreman.

The office shall be maintained until the practical completion of the Community Centre, after which time a room in that building will be utilized for the purpose of site meetings.

A22. TEMPORARY SERVICES

The contractor shall arrange for, provide and maintain and remove on completion of the contract, the following temporary services to facilitate the building operations and pay all charges incurred.

- Water from the town mains
- Electric light and power services
- Telephone service to the site administration offices
- Necessary toilet drainage in accordance with the requirements of the local Health Authorities
- Temporary access roads on to the site and to the various areas.

A23. UNDERGROUND CABLES OR PIPEWORK

The contractor is to discuss with the consultants for the various services, the routes of new or relocated service runs and shall route them to suit site conditions, the requirements of the authorities and to avoid the trees and their root systems.

A24. SETTING OUT

The contractor shall allow for a licensed surveyor to set out the structural grid of the buildings and components, and establish a secure datum mark in a position directed, relative to the datum indicated on the drawings.

The boundaries shall be marked all around the site by the surveyor appointed, using clearly marked pegs permanently located for the duration of the contract.

On completion of the footings and brick walls up to d.p.c. and concrete base slabs, the contractor shall submit to the Architect a Certificate indicating their location.

When the buildings are substantially completed, a final identification certificate is to be submitted to the Architect, indicating them, in relation to the boundaries, noting all paved areas, projections site works etc.

A24. SETTING OUT (cont)

The contractor shall be responsible for setting out all other parts of the work, any mistakes made in doing so shall be made good at this own expense.

A25. DELAYS

Extra time for inclement weather, industrial dispute, or strikes will be made on the assumption that the delay has occurred to an item essential for the overall progress of the works. The accompanying claim must be substantiated by full details of the weather industrial dispute or strike, occasioning the delay to the works.

No extensions shall be allowed for delays due to materials not being ordered or delivered in accordance with the work programme submitted.

A26. WORK PROGRAMME

Within fourteen days of acceptance of the tender, the contractor shall submit in triplicate a programme in the form of critical path analysis, showing the proposed commencement and completion, of each trade, subcontract and operation at each stage and section of the work. This work to be carried out by a specialist consultant acceptable to the architect.

It shall thereafter be an obligation of the contractor to conform with the programme as part of the time provisions of the contract and update at a minimum two weekly periods.

The Works are to be completed and handed over in the following stages:

1. The Community Centre
The Associated Car Park - P1
The access road associated with same
- 2a. Housing Unit Groups J & K (39 - 52 inclusive))
The associated car park - P3)
The access road associated with same)) CONCURRENTLY
- 2b. Housing Unit parts Groups H & L (33-38 + 53 - 59 inclusive)
The associated car park - P5)
The access roads associated with same))
- 3a. Housing Unit Groups G & M (28-32 & 60-65 inclusive))
The associated car park - P6)) CONCURRENTLY
The access road associated with same))
- 3b. Housing Unit Groups D, E, F (15 - 27 inclusive))
- 4a. Housing Unit Groups A, B, C (1-14 & 66-71)
The associated car Parks - P2 & P4

A26. WORK PROGRAMME

5. Landscaping, pergola, fencing and final details.

A27. EXTRA OR ALTERED WORK

Variations shall not be commenced until the following procedure has been carried out.

- a) On the basis of a written Architects instruction which will not incur extra cost or deductions.
- b) Should the proposed extra or altered work incur extra cost or deductions the contractor shall inform the Architect before commencing the work, that a variation in cost will be incurred.

The Architect shall issue a variation Price Request (VPR) on which shall be detailed the variation. The Contractor shall submit his price for carrying out the works described allowing for all co-ordinating trades as involved, for all profit and attendance and an indication of the time required to effect the variation.

Should the VPR costing be acceptable (after negotiation if necessary) a Contract Variation Order will be issued authorising the Contractor to carry out the varied works at the cost agreed on the VPR.

Should extra time be involved in this varied work, the Contractor shall submit a separate claim based the dates on which the work was actually done. The claim for extra time will be subject to separate approval by the Architect.

No claims shall be accepted for extra payment unless they are referred to in a Contract Variation Order.

A28. INSPECTIONS

No part of the work shall be covered up or put out of view without prior approval of the Architect and the Builder shall afford full opportunity for the Architect to examine and measure any work which is about to be covered up or put out of view and to examine foundations before any further part of the Works is placed thereon.

The Contractor shall give due notice to the Architect whenever any such part of the work or foundations is or are ready or about to be ready for examination.

A29. MAKING GOOD FOOTPATHS
AND FOOTPATH CROSSINGS

The Builder is to take the necessary precautions to protect the roadways, kerbs and footpaths or any other Municipal or Government property from damage by cartage operations or other works, and must make good any damage that may be done to the satisfaction of the Authorities.

A30. CLEANING UP UNDER SUSPENDED
FLOORS

Immediately after the work is ready for painting and all floors are completed, the Contractor shall arrange with the Architect for the inspection of all areas under the floors.

If the areas are clear of debris, discarded building materials etc the Architect will issue a certificate stating that the areas are acceptable and painting may commence.

If the areas are not satisfactory, the Architect will issue instructions as to the remedial work required, and within three days the Contractor shall proceed to clear the areas as required, and arrange for a further inspection.

This procedure will be repeated until the certificate is issued and no progress payments shall be made after the date of the first inspection until a certificate is issued.

The contractor shall maintain these areas in a clean condition until the end of the maintenance period.

The contractor is to allow for all costs in providing plant, labour lights and equipment for this work.

A31. ON COMPLETION

All sanitary fittings flushed and taps run and wastes checked for blockages.

Clean all basins, W.C.'s cisterns and leave clean and fit for use. Provide all loose plugs and hand to Architect for Proprietor's use.

Clean all taps, check washers, waste pipes for leaks, check all flushing cisterns and leave in working order. Check all heating systems are functioning.

Confirm hot, and cold water systems are functioning.

Hand over all keys to the Architect, correctly and adequately labelled by room description.

All rwsps and stormwater lines shall be tested.

All duct work shall be left open for inspection to determine the existence of leaks in pipes and the presence of debris.

All windows shall be tested for watertightness.

A31. ON COMPLETION (cont)

All electrical fittings and gear shall be in working order.

All approvals shall be obtained from statutory bodies.

A32. CONTINGENCY SUM

Allow the Monetary Sum included in the Schedule of Monetary, Prime Cost and Provisional Sums for contingencies or for any extra works not hereafter specified.

Such works shall only be carried out on the written authority of the Architect.

B. EXCAVATOR

- B1. Extent
- B2. Generally
- B3. Trial Holes
- B4. Site Clearance
- B5. Trees
- B6. Excavations for Constructions
- B7. Maintain Excavations
- B8. Inspection and Approval
- B9. Filling
- B10. Backfilling
- B11. Hardcore
- B12. Spoil Heaps
- B13. Restoration of Road

B. EXCAVATOR

B1. EXTENT

The work specified under this section shall comprise:

- (a) Site clearing
- (b) Excavation and fill for establishment of the new site levels
- (c) Excavation and fill for all constructions

The excavation and filling for drains and pits is specified under Hydraulic Services.

B2. GENERALLY

The contractor shall allow in his price for all materials to be as envisaged from surface inspections and trial holes. The definition of rock shall be determined by the Architect, whose decision shall be final. Rock shall be deemed to be that which is required to be removed by the use of jack hammers and power tools, but it will not be assumed that any material which is being removed by power tools is rock.

B3. TRIAL HOLES

A trial hole has been dug and investigated and the Structural Engineers report is enclosed with this specification.

B4. SITE CLEARANCE

The Contractor shall clear the areas to be built on of all vegetable and top soil to a depth of 200 and deposit it in heaps on the site where indicated on the landscape drawings.

The soil shall be stock piled in areas clear of all building sites service runs and existing trees. Mounds to be no higher than 2000.

B5. TREES

No tree shall be removed, lopped or damaged by the excavation operations. They shall be protected by adequate timber guard posts and wirefence driven into the ground around each tree encompassing the root spread.

The Architect shall be consulted should any tree be affected by the siting of buildings and/or road works and any lopping shall conform to the method indicated on the landscape drawings.

A fine of \$500 for any tree so lost in the building process shall be deducted from the contract sum. It is the contractors responsibility to ensure that subcontractors engaged in earthworks and services are properly supervised, and made aware of their obligation in this regard. Where service runs cut tree root systems services shall be rerouted subject to discussions with the architect.

B6. EXCAVATIONS FOR CONSTRUCTIONS

Excavate to the depths and dimensions shown on the drawings for all piers, footings, footing beams, and all other constructions.

B7. MAINTAIN EXCAVATIONS

The Contractor shall maintain excavations in good and safe condition, and accurately maintain dimensions of foundation work. Keep excavated materials clear from excavations and prevent loose material from falling into same during concrete pours.

Provide and maintain all necessary planking, strutting and all other supports.

B8. INSPECTION AND APPROVAL

All excavation shall be approved by the Architect before further work commences.

B9. FILLING

The filling material shall be approved by the Architect, and shall be placed in horizontal layers of not more than 150 compacted thicknesses to the satisfaction of the Engineer.

B10. BACKFILLING

(a) Backfilling shall not be placed until all constructions and services are completed and approved by the Architect. Backfilling material shall be approved, selected, as found on site and shall be carefully placed in 150 layers and thoroughly consolidated.

(b) Back filling behind drainage lines behind retaining walls shall be approved materials laid in layers of 150 maximum thickness a.b.s.

(c) The stored top soil, supplemented as required with approved soil brought on to site shall be deposited around all completed constructions to a depth of 150 and left raked to receive planting by landscaper.

B11. HARDCORE

Hardcore comprising broken rock and other approved materials shall be laid in 100 maximum thickness and well watered.

Where slabs are laid on hardcore it shall be blinded with sand. Elsewhere blinding is not required.

B12. SPOIL HEAPS

The Contractor is to allow in his price for obtaining sufficient spoil comprising clean excavated materials (not containing solids other than natural rock and stones) to form the moundings shown on the site plan.

The site, height and shape will be as shown on the drawings but minor modifications may be directed by the Architect on site.

No heap will exceed 2400 high and all will be covered with approved planting quality topsoil to a depth of 150.

Provision is to be allowed for reforming any hummock eroded by rainwater or other causes during the Contract construction period before stabilising planting has been established.

See "Landscape" for details of planting.

B13. RESTORATION OF ROAD

No road, kerb, pavement, shoulder or footpath or a dedicated road shall be opened until the approval of the Authority controlling the road has been obtained.

The Contractor shall comply with all conditions of approval, pay all fees and shall leave the whole road and adjoining surfaces reinstated on completion of the Contract to the satisfaction of the Council.

During the whole of the Works the Contractor shall promptly keep Crozier Circuit clean and free from all mud, debris and other materials which may be deposited from vehicles entering and leaving the site.

C. CONCRETOR, FORMWORKER REINFORCEMENT

- C1. Generally
- C2. Standards
- C3. Formwork
- C4. Reinforcement
- C5. Bending, splicing & Welding
- C6. Cleaning
- C7. Fixing
- C8. Placing
- C9. Core Holes, Inserts & Embedded Items
- C10. Slab Embedded Heating System
- C11. Concrete
- C12. Admixtures
- C13. Storage
- C14. Concrete Mixing
- C15. Concrete (Site Machine Mixed)
- C16. Horizontal Surface Finishes
- C17. Underfloor Waterproof Membrane
- C18. Concrete Placing
- C19. Protection
- C20. Levels of Concrete Slabs
- C21. Protection of Brickwork

C. CONCRETOR, FORMWORKER REINFORCEMENT

C1. GENERALLY

Perform the whole of the concrete work shown on the architectural and structural drawings and any requirements for concrete particularised with another trade division shall be incorporated in the concrete work as part of the whole.

The roadworks, parking areas and paths shall be carried out as shown on the Civil Engineering drawings and shall be described seperately in Site Works.

C2. STANDARDS

Except where they are varied by the requirements of these specifications, the requirements of the following Australian Standards Specifications and/or codes shall form part of these specifications.

Australian Standard 14800 - SAA Concrete
Structure Code

Australian Standard AS1379
Ready Mixed Concrete

Australian Standards AS1012 - Methods for Testing of Concrete

Australian Standard AS1509 - SAA Formwork Code
Australian Standard AS1510 - Part 1 - Control of Concrete Surfaces
- Formwork

Other standard publications having application to limited or specific materials or operations are referred to with the item to which they apply.

C3. FORMWORK

The responsibility for the safety and adequacy of the whole of the formwork shall rest entirely with the Contractor. All formwork shall generally comply with the requirements of AS1509.

The Contractor shall give 24 hours minimum notice when formwork is ready for inspection and allow a sufficient time for inspection and adjustment.

Form linings shall be such as to produce concrete to the shapes, lines, levels and dimensions required by the Contract drawings with the surface finish and within the tolerance specified. Earth and rock cuts shall not be used as forms for vertical surfaces unless shown on the drawings or permitted on site by the Engineer.

C4. REINFORCEMENT

Except where varied by these specifications and in addition to the standards noted all reinforcing steel, accessories and steelwork shall conform to the following standards:

AS1302 Steel Reinforcing Bars for Concrete
AS1303 Hard-drawn Steel Wire for Concrete
AS1304 Hard-drawn Steel Wire Reinforcing Fabric for concrete

The reinforcement shall be supplied in strict accordance with the contract documents and within the tolerances specified.

C5. BENDING, SPLICING AND WELDING

Reinforcement shall be bent or straightened in a manner that will not damage it.

Generally reinforcement shall be bent cold.

When approved, structural grade steel bars may be bent at a cherry red heat (not exceeding 850°C), but shall not be cooled by quenching.

Proposals for splicing not already shown on the drawing shall be submitted for approval before fabricating.

Approval must be obtained before welding reinforcement.

C6. CLEANING

Before delivering, reinforcement shall be cleaned free of loose mill scale, loose rust, oil, grease and other coatings which would reduce the bond between the concrete and reinforcement.

C7. FIXING

The placing and fixing in position of reinforcement shall conform to the applicable rules in the standards listed elsewhere.

All reinforcement shall be fixed in strict accordance with the contract documents and within the tolerances specified.

The Contractor shall give 24 hours notice to Architect before the reinforcement is completed and ready for inspection. A reasonable time shall be allowed for subsequent inspections, adjustments and final approval. A foreman shall be in attendance during all inspections.

The Contractor shall examine the reinforcement delivered onto the job for defects or departures from the requirements of fabrication as set out elsewhere in these specifications.

The Contractor shall be responsible to remove reinforcement which may have been fixed in position, if any defects in fabrication or supply are subsequently discovered.

C8. PLACING

Bars may be moved as necessary to avoid interference with other reinforcing steel, conduits, or embedded items. If bars are moved more than one bar diameter or enough to exceed the above tolerances, the resulting arrangement of bars shall be subject to approval.

Supports for reinforcement shall be sufficient to carry construction loads without displacement.

Extra supports and additional care shall be provided for the support of light reinforcement or for the support or reinforcement in general when concrete is cast against the ground. Barrow runs shall be supported clear of the reinforcements.

C9 CORE HOLES, INSERTS AND EMBEDDED ITEMS

The Contractor is responsible for co-ordinating the requirements of core holes, embedments and inserts for all trades.

The Contractor shall form up for all core holes and build in all embedments or inserts into the concrete as shown on the drawings.

Before pouring concrete it is the Contractor's responsibility to notify the Architect of any condition of embedment where the diameter of embedments is greater than one third the thickness of slab or wall or the minimum dimensions of beams or columns in which they are embedded.

Embedded pipes shall be spaced not closer than three diameters centre to centre, nor so located as to impair unduly the strength of construction.

Concrete cover over embedments shall be not less than the outside diameter of the embedment or four thirds of the nominal size aggregate whichever is the greater. In any case the cover shall be not less than 25mm.

Service pipes shall be laid over the bottom reinforcement and under the top reinforcement. (Note electrical conduits may NOT be fixed UNDER the bottom reinforcement.)

C10. SLAB EMBEDDED HEATING SYSTEM

The contractor shall acquaint himself with the housing units that are to incorporate an oil fired heating system.

The contractor shall attend on the nominated heating subcontractor, inform him of each proposed concrete pour to enable the heating contractor to be on site to attend to any damage.

C11. CONCRETE

All concrete shall be made with the ingredients as specified only. No substitution for a component shall be made without approval.

Except where varied by these specifications all concrete and its components shall comply with the following.

Cement : AS1315 Portland Cement
Concrete : AS1379 Ready-mixed Concrete
Aggregates : AS1465 Dense Natural Aggregates for Concrete

The Contractor shall be solely responsible for producing concrete which will have the properties specified.

The Contractor shall be responsible to arrange and produce the Manufacturer's certificate referred to in AS1379.

The Contractor shall ensure that the supplier of ready-mixed concrete will permit inspection of the plant and materials, and if so required will permit the taking of samples for testing purposes.

C12. ADMIXTURES

Except where specified or noted otherwise admixtures shall not be used in concrete.

C13. STORAGE

Cement shall be stored in weathertight buildings, bins, or silos which will provide protection from dampness and contamination.

Bags of cement shall be stacked and used in rotation to prevent deterioration due to storage.

Aggregate stockpiles shall be arranged and used in a manner which will prevent excessive segregation or any contamination with other materials or with other sizes of aggregates.

Fine aggregates shall be allowed to drain before use until a uniform moisture content is reached.

C14. CONCRETE MIXING

Concrete obtained from a ready mixed concrete supplier shall be produced in accordance with the requirements of AS1379.

The Contractor shall ensure that the concrete supplier is aware of the requirements of the concrete for each item.

Delivery Dockets shall accompany each delivery and show the element for which the batch is intended together with details of the properties of the batch.

C15. CONCRETE (SITE MACHINE MIXED)

Site mixed concrete shall not be permitted unless specifically approved.

Site mixing shall be carried out in modern power operated batch mixers capable of producing concrete which will have the qualities specified.

Site mixed concrete shall conform with the requirements of AS1379 relevant to site mixing.

C16. HORIZONTAL SURFACE FINISHES

The horizontal surface of the concrete shall be finished in accordance with a table similar to the following specimen table in which the concrete finish types shall be as described as follows and the tolerance a.b.s.

This table is embodied in the building specification:

- A) Floated Finish: To areas to receive carpet and vinyl. After the concrete has been placed, struck off, consolidated and levelled, for floating. Floating shall begin when the water sheen has disappeared and/or when the mix has stiffened sufficiently to permit the proper operation of a power-driven float hard up against wall junctions. The surface shall then be consolidated with power-driven floats. Hand floating with wood or cork-faced floats shall be used in location inaccessible to the power-driven machine. Trueness or surface shall be rechecked at this stage with a 3m straight edge applied at not less than two different angles. All high spots shall be cut down and all low spots filled during this procedure to a Class B tolerance. The slab shall then be re-floated immediately to a uniform, smooth, granular texture.
- B) Trowelled Finish: To areas to receive tiles and to garage and car port floors. Where a trowelled finish is specified, the surface shall be finished first with power floats as specified above where applicable then with power trowels and finally with hand trowels. The first trowelling after power floating shall be done by a power trowel and shall produce a smooth surface which is relatively free of defects but which may still contain some trowel marks. Additional trowellings shall be done by hand after the surface has hardened sufficiently. The final trowelling shall be done when a ringing sound is produced as the trowel is moved over the surface.

The surface shall be thoroughly consolidated by the hand trowelling operations. The finished surface shall be free of any trowel marks, uniform in texture and appearance and shall be planed to a Class A tolerance. On surfaces intended to support floor coverings, any defects of sufficient magnitude to show through the floor covering shall be removed by grinding.

C17. UNDERFLOOR WATERPROOF MEMBRANE

All concrete slabs poured within buildings are to be laid on membrane.

All membranes will consist of one layer of polyethylene film sandwiched between two layers of bitumenised Kraft paper equal in all respects to "Sisalthe 355". Lap membrane 300mm at joints and seal with 50mm wide pressure sensitive tape.

C17. UNDERFLOOR WATERPROOF MEMBRANE (cont)

At concrete walls the membrane is to turn up approximately 300mm around the bottoms of the walls to allow the vertical membrane elsewhere specified or detailed to carry down to the bottom of the wall.

Extend membrane under all perimeter edge beams or slab thickenings and turn up 75mm on the outside or as detailed on the Architectural drawings. Every effort shall be made to avoid damaging the membrane and any defects, tears and holes shall be made good to the satisfaction of the Architect.

C18. CONCRETE PLACING

A representative of each sub-trade shall attend all pours where service pipes are embedded, during all pours, and shall ensure that each others' installations are not displaced or damaged during the pouring and during vibration.

Extend to Plumber)
 Electrician) Trades
 Heating)

Except where varied by these specifications concrete placing shall conform to the applicable rules in the standards listed in C2.

All concrete shall be placed under the direct supervision of a capable foreman experienced in reinforced concrete construction.

The Contractor shall give 24 hours notice to the Architect of his intention to place concrete.

Concrete shall not be placed during rain and frosty weather.

C19. PROTECTION

The Contractor shall protect all freshly cast concrete from premature drying out and from excessively hot or cold temperatures. In windy conditions windbreaks shall be erected to shield the concrete surface during and after placing. The concrete shall be maintained at a reasonably constant temperature with minimum moisture loss during curing periods.

The Contractor shall commence curing operation as soon as the surface of the concrete has hardened sufficiently to prevent damage but in no case later than two hours after the finishing operations have been completed.

Concrete shall be kept continuously moist at least over-night by one of the following methods selected by the Contractor:

- (a) Ponding or continuous sprinkling with water
- (b) The use of an absorptive cover kept continuously wet.

C19. PROTECTION (cont)

Concrete shall be protected from damage due to excessive load overstresses, heavy shocks and excessive vibration.

Surfaces shall be protected from damage caused by construction equipment building operations and materials. Protect from rain and running water.

Surfaces shall not be walked or wheeled over for 48 hours after pouring.

Self supporting slab shall not be loaded in such a way as to overstress the concrete.

No excess concrete shall be disposed of on site.

No trunks shall be washed out on site, nor shall they be flushed out in areas where the drain off is allowed to enter drain lines.

C20. LEVELS OF CONCRETE SLABS

In setting up for the levels or grade, allowances shall be made for the various finishes as specified under the respective trade finishes.

The Contractor shall ensure that the junctions of all floor finishes are flush.

C21. PROTECTION OF BRICKWORK

Where the wall finish is described as face these surfaces are to be protected at all times from concrete stains and runs during concrete pours.

Protective film such as polythene is to be turned 20mm onto the wall tops prior to formwork placing and turned down the walls to protect them fully.

D. BRICKLAYER & BLOCKLAYER

- D1. Generally
- D2. Bricks
- D3. Cavities
- D4. Brick on Edge
- D5. Brick Rods
- D6. Retaining Walls
- D7. Sleeper Piers
- D8. Mortar
- D9. Damp Courses and Flashings
- D10. Blockwork
- D11. Hoop Iron Straps

D. BRICKLAYER & BLOCKLAYER

D1. GENERALLY

The Contractor shall supply all labour, materials and equipment necessary to complete the concrete masonry walls in accordance with plans and specifications. This work shall be properly co-ordinated with that of other trades. All applicable local laws, ordinances and codes shall be fully complied with. All materials, workmanship and construction practices shall be of a standard not less than that shown on the plans or specifications hereunder.

Masonry units shall be stacked on planks off the ground, and in wet weather shall be covered with tarpaulins or otherwise kept dry. At the end of each day's work the top of the wall shall be covered with tar paper, polythene sheets or by other means protected from becoming excessively wet. The masonry units shall not be dampened prior to laying but shall be laid in the dry state.

Brick shall comply with SAA CA47 1969.

Soak all bricks before laying.

Build work in stretcher bond.

All work shall be accurately set out to straight and level courses, with all perpends set above each other. All joints shall be 10 wide flush or recessed as determined by the colour of the mortar.

No section of wall shall rise more than 1200 above any connected adjoining part:

Raised parts shall be raked back. Four bricks shall rise 343 unless a specific brick rod is noted.

No chasing of exposed brickwork shall be allowed. The Contractors attention is drawn to the requirements of one brick thick walls fair faced both sides.

All face brickwork shall be of selected bricks, with true and unbroken edges and surfaces.

No mortar or concrete droppings shall be allowed to remain on face work and shall be cleaned off immediately.

On completion all facework shall be cleaned with diluted spirits of salts and protected from damage. A heavy concentration of spirits will affect colour of bricks, and bricks so affected may have to be replaced.

D2. BRICKS

Bricks shall be selected common bricks obtained from the nearest source of supply.

Allow the rate as set out in the schedule for face bricks delivered to site.

D3. CAVITIES

Form all cavities between brick skins as indicated on drawings, leave loose bricks at base for cleaning out every 3 bricks and build in solid on completion.

Tie skins of 280 hollow walls together with 8 gauge galvanised U-shaped drip ties spaced 900 apart horizontally in every third course and staggered.

Ties to wide cavities where required shall be special approved heavily galvanised ties min. 25 x 3 section spaced as last.

D4. BRICK ON EDGE

Terminate all walls with 115 brick on edge snapped header course or full header across 230 work with cut mitre brick at change of direction.

Party walls are to be to the lengths as shown, with full allowance made for raking cutting, with brick on edge capping.

Over all openings in face brick walls provide, to both skins, a single row of snapped 115 brick on edge.

D5. BRICK RODS

A brick rod shall be employed to determine a constant level to brick walls at each floor. Note the one course set down for brickwork at edges of slabs.

D6. RETAINING WALLS

Brick retaining walls shall be constructed according to engineers details with only face brick exposed. Finish with brick on edge coping.

D7. SLEEPER PIERS

Under all timber framed wall and floor bearers provide 230 x 230 brick piers on 2 courses of 345 brick footing pads, spaced at 1800 maximum centres and to a maximum height of 1500. All footings to be cement mortar.

D8. MORTAR

All mortars shall conform to ASA 123.

Cement Mortar shall be composed of:

- 1 part Portland Cement
- 1/10 part hydrated lime
- 3 parts of clean sharp sand

D8. MORTAR (cont)

Ready Mix Composition Mortar shall be composed of:

- 1 part white cement
- 1 part hydrated lime
- 6 parts clean sharp sand

Store mortar in storage bins.

White mortar shall be used where specified in Addendum with flush joints.

D9. DAMP COURSES AND FLASHINGS

Except where specified D.P.C. and flashing shall be super grade Alcor lapped full width at angles and intersections and 150 in all joints of running lengths. Preformed Alcor returns shall be used at external wall angles.

Provide horizontal D.P.C. in all external walls including court walls, at each floor level as generally detailed. Provide vertical D.P.C. in all external wall/window junctions and as typically detailed.

Provide all flashings at window sills and heads. At sills turn flashing up sides and back and turn down over external lining or bend across cavity and build in at least 25 into outer leaf of external wall.

Leave perpends open at 900 c/c as weep holes over all D.P.C.'s and flashings bridging the cavities of hollow walls.

Flashings of 3 lb lead are to be provided around vent stacks dressed down onto roof slopes.

The contractor is fully responsible for waterproofing of the building and ensure bricklayer's inclusion of D.P.C. in correct positions, and will have to amend any faults of construction if required.

Cap all piers with 24g galvanised iron 35 wider than piers all round and turned down at 45°, solder and lap joints.

Where the finished ground level on one side of a party wall is adjacent to and above the floor level of the unit on the other side of the party wall, a continuous dampcourse of "Viopal" or approved equal shall be built into one leaf of the party wall at d.p.c. level, turned down cavity and built into the other leaf at its d.p.c. level. "Viopol 4" distributors are Commerce Developers Pty. Ltd.

D10. BLOCKWORK

The whole of the concrete block wall construction shall conform to AS CA31.

Build concrete block retaining wall in positions shown in 100 and 200 blockwork all to engineers details, reinforced and filled where required. Ensure correct positioning of starter bars and holes at base of wall to allow cleaning and provide adequate key for grout filling. Provide 19 ironing bar for smooth joint.

All blockwork shall be set out accurately with horizontal and vertical gauge rods.

Beds and joints shall not exceed 10 in thickness.

Intersecting walls shall be block bonded.

Blocks shall be laid dry, and wetting shall not be allowed.

D11.

Build in the necessary hoop iron straps to both brick and block walls to securely hold down roof beams and trusses.

E. METALWORKER

- E1. Generally
- E2. Balcony Rail Supports
- E3. Stirrups (For Timber Posts)
- E4. Metal Supports for Pergolas Attached to Houses
- E5. Shower Screens
- E6. Aluminium Insect Screens
- E7. Rooflight
- E8. Arch Bars and Angle Support
- E9. Steel Posts and Beams
- E10. Stair Strings
- E11. Vanity Brackets

E. METALWORKER

E1. GENERALLY

Except where otherwise noted or described steel shall be mild steel to AS A149-1965.

All fabricated work shall be executed in an approved shop; all welds shall be cleaned off smooth; all drilling shall, where practicable be carried out in the shop and before galvanising; provide all necessary shop drawings and submit for approval before fabrication commences.

All work shall be hot dip galvanised by an approved firm; galvanising shall only be carried out after fabrication is complete; any site welding/drilling required shall be touched up with cold galvanising to approval.

These provisions shall apply equally to all metalwork where appropriate in all trades.

E2. BALCONY RAIL SUPPORTS

Provide 38 x 25 r.h.s. steel tube supports at approximately 2000 c/cs each fixed to structural timbers with No. 2 9 ϕ bolts. At the top of each tube shall be welded a 75 x 38 x 3 ms plate drilled and countersunk 4 times to receive No. 4 screws to underside of handrail. Plate to be checked into wood.

E3. STIRRUPS (FOR TIMBER POSTS)

Provide to each 150 x 150 posts a m.s. stirrup. Each stirrup shall comprise a U section with sides 175 x 100 x 6 drilled No. 2 x 12 150 x 150 base onto which is welded a 50 ϕ m.s. tube 300 long with a ragged end for setting into concrete.

E4. METAL SUPPORTS FOR PERGOLAS ATTACHED TO HOUSES

To each house shall be supplied and fixed a bent galvanised strap, one leg 100 the other 200 each twice drilled for coach screw fixing to pergola joists and hardwood bearer in ground.

E5. SHOWER SCREENS

Provide and fix bronze colour anodized shower screens to all shower recesses complete with grey paraline glass infill. Approved aluminium frame section shall be concealed screw fixed to both wall and bath edge. Provide matching connecting rod.

E6. ALUMINIUM INSECT SCREENS

To all opening window lights shall be provided and fixed bronze colour anodized insect screens with approved plastic mesh tightly stretched and secured with a plastic bead, hinged as required to facilitate operation of the window opening gear.

Provide spring catch and handle.

To all sliding doors supply and fix bronze colour anodized insect screen door in the one panel (similar to AGCO Huckson Pty. Ltd) to slide on nylon track.

E7 ROOFLIGHT

Where shown in each of the courtyard house kitchen ceilings an Atlas Domelight 1090 x 635 (for tiled roofs) light shall be provided to be built in by the Carpenter in conjunction with the Roofer.

Domelights are manufactured by Atlite Pty. Ltd, 203 Sydney Road, Brunswick, Victoria 3056.

Where shown in each of the courtyard house bathroom ceilings supply and fix Atlas domelight Atlas.

E8. ARCH BARS AND ANGLE SUPPORT

Openings in brick walls shall be supported by bars or angles with at least 115 bearing at each end. Up to 1200 provide 75 x 9 m.s. bar, from 1200 to 1500 provide 76 x 76 x 9 m.s. angle.

E9. STEEL POSTS AND BEAMS

Provide and fix steel columns and beams as detailed on engineers drawings to support carports.

E10. STAIR STRINGS

Fabricate concealed stair strings from 203 x 6 steel plate with 150 x 37 x 6 flats welded to form support for treads predrilled for screw fixing.

E11. VANITY BRACKETS

Provide and fix No. 2 galvanised metal brackets as detailed to support vanity units in both housing types.

F. CARPENTER AND JOINER

- F1. Workmanship
- F2. Timbers
- F3. Timber Sizes
- F4. Stud Framing
- F5. Insulation
- F6. Roof Framing
- F7. Ceiling Straps
- F8. Floor & Ceiling Framing
- F9. Water Stops
- F10. Window Wall
- F11. Flooring
- F12. Asbestos Sheet Flooring
- F13. Skirtings
- F14. Stairs and Balustrade
- F15. WRC Lining
- F16. Pergolas
- F17. Decking
- F18. Battens
- F19. Tiling Battens
- F20. Eaves Soffit
- F21. Balusters
- F22. Door Jambs
- F23. Door Stops
- F24. Architraves
- F25. Doors
- F26. Door Furniture
- F27. Wardrobes
- F28. Bathroom Cabinet
- F29. Vanity Units
- F30. Kitchen Cupboards

- F31. Kitchen Pantry
- F32. Dressing Rooms
- F33. Entry Cupboard
- F34. Linen Cupboards
- F35. Balcony Rail (Internal)
- F36. Carports & Garages
- F37. Garage Doors
- F38. Bookshelving
- F39. Rooflight

F. CARPENTER AND JOINER

F1. WORKMANSHIP

The whole of the work is to be framed, fitted, trimmed and finished in the best and most workmanlike manner. All timbers exposed to view are to be wrot and all joinery work is to be hand scraped and fine sand papered to a perfectly smooth surface. All frames, etc are to be carefully protected from damage during construction.

Punch all nail heads and countersink all screws unless otherwise stated; all nails used in conjunction with cedar are to be cadmium plated.

Do all labour, punching nails, jointing, trimming, grooving, tonguing, rebating, housing, checking, drilling, beading, mitring, framing and fixing complete.

Include for all glue, nails, spikes, screws, plugs, templates, lining blocks, stops and the like whether so specifically stated or not.

Dressed timbers shall be in single lengths where possible.

Allow for scribing to walls, floors and ceilings.

Do not fix joinery in wet or damp positions, or before paving, plastering wall tiling or other 'wet' trades are completed and dried out.

Prepare faces for finishes as specified.

F2. TIMBERS -

Throughout this specification:

Oregon	means	Selected Merchantable grade Oregon to A.S. 0106
Cedar	means	Western Red Cedar (WRC)
Hardwood	means	Northern Hardwoods
Joinery (to stairs etc)	means	Tasmanian Oak
Pine	means	Pinus Radiata
Pyneboard	means	Particle Board as marketed by C.S.R. Building Materials Sales Pty. Ltd

F2. TIMBERS

All timbers are to be quarter sawn air seasoned and/or kiln dried and reconditioned with a moisture content of between 10% and 15% and are to be the best quality of their respective kinds, uniformly straight and sound, cut square and evenly sawn or dressed and free from large or loose knots, shakes, gum veins, white ant, borers or other defects not inherent in the various timbers or grades specified. Veneers shall be matched for grain and evenness of colour.

All timbers shall be inspected and stamped by the Forestry Commission - allow for paying all fees in this connection and for delivering all certificates to the Proprietor.

F3. TIMBERS SIZES

See drawings and details sections for locations.

Lower Floor Joists	100 x 50 at 450 c/cs (at 300 c/cs under compressed A.C. flooring)
Bearers	100 x 75 hardwood at 1800 c/cs
Upper Floor Joists	200 & 250 x 50 at 450 c/cs (at 300 c/cs under compressed A.C. flooring)
Trimmers	250 x 75
Fascia Trimmers	250 x 37
Beams	300 x 100 300 x 75 225 x 100
Studs	100 x 50 at 450 c/cs
Top & Bottom Plates Noggins	100 x 50
Flooring & Boarded Ceilings	75 x 25 nom. t & g
Ceiling Joists	175 x 50 (loft in U4, Mezz. in U2)
Rafters	200 x 50 at 450 c/cs
Boarding	200 x 25 (sawn tanolith treated pine shiplap)
Posts	100 x 100 Hardwood

Plates and bearers to be in longlengths, halved at intersections and checked out where necessary to receive studs.

Upper floor joists exceeding a span of 2700 shall have one row of 50 wide solid blocking at mid span.

F4. STUD FRAMING

Shall comprise 100 x 50 of pre-dimensioned timber at 450 vertical centres, housed into sole and head plates. Diagonal braces shall be 50 x 25 and horizontal noggins at 900 c/cs.

F5. INSULATION

Insulwool insulation shall be provided and fixed in all studwork in 50 external

F6. ROOF FRAMING

Frame up roof in 200 x 50 Oregon joists triple grip fixed to oregon beams as detailed or birds' mouthed over 100 x 50 wall plate and beams where required.

Extend rafters as shown to form eaves overhangs and notch rafters as shown to provide for guttering section.

Single storey courtyard housing units shall have roofs constructed with proprietary trussed rafters set at 600 centres to profile indicated on drawings.

Lock up garages and carports shall have roof constructed with trussed rafters a.b.s. only at 900 c/cs.

F7. CEILING STRAPS

Provide adequate ceiling hoop iron straps built a minimum of 6 courses down into brickwork.

F8. FLOOR & CEILING FRAMING

Frame up generally, build 50 clear of brick walls or into brick walls after treating ends of joists with creosote preservative. Pack timbers as required to obtain a level upper surface for floors, soffite for ceiling and to allow plasterboard ceiling linings to rest on top of beams as detailed. Timbers shall be selected and positioned to prevent abrupt changes of depth.

F9. WATER STOPS

Where common floor joists are extended to form external balcony joists a sawcut shall be made on the underside of the joists 25 clear of the beam face to form a drip.

F10. WINDOW WALL

Windows shall be equal to "Trend" or "Stegbar" or 150 x 50 section with tallowwood sills. Sashes shall be from material not less than 38 thick and shall be top hung casements fitted with friction stays with approved catches. Fixed ventilation details shall be incorporated to all bathrooms and laundry windows. Brown anodized aluminium sliding windows to be fitted to kitchen windows equal to Lideo.

Large sliding doors shall slide on approved tracks all as detailed in 100 x 50 stiles, top and bottom rail.

Window schedules to be approved before manufacture.

F11. FLOORING

Fix 100 x 25 T & G Radiata Pine flooring in long lengths to all the first floor areas and roof areas, and to loft in U4 and Mezzanine in U2.

All boards to be tightly cramped with joints staggered.

All boards double-nailed and punched home.

Floors to be level sanded in preparation for carpet.

Storage areas over bathrooms in U1, U4 to be 13 particle board.

F12. ASBESTOS SHEET FLOORING

The floors of bathrooms and laundries in split level housing units shall be formed of 13 compressed asbestos sheet countersunk and screwed to the floor joists at 300 c/cs. Upstand galvanised angle to fit behind wall sheeting to be minimum 100 high and epoxy sealed to floor. Epoxy seal all joints.

F13. SKIRTINGS

To all rooms shall be fitted a wrot 50 x 12 Tasmanian Oak skirting with timber floors.

F14. STAIRS AND BALUSTRADE

Construct steps of lower flights with closed risers. Treads shall be ex 300 x 50 Tasmanian Oak, risers shall be ex 200 x 25 Tasmanian Oak housed to underside of treads with treads housed into risers.

Allow for a centre carriage bearer ex 100 x 75 and for all blocking, glueing and cramping.

The carriage pieces shall be 300 x 50 hardwood cut to fit tread and riser going.

Construct steps of upper flights with open risers. Treads shall be ex 300 x 50 Tasmanian Oak let into 300 x 50 Tasmanian Oak string shall be planted on. Treads shall bear at wall on steel stringer plates a.b.s. countersunk screw fixed from underneath.

F14. STAIRS AND BALUSTRADE (cont)

Balusters to be ex 75 x 25 Tasmanian Oak with a 100 x 25 Tasmanian Oak rail as detailed.

F15. WRC LINING

Line wall of bathrooms as shown on detail drawing with 200 x 25 T & G Cedar boarding on battens plugged or power fixed to brick walls and direct to studs in brick veneer construction.

F16. PERCOLAS

Construct pergolas generally to detail of 200 x 50 sawn oregon at 450 cts on twin 200 x 50 beam supported by 100 x 100 posts on m.s. galvanised stirrups built into concrete footings or concrete terrace slabs. Maximum span of pergola beams to be 3600.

Provide for a 1200 wide sheet of translucent acrylic plastic laid on top of pergola joists and batten fastened at joints with butyl mastic strip sealant allow 6 gap for expansion.

F17. DECKING

Decking to balconies shall be 75 x 25 round arrised hardwood double nailed and punched. Spacing not to exceed 6.

F18. BATTENS

At ends of roof joists shall be fixed 75 x 25 sawn oregon rows of battens with 25 spaces left between each batten.

Provide a continuous row of 75 x 25 sawn oregon battens 1800 wide with 50 gaps between units.

F19. TILING BATTENS

Provide for fixing by the Roof Tiler 50 x 25 battens.

The battens shall be laid over the asbestos cement soffit specified below, and shall be doubled at the gutter to provide a tilt to the eaves course of tiles.

The battens shall be laid over double sided aluminium insulation which shall be dressed over the tilting batten and into the gutter.

Provide antiponding board to eaves gutter to the $13\frac{1}{2}^0$ roof slope of the courtyard houses.

F20. EAVES SOFFIT

Where shown on the details supply and fix 300 x 25 WRC fascia and 75 x 25 Oregon battens with 12 gaps between. On U/S of joists to battened soffites shall be fixed continuous sheets of black visqueen sheeting to seal the specified gap from the roof space

Provide and fix 300 x 25 sawn oregon in fill pieces between rafters where passing over beams in split level houses. Line top of joists at eaves from blocking to gutter with asbestos cement sheets.

F21. BALUSTERS

Provide 75 x 25 WRC balusters to all terraces and balconies as drawn fixed to 100 x 50 WRC horizontal rail at the top. Baluster ends to line with window head. Provide 50 gaps between boards. Use cadmium coated nails only. Rail to be supported on approved concealed angle brackets loxin fixed to brickwork and supports specified under Metalworker.

F22.

Provide a wrot Tasmanian Oak timber jamb and head lining ex 150 x 25, to all internal door openings. Rout 50 x 15 to provide recess for electrical conduit.

Screw fix to WRC plugs at 600 c/cs where frames are set in brickwork.

All openings shall be from floor to ceiling except where noted in the door schedule.

F23. DOOR STOPS

Stops shall comprise 70 x 12 Tasmanian Oak nailed and planted centrally on each jamb and head and centrally over recess provided for electrical wiring.

F24. ARCHITRAVES

All architraves shall comprise 12 x 12 Tasmanian Oak beads fixed to back of projecting door jambs and head.

F25. DOORS

Provide 40mm hollowcore hardboard doors to all internal doors of townhouses.

Provide entrance doors framed up in 125 x 25 Oregon ledged braced and sheeted and glued both sides with 150 x 25 T & G jointed Tasmanian Oak boarding. Hang 3/87 F/B hinges.

Provide 40 hollow core hardboard doors to wardrobe, coat cupboards and linen cupboards generally as before specified.

Sliding doors to be "in wall" type in positions indicated. For door sizes refer to Door Schedule.

F26. DOOR FURNITURE

Allow the PC sum set out in the schedule for the total supply of door furniture from a firm to be nominated by the Architect.

The Contractor shall fix the hardware described.

F27. WARDROBES

Provide wardrobes in positions shown and hang hollowcore doors on 75 x 50 frame surround with articulation on all sides. Provide 100 brass "D" pulls, and hang on heavy duty "Weldon" pivot hinges. Provide 75 x 50 horizontal rail for particle board shelf and provide chrome hanging rail under. Provide heavy duty magnetic catches to doors.

Provide and fix a full width shelf ex 600 x 18 pyneboard edge stripped with Tasmanian Oak.

F28. BATHROOM CABINET

Build into recess in stud wall or fix to the face of brick walls a bathroom cabinet to dimensions shown on detail.

Cabinet to have sliding mirror doors in plastic tracks as specified in Glazier.

Door furniture allowed for in Door Hardware.

F29. VANITY UNITS

Provide vanity units to bathrooms as shown on plan and to detail. Marbletone tops and timber skirt supported by metal brackets as detailed.

F30. KITCHEN CUPBOARDS

Allow the PC sum set out in the Schedule for the supply and fixing of the kitchen cupboards.

Build into each house unit a range of cupboards as detailed.

Construction generally shall be of pyneboard framing with veneered pyneboard siding.

All doors shall be of double sided veneered pyneboard with edge veneer in matching timber, all hung on concealed hinges, with pull handles and magnetic catches allowed for in Door Hardware.

Each cupboard shall have a closed back ex 6 pyneboard and all shall be lined with white adhesive vinyl sheeting and fitted with No. 1 full depth shelf.

All worktops shall be plastic laminate faced 18 pyneboard with a 75 fascia finished with plastic laminate. Tops to overhang cupboards 200 on breakfast bar side.

The fitment shall include a nest of drawers, each drawer sliding on nylon runners, fitted with a pull handle.

Set the cupboard unit on a recessed timber plinth 100 high.

F30 KITCHEN CUPBOARDS (cont)

Build in as required a wall oven and hot plate (to be specified in Addendum), where shown on drawings.

Set in the worktop a stainless steel bowl and a half flushline sink.

Allowance is to be made in all fitments for a floor cupboard to be of such dimension to receive a dishwashing machine. The plumbing for same shall be carried out by the Plumber.

The Contractor is to allow for all attendance on, and for making good after all trades.

F31. KITCHEN PANTRY

Provide walk-in pantry where required, lined with white laminate faced pyneboard, shelves veneered with laminate a.b.s. and edge stripped on exposed faces and all supported on approved brackets.

F32. DRESSING ROOMS

Provide to all dressing rooms a full depth full length shelf ex 18 pyneboard set 1650 above floor level.

The shelving shall be supported at back and side edges on a wall fixed 50 x 25 wrot batten, and on the front edges by a 75 x 25 wrot bearer, rebated to allow shelf to finish flush.

Under all shelving shall be centrally placed a c.p. 18 ϕ hanging rail complete with end brackets, intermediate brackets at maximum 1000 c/cs and all screwed in position.

F33. ENTRY CUPBOARD

Provide to all cupboards in entrance areas a full depth, full length shelf a.b.s. with a hanging rail a.b.s.

F34. LINEN CUPBOARDS

Provide to all linen cupboards 600 deep shelving ex 18 edge stripped pyneboard shelves. Fix 5 shelves as detailed.

F35. BALCONY RAIL (INTERNAL)

Provide and fix at all edges of split level areas a self spanning balcony rail ex 200 x 50 WRC. The rail is to be secretly and securely fixed to the walls and set 900 above floor level.

F36. CARPORTS AND GARAGES

Roofing timbers. Construct framed roofing trusses as detailed and erect in position at 600 c/cs.

F36. CARPORTS AND GARAGES (cont)

Provide for fixing battens by roof tiler, 50 x 25 battens allowing for double thickness tilting batten at eaves.

Provide and fix a 200 x 25 sawn Oregon bargeboard to receive gutte. ng.

Provide and fix a continuous timber beam over entrances with 100 x 100 RHS posts bolted thereto to Engineers details. Where garages walls occur, the beam shall be supported by masonry walls in lieu of posts.

Double garages shall have a centre post between doors.

F37. GARAGE DOORS

Each garage opening shall be provided with a spring counter balanced timber tilting door, similar to Tiltador model 150J to suit dimensions on drawings.

The door shall be set in a 100 x 75 oregon frame and shall comprise a 100 x 50 timber frame with No. 3 100 x 50 verticals housed into the top and bottom rail and all faced external with waterproof plywood.

Provide and fix operating , gear, locking handle and all fittings as required by manufacturer.

F38. BOOKSHELVING

In bookshelf recess supply and fix No. 4 200 x 50 x 2185 long WRC shelves. The shelves to be shown in detail.

F39. ROOFLIGHT

Form trimming in roof timbers for Atlas tiledomes 1090 x 635 to be supplied by Metalworker for courtyard houses. Size of structural opening shall be 1095 x 640 and trimmer kerb shall be 50 above highest point of roof tiling.

Form trimmed opening in kitchen ceiling and construct a framework ex 75 x 50 to receive plasterboard lining up to top of roof trimming joists.

Form trimming in roof above bathroom and line a.b.s.

G. ROOFER AND ROOF PLUMBER

G1. Generally

G2. Eaves Gutter & Downpipes

G3. Rooflights

G. ROOFER AND ROOF PLUMBER

The roofing contractor shall inspect the works and satisfy himself as to the condition of same.

An unconditional 50 year written guarantee shall be provided by the roofer for all his work.

G1. GENERALLY

Tiles shall be Marley "Pantile" with capping tiles as appropriate. The tiles shall be laid strictly in accordance with the manufacturers instructions.

Steep angle ridge capping tiles without collars shall be fixed with butt joints and a continuous lead soaker. The soaker shall be wetted at all joints.

Tiling battens shall be fixed at the correct gauge in accordance with the lap and pitch of the tiles as indicated on the drawings.

Tiles along gables shall be set on the AC fillet fixed to tiling battens. The edge of the tiles shall be set 38 from the face of the brickwork and all set in coloured mortar to match the tile.

Sarking shall be double sided aluminium foil laid across the rafters in long lengths, lapped at valleys and carried over the ridges and turned down into the eaves gutters.

Allow for a 300 wide anti-ponding AC board to be fixed to the rafters above the gutter, to ensure a continuous fall of sarking into the gutter.

Provide lead flashing to all roof penetrations and to top edges of tiling. Press down lead stepped flashing onto roof tiling where abutting brick walls.

Valleys shall be formed at roof intersections. Lay on rafters a 12 thick marine plywood valley board 300 wide each side of the central rafter. Fix a tilting fillet of triangular section ex 50 x 75 with a clear space of 200 between faces.

Allow for galvanised iron lining described in general guttering. Roofing tiles shall be accurately cut and set up the valley so that cut faces are parallel and not less than 100 from each other. The underside of the tiles shall bed on AC sheeting as for the eaves tiles and shall be pointed in mortar a.b.s.

G2. EAVES GUTTER AND DOWNPIPES

To recess provided in rafters fit .6 rectangular section galvanised gutters 100 wide x 75 deep laid to fall to downpipes where indicated on the plans.

Provide cap flashing over fascia into concealed gutter of courtyard houses.

G2. EAVES GUTTER & DOWNPIES (cont)

Downpipes to be 100 x 50 x .6 galvanised connected to gutter and where indicated set flush in recess formed in brickwork. Wrap bottom section of downpipe in Denso tape where set into upturn of stormwater line.

Valley gutters shall be lined with galvanised sheeting, welted at all transverse joins and dressed up and over triangular fillets and nailed to valley board with galvanised nails.

Depth of visable caping edge to be no greater than 25.

Provide domed wire leaf stop to head of all downpipes.

G3. ROOFLIGHTS

Allow for building in domelights as described in Metalworker, trim tiles, provide and fix all flashings and leave watertight. Where rooflights are shown dress down lead flashing onto tiles, point up roof tiles as before and leave watertight.

H. DRAINER, SANITARY & WATER PLUMBER
& HEATING ENGINEER

DRAINER

- H1. Generally
- H2. Sewer Drains
- H3. Stormwater Drains
- H4. Drains Below Buildings

SANITARY AND WATER PLUMBER

- H5. Generally
- H6. Approvals
- H7. Attendance
- H8. Inspection
- H9. Making Good
- H10. Fixing
- H11. Sanitary Fittings
- H12. Protection
- H13. Floor Wastes
- H14. Traps
- H15. Waste and Soil Stacks
- H16. Hot and Cold Water Service
- H17. Fitting Schedule

H. DRAINER, SANITARY & WATER PLUMBER
& HEATING ENGINEER

DRAINER

H1. GENERALLY

Tenderers shall inspect the ground and accept entire responsibility for any unforeseen conditions without extra charge. Tenders are to include for excavating in materials as found, as previously specified under "EXCAVATOR".

The whole of the sewer drainage work shall be carried out in accordance with the Department of Housing and Construction's regulations; all sewer and stormwater drains shall be executed by licensed tradesmen to the direction of the Architect, and to conform to the drawings and specification provided by the Hydraulic Engineer.

Liaise with Plumber and ensure that all drainpipes risers are correctly positioned to receive downpipes, soil waste and vent pipes; if, for any reason; drain risers cannot be placed where required by the Plumber the Architect shall be informed and the necessary authorisation for any alteration obtained.

During construction of the works seal off all open ends of pipe work in an approved manner.

H2. SEWER DRAINS

Sewer drains shall be constructed with V.C. pipes and fittings jointed with approved rubber rings.

Provide all necessary bends, junctions, inspection openings and other pipe fittings required.

The drain runs shall be extended from the exterior of each housing unit for a standard distance of 1000. Further lengths of drain run required to connect to the main reticulation shall be included in the General Siteworks section of this Specification.

H3. STORMWATER DRAINS

Unless otherwise specified stormwater drains shall be constructed with V.C. pipes and fittings jointed with approved rubber rings.

Provide upbend for each downpipe, concealed below ground level.

The drain runs shall be extended from the exterior of each housing unit for a standard distance of 1000 a.b.s.

Ensure vertical entry for DP into VC upstand.

H4. DRAINS BELOW BUILDINGS

All pipes where passing below concrete floor slabs or roads shall be laid on a concrete base 175 thick, and after jointing and testing shall be encased with concrete 100 clear of the collars.

SANITARY AND WATER PLUMBER

H5. GENERALLY

The whole of the sanitary and water plumbing within each housing unit is described in this Trade.

The work shall be carried out in accordance with the Department of Housing & Construction's regulations and shall be executed by licensed tradesmen, to the direction of the Architects.

All materials and workmanship shall be the best of their respective kinds and all brands shall be approved.

H6. APPROVALS

Prior to commencement of work the Builder shall make application and obtain approval and permits from the authorities for the various services indicated on the drawings. Variations necessary to obtain approval shall be brought to the notice of the Architect.

H7. ATTENDANCE

Prepare core hole drawings, showing all penetrations through beams, floors, walls etc necessary to carry out plumbing works and submit to the architect before any concrete or brickwork is carried out on the site.

Attend on site, co-operate with other trades and accurately mark and set out all core holes, supply and fix core hole sleeves, strip core hole sleeves and make good holes and adjacent work around all pipes, gullies etc.

Liaise with Drainer and ensure that all drain pipe risers under the building are correctly positioned to receive soil, wastes and vent pipes; if, for any reason, drain risers cannot be placed where required the Architect shall be informed and the necessary authorisation for any alteration obtained.

H8. INSPECTION

Services before being covered or concealed shall be inspected, tested and passed by the local inspector. Defects disclosed by test or inspection shall be made good and again tested. Tests as required by the local Authorities shall be carried out by the Contractor who shall supply all plugs and other materials and labour necessary for the tests.

H9. MAKING GOOD

Sealed pavements, paths, walls, roads and other surfaces disturbed by the Contractor shall be made good to the requirements of the local authority and to the approval of the architect.

H10. FIXING

All pipes shall be properly supported with approved fastenings and no pipes shall be supported from any other pipes by means of brazing, welding, sweating or any other type of fusion. Pipes generally shall be concealed in ducts, walls, floor slabs, above ceiling, within cupboards unless otherwise shown or noted. All exposed pipes in kitchen, laundry and bathrooms shall be chromium plated, elsewhere exposed pipes shall be painted. All pipes cast into concrete shall be wrapped with an approved tape.

H11. SANITARY FITTINGS

Supply only the following fittings together with all accessories necessary for satisfactory installation, to each housing unit as applicable.

Bathroom:	No. 1 x 1650 white porcelain enamelled pressed steel bath
	No. 1 white ultra low toilet pan (Fowler Star Pacific).
	No. 1 Caroma Uniset cistern and seat with internal overflow.
Ensuit Bathroom:	No. 1 530 x 380 white vanity top
	No. 1 white ultra low toilet pan
	No. 1 Caroma Uniset cistern and seat with internal overflow.
Laundry:	No. 1 stainless steel single self rimming bowl set into work top. 70 litre capacity with overflow.
Kitchen:	No. 1 stainless steel bowl and a half self rimming sink set into work top

The Plumber shall allow for taking delivery and installing the specified fittings.

H12. PROTECTION

After installation the Plumber shall protect all baths from damage by means of polythene sheet and masonite covers which shall remain in position until handover.

H12. PROTECTION (cont)

All WC pans shall be fitted with sand to prevent misuse, and cleaned out just prior to handover.

All stainless steel finishes shall be protected with plastic film which shall not be removed until handover.

H13. FLOOR WASTES

Provide 75mm c.p. recess floor gratings in floors of all bathrooms, shower recesses and laundries.

H14. TRAPS

All waste traps shall have a 3" deep water seal. All exposed traps shall be chromium plated.

H15. WASTE AND SOIL STACKS

The waste and soil stacks are to be of the diameter required by the regulations and to be plastic with all bends, branches and offsets. Cleaning eyes are to be placed where required or directed.

The soil stacks shall run internally in a duct securely fixed to avoid unnecessary vibration. Back vents shall be galvanised iron of the required diameter, extended through roof as required and fitted with an approved cowl.

H16. HOT AND COLD WATER SERVICE

Extent - Provide a cold water service, water heaters and hot and cold water reticulation to serve the fittings shown on drawings, complete with all branch and terminal valves and faucets.

Mains Connection - Arrange for and make connection to the water main. Obtain and install meters of the required size.

Reticulation - The cold water service shall be carried out with solid drawn copper tubing, reducing as required by the Department of Housing and Construction.

Pipes in Slabs - Water surface pipes where in floor slabs or walls, etc shall be insulated by lagging with 12 thick hair felt and overbound with wrapping tape similar or equal to Sisalwrap 671C. The wrapping tape is to be securely fixed with copper tie wire. No branches or tees shall be taken off in floor slabs.

Hot Water Service - Supply and instal electric quick recovery h.w. units according to the schedule below:

H16. HOT AND COLD WATER SERVICE

U1: 68 litre squat model in storage area over Bath/Kitchen
 U1a: 68 litre squat model in storage area over bathroom
 U2: 68 litre under bench mode (kitchen)
 U3: 135 litre squat model under house
 U4: 135 litre squat model under house
 Courtyard: 135 litre squat tank in roof space over laundry/bathroom
 except for those units serviced by the oil heating systems.

The Plumber shall install the h.w. units in accordance with the manufacturers instructions and provide and securely fix all insulation by means of lagging, to the unit and to the associated pipework. Provide all necessary overflows to run to the outside of the house or connect to the drainage system

H17. FITTING SCHEDULE

Position	Fitting
Kitchen	1H, 1C, c.p. brass recessed cocks breeching piece, swivel spout with aerator.
Laundry Tub	1H, 1C, c.p. brass recessed cocks, breeching piece, swivel spout
Washing Machine	1H, 1C , c.p. brass W.M. cocks
Showers	1H, 1C, c.p. brass cocks c.p. swivel shower rose
Vanity Basins	1H, 1C, c.p., brass recessed cocks breeching piece, swivel spout with aerator
Wall Basin	1H, 1C c.p. brass pillar cocks
WC & HW Unit	1 c.p. brass stop cock to each
Bath	1H, 1C, c.p. brass recessed cocks breeching piece and spout.
Garden	1 standpipe hose cock to courtyard
Dishwasher	No fittings to be supplied in standard housing unit but all housing units shall have h & c pipework reticulation and drainage lines provided.

All fittings shall be Raymor T4. Satin chrome finish.

J. ELECTRICAL SERVICES

J1. Installation

J2. Materials

J3. Workmanship

J4. Accessories

J5. Setting Out, Cutting Away, Making Good

J6. Appliances and Fittings

J7. Distribution Boards

J. ELECTRICAL SERVICES

J1. INSTALLATION

The Contractor shall allow the PC sum of \$ for the total electrical light and power installation to the housing units.

The sum of \$ shall be allowed for the total electrical light and power installation to the garages and carports.

The work shall be carried out by a nominated Electrical Contractor, and shall be in strict accordance with the current SAA Wiring Rules and Electrical Authority.

J2. MATERIALS

The materials to be used and the apparatus to be supplied shall be new and of the highest class of their respective kind and shall be entirely suitable for the service required.

J3. WORKMANSHIP

The workmanship shall be of the highest class throughout and all similar parts shall be interchangeable.

J4. ACCESSORIES

Flush HPM pattern silent switches are to be used, set in door jambs. Power points are to be childproof mounted on skirting, flush type to take 3 pin safety plug.

Supply and instal all recessed downlights and architectural strip lights indicated on electrical layout. Proprietor to supply any pendant fittings indicated.

Recessed downlights to have bayonet type socket insulated.

Switches generally to be 3'6" above floor.

Additional internal power or light outlets to be at the rate set out.

J5. SETTING OUT, CUTTING AWAY MAKING GOOD

The electrician is to set out, at the earliest opportunity, the positions and sizes of all holes, recesses, chases etc. necessary for the accommodation of the work included in this Contract and is to arrange with other trades concerned to cut away for and make good after such work.

Full allowance shall be made for routing and installing wiring and fittings in fair faced internal brickwork.

No chasing in brickwork will be allowed.

J5. SETTING OUT, CUTTING AWAY
MAKING GOOD

The power supply to the housing units will be installed underground. It shall be the electricians responsibility to negotiate with the ACTEA to ensure suitable provision is made for meter box and termination of consumer mains. The electrician shall supply and install to each unit a 50 mm inside diameter galvanised iron pipe as detailed on ACTE drawing No. A4/5415 for the installation of consumers mains.

J6. APPLIANCES AND FITTINGS

The following appliances are to be allowed for as standard requirements to each room in each housing unit. Light points are ceiling pendant unless otherwise noted. Variations to these requirements are noted in the Addendum.

Electric Water heater 140 litre capacity, quick recovery.

Kitchen	Wall Oven rating 10KW Hot Plate rating 10KW Dishwasher (allow electric connection only) 3 GPO (1 double) (including 1 for refrigerator) 2 Light Points each with 1 way switching
Laundry	Washing Machine (allow electrical connections only) 1 GPO 1 Light points with 1 way switching
Bathroom	1 Shaver Point 2 Light points each with 1 way switching
Bathroom & Laundry Combined	Washing Machine (allow electrical connection only) 1 Shaver Point 2 Light points each with 1 way switching
Ensuite Bathroom	1 Shaver Point 2 Light points each with 1 way switching
Living Room	2 GPO 1 Double GPO 1 TV Point 2 Light points each with 1 way switching
Dining Area	1 GPO 1 Light points with 1 way switching
Family Room	1 GPO 1 Light Point with 1 way switching
Study	1 GPO 1 Light point with 1 way switching
Entry & Stairs	1 GPO 2 Light points 1 with 1 way switch 1 with 2 way switch
Bedroom 1	2 GPO 2 wall light points with 2 way switching 1 Light point with 1 way switching

J6. APPLIANCES AND FITTINGS (cont)

Dressing Room	1 light point with 1 way switching
Bedroom 2	1 GPO 1 Light point with 1 way switching
Bedroom 3	1 GPO 1 light point with 1 way switching
Loft or Store	1 light point with 1 way switching
External to House	2 wall light points each with 1 way switching
Garage	1 GPO 1 light point with 1 way switching
Carport	

J7. DISTRIBUTION BOARDS

Each housing unit shall be supplied with a distribution board which shall be semi-recessed into the party wall at a location adjacent to the entrance door.

K. PLASTERER

- K1. Generally
- K2. Plasterboard Walls
- K3. Plastering
- K4. Sheeting to Studwork in Wet Areas
- K5. Plasterboard Ceilings

K. PLASTERER

K1. GENERALLY

All brick surfaces to receive plaster or render shall be thoroughly cleaned with a heavy duty wire brush to remove all dirt and dust.

All joints to be raked out.

Wet all brickwork to reduce suction before applying render.

All work shall be executed in a first class manner to the Architects satisfaction.

Protect all other finishes and work of other trades from plaster droppings.

K2. PLASTERBOARD WALLS

Plasterboard wall linings shall be Gyprock or equal with recessed edges and 10 thick.

Fix to studwork which shall have vertical centres at 450 c/cs with 12g galvanised flathead nails to give 20 penetration into timbers and rails shall be punched below surface and filled with jointing cement.

Sheets shall be applied horizontally to walls and reinforcing tape shall be applied to all joints.

All external angles shall be fitted with galvanised exangle.

K3. PLASTERING

Two coats plasterwork shall be applied to prepared surfaces as scheduled.

The floating coat shall be 4:1 sand and cement with 1/10 part time to an average thickness 10.

Form plaster screeds and allow to set.

lay mix on evenly and rule off, fill hollows with a hand float and scratch surface when stiff with a suitable tool. Allow to dry.

The setting coat shall be 1:1:2 cement, lime putty and sand of a maximum thickness of 3. Trowel on and skim with a float, steel trowel to a hard, smooth, true and even surface.

Clean all floor surfaces of droppings and debris immediately on completion of the work.

K4. SHEETING TO STUDWORK IN
WET AREAS

"Hardiflex" shall be fixed in accordance with the manufacturers instructions to all bathrooms, laundries and kitchens where tiled areas are specified to be in stud walled locations.

The sheeting shall be 6 thick, butt jointed and fixed to vertical studs (at 450 c/cs) with Flex nails at 200 centres.

Joints shall be set with approved bedding compounds, in 2 coats, the second having tape gauze embedded in it, and the whole shall be sanded on completion.

K5. PLASTERBOARD CEILINGS

Line ceilings generally with recessed edge plasterboard a.b.s., thick for joists at 480 cts and 13 thick for joists at 600 cts. All corners and intersections to be set. Allow for plasterboard ceiling sheets to be inserted in articulations above beams in the housing units as shown on the details.

Nails shall be 12g flat head to give 20 penetration into timber, punched home below the surface and filled with jointing cement.

Sheets shall be applied across direction of joists.

Reinforcing tape shall be applied to all joints and filled flush with gypsum jointing in 2 coats.

Internal angles shall be taped and jointed a.b.s.

L. TILER & PAVIOR

- L1. Generally
- L2. Wall Tiles
- L3. Parting Strips
- L4. Floor Tiles
- L5. Quarry Tiles
- L6. Vinyl Floor Tiles
- L7. Brick Paving

L. TILER & PAVIOR

L1. GENERALLY

Surfaces to be paved or tiled shall be thoroughly cleaned, roughened and well wetted before finish is applied.

Tiles to be well soaked in water before fixing.

Set all wall tiling to true line and plumb.

L2. WALL TILES

Fix semi-gloss 200 x 100 x 5 ceramic wall tiles in patterns shown on detail layouts. On brick walls tiles to be well wetted, laid with mortar of 3 parts sand to 1 part cement. On "Hardiflex" linings tiles to be glue fixed.

Finish to top and to salient angles with cushioned edge tiles.

Colour of tiles shall be as set out in addendum for each house.

In Bathrooms: Lay tiles as shown on detail layouts. To each bathroom provide and fix one recessed soap holder, toilet paper holder, (Lane, satin chrome) Build in vent tiles to bath upstand.

In Laundry: Provide and fix tiles as drawn on detail layout.

In Kitchen: Provide and fix mosaic tiles to form splashback above worktop to detail drawing.

Grouting shall be equal to ABA or Warens.

The Mortar to the shower recess shall have an approved waterproofing agent added.

Fill joints with white pointing and on completion clean free of all mortar and discolouration.

Protect tiles from damage on completion.

L3. PARTING STRIPS

At door openings and all junctions with differing floor finishes shall be fixed a 25 x 25 x 3 brass angle parting strip.

L4. FLOOR TILES

Provide and fix floor tiles to the bathrooms and laundry unless otherwise shown on drawings.

The tiles shall be 50 square ceramic mosaic tiles of Japanese manufacture.

The floors surfaces shall be laid to fall to floor waste outlets.

L5. QUARRY TILES

Where specified in the Addendum quarry tiles shall be laid.

The tiles shall be 230 x 230 Bulli split quarry tiles set in 3:1 mortar bed in bonded pattern with tight joints and grouted with black cement.

L6. VINYL FLOOR TILES

Lay, where indicated in laundries, 300 x 300 x 3.2 vinyl tiles of an approved colour.

The tiles shall be laid by an approved specialist supplier, in a latex based adhesive.

All tiles shall be selected from the same batch no. to ensure colour matching.

Protect all finished surfaces, after laying, with building paper.

L7. BRICK PAVING

Lay a 6:1 dry mixture of sand and cement blinding layer 2" thick on 3" rolled compacted road base.

Bricks shall be laid on flat in stretcher bond butt jointed, with neatly cut 1/2 bricks to form straight edges. The whole path to be brushed off carefully then lightly hosed down to allow mortar layer to set.

M. GLAZIER

M1. Generally

M2. Glass Types

M3. Obscure Glass

M4. Mirrors

M5. Glass Shelves

M6. Shower Screens

M. GLAZIER

M1. GENERALLY

All glass is to be of Australian manufacture, to be new and of best quality of respective types free of all defects, cracks, chips etc and to be glazed into frames as specified to be entirely water tight. All cracked and defective glass is to be replaced on completion. All glass is to be thoroughly cleaned and polished before handing over.

Glass shall be of approved manufacture, free from defects of any description and of the types, weights and/or thicknesses hereinafter specified.

Glass shall be accurately bedded, back puttied or beaded and dry puttied.

Surplus putty shall be cleaned off neatly.

Damaged or defective glass shall be replaced.

Rebates shall be primed before glazing.

M2. GLASS TYPES

Glass weights and sizes shall be as specified by the Australian Glass Manufacturers Association.

M3. OBSCURE GLASS

Obscure glass shall be in "rough cast" sheet glass"

M4. MIRRORS

Provide 6mm mirrors in positions shown all in one piece. Drill and fix glass at corners and at centre of length top and bottom with approved clips.

Mirrors to bathroom with extended vanity units to have mirrors full length to heights shown on drawings.

M5. GLASS SHELVES

6mm thick polished drawn sheet shelves 150 wide with polished and rounded edges each supported on a pair of approved C.P. patent glass shelf brackets screwed to ply backed vanity cabinet.

M6. SHOWER SCREENS

Provide bronze colour anodized aluminium shower screen with grey paraline safety glass to sizes shown on detail, but measured off job.

N. PAINTER AND DECORATOR

- N1. Materials Generally
- N2. Application
- N3. Colour Scheme
- N4. On Completion
- N5. Handing Over Procedure
- N6. Defects During Defects Liability Period

N. PAINTER AND DECORATOR

N1. MATERIALS GENERALLY

Manufacturer

All materials shall be of the best quality and paints shall be British Paints, Berger or other equal approved, stains shall be from the Acorn Chemical Company.

Containers

All paint shall be delivered in sealed labelled containers describing the contents.

Undercoats

All undercoats shall be those recommended by the manufacturer for the required finish coats.

Workmanship

The areas to be painted shall be free of other trades and tradesmen all debris shall be removed, then left swept clean for four hours, and then vacuum cleaned.

All adjoining surfaces are to be protected. Paint splashes and spillages are to be immediately and totally removed.

Paint shall not be applied in humid, wet or windy weather.

All surfaces to be painted shall be free from blemishes, rubbed down and clean before work commences.

Open grained timber work shall be filled with an approved pigmented grain filler.

Knots which have been accepted by the Architect shall be knotted before painting.

Nails shall be sunk, similar holes and minor defects puttied up after the priming coat.

Prime all glazing beads before placement.

Paint two coats to top and bottom edges of doors before hanging.

Paints shall not be intermixed on the floors of the building.

Thinners shall not be permitted.

Woodwork to receive clear finish shall be sanded in the direction of the grain.

Sample areas each not less than 2m² of paint and clear plastic finishes shall be prepared for approval by the Architect before proceeding with the whole of the areas.

N1. MATERIALS GENERALLY (cont)

All colours shall be selected by the Architect.

All paints shall be lead free.

Cutting in and finishing edges shall be clean and straight, and whole areas shall be treated continuously maintaining a wet edge.

The stopping or cessation of work shall occur only at an intersection with another surface providing a definite break.

Remove all hardware from doors etc before painting and afterwards refit.

N2. APPLICATION

ITEM	PREPARATION	TREATMENT
Backs & inaccessible parts of joinery	One primer	
Ext. Doors, WRC. & Tas. Oak generally	1 Acorn natural finish primer 3/4 Umber 1/4 Black	1 Acorn natural finish - 3/4 Umber 1/4 Black
Internal Render Gyprock	Sealer	2 coats flat P.V.A. paint
Clear finish Joinery internal	Fill and fine sand	2 coats stained matt Estapol sanded down between coats 1 coat Scandanavian Oil
Asbestos Cement	Sealer	1 undercoat, 1 synthetic enamel
External Steelwork	Touch up shop primer and thoroughly clean	2 coats high gloss finish
Gal. gutters, downpipes and cap flashings	Primer	1 undercoat 1 semi-gloss enamel
Doors, door frames and paint finish joinery generally	Fill and sand	2 coats semi-gloss enamel
Timber Deck	Rough Sand	1 coat of Oil

All surfaces to be stained shall be properly prepared to a smooth, even finish, then sand and dust off.

N2. APPLICATION

Paint to be used shall be a.b.s. Unopened tins to be inspected on site.

Painter through Builder shall be responsible for all failures or defects in paintwork owing to faulty application that appear before completion of building maintenance period. All defects to be completely removed and made good.

N3. COLOUR SCHEME

Generally all internal joinery to be painted and walls and ceilings to be decorated shall be white.

Variations to the scheme of colours shall be noted in the Addendum or given to the Contractor during the progress of the Works.

N4. ON COMPLETION

Clean paint off all door ironmongery, taps, sanitary fittings, electric switchplates etc.

Remove paint from all mirrors and clean with a cleaning agent that will not affect the silvered backing.

Lock off areas that are completed and take all care to prevent damage to finished and prepared areas.

Check all door handles, locks, closers and sliding gear and tracks. Oil and clean.

N5. HANDING OVER PROCEDURE

The Contractor shall properly label all Owners' keys and hand them to the Architect, and remove construction locks.

Obtain all certificates from the various authorities as to the satisfactory compliance with their requirements, and hand to the Architect.

Obtain all guarantees, warranties, and the like, and all manufacturer's printed instructions in relation to the use and/or maintenance of any particular item incorporated in the Works and hand to the Architect.

Check all plumbing, cold and hot water reticulation. Remove manufacturers labels.

Check all taps, cisterns, flush WC pans and leave all fittings clean and fit for use. Hand over all plugs.

Check all electrical work, test all equipment, remove manufacturers labels, and leave all in working order.

Clean all floors, walls, and other surfaces.

N5 HANDING OVER PROCEDURE (cont)

Clean all glass.

Clear out all gutters, downpipes and stormwater drains.

Remove all rubbish from inside housing units and from site.

N6. DEFECTS DURING DEFECTS LIABILITY PERIOD

Defects reported during the defects liability period shall be rectified progressively within a reasonable period of time and not allowed to accumulate.

Defects which affect health, safety or the function of the building shall be rectified immediately they are reported.

Q. SITE WORKS

- Q1. Paving to Access Roads & Parking Areas
Kerbs & Guttering
- Q2. Hotmix
- Q3. Sewer Drainage Generally
- Q4. Laying and Jointing Pipes
- Q5. Connections to Sewer
- Q6. Boundary Traps
Stormwater Drainage
- Q7. Generally
- Q8. Excavations
- Q9. Precast Concrete Pipes
- Q10. Fibrolite Piping
- Q11. Drainage of Work
- Q12. Sub Soil Drainage
- Q13. Discharge Pipework

Q. SITE WORKS

Q1. PAVING TO ACCESS ROADS & PARKING AREAS, KERBS & GUTTERING

Setting Out

Provide reference pegs for line and level, placed 600 behind kerb lines.

At all tangent points.

At 7500 c/cs on all curves

At 1500 c/cs on all straight lengths

The pegs shall be maintained until the kerbs and gutters are completed.

SUB GRADE

(a) Preparation

Grade sub-grade for roads and parking areas 300 behind back of kerb line, trim and thoroughly consolidate the full width to a minimum thickness of 300 to 90% of maximum dry density of the material as determined by the modified A.A.S.H.O. compaction tests.

Compaction shall be achieved by rolling with an approved sheeps foot or rubber tyred roller.

Rolling shall commence at sides and then proceed towards the centre successive traverses overlapping a minimum of 150.

Any soft, yielding, organic, or other unsuitable material in the sub-grade shall be removed 300 minimum deep, and the holes filled with approved filling compacted in 150 layers a.b.s.

The finished subgrade, after consolidation shall follow the profile of the finished road surface, equal to the depth of the paving ± 12 .

Remove all surplus spoil and form into moundings a.b.s.

(b) Inspection of Sub Grade

In no circumstances will traffic be allowed on the subgrade after it has been approved ready to receive the paving.

SUB BASE

(a) Description

The sub-base shall consist of one uniform course, 100 thick of consolidated crushed rock. The whole of the materials shall be approved material, clean, free from deleterious material, clay or weathered stone.

Q1. PAVING TO ACCESS ROADS
PARKING AREAS, KERBS & GUTTERING
(cont)

Notwithstanding the above, the structural Engineer may allow the inclusion of a percentage of weathered stone. The grading shall be within the following limits.

Percentage of Total Samples Passing Sieves

Sieve Aperture	18	9	4.5	No. 7	No. 14	No. 100
% Passing	100	50- 70	30- 52	24- 40	25- 28	5- 11

Samples shall be provided for testing as required.

(b) Spreading Crushed Rock

The crushed rock shall be stock piled near the job, but not under subgrade, kept wet, distributed evenly by tipping from approved vehicles, in a uniform layer of the correct thickness by means of a drag spreader.

(c) Shaping and Consolidation

After spreading the crushed rock shall be shaped, while in a saturated condition, with a blade shaper to the specified crossfall.

If the sub-grade material is churned up with the crushed rock base course, the Contractor shall, at his expense, remove the mixture reshape and compact the sub-grade and replace the material removed with clean gravel.

After the first course has been spread and compacted satisfactorily, the 2nd course shall be spread uniformly on the first course and similarly treated.

Each course of material shall be rolled in an approved manner until it is compacted to a firm, even surface, by a roller weighing at least 8000 Kg.

Q2. HOTMIX

The supply, transportation, spreading and compaction of Asphaltic Concrete shall be carried out in accordance with cement D.M.R. specifications. The preparation of the pavement application of tack coat shall be according to D.M.R. specification No. 612 (or to metric equivalent).

The Asphaltic concrete shall be layered to a thickness of 40mm in the roadways and carpark.

Q3. SEWER DRAINAGE
GENERALLY

The contractor shall excavate for trenches to allow the placement of pipes to the lines and levels shown on the drawings. Should the contractor excavate trench to a greater depth than required, he shall back fill to the required level with 1:3:6 bulk concrete. Should there be any material in the bottom of the trench likely to contribute to subsidence of pipe work after laying, such material shall be removed and replaced with 1:3:6 bulk concrete to a depth of 150 below the invert of the trench. Trenches shall be of a sufficient width to allow the pipes to be properly laid and jointed.

All trenches and pits shall be kept free of water until in the opinion of the Architect any concrete therein is sufficiently set.

If required, the contractor shall construct any temporary drains and sumps required to meet this condition at his own expense.

All pipes shall be of the diameters and in the positions shown on the drawings.

Q4. LAYING AND JOINTING PIPES

Trenches shall be excavated to the required depth and width, having solid bases and graded with required falls as necessary. Pipes and fittings shall be of the diameters shown on the drawings. Joints shall be socket and spigot type and shall be jointed with approved type rubber rings.

Pipes where laid in ground shall be laid firmly on the barrel and evenly graded from point to point. All pipes where passing below a building shall be laid on a 100 thick concrete continuous strip base where laid in loose ground or fill.

Cleaning eyes shall be fitted at all changes of direction and before each fitting and at intervals not exceeding 9.00.

Q5. CONNECTIONS TO SEWER

Each connection to the main sewer in Crozier Circuit shall be carried out in strict accordance with the requirements of the Housing and Construction Authority.

Make application and pay all fees.

Q6. BOUNDARY TRAPS

Each boundary trap shall be vitreous clay and shall be complete with riser to finish at finished surface level and complete with cast iron inspection box and concrete surround.

Each (I.P.M.F.) induct vent shall be cast iron and complete with concrete surround and shall be installed adjacent to the boundary trap as indicated on the drawing.

STORMWATER DRAINAGE

Q7. GENERALLY

The Work comprised in this section of the contract shall consist of the supply of all necessary materials, excavation, concrete work, pipe laying and jointing, back filling and restoration, and all else necessary for the construction of stormwater drains, inclusive of the necessary fittings, and other minor incidental work necessary to complete the whole of the work in strict accordance with this specification, general conditions and to the satisfaction of the Architect.

Q8. EXCAVATIONS

The ground shall be excavated to the various depths, gradients, widths batters and dimensions as shown on the drawing.

During the excavation in trench, the contractor shall advance the works in a careful, secure and safe manner, and shall take all precautions against accident.

No portion of pipe trench shall be opened up anywhere until a sufficient number of pipes are on the ground ready for laying and no greater length of trench shall be opened at any time at any place than into which pipes can be laid and jointed during two (2) consecutive days work. Immediately on a length of trench having been opened up and approved, the pipes shall be at once filled in. Surplus spoil shall be removed from the site as directed by the Architect.

Trenches shall be back filled and compacted to the underside of the pavement, if any. The base and surface materials of any pavement areas disturbed or damaged shall be replaced by the Contractor.

Q9. PRECAST CONCRETE PIPES

All pipes shall conform with the Australian Standard Specification AS N. A35. 1957. Pipes shall be spigot and socket with rubber ring joints. The class of pipe for each section of the work is indicated on the longitudinal sections and shall be supplied in lengths to suit the contractor. No pipe shall be less than 1220 in length except at manholes.

Should the trenches prove other than sand, trench materials shall be excavated to allow for sand bedding.

Q10. FIBROLITE PIPING

Fibrolite piping shall conform with ASA 41 and shall be unlined when specified for water reticulation or stormwater drainage, it shall be bitumen lined when used for sewer drainage, and shall be installed in accordance with the manufacturers (James Hardie & Co) instructions.

Q11. DRAINAGE OF WORK

At his own expense the contractor shall provide all materials and labour and for the effectual diversion of surface water from the works and beyond the works and for the uninterrupted flow at all times of stormwater.

Q12. SUB-SOIL DRAINAGE

Subsoil drainage shall be installed as indicated on the drawings. These drains shall be constructed with slotted PVC agricultural pipes, complete with all necessary fittings, laid to falls, and connected to sumps and SW drains.

Pipes are to be laid on a bed of 50 minimum thick 18 gauge blue metal jointed in an approved manner, then surrounded and covered to a depth of 150 with 18 gauge blue metal.

Pipes are not to be covered until directed.

Vertical risers shall be soil grade PVC and where shown on the drawings shall terminate at ground level with cast iron clearouts set in concrete surrounds.

Construct silt pits where indicated on the drawings and connect to stormwater drainage. Provide weepholes through walls of pits to drain the bottoms of the trenches.

Q13. DISCHARGE PIPEWORK

Connect sub-soil drainage into stormwater system and extend to boundary as shown.

See hydraulic site plan for numbers and locations of discharge points.

R. SCHEDULE OF PRIME COST,
PROVISIONAL SUMS AND CONTINGENCY
SUMS

Contingency Sum (each house) \$750.00

Kitchen Cupboards: Allow the following sums for the supply and installation of cupboards to each house type

U1	\$600.00
U1a	\$600.00
U2	\$700.00
U3	\$800.00
U4	\$800.00
UC1	\$800.00
UC2	\$800.00
UC3	\$800.00
UC5	\$800.00
UC6	\$800.00
UC8	\$1,000.00
UCSP No.1	\$1,000.00
UCSP No.2	\$1,000.00
UCSP No.3	\$1,000.00
UCSP No.4	\$1,000.00

Allow the sum of \$250.00 per hour for the supply of wall oven and hot plate/or stove.

Allow the sum of \$250.00 per house for door furniture

Allow the following totals of light and power points for each house type:

U1	22
U1a	25
U2	29
U3	33
U4	44
UC1	34
UC2	39
UC3	39
UC5	42
UC6	38
UC8	44
UCSP No.1	44
No.2	44
No.3	44
No.4	44

Contractor shall indicate rate for extra light or power point, change of single p.p. to double, the provision of two way switching the provision of dimmers.

Allow the sum of \$70,000.00 for landscape work to future detail. Earth moundings form part of the siteworks and are not to be included in this figure.

R. SCHEDULE OF PRIME COSTS,
PROVISIONAL SUMS AND CONTINGENCY
SUMS

Allow the sum of \$1,600.00 for the supply and installation of the Oil fired heating system and storage tank to the houses nominated.

Builder shall allow for associated works, water connection, electrical wiring, trimming and flashing of flues etc and general co-ordination and attendance on the works.

Allow the sum of \$850.00 for the supply and installation of electrical heating system to houses nominated.

Site Electrical Distribution PC Items

- 1) The supply and installation of underground power supplies to the individual housing units, including trenches, cable markers etc.

P.C. SUM \$54,000.00

- 2) Supply and installation of the underground PMG system including cabling, conduits, pits, trenching, cable markers etc.

P.C. SUM \$6,000.00

- 3) Supply and installation of the electrical services for the community centre, car parks and walkway lighting including trenches etc.

P.C. SUM \$17,000.00

- 4) Supply and installation of central T.V. Tower, underground cabling, amplifiers, trenches etc

P.C. SUM \$9,000.00

ADDENDUM 1

COMMUNITY CENTRE

The general Specification clauses shall also apply to the Community Centre.

In addition to these the following items shall be included:

CONCRETOR:

Fireplace

The fireplace hood and log storage recess shall be constructed to the detail design and in accordance with the structural detail drawings.

The surface shall be Class 2 finished with a fine tooled bush hammer and have incised lettering approximately 150 high reading URAMBI set in the surface as shown.

Allow for forming a throated flue outlet into the chimney shaft.

Smoke Slab

Cast in as the work proceeds an insitu reinforced concrete slab set immediately above the smoke outlets shown on the drawings.

Flue Capping

Provide and build in as the work proceeds, a reinforced horizontal and stepped concrete slab set 2 courses below the lowest point of the chimney.

Over the slab and on completion of the brickwork shall be cast a weak mix concrete fill with a raking surface.

Set in galvanised straps to receive a future brick on edge capping described in brick layer.

Stairs and Changes in Level

Allow for shuttering and forming all treads and nosings required at changes in floor levels, access stairs and steps.

Allow for fair faced Class 2 finish to all concrete exposed as soffites.

Upper surfaces to receive quarry tiles shall be wood float finish.

Upper surfaces to receive carpet shall be steel trowelled finish.

Swimming Pool

Construct the swimming pool in the location as shown on the drawing, in reinforced sprayed on concrete.

All work to be carried out by an approved specialist.

The dimensions of the pool shall be 16000 x 7500 x 2000 to 1000 deep.

Provide a 450 wide coping/walkway in integral with the pool and allow for an exposed aggregate pebble finished surface.

COMMUNITY CENTRE (Cont)

Swimming Pool (cont)

Below the coping level shall be fixed a 300 deep margin of glazed mosaic tiles to an approved colour.

Allow for providing: filtration pipework and equipment (which shall be located in the Laundry). Allow provision only for future water heating and No. 2 underwater lights.

Allow for all vacuum suction cleaning equipment and for removable nylon sheet pool covering and fixing points for same.

BRICKLAYER

Brick Corbels

In the eastern wing of the centre shall be built in brick corbels two courses deep by 400 wide. These corbels shall be set at a height of 2100 above floor level at 450 centres to receive struts supporting the main roof rafters/

Chimney Stack

Set on the concrete support described in Concretor a chimney stack to the height shown on the drawings.

Allow for internal buttressing, for all pargetting and damp courses to be built in. All external faces to be in fair faced brickwork.

Smoke Outlet

In brick stack provide No. 2 smoke outlets with sloping brick on edge sills and with brick on edge heads.

Chimney Coping

Set brick-on-edge on the sloping concrete surface described in Concretor, providing and building in all galvanised ties.

Parapet Walls

Build parapet walls 900 high to the craft room and squash court viewing window in fair faced, both sides, single skin brickwork. Build in cedar plugs in the top 2 courses to provide grounds for hardwood coping.

Seats

In lounge build low walls to provide support for built in seating as located on the drawings.

METALWORKER

Aluminium Window

Build into kitchen servery timber window surround framing, a sliding aluminium insert, similar to that Mark 2 manufactured by Cowdroy and finished in an anodised bronze colour. Approximate size of window 3000 x 900 high.

Rooflights

Build into the toilet ceilings, No. 2 Atlas Domelights as Type TD481 size 1220 x 405, in accordance with the manufacturers instructions.

COMMUNITY CENTRE (cont)

Arch Bar

Allow for an arc shaped arch bar formed from 203 x 12 m.s. to receive a brick on edge head to the squash court viewing window.

Roller Shutter

Where indicated on the plan provide and fix an aluminium roller shutter, size 3000 x 1400 h. The shutter shall comprise 50 x 1 mm patent interlocking slats in horizontal layers with a hand operated coil spring.

The slats shall run in 35 x 25 x 3 vertical aluminium channel guides screw fixed to timber.

The shutter shall be secured with 2 x 100 bolts engaging in the jambs.

Allow for painting on completion of installation.

Balusters

To loft staircase, provide to each tread a c.p. m.s baluster, 18 ϕ threaded washered and bolted to the tread, with the bolt fully sunk. The upper end to be housed into the handrail set 900 above the line of nosings and fixed with a grub screw, sunk and peellated.

Handrails

Provide and fix to wall either side of walkway stairs a 100 x 50 ms box section handrail with m.s. set off brackets welded on and built into the brickwork.

Weld on closed end plates, clean off all welds and leave primed for painting.

Sliding Folding Door Track

Supply and fix to the underside of the studded infill panel between the Activity and Child Care areas a sliding door track assembly equal to Hendersons Council top hung 290 gear. Provide all guides, brackets, stops, hinges, bolts, pulls and furniture and fix all in accordance with the manufacturers printed instructions.

Approximate length of track 6000.

Metal Lettering

Supply and fix cast aluminium lettering 150 high, to read URAMBI, with baked on enamelled finish and stand of lugs. The type face shall be as selected by the Architect and located by the main entrance door.

CARPENTER

Pitched Rafters

Common ceiling rafters in the east wing and adult lounge shall be wrot 178 x 50 at 450 ccs.

Beams

In the roof to the squash court shall be provided and fixed No. 2 300 x 75 laminated beams at third intervals. To each side of the beam

COMMUNITY CENTRE (cont)

Beams (cont)

shall be fixed continuous 40 x 40 runners to receive common rafters notched over.

Rafters

Common rafters to the squash court shall be 200 x 50 set at 900 c/cs cut to bear on runners a.b.s. and to receive purlins at 1500 c/cs.

Purlins

Purlins shall be set at varying heights to allow fall of metal roof deck and shall be of 100 x 75.

Boarded Ceiling Linings

Line all pitched ceilings with 75 x 25 nom t & g boarding

Boarded Panels

Internal boarded panels set above sliding doors and roller shutter shall be formed of 200 x 25 WRC shiplap set on studding a.b.s.

External boarded panels shall be of 200 x 25 sawn tanolith treated pine shiplap fixed to studding a.b.s.

Staircase

Provide and fix a staircase up to the loft as shown on the detail drawings.

The central member shall comprise an ex 200 x 100 laminated and stepped Tasmanian Oak carriage.

Treads shall be ex 300 x 50 x 600 wide Tasmanian Oak screwed to 75 x 75 x 100 x 6 galvanised ms angles set eachside of the carriage, let in, and screwed there to with c/s screws.

The handrail shall be formed from 100 x 75 Tasmanian Oak and supported by cp solid ms balusters, one to each tread, a.b.s.

Balustrade

The balustrade to the loft shall be boarded both sides a.b.s fixed to studding a.b.s. through which shall be passed ms tension rods fixed to roof and floor framing members.

Seats

Construct in toilets No. 2 bench seats 1500 long x 450 deep.

Each bench shall be formed of 75 x 25 shaped and stained slats at 100 c/cs, supported on 25 x 25 square section ms L section legs flanged and bolted to wall and floor.

Benches

On dwarf brick walls, and to runners plugged to main walls fix 75 x 50 bearers at 600 centres with 18 thick pyneboard forming a continuous shelf. Form 100 deep fascia in 18 pyneboard to all edges.

COMMUNITY CENTRE (cont)

WC & Shower Cubicles

Where indicated on the drawings provide and fix compressed 18 thick asbestos cement partitions with finished finish.

Each WC shall be provided with doors 20 thick x 600 wide, hung on a pair of falling open hinges.

Provide No. 2 approved coat hangers with rubber tips .

Provide No. 2 toilet roll holders.

Provide No. 4 cp rod curtain tracks to shower cubicles. Provide all necessary fittings for hooks and curtains to be provided by the Proprietor.

Vanity Units

Provide and fit No. 2 laminate faced vanity units with 200 deep fascias faced a.b.s. and each supported on No. 2 L shaped 25 x 25 square section ms bearers flanged and screwed to wall and floor.

Kitchen Cupboards

Allow the PC sum set in the Schedule for kitchen cupboards, working tops, sinks and stove to future selection.

Shop Fittings

Allow the PC sum set in the Schedule for shelving, counters and cupboards.

Craft Room

Allow the PC sum set in the schedule for work tops, cupboards and shelving.

Sauna

Allow the PC sum set in the schedule for a complete prefabricated sauna room, including walls, ceiling and floor, benching and stove, all installed by a nominated specialist.

Mirrors

Provide and fix above each basin a 600 x 600 x 6 plate glass mirror with spring loaded clips.

Sliding Folding Doors

Supply and fix a set of top hung flush ply faced doors where located on the drawings.

The doors shall comprise 6 panels rebated as shown in the sliding door manufacturers catalogue.

Prepare doors for painting.

Upholstered Bench Squabs

Allow the PC sum allowed for in the Schedule for upholstery material.

To the areas indicated on the drawings provide and lay upholstered squabs 100 thick with foam rubber formers.

COMMUNITY CENTRE

Upholstered Bench Squabs (cont)

Allow for forming on 200 deep pyneboard plugged to brickwork, a foam filled back rest covered in upholstery material.

ROOFER

Metal Roofing

To the squash court roof provide and lay Colorbond metal deck roofing, on approved insulation, not supported by chicken wire mesh.

Each decking sheet shall be secured to purlins by galvanised side clips.

Provide for button punching at 900 c/cs.

Allow for all stop ends, cutting, end weathering and provide all upstands and down flashings at perimeters.

The roof slope shall fall at a pitch of 40 in 9000 into a box gutter at one end.

The gutter shall be 300 wide and 6400 long with a downpipe outlet as shown and provided with No. 2 50 ϕ overflow spouts in addition.

The gutter shall bear continuously on 18 plasply on 50 x 50 cross bearers.

Leave the whole installation watertight on completion.

PLUMBER

Hot Water

Provide and install in the storeroom a Rheem electric hot water storage 3 element heater Type 783/270 litre.

Sanitary Fittings

Allow the PC sum set in the Schedule for supplying and building and plumbing in complete, the following fitments with fittings:

- 1 double stainless steel bowl sink & drainer
- 1 Vitreous china kitchen type sink
- 1 Plaster arrestor
- 3 stainless steel wash bowls each 75 litre capacity
- 2 Cameo 77 wash basins
- 2 Concorde low level WC suites complete with solid back plastic seats
- 2 Washing Machines
- 2 Drying Machines
- 1 Extractor

PLASTERER

Squash Court Walls

Plastered walls to the squash court shall be struck off neatly at the line of roofing joists and taken down to floor joist level, prior to laying of floor boards, and no provision shall be assumed

COMMUNIT CENTRE (cont)

Squash Court Walls

for architraves and skirtings which are not to be fitted.

Rendered Walls to Receive Tiling

Walls to receive tiles shall be rendered to a height of 2000 in the toilets, to a height of 400 above work tops in the shop and kitchen, and to a height of 400 above work tops in the laundry and craft areas.

TILER & PAVIOR

Hearth

Provide and lay 230 x 230 Bulli quarry tiles to the fireplace hearth.

Covered Way & Steps

Provide and lay 230 x 230 Bulli tiles a.b.s. to the covered way and steps.

At each step nosing lay an unsplit tile set to project 12 over the riser.

All tiles laid in brick bond pattern.

Wall Tiles

Provide and fix a.b.s. while 200 x 100 glazed wall tiles.

2 courses above all work tops

Up to 2000 above floor level in the toilets.

Carpet

Carpet shall be laid in accordance with the manufacturers directions in the areas nominated.

Smooth edge gripper shall be used at all perimeters.

The carpet shall be selected by the Architect and the PC sum of shall be allowed per metre as noted in the Schedule.

Power clean on completion, leave clean and protected.

**APPROVED SUBJECT TO COMPLIANCE
WITH THE CANBERRA SEWERAGE AND
WATER SUPPLY REGULATIONS.**

APPROVED


.....
DEPUTY BUILDING CONTROLLER
UNDER BUILDING ORDINANCE 1972

21 JUL 1978

ED 14 (Mar. 74)
Dept. of Housing & Construction A.C.T.

G. MOORE & N. SMITH
PLUMBING & DRAINAGE
CONSULTANTS
SHOP 1 MOLODGO MALL, GYSHWICK
BOX 42, GYSHWICK
Ph. 985236

BUILDING AND SERVICES ORDINANCE 1924-1942

CANBERRA SEWERAGE AND WATER SUPPLY REGULATIONS

THE PROPER AUTHORITY

I _____

of _____

in accordance with Regulation 17 and 18 of the Canberra Sewerage and Water Supply Regulations hereby apply for approval of the design of Sanitary Drainage and/or Sanitary Plumbing proposed to be constructed at

Block WATER Section 144 Locality KAMBRAH

on behalf of the lessee of the said property.

Name of Lessee: KAMBRAH CO-OPERATIVE COMMUNITY

Address: _____

Herewith are submitted No. _____ copies of Sanitary Drainage and/or Sanitary Plumbing (cross out when not applicable) plans together with a copy of the approved architectural plans and specifications.

If the design is approved, it is requested that one approved copy together with the approved architectural plans and specifications be returned to the undersigned.

SIGNATURE: M. Taylor

DATE: 28.7.75

FOR OFFICIAL USE ONLY

PLANS RECEIVED BY _____ Receiving Officer

PLANS APPROVED _____ / / 19 Drainage Plan No. _____

FORWARDED BY MAIL TO _____

PLANS COLLECTED BY _____

/ / 19