Pittwater Council

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Postal Address: P.O. Box 882, Mona Vale NSW 1660, DX 9018 Mona Vale

pittwaterlga.com.au e-mail: pittwater_council@pittwater.nsw.gov.au

Environmental Compliance
8am to 6pm Mon - Thurs, 8am to 5pm Fri
Phone 9970 1111

24 March 2005

COPY

Robert Jones
Robert Jones & Associates
5 / 57 Avalon Pde
AVALON NSW 2107

Dear Sir

Re: Construction Certificate CC0136/05
Property: 83 NARRABEEN PARK PARADE MONA VALE NSW 2103

Please find enclosed your approved Construction Certificate and stamped plans.

Did you know that work is unable to commence until such time as a completed Notification of Commencement Form has been submitted to Council at least two (2) days prior to starting work? Not to do so is a breach of the Environmental Planning and Assessment Act, which would result in a Penalty Infringement Notice (on-the-spot fine) being issued to you and the builder.

To assist you please find enclosed a "Notification of Commencement and Principal Certifying Authority Service Agreement" form to enable you to appoint Pittwater Council as your Principal Certifying Authority (PCA). Please complete this form and return it to Council's Customer Service together with the PCA appointment fee as detailed in the form.

If appointed as the PCA, Council would carry our various inspections as indicated in Part 6 of the enclosed "Notification of Commencement and Principal Certifying Authority Service Agreement" form and ultimately issue an Occupation Certificate for your development. Appointment and inspection fees are also detailed in the enclosed form

Council will endorse your "Notice of Commencement and Principal Certifying Authority Service Agreement" form and return a copy to the applicant with advice as to the required critical stage and other inspections to be carried out by Council.

Council is committed to providing a quality service and would value your business in being appointed as the Principal Certifying Authority for your development.

An Officer will contact you in the next few days to discuss your development and help ensure your development progresses smoothly.

Yours faithfully
Development Compliance Group

Per:

Pittwater Council

Construction Certificate No: CC0136/05

Site Details: **83 NARRABEEN PARK PARADE MONA VALE NSW 2103**

Legal Description: **Lot 22 DP 15762**

Type of Development: Building Work

Description: **Demolition of the existing dwelling and construction of a new single dwelling**

Associated Development Consent No: N0613/04 Dated: **07/12/2004**

Building Code of Australia Certification: **Class 1a**

Details of plans, documents or Certificates to which this Certificate relates:

- Specifications for new dwelling prepared Robert Jones Architects dated January 2005
- Working Drawings prepared by Robert Jones & Associates Pty Ltd, Project No.325/03, Drawing No.CC01, CC02, CC03, CC04 dated July 2004 & CC05, CC06 dated January 2005
- Landscape Plans prepared by Trish Dobson, Job No.0419, Drawing No.CC L01, dated 8 February 2005
- Structural Engineering Details prepared by Woolacotts Consulting Engineers, Job No.04-274, Drawing No.S1, S2, S3 & S4 dated 11 February 2005
- Geotechnical Risk Management Policy for Pittwater prepared by Woolacotts Consulting Engineers dated 24 February 2005
- Stormwater Certification prepared by Woolacotts Consulting Engineers dated 24 January 2005 (3 pages)
- Compliance Statements prepared by Robert Jones Architects for Conditions No.B10, B26, B27, B28, B29, B29a & D79 dated 28 February 2005 (2 pages)

I hereby certify that the above plans, documents or Certificates satisfy:

- The relevant provisions of the Building Code of Australia.
- The relevant conditions of Development Consent No: N0613/04

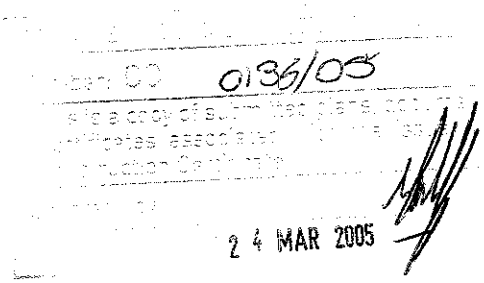
Further that the work, completed in accordance with the Building Code of Australia, all relevant Australian Standards and these plans and specifications, will comply with the requirements of Section 81A(5) of the Environmental Planning and Assessment (Amendment) Act, 1997.

Carl Georgeson
Development Compliance Group

24 March 2005
Date of Endorsement

Note: You are reminded that pursuant to provisions of Clause 81A, you must nominate whether Council or an accredited certifier will be the principal certifying authority, also you must give notice to Council of your intention to commence work at least two days beforehand.

S P E C I F I C A T I O N



NEW HOUSE

83 Narrabeen Park Parade, Mona Vale

Client: **A. B. Kibble and R. H. Burton**

Architects: **Robert Jones & Associates Pty Ltd**
5/57 Avalon Parade
Avalon NSW 2107

Date: **January 2005**

Job No: **325/03**

INDEX

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1.1 DEFINITIONS

Proprietor Mr. A. Kibble & Mrs. R. Burton

Architects: Robert Jones and Associates Pty. Ltd.
5/57 Avalon Parade
AVALON, NSW, 2107
Telephone 9973 2633
Fax 9973 2916

Structural Engineer: Stephen Branch
Woolacotts Hale Corlett and Jumikis Consulting Engineers Pty. Ltd
2A Broughton Road
ARTARMON, NSW
Telephone 9413 1399
Fax 9413 1132

Geo-Technical Engineer: Grahame Wilson
Douglas Partners Pty. Ltd.
96 Hermitage Road
WEST RYDE, NSW, 2114
Telephone 9809 0666
Fax 9809 4095

1.2 SITE

Prior to construction, the Builder shall visit and inspect the site and shall be satisfied as to the nature of the site, and nature and extent of the works to be carried out under the Contract, existing services, existing structures, levels etc.

No claims for variations arising from neglect of these precautions will be approved.

The Builder will be responsible for verifying all site dimensions and levels, the existence of all services and shall lodge any complaints in relation thereto, with the Architect, before commencing work.

1.3 NOTICES AND FEES

Prior to entering into this agreement the Proprietor has applied for Building Approval and Construction Certificate and paid all associated fees. A copy of Approved stamped plans shall be handed to Builder for the Builder to take to the Water Board for stamping.

The Builder shall comply with regulations of local and other legally constituted authorities having jurisdiction over the works and shall give all notices, obtain all permits and certificates, and pay all fees required by the authorities. The Builder shall obtain Certificate of Compliance of all the works at completion.

1.4 CODES AND STANDARDS

All workmanship and materials shall comply with relevant Australian Standard, the Building Code of Australia and the planning requirements and building regulations of the Shire Council and all other relevant statutory authorities.

1.5 SPECIFICATION AND DRAWINGS

Where an item is usual or necessary or is reasonable or properly to be inferred in the type of work generalised in this Specification but not specifically mentioned it should be deemed to be included in the Specification.

Where any item of work is not wholly indicated on the drawings, carry out and complete the item so as to correspond entirely with work of a similar nature drawing in detail elsewhere on the drawing, and in full accordance with the Specification. Follow figured dimensions on the drawings in preference to scaled dimensions.

1.6 SUBSTITUTIONS

Substitutions of any materials or workmanship for that specified or shown on the drawings shall not be made without the written approval of the Architect.

The Builder shall be solely responsible for the execution and completion of the Contract including all sub contracted work which he shall co-ordinate so that the Works proceed without delays.

1.7 COPIES OF DOCUMENTS

The Builder will receive three sets of drawings and specifications from the Architects and Structural Engineer. Any additional copies of documents will be made available by the Architect on payment by the Builder of the cost of the copies.

1.8 SHOP DRAWINGS AND CO-ORDINATION

The Builder shall be responsible for the co-ordination and approving shop drawings and for ensuring that they are in Agreement with the Contract Documents and correct as to all relevant information.

1.9 FOREMAN/SITE INSTRUCTIONS

The Builder shall keep constantly on the works a competent foreman, and any instructions given to him will be deemed to be given to the Builder.

1.10 GENERAL ATTENDANCE ON SUB-CONTRACTORS

General attendance shall include taking delivery, assisting to unload, storing and protecting Sub-Contractor's materials and for allowing Sub-Contractors ample working space, free use of water, electricity (unless otherwise described), scaffolding, hoists and ordinary plant, etc., and messing and sanitary accommodation and for cutting away, building in and protecting finished work and making good. The Builder shall do all hoisting, lifting, lowering and holding in position of all materials, elements, components, etc. necessary in the execution of the works.

1.11 TOOLS AND PLANT

Provide and maintain all necessary tools, hoists, ladders, scaffolding, tackle, tarpaulins, screens, barriers, temporary lighting, etc. as may be required for the proper execution of the work.

1.12 SETTING OUT AND SURVEYS

The Builder shall be responsible for surveys and establishing the boundaries. Setout the works in accordance with the Contract. Verify all dimensions, bearings and levels and lodge any objections to the information before commencing work.

The Builder is to provide survey information to Authorities

- Set out footings
- Block plan showing all structures and distance to boundaries
- Height of structure

Retain similar surveyor throughout the construction period, whose duties shall be to establish and check the accuracy in both vertical and horizontal planes of all basic structural works and setouts. If setting out is incorrect, the Builder shall perform without extra charges all work necessary to correct it before proceeding with the works.

1.13 PROPRIETARY ITEMS AND PRODUCTS

All work to be carried out in accordance with manufacturer's printed instruction. It is the builder's responsibility to obtain such instructions.

1.14 GUARANTEES

Where guarantees are called for the Builder shall obtain written guarantee in the name of the Proprietor from the firm supplying the materials or doing the work, and delivery of these to the Proprietor at Practical Completion of the Works.

1.15 FASTENINGS

All fixings, fastenings and the like shall be of approved type, and appropriate for their purposes.

1.16 INSPECTION

The Builder is to co-ordinate inspections as necessary by Engineers and Principal Certifying Authority and the Proprietor to pay the required fees. However, if the Builder changes any structure or system, he will pay fees for related inspections and services. No extension of time will be allowed for. Delays due to inspections or rectification of works due to inspections.

1.17 TEMPORARY SERVICES

Provide and maintain for all trades, subcontractors, nominated subcontractors and suppliers, adequate temporary services necessary for the execution of the work under Contract. Install meters, valves and switchboards in accordance with the requirements of the relevant authorities. Provide adequate sanitary and lavatory facilities for all personnel in accordance with the requirements of the local authority. Facilities shall be kept in a clean and tidy condition at all times and shall be removed and disconnected on completion.

The Builder shall provide adequate storage space and sheds for all materials or equipment which require protection against damage of any kind and remove on completion. The Builder is to provide a telephone service on site during the contract period, and is to pay all charges.

1.18 TEMPORARY ROADS, CROSSINGS

Maintain and protect from damage existing road. Make good any damage to footpaths, roads, kerbs, gutters and street crossings of neighbouring properties caused during the Construction period.

1.19 BARRIERS & SEDIMENTATION CONTROL

The Builder shall maintain all necessary temporary screens, fencing, footways, carlways, together with night lighting, for the protection of the public land and property, and at Completion of the Works, remove all traces of same.

Construct 'filter fabric' covered hay bales and temporary construction exit as shown on drawings during construction and remove after completion. Maintain temporary fencing during construction for security and remove at end of construction.

The Erosion And Sediment Management Plan as shown on architectural plan CC03 is to be constructed in accordance with the requirements of the NSW Department of Land and Water Conservation's "Urban Erosion and Sediment Control" manual. Please refer to fig. 3.23 (Straw Bale and Geotextile Sediment Filter) in conjunction with Point 3.4.3.3 - Straw Bale–Geotextile Fabric Sediment Filters and Fig. 3.26 (Temporary Construction Exit) in conjunction with Point 3.4.5 - Temporary Construction Exit attached to this specification. Minimum length of construction exit 6m.

1.20 REMOVAL OF RUBBISH

It is required that the site be maintained in a clean and tidy condition particularly during the later stages of construction. To this end the Builder shall institute and maintain an efficient system for collection and removal of rubbish as it accumulates.

1.21 ADJOINING PROPERTIES

The Builder shall not commit any act of trespass and shall effectively protect all adjoining properties and Proprietors against loss, damage or injury that may occur through the carrying out of the work.

The Builder shall make good any such loss, damage or injury and shall indemnify the Proprietor against any proceedings in respect of the above.

1.22 DILAPIDATION REPORT

As per C14 Pittwater council condition of consent. Prior to commencement of works the builder is to carry out and supply the council/accredited certifier, the relevant adjoining property owner and the architect with a dilapidation report relating to the adjoining dwelling and retaining walls of 85 Narrabeen Park Parade, Mona Vale. **See PC Amount of Supply.**

1.23 GALES AND STORMS

Proper and adequate shoring and protection shall be used throughout to ensure that there will be no damage by gales, storms and rain, of the works. Damage shall be made good by the Builder, should it occur, at no cost to the Proprietor.

1.24 PROTECTION OF FINISHES, SURFACES OR MATERIALS

The Builder shall provide and fix adequate timber sheathing, building paper and other protective materials to protect the works, finishes, materials and fixtures from mechanical damage, staining, scuffing or any deterioration due to any cause and at the Architect's instruction. The garage floor is to be covered with plywood until completion of works.

1.25 PRACTICAL COMPLETION

Practical Completion of the Works shall mean 'reasonably fit for use or occupation' and in addition shall mean that the following operations have been satisfactorily completed:

- Certificate to occupation from the certifying authority
- The building made watertight and weatherproof.
- All external paving, finished levels and guttering are complete. All services to the building have been installed, connected and tested and are operational. All stormwater and sewerage lines are to be clear.
- The building is able to be securely locked.
- The requirements of the local and other Authorities have been complied with.
- Provide all certification required by council and all other relevant governing authorities.
- Bring all surfaces to their specified finish, painting completed and all surfaces cleaned or polished.
- Ease all windows and doors.
- Electrical light and power installation completed, and all other equipment and services working.
- The building is to be thoroughly cleaned throughout.
- The builder shall provide to the Proprietor
  - Copies of all guarantees and warranties.
  - Operating and maintenance instructions for all equipment.
  - Instructions for the care and maintenance and suppliers of materials used in the building.
  - Set out drawing showing position of all services and drainage line for future reference.
- List of all sub-contractors name and telephone numbers.

1.26 FINAL COMPLETION

Issue survey
Complete all defects
Adjust all cupboards doors

1.27 COMPLETION

The whole of the works and the site shall be cleaned of all surplus materials and rubbish removed, all doors and windows eased, glass cleaned, inside of all cupboards cleaned, keys tabulated and handed over, stains and blemishes removed, tools, temporary buildings, etc. removed, and premises left fit for occupation.

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2.1 GENERAL

The work of this Section includes but is not limited to the following items:
The entire demolition and clearing of those elements of the site and existing structures as necessary to complete the new works, including:

1. The disconnection and removal of existing services, fixtures, fittings and temporary sealing of these services, ready for connection of new installation
2. Demolition of existing building including existing walls, floor and roof structure, subfloor and footings, stairs, fire place, chimney and garage.
3. Demolish garden walls, stairs, paths and existing driveway
4. Removal of palms and vegetation as necessary to complete works and which are shown on landscaping plan to be removed. Install tree protection fences to trees to be retained.
5. Removal and storage on site of existing sandstone subfloor blocks for reuse.
6. Cleaning the site thoroughly on completion and removal of all rubbish and waste materials from site.

2.2 RUBBISH REMOVAL

Allow for the removal of all materials not required for re-use in the new work; remove all debris from the site and dispose of it in a legal manner, recycle where appropriate.

The Builder shall be responsible for paying any garbage deposition fees for disposal of all unwanted demolished material where applicable.

2.3 PHOTOGRAPHIC RECORD

Arrange for photographic record of the boundary conditions, fence, etc and neighbours properties, making note of any cracks and issues. Supply copy to Architect prior to construction.

2.4 SHORING

Provide necessary shoring in accordance with Structural Engineer requirements.

2.5 EROSION CONTROL

Supply and lay hay bales and filtration fabric to cover hay bales to form a sedimentation barrier plus construction exit. See Schematic layout and details on site plan.

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3.1 EXTENT OF WORK

This section comprises the excavation, disposal of surplus excavated materials, the supply and compaction of filling material and the preparation necessary to bring all areas to the correct shape and level prior to construction.

3.2 DEFINITION

ROCK: Builder is to allow for any rock excavation. **See P.C. Amount for supply and fix.**
BASE: A selected 80mm layer spread of 20mm aggregate to form acceptable working surface directly under the slab to Engineer's Specification.

3.3 GENERALLY

Excavate generally as required, or as shown on the drawings. All excavation shall be inspected by the Structural Engineer and relevant authority, prior to the next stage of work commencing. No concrete shall be poured until excavations have been inspected.

Maintain excavations, by keeping leveled and filled areas free of water using temporary catchment drains, sumps, pumping, bailing, or whatever means are suitable and effective. All water shall be removed prior to pouring footings.

3.4 BAD GROUND

Should unsuitable material be encountered at the prescribed depths of excavation, or soft, wet and unstable areas develop during excavation, obtain instructions from the Engineer before carrying out additional excavations. The Builder however is responsible for the cuts and excavation and any work necessary to maintain the excavation.

3.5 SERVICES EXCAVATION

Excavate to the lines, levels and grades as required for drainage, hydraulic, electrical and other underground services specified in the relevant Sections of this Specification and as shown on the Drawings.

3.6 BACKFILLING SERVICE EXCAVATIONS

Backfill trenches as soon as possible after the relevant service line has been laid, tested and approved. To all sewer drainage and to PVC pipes where specified, provide minimum 50mm thick 4:1 sand:cement mortar bedding to support the underside of pipe over 1/3rd its circumference.

Generally provide initial fill of approved excavated material free from stones retained on a 25mm sieve. Consolidate the fill so that the pipe is buttressed by the walls of the trench. Fill the trench initially to a depth of 150mm above top of pipes generally and 300mm above the top of pipes on mortar bedding, and consolidate by hand without disturbing or damaging pipes or joints.

3.7 FOOTINGS AND SLAB

Allow for excavation of all new footings, lower level slab, retaining walls, driveway slab and paving as shown on drawings.

3.8 DISPOSAL

Redistribute topsoil and other excavated materials to achieve site levels as shown on drawings as allowed. Dispose of excess excavated material off site is accordance with the governing council conditions and the all relavent codes and standards.

3.9 TERMITE TREATMENT

Termite treatment is to be carried out by Termi Mesh - Telephone: 4365 5500 to manufacturer's specification. On completion a certificate shall be provided to the Architect for new works. Construct ant caps from stainless steel Termi mesh.

3.10 STORMWATER DETENTION PIT

Redistribute topsoil and other excavated materials to achieve site levels as shown on drawings for stormwater detention area. Fall area to grated detention pit as shown. Allow for overflow from detention area at shown.

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4.1 EXTENT OF WORK

The work shall consist of the supply, fabrication and erection of all steelwork shown on the drawings and as required, and includes surface treatment, storage, delivery, offloading, erection, field welding, high strength bolting, steel to steel connections, connection to anchor bolts, permanent grouting, repairs to surface treatment and testing.

The work shall be carried out in strict accordance with the Engineer's drawings and specifications and in conjunction with the architectural drawings and other relevant plans, details and instructions. Provide all labour, materials and equipment necessary to complete this trade.

4.2 MATERIALS AND WORKMANSHIP

Responsibility for the correctness of the supply of all materials shall rest entirely with the Builder. Materials, which do not comply, shall be rejected.

All steel shall be new and each member shall be free from any butt-weld or other form of splice, for the full length between joints shown in or indicated by the drawings, unless such splice shall have been shown in the approved shop drawings and/or approved in writing.

Where portions of the work are to be exposed and form part of the architectural treatment, attention shall be given to the finish, as indicated by the Architect.

Fabrication shall be by an Approved company and installation shall be carried out under the direct supervision of a capable Foreman, experienced in the class of work under construction. The end clearances shown on the drawings shall not be exceeded, where these are not shown, the Builder shall ascertain the clearances used in the design of the connections.

Where end cleats, brackets and other connections are not specifically detailed on the drawings, they shall be of type and proportion to suit the location and forces shown thereon, with gauge and edge distances in accordance as necessary.

Bolts in bearing shall be of such lengths that no threaded portion shall cross the interface of the parts joined. At least one washer shall be placed under the bolt head or nut, whichever is to be rotated.

Manual welding and semi-automatic welding used shall be in accordance with SAA Codes. Exposed welds shall be ground smooth or flush as indicated. Allow for the drillings, cleat and other fitments shown on the drawings, or as indicated elsewhere and as required by other trades.

4.3 HANDLING DELIVERY AND STORAGE

Steelwork shall be handled and stored by methods and appliances that will not over-stress or deform the members. Members shall be stored above the ground surface. Members bent or buckled from handling or storing shall be liable to rejection. Bolts, nuts and washers shall be supplied in grit-free containers and stored in water-tight premises. Burred, damaged, corroded or otherwise unserviceable bolts shall not be used.

4.4 SHOP DRAWINGS

Fourteen days prior to the anticipated commencement of fabrication, submit shop drawings to the Architect and Structural Engineer for approval.

4.5 INSPECTIONS OF STEELWORK

The Structural Engineer shall carry out all inspections of structural engineer's work and the Builder shall arrange such inspections. All steelwork is to be inspected before and after final painting.

4.6 TESTING

Provide Manufacturer's Certificates where appropriate.

4.7 SURFACE TREATMENT

All steelwork and fixing components shall be hot dip galvanised. Any deformation of members due to surface treatment will be the responsibility of the builder. **All lintels shall be stainless steel.**

4.8 ERECTION

Safety requirements, cranes, equipment, scaffolding and staging shall meet the requirements of the controlling authorities. Additional members used to facilitate erection shall be affixed in a manner which does not weaken or deface permanent work. Following erection, adjust the installation as required by Engineer.

4.9 BEDDING AND GROUTING

Where steelwork is supported by concrete, masonry or like material, it shall be set up on packing or wedges to facilitate alignment and permit subsequent grouting. Such packs, if permanent, shall be tiered of solid steel or grout of similar strength to the permanent grout. All other packs shall be removed before completion of the grouting.

4.10 BEAMS

Supply and install beams where indicated on drawings. See Engineer's drawing for specifications and details.

4.11 CONNECTION OF STEELWORK

Steel to steel, steel to brickwork and steel to concrete connections shall be carried out in strict accordance with the Engineer's drawings and specification and in conjunction with the Architectural drawings. Connections requiring site welding shall be zinc coated.

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5.1 SCOPE AND INTENT

Provide the materials and workmanship necessary to produce concrete of the appropriate quality and form it into the concrete elements of the building. The concrete elements of the building include all concrete items shown on the Architectural and Structural Engineering drawings and specifications.

Concrete work includes co-operation with other trades, positioning or coring where necessary for ducts, conduit, etc. before pouring, casting in items provided by others such as dowels, weather bars, sumps etc., forming rebates, reglets, recesses, dishes, grades to falls, and other necessary incidental work whether specifically mentioned or not.

5.2 CONCRETER

Construct all concrete work including formwork, reinforcement and placement of concrete required and engineering drawings and specifications and the concrete specifications of the Association of Consulting Structural Engineers of NSW. Allow for transportation of necessary materials to site.

Concrete shall not be mixed or placed without the approval of the Structural Engineer. A minimum thirty-six hours notice of Contractor's intention to pour concrete is required. All formwork, reinforcement, tools, etc., cores, bolts, conduits, etc. shall be set in position before concrete is placed.

The Contractor shall be responsible for the following aspects of the work:

- Sufficiency of the whole of the formwork
- Correctness of the reinforcement
- Correctness of tolerances
- Co-ordination of Sub-contractors cores, pockets and embedments
- Building-in of anchors, etc.
- Production of concrete with required properties
- Placement of concrete
- Testing of concrete
- Curing and protection of concrete
- Rectification of rejected concrete

5.3 TOLERANCES

Each form shall be constructed from sound materials adequately supported and braced or tied, to maintain position and shape during and after the concrete placing, without settlement. The dimensional tolerances for the formwork shall be such that the concrete shall conform to the following tolerances:

- Deviation of any point on the surface of a building element shall not exceed 10mm.
- Deviation of measured dimension between two points on the surface of a building element shall not exceed 10mm of dimensions correct value, except in the case of cross sectional dimensions of structural members such as columns, beams, slabs and walls, the tolerance shall be minus 0mm and plus 6mm. The above tolerance shall not apply to the measurement of the flatness of formed surfaces.
- Any misalignment between edges of adjoining pours at joints in concrete, or in the surface of concrete elements due to adjoining sheet forms, shall not exceed 2mm.

Each line, level and grade of formwork shall be confirmed by the Builder before concrete placement

5.4 CONCRETE SLAB SURFACING

The unformed surface of the concrete shall be finished in accordance with the following types in which the concrete finish type shall be described.

TYPE A - Broom Finish for Tiled Areas, Driveway
After the concrete has been placed, struck off, consolidated and leveled to a Class C tolerance, the surface shall be roughened with stiff brushes or rakes before final set.

TYPE B - Steel Trowel for garage slab, terrace slabs and under carpeted areas.
As per Type A with surface steel trowelled finish.

5.5 CURING AND PROTECTION

Freshly cast concrete shall be protected from premature drying and excessively hot or cold temperatures. The concrete shall be maintained at a reasonably constant temperature with minimum moisture loss for the curing period. Confirm with Engineer for approval.

5.6 HORIZONTAL WATERPROOF MEMBRANE

Under all concrete slabs resting on base course, lay 'Fortecon' 0.3mm gauge polythene film membrane. Lay in long lengths, lapped 150mm at all joints with approved pressure sensitive tape, turn up full slab thickness at external walls and flange up around all pipes and the like, full height of slab.

All membranes shall be fixed in accordance with manufacturer's specification. Protect membrane from damage and make good before concrete is poured.

5.7 CHANGE IN FLOOR FINISHES

At all doors between tiled and carpeted areas, provide aluminium angle fixed to concrete at line of rebate in door frames.

5.8 BEARING FOR CONCRETE SLABS

No concrete slab shall come into direct contact with the supporting brickwork. Provide necessary bond breaker.

5.9 PITS, TRENCHES AND GRATINGS

Construct drainage pits and grated trenches where shown on the Drawings. The drainage pits are to be 450 x 450 x depth as required, concrete pits with 25mm thick galvanised gratings, unless otherwise stated on Engineer's Drawings.

5.10 MISCELLANEOUS CONCRETE COMPONENTS

Provide reinforced concrete components associated with each trade as required for all areas of the works. These include dish drains, trench drains, sumps, kerbs, terraces, stairs, footings, and the like, precast or formed insitu where detailed. Co-ordinate with each trade to ensure components are to their requirements. Include all recesses, embedments, built in items, openings, penetrations, forming and finishing for each completed component. Allow for concrete lintel to letter box 400 long x 290 wide x 70 high.

5.11 DRIVEWAY

Construct new concrete driveway to area shown on drawings and as per Engineer's specifications, and Pittwater Council's Regulations for 'high-level' driveway profile.

5.12 CONCRETE FLOOR SLABS AND FOOTINGS

Allow for new ground floor slab, terrace slabs, driveway slab and footings as per Engineering and Architectural Drawings.

5.13 PIERS

Piers - as shown on Engineers drawings. **See PC allowance for supply and install.**

5.14 BLOCKWORK FILLING

Concrete fill blockwork to Engineer's detail.

5.15 SET DOWNS IN TILED AREAS

Set downs in the concrete slab are required for tiled areas. Refer to Architectural and Engineering Drawings and Specifications for dimensions of set downs. Set downs in wet areas to allow for grading provisions in drains.

5.16 SHOWER RECESS

Step slab a further 30mm from bathroom floor into shower recess. Form step with aluminium angle as specified.

5.17 SUPPORTS FOR STEEL COLUMNS

Form concrete supports for steel columns in strict accordance with Engineers Drawings and Specification.

5.18 GARAGE SLAB

Finished level of garage slab is to fall 50mm towards the garage door.

5.19 SERVICES GENERAL

Allow for penetrations in slab as required for plumbing, gas and electrical services.

5.20 WATERPROOF TERRACE 1 AND 2

Allow for waterproof membrane to rear Deck 1 equal to Tremco Pty . Ltd., Tremproof 60 all fixed to manufacturer's specification. Test area for leaks by flooding for 24 hours prior to fixing tiles. Provide **warranty for 10 years** of the supply and fixing of waterproof membrane. Allow for Boral Posi-lock Type A Reglet for flashing where required. Allow to fall to drains in slab.

Ensure waterproof membrane is applied into lineal drains, concrete hob and down over flashings where appropriate. At doorways, install membrane up under window/door sill and over aluminium angle at doorway.

5.21 EXISTING CONCRETE GUTTERING

Allow to rectify existing concrete gutter at Narrabeen Park Parade where existing driveway and cross over removed. Allow to repair existing concrete gutter to street where damaged by building works.

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6.1 EXTENT OF WORK

Provide brickwork/blockwork to all areas indicated for the works and as required for satisfactory completion of the works.

Provide all labour, materials and equipment necessary for the completion of this trade. All work shall be to SAA Codes and performed by competent and experienced tradesmen, using the best trade practices.

6.2 WORKMANSHIP

All brickwork shall be constructed to the various forms and dimensions indicated on the drawings, built plumb and level, accurately bonded, with perpends well kept, and flushed up and grouted every course. No portion of brickwork shall be carried up more than 1200mm above adjoining parts.

Single skin walling shall be laid in stretcher bond. Double skin solid walling shall be laid in English Bond. Internal walling shall be bonded to each intersection with a full brick toothed into abutting brickwork every second course. Bricks shall be laid with frogs up generally, except where supporting a concrete slab. Fill voids and level depressions to each bearing course.

Build in dampcourses, bolts, straps, metalwork etc. and bed plates as work proceeds. Each cavity shall be kept as clean as is practicable. At each stepped dampcourse level, and at ground level, every fourth brick shall be left loose, so that walling under construction above dampcourses can be cleaned out and hosed to remove mortar droppings. On completion of this work and to the foreman's satisfaction, the loose bricks are to be set in place. The Bricklayer shall confer with and attend upon associated trades and all work is to be protected from damage of any kind.

6.3 BRICKWORK

All brickwork to be common clay brick type approved by Engineer and laid to manufacturer's specification. Size 230 x 110 x 80.

6.4 MORTAR

Mortar shall conform to the manufacturer's recommendation for each type of brick used and relevant code.

Note: Sand with significant clay, loam or impurity content will lead to poor bond strength, and should not be used.

6.5 JOINTING AND SURFACE TREATMENT

All brickwork shall be jointed suitably for a cement render finish.

6.6 CAVITY WALLING

External walls shall be built from one single skin of brickwork (unless otherwise indicated) to dimensions shown on drawing, with minimum 50mm wide cavities.

Each tie shall have a minimum 50mm bearing on each wall skin, and shall be laid with kink down and a fall towards external skin.

Each single skin wall shall be tied together with 4mm stainless steel wire ties at 900mm centres every fourth course.

6.7 EXPANSION JOINTS

Form a vertical expansion joint in brick where indicated on drawings or at 8 metre centres. Brick walling at expansion joints shall be built as two independent wall skins laid 12mm apart and completely separated by approved sealant.

6.8 WALL BEARING

Each concrete slab built off a masonry wall shall be isolated from the wall with a full width continuous slip joint membrane, comprising of two layers of 3mm asphalt saturated felt with 0.60mm stainless steel core, or as required by the Engineer. Each non-loadbearing masonry wall shall finish 15mm clear of abutting overhead concrete structural element. Space shall be filled with approved flexible filler stripping set, 15mm in from finished surfaces.

6.9 SCAFFOLDING

The Builder shall provide adequate scaffolding to produce a first class brickwork finish. Care shall be taken to eliminate splashing of any kind from scaffolding to newly completed work.

6.10 DAMPPROOF COURSES

Provide and lay an 'Alcor' super grade 0.55mm thick damp proof course to all cavity walls in positions indicated on the drawings. Each damproof course shall step down across wall cavity and shall be laid in maximum single lengths. If jointing is required it shall be made with a well rolled and flattened joint. Corner jointing shall be set in approved mastic.

6.11 FLASHINGS

Similarly provide flashings for window sills and all window and door heads, openings for ducts etc. and external beams.

Provide weepholes in external brickwork, spaced at 1500mm centres immediately over each stepped flashing. Weepholes shall be formed with 10mm diameter holes.

6.12 SUBFLOOR VENTILATION

Provide subfloor ventilation in brickwork under kitchen. Allow for 4 x 30mm perpends at 140mm centres, clear of mortar and debris every 1500mm along subfloor wall.

6.13 SERVICE OPENINGS

Form each masonry opening required for service installations as part of Builder's work.

6.14 CHASES

Do not chase structural brickwork without prior approval. Such chases shall be vertical where practicable, not exceeding 20mm deep, and to be made using a masonry saw.

6.15 ROOF TIE DOWNS

Build in tie downs concealed and securely fixed to concrete slab. See Engineer's specification

6.16 CAULKING

Caulking materials are to be Gun Grade Caulking Compound. After installation of piping, windows, ducting and conduits, etc., caulk over the whole building with cement mortar or caulking compound as directed, to all openings left around pipes etc., to make the whole building waterproof and tidily finished.

6.17 FOOTINGS

Construct brick footings to profile and position shown in Engineers Drawings and Specification.

6.18 BLOCK WALLS

Construct blockwalls to positions shown on Architectural and Engineer's drawings. Blockwork to be Boral Besser masonry blocks, to be laid to manufacturer's specification.

6.19 BLOCKWORK MORTAR

Material and fixing to manufacturer's specification.

6.20 GENERAL

All flashing, jointing, rendering as per brickwork.

6.21 BLOCK RETAINING WALLS

Construct block retaining walls to areas shown on drawings and to Engineer's specification. Allow for bituminous membrane behind blockwalls. Fix to manufacturer's specification. Allow for drainage cell with blue metal backfill all to be covered within filter fabric barrier. Allow for filter fabric covered 100dia agricultural line.

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7.1 EXTENT OF WORK

The Builder shall provide all necessary labour, materials, equipment and facilities to complete the whole of Metalwork, as indicated on the Engineers Drawings and specifications in conjunction with Architectural Drawings and specification, and otherwise required to complete the building as shown. All to comply with relevant SAA Codes.

7.2 WORKMANSHIP GENERALLY

Metalwork generally shall be in accordance with requirements specified in Structural Steelwork. All manufactured items are to be fabricated by approved specialist sub-contractors. Shop drawings as scheduled are to be submitted to the supervisor for checking before fabrication commences. Sub-contractors are to work in close co-operation with the Builder to ensure correct details, dimensions and timing of installations.

Isolate dissimilar metals, which are subject to electrolytic corrosion. Ensure all prefinished items are delivered on site with protective covering to approval.

7.3 SCREWS

Unless otherwise specified, exposed metal thread screws shall have countersunk heads. Countersinking for screws shall be the exact size of the screw head, which shall finish dead flush. All exposed screws shall be stainless steel throughout the house.

7.4 EXTERNAL WORK

All external work to be hot dipped galvanised or zinc coated. Welds shall not be made on previously galvanised members except where shown on Engineer's Drawings

7.5 GRINDING WELDS

Evenly match butt edges and faces to be welded, and grind off flush with the surrounding metal surfaces. Finished in a manner appropriate to the class of the work.

7.6 EXTERNAL BALUSTRADE

Supply and install to Terrace 1 and 2 - Blackbutt timber top rail 50x90 with pencil round edged fixed from the underside with countersunk screws to 90x90mm thick Blackbutt timber uprights as detailed in Drawings. All fixings and section sizes to engineers specification. Fix tensioned stainless steel strands similar to Ronstan Tel: 9519 5277 at 120mm centres below top rail as detailed in Architectural Drawings. Turnbuckles to be No. RF5340 and FR 356-0404 with 4mm stainless steel wire. Allow to bolt fix supports into concrete and timberwork. **See PC Amount for supply and install.**

7.7 LETTER BOX AND NUMBER

Supply and install hot dipped galvanised letter box with number. **See P.C. Allowance for supply only.**

7.8 VENTILATION GRILLES

Allow to supply and fix clear anodised finish aluminium grilles as follows:

140 x 200 :	Ventilation for Powder room, Bathroom 2 and Laundry - in external walls
200 x 100 :	Ventilation to Kitchen, Bathrooms 1 - in eaves

7.9 METER BOX

Supply and install meter box in position shown on drawings. Allow to be fully recessed into position and supply necessary flashing over to be trimmed with aluminium angle.

7.10 FLOOR WASTES AND BOTTLE WASTE

Supply and install approved 100mm dia polished chrome floor wastes to bathroom, powder room and laundry and approved bottle waste to exposed plumbing in powder room.

7.11 SCREWS

Unless otherwise specified, exposed metal thread screws shall have countersunk heads. Countersinking for screws shall be the exact size of the screw head, which shall finish dead flush. All exposed screws shall be stainless steel throughout the house.

7.12 GARAGE DOOR

Supply and install panel lift garage door from Personality Garage Doors Tel 9979 5405. Garage Door of powdercoated aluminium. Allow for necessary jambs all fixed to manufacturer's specification. **See P.C. Allowance for supply and fix.**

7.13 FIREPLACE

Supply and install Jetmaster, Heat-n-Glo SL-550TRS-AUD gas fireplace to living room. Allow for flue and galvanised flue cover to roof. All to be installed to Jetmaster's specification. **See PC Allowance for supply and fix.**

7.14 ANGLE TO DOORWAYS AND WINDOWS AT SLAB

Supply and install aluminium angles to window and door sills inside terrace 1 and 2 for finishing of waterproof membranes to slabs.

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8.1 EXTENT OF WORK

This section shall comprise of all carpentry, joinery or any other associated work necessary to complete doors, ceilings, screens, handrails, hardware as well as cabinetwork including doors, cupboards, shelving in living room, fitments, appliances and the like, as indicated on the drawings and in this Specification.

8.2 MATERIALS AND WORKMANSHIP

Provide all labour, materials and equipment necessary to complete work shown in Architectural Drawings and Specification and in the best tradesman-like manner.

All timbers shall be the best of the SAA grade specified, and examined for termite infestation before installation. Sapwood or pest infected timber shall be removed immediately from site. Scantlings shall be in long straight grained lengths, sawn square to specified size less minimum permissible face tolerance.

All timber for use in the works shall be new and of the specified kinds, free from sap, shakes, warps, large or loose knots and/or other defects, well seasoned to a moisture content equivalent to 12%-15%. Timber grades, if not specified, shall be those normally used for the best quality work in all cases. Joinery timbers shall be quarter sawn. Sawn timber shall be square and not more than 3mm scant per dressed face, of size specified.

Unless otherwise specified all sizes are nominal and subject to accepted trade allowances for sawing and dressing. The whole of the work throughout is to be constructed in accordance with the detail drawings and specifications and framed, trimmed, and finished in the best manner, all necessary templates, linings, blocks and metalwork are to be provided and fixed. All trimming, drilling, morticing, tenoning, grooving, tonguing, rebating, housing, halving, checking, mitring, scribing, throating, gluing of joints etc. incidental to work in this trade is to be done even if not specifically mentioned elsewhere. All exposed timbers are to be dressed. Hand plane all milled surfaces and fine sand with glass paper to a smooth fine finish, free of score marks, and blemishes to receive paint or polish surface finishes. All external fixings, unless otherwise specified, are to be stainless steel. Verify extent of 'natural' finish timbers before starting job as these must not be primed. Timber, specified to be painted, is to be primed on all faces before leaving joinery shop. All joints to be primed before assembly excepting those glued or polished.

The Builder shall be responsible for any damage due to shrinkage of timbers and shall replace or make good affected areas to the Architect's satisfaction. Trimming joists shall be 25mm thicker than associated joists. Each dressed timber surface shall be finished smooth, even and free from machine marks, using machine and hand sanding and prime painted including concealed surfaces. Timbers shall be grained and colour matched throughout. Joinery shall not be fixed until associated wet trades have cured and dried, unless otherwise specified. Joinery trade shall ascertain site conditions, verify all dimensions on site, and include for installation of all accessories, fittings and hardware.

Seal joints between counters and splashbacks with silicon rubber, in colour to match finish. Fabricate joinery with pre-cut openings, wherever possible, to receive hardware, appliances, plumbing fixtures, electrical work, and similar items. Locate openings accurately and use templates or rough-in diagrams for proper size and shape. Smooth edges of cut-outs with a water-resistant coating. All concealed solid timber surfaces shall be back-primed prior to installation.

Ensure that all necessary accessories and the like are provided ready for installation. Install the work plumb, level true and straight with no distortions. Shim as required, using concealed shims. Install to a tolerance of 3mm in 2400mm for plumb and level (including bench tops) and with 0.5mm maximum offset in flush adjoining surfaces, 2mm maximum offsets in revealed adjoining surfaces. Scribe and cut to fit adjoining work, and re-finish cut surfaces or repair damaged finish at cuts. Secure joinery with anchors or blocking, built-in or directly attached to substrates.

Secure with countersunk, concealed fasteners and blind nailing as required for a complete installation. Except where pre-finished matching fastener heads are required, use fine finishing nails for exposed nailing, countersunk and filled so as to be flush with joinery, and to match final finish where transparent finish is indicated.

Install casework without distortion, so those doors will fit openings properly and be accurately aligned. Adjust hardware to centre doors in openings. Complete the installation of hardware and accessory items as indicated.

8.3 FIXINGS

Provide all nails, screws, caps and other fixings necessary. Ensure all are appropriate to use, of adequate strength and located at correct centres and applied in accordance with manufacturer's specification. Timber plugs to be of approved manufactured type at approximately 450mm centres. All bolts internally to be mild steel, externally to be stainless steel, complete with washers and nuts. All external fixings, including nailing are to be **stainless steel.** Patent metal plugs where used or specified, are to be Loxin expansion plugs fixed in accordance with manufacturer's specification, or similar brand of equal quality.

8.4 PROTECTION

All brickwork, concrete work, paving and other trades, are to be protected from timber stains. All work so permanently stained shall be replaced.

8.5 PRIMING

Prime all the following: Skirting and Door and window architraves, trims and any other internal timber which is to have a painted finish and which is finished on site

8.6 TIMBER FRAMING AND ROOF STRUCTURE

Supply and install, as per Engineer's specifications

Studwork:	90 x 50 treated pine at 450 centres. Allow to fix Insulco R1.5 fat batts to all internal and external walls. Allow to fix Insulco 599 flame retardant foil to all external walls.
Roof trusses:	To roof truss manufacturers specification at 600 centres. Allow to fix Insulco R3 fat batts to all ceilings and fix foil lined blanket insulation to underside of roof sheeting.
Floor joists-General:	To Engineer's specification. Allow or plastic strip to top of joists. Allow for Insulco high density acoustic insulation to floor joists.
Bulkheads:	100 x 50 at 450 centres

8.7 TERRACE 1 & 2 ROOFS

Construct timber framed roof and columns as shown on drawings. Line eave to match soffit lining.

8.8 TIMBER FLOORS AND STAIRS

Allow to supply and fix Blackbutt 100 x 20mm wide tongue and grooved flooring to first floor level. All fixing to be secret nailed to floor joists at 450 centres. Stairs to be solid Blackbutt treads and rises, as detailed, securely fixed to stringers. Open stair between first and second floor to be supplied and installed Tods Stair and Joinery, contact - 9436 3041.

8.9 CARPET FLOORS

Supply and install pineboard floor sheeting to second floor carpeted floor areas. Securely fixed to manufacturers specifications

8.10 BATHROOM FLOORS

Supply and install compressed fibre cement sheeting to all bathrooms at first and second floor levels, securely fixed to manufacturers specifications

Setdown floor joists 25mm under tiled areas to allow for screed bed under tiles. Tiles to finish level with adjacent finished floor.

8.11 TIMBER WEATHERBOARD CLADDING

Supply and fix Weathertex Smooth Classic profile Primelok weatherboards securely fixed to framing with stainless steel nails. Allow for all stop beads and capping to complete the work. Allow to join boards with 35x35mm battens where shown on drawings.

Allow to fix Insulco 599 flame retardant foil with Insulco R1.5 fat batts to all external walls.

8.12 EXTERNAL TIMBER V-GROOVE AND BATTEN CLADDING

Supply and fix Smooth face Ecoply 12mm Plygroove to external face of kitchen walls and second floor as shown on elevations and securely fixed to studwork. Fix with 35 x 35 vertical battens at equal spacing to match window divisions with top and bottom battens as shown on drawing. Fix lengths of boarded cladding to terminate at junction of vertical battens. Fix 35 x 35 horizontal batten at sill level between junction of weatherboard cladding and v groove boarding to extend sill line around building where shown on drawing. Batten to mix the width and projection of the sill. Top side of batten to fall to outside edge.

Allow to fix Insulco 599 flame retardant foil with Insulco R1.5 fat batts to all external walls.

8.13 FASCIA BOARDS & COVER PLATES

Supply and fix timber fascia boards and cover plates to sizes as required. Allow for grooved back to fascia boards to take plywood lining.

Supply and fix timber cover plate sections to external columns and between window sections as detailed.

8.14 SOFFIT LININGS

Supply and fix villaboard sheeting to all soffits including entry and all window bulkheads at the ground floor level securely fixed to framework. Fix villaboard at eaves lining with 35 x 35 battens at joints with equal spacing to match window divisions. Allow for all necessary blocking.

8.15 EXTERNAL BALUSTRADE

Supply and install to Terrace 1 and 2 - Blackbutt timber top rail 50x90 with pencil round edged fixed from the underside with countersunk screws to 90x90mm thick Blackbutt timber uprights as detailed in Drawings. All fixings and section sizes to engineers specification. Allow to bolt fix supports into concrete and timberwork. **See PC Amount for supply and install.** Fix tensioned stainless steel strands similar to Ronstan Tel: 9519 5277 at 120mm centres below top rail as detailed in Architectural Drawings. Turnbuckles to be No. RF5340 and FR 356-0404 with 4mm stainless steel wire.

8.16 INTERNAL TIMBER LININGS

Supply and fix Smooth face Ecoply 12mm Plygroove to internal balustrade and walls specified on drawings and securely fixed to studwork. Fix with 35 x 35 vertical battens as shown. Fix lengths of boarded cladding to terminate at junction of vertical battens. Finish V-groove boarding into rebate at rear of timber stringer.

Allow to fix Insulco R1.5 fat batts to all internal walls

8.17 SKIRTINGS AND ARCHITRAVES

Skirting:	60 x 16mm Tallowood
Architrave:	60 x 16mm Tallowood

8.18 TIMBER DECKING TO TERRACE 1 & 2

Supply and lay 100x20 blackbutt decking fix with twist shank stainless steel nails to 100x50 treated pine framing at 450 centres. Allow for black plastic cover strips on top of joists. Wedge and pack joist framing to secure position over membraned concrete slab. Screw fix decking boards over lineal drain in slab to be removed for cleaning.

8.19 TIMBER DECK 1 AND STEPS

Supply and lay 100x20 blackbutt decking fix with twist shank stainless steel nails to 100x50 treated pine framing at 450 centres. Allow for black plastic cover strips on top of joists.

Supply and lay blackbutt decking over treated pine frame and recessed stringers to form steps where positioned on drawings.

8.20 TIMBER WINDOWS AND SLIDING GLAZED DOORS

Supply and fix western red cedar windows, french doors and bifold glazed doors including hardware, timber top and bottom rail supports, as per Door Schedule. Allow to site measure on site prior to construction.

Allow for flush bolts, hangers and all associated items necessary to complete the works. Allow to fix flyscreens where indicated on drawings. All fixed to manufacturer's specification. **See P.C. Allowance for supply only.**

8.21 TIMBER DOOR FRAMES

Builder to supply and fix. All door frames 35mm finished size rebated jamb, to width of wall, (unless otherwise indicated) having head trenches to receive stiles. All securely fixed.

8.22 DOOR SCHEDULE

D/1	Front door 2400mm high x 1200mm - Pivot door to be solid core finished ready for painting. See window schedule, **See PC amount for Supply only.**
D/2, D/3, D/4, D/9, D/10, D/12, D/13	External timber framed glazed french doors. See window schedule, **See PC amount for Supply only.**
D/5, D/6, D/15	2400mm high x 1200mm - cavity sliding doors to be solid core finished ready for painting.
D/7, D/8, D/14	2400mm high x 820mm - hinged doors to be solid core finished ready for painting.
D/11	External timber framed glazed bi-fold doors. See window schedule, **See PC amount for Supply only.**
D/16	2400mm high x 800mm - cavity sliding doors to be solid core finished ready for painting.
Gates (x2)	1800 high x 900mm hinged timber gates finished ready for staining. See Site Works.
Subfloor Access Door (x1)	600 high x 470mm hinged timber framed and braced door finished ready for painting.
Hanging:	Neatly fit door to opening with 3mm clearance between door and frame. Allow for 15mm below doors for tiles, timber and carpet floors.

8.23 DOOR HARDWARE

Supply Madinoz MDZ L40R SSS finish handles to all timber hinged doors and Madinoz MDZ FP170 SSS to sliding doors with all necessary locks and latches, cover roses, privacy latch and doorstops as per Door hardware Schedule. Allow for fixing of the door hardware as scheduled.

Exclusions from schedule:	All cupboard hinges, catches, handles shall be part of cupboard installation.
Door hardware fixing:	1200mm above finished floor level for leversets and flush pull 1000mm above finished floor level for privacy locks, key locks
Hinges:	Three (3) Stainless steel hinges per Door.
Keys:	All doors to be keyed alike. Gates to be keyed separately

8.24 DOOR HARDWARE SCHEDULE

Allow to supply and install to following door hardware. **See P.C. allowance for supply only**:

D/1	Allow to supply and install Madinoz MDZ L40R SSS lever set, Dorma 806Z door pivot order number 46300003 with 8021 bottom strap for pivot door, key dead lock and Madinoz MDZ DS90 SSS doorstop.
D/2,D/3, D/4, D/9, D/10, D/12, D/13	Allow to supply and install Madinoz MDZ L40R SSS lever set, hinges, flush bolts, key lock and parrot hooks (X2).
D/5, D/6, D/15	Allow to supply and install Madinoz MDZ FP170 SSS flush pull with Delf Brass Co. Sliding door pull 1272-C in chrome finish to end of door face.
D/7, D/14	Allow to supply and install Madinoz MDZ L40R SSS lever set, hinges, privacy latch and Madinoz MDZ DS90 SSS doorstop.
D/8	Allow to supply and install Madinoz MDZ L40R SSS lever set, key lock, hinges and Madinoz MDZ DS90 SSS doorstop.
D/11	Allow to supply and install Madinoz MDZ L40R SSS lever set, hinges, key lock, flush bolts and parrot hooks.
D/16	Allow to supply and install Madinoz MDZ FP170 SSS flush pull, Delf Brass Co. Sliding door pull 1272-C in chrome finish to end of door and privacy latch.
Gates (x2)	Provide key locks to gates.
Subfloor Access Door (x1)	Provide key lock, keyed alike to gates.

8.25 KITCHEN & VANITIES

Cupboard manufacturer to supply and securely fix laundry cupboards. Supply and fix Madinoz MDZ 132/B PC handles as noted on drawings. Handles fixed horizontally. Allow for plastic laminate finish to external cabinet surfaces with a rolled edge to cupboard doors. White melamine finish to internal surfaces. Construct to profiles and positions as shown on Drawings. Allow for stone composite benchtops and splashbacks. Mirror cabinet to include mirror to doors. **See P.C. Allowance for supply and fix.**

Allow for additional wall framing to support cantilevered vanity cabinets and basins to position shown on drawing.

8.26 DINING ROOM CABINET & LAUNDRY CUPBOARDS

Cupboard manufacturer to supply and securely fix cabinets. Supply and fix Madinoz MDZ 132/B PC handles as noted on drawings. Allow for plastic laminate finish to external cabinet surfaces including benchtops, with a rolled edge to cupboard doors. White melamine finish to internal surfaces. Construct to profiles and positions as shown on Drawings. **See P.C. Allowance for supply and fix.**

8.27 WARDROBE & STORAGE CUPBOARDS

Cupboard manufacturer to supply and securely fix robe 1 and linen cupboards. Supply and fix Madinoz MDZ 132/B PC handles as noted on drawings. Allow for plastic laminate finish to external cabinet surfaces with a rolled edge to cupboard doors. White melamine finish to internal surfaces. Construct to profiles and positions as shown on Drawings. **See P.C. Allowance for supply and fix.**

8.28 ACCESS DOORS and LIVING ROOM BOOKSHELF

Cupboard manufacturer to supply and securely fix MDF hinged doors finished for painting to under stair and first floor storage cupboards. Supply and fix Madinoz MDZ 132/B PC handles as noted on drawings. Construct to profiles and positions as shown on Drawings. **See P.C. Allowance for supply and fix.**

Cupboard manufacturer to supply and securely fix MDF shelves finished for painting to living room. Construct to profiles and positions as shown on Drawings. **See P.C. Allowance for supply and fix.**

8.29 TIMBER SHUTTERS

Supply and fix external timber shutters from Sydney Plantation Shutters Tel 9319 1111 to details shown in window schedule and position shown on drawings. **See P.C. Allowance for supply and fix**

8.30 MANUAL ROLLER BLINDS

Supply and install packing in ceiling above specified windows for future manual roller blinds. Supply and install packing in eaves above all east facing windows for future manual roller blinds.

8.31 EXHAUST DUCTS

Builder to allow for ducting for exhaust hood in kitchen, bathrooms and laundry. Ducting to outside grilles as specified.

8.32 EXISTING DRYER

Allow for additional wall framing to support install existing clothes dryer to position shown on drawing. Allow to vent dryer through external wall.

8.33 TIMBER BOUNDARY FENCES AND GATES

Supply and fix timber boundary fence and gate with key lock. See Site Works.

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9.1 EXTENT OF WORK

Provide all labour, materials and equipment necessary for the completion of membranes, floor, walls and detail tiling, external tiling and paving as indicated. The following items are included in this trade:

- Waterproof membrane
- Internal stone wall and floor tiling
- Carpet preparation all to the areas indicated
- External concrete paving

9.2 TILING WORKMANSHIP

Each area shall be cleaned of dust and foreign matter. Topping shall be run to true and even surfaces with falls as indicated. Tiled flooring shall be laid with falls to floor gratings or sides as indicated. Co-ordinate drainage outlets and accessories for completed floor. No work shall be commenced unless each floor construction and surface is acceptable to the floor layer. Keep courses and joints straight and true and leave all surfaces true and level. Completed work shall be free from cracked or broken tiles and chip free edges.

Properly form all edges, intersections and returns. Finish all edges with onsite cut mitred tiles. Neatly cut and drill holes without marring tiles. Carefully grind and joint cut edges of tiles against finishings, built-in fixtures, and the like. Clean off after pointing up leaving joints full and smooth.

Upon completion of tiling and paving, remove all spots, cement, paint marks and thoroughly clean surface. Any surface, which is out of line or plumb, shall receive a scratch coat.

9.3 TILING MATERIALS

Provide all materials necessary including bedding, screed constituents, adhesive, mesh, bonding agents, sealants, floor dividers, grouts and any other accessories. Ensure all are compatible with conditions prevailing and tile suppliers recommendations. All materials for tiling to be compatible with sub base. Fix expansion and construction joints and avoid thermal movement effects. Curing agents used in conjunction with cement topping or integral finishing shall be compatible with sheet coverings. Allow for aluminium angle trim between tiled and timber or carpet finished floors.

9.4 WALL TILING

Allow for the supply and installation of Country Floors tiles MCU00221 200 x 200 white, where indicated on the drawings. The Builder shall order, take delivery of and fix tiling in each location identified. Tiling shall be to height indicated on the drawings. The tiler and plumber shall co-ordinate and setout the tile module and fittings placement as indicated and advise of any adjustments before commencing. Fix tiles to supplier's specification. **See P.C. Allowance for supply only.**

9.5 FLOOR TILING

Allow for the supply and installation of

- 400x400mm floor tiles to entry and laundry to extent shown on drawings.
- 100x100mm floor tiles to bath 1, 2 and powder room to extent shown on drawings.

The Builder shall order, take delivery and fix tiling in each location identified. Tiling shall be laid on minimum 30mm thick setting bed and securely glue fixed. Lay tiles to supplier's specification. **See P.C. Allowance for supply only.**

Allow for aluminium angle trim between tiled and timber or tiled and carpet finished floors. Also allow for aluminium angles at the front door setdown in tiled finished level and at the laundry door to the garage.

9.6 SHAMPOO HOLDER

Form recess opening in shower area of bath 1 to position shown on detail drawings. Allow to mitre edge of tiles.

9.7 FITTING

Schedule of Fittings, Part 1 (Part 2-Hydraulic Services):

Bathroom 1	Towel rail x2	Madinoz, MDZ TR1920/A PSS
	Toilet roll holder	Madinoz, MDZ TRH800 PSS
	Hand towel rail	Madinoz, MDZ TR1920/D PSS
Bathroom 2	Towel rail x2	Madinoz, MDZ TR1920/A PSS
	Toilet roll holder	Madinoz, MDZ TRH800 PSS
	Hand towel rail	Madinoz, MDZ TR1920/D PSS
	Soap and shampoo tray	Rogersellers, Geesa, Soap and bottle basket 150 code no. 423012
Powder Room	Toilet roll holder	Madinoz, MDZ TRH800 PSS
	Hand towel rail	Madinoz, MDZ TR1920/D PSS

See P.C. amount to supply only.

9.8 WATERPROOFING BATHROOMS

Allow to supply and install approved waterproof membrane to whole of wet area floor and to walls. Fix to 1800mm high in shower. Allow for membrane below bath in Bathroom 2. All to be fixed to manufacturer's specification and issue warranty for 10 years and certification.

9.9 COMPLETION

Finished tiled floors shall be restricted from all traffic for at least three full days immediately after tiling and protected until Practical Completion. Clean all tile surfaces thoroughly. Use only recommended cleaning agents that have been advised, in writing, by tile manufacturer/supplier.

9.10 CARPET

Allow to supply and install carpet to ground and second floor levels where specified and protected until Practical Completion. **See P.C. amount to supply and fix.** Use only recommended cleaning agents that have been advised, in writing, by the carpet manufacturer/supplier.

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10.1 GENERALLY

All fixing is to be in strict accordance with manufacturer's and supplier's recommendations.

10.2 ROOF SHEETING

Supply and lay custom orb 0.53-corrugated roof sheeting in Woodland Grey, Colorbond Zinclum to pitch shown on Architectural Drawings. Allow for all accessories, capping etc. and fix all the above to manufacturer's specifications, designed for Category One Conditions. Roofing shall be screw fixed with power fasteners SX-L12 cover caps, perfectly straight and parallel without creep to roof purlins.

10.3 FLASHINGS

Flash all roof junctions, upstands, abutments, back gutters and projections through the roof equal to 'Dektite Roof Flashing System' with matching colour finished material. Flashings, cappings, valleys and the like, shall be pre-fabricated where possible, formed to required shapes, notched, scribed, fluted or dressed down as necessary to follow profiles of adjacent surfaces. Pre-form and neatly mitre angles.

Joints in flashings shall be made by butt joints over a backing strip of the same material. Lap joints in 150mm lengths. Seal joints with sealant beads and mechanically fasten the joint by riveting. Place sealant over and around the fasteners. Rivets shall be blind (pot) rivets in stainless steel unless otherwise specified. Sealant shall be silicon rubber colour matched to adjacent materials.

For expansion joints in flashings, fold flashing back 40mm each side of joint leaving a 10mm gap. Interleave an expansion cap of the same material with the folds, and welt the whole to the profile of the flashing. Set joint in mastic. Maximum spacing of expansion joints in metal flashings is to be 4m.

10.4 SARKING/INSULATION

Supply and fix Insulco Vapa-Chek R2.5 foil faced sarking and insulation barrier immediately over the rafters, turned into gutter and laid to trade recommendations. Cut the membrane neatly around obstacles, seal openings for services and the like, but leave 50mm clear space around hot metal flues. Do not tear or puncture the membrane. Bulk thermal insulation to be R3.5 fibreglass similar to CSR Bradford insulation. Install to manufacturer's recommendations.

10.5 DOWNPIPES

Supply and fix Woodland Grey Colorbond Zincalum 100mm dia downpipes where indicated on drawings. Allow to securely fix to wall in long lengths. Allow for custom built supports to downpipes.

10.6 EAVES GUTTERS

Supply and fix Slate Grey Colorbond Zincalum 150mm dia half round gutter with external bracket fixing, gutter laid to even fall where shown on Drawings.

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11.1 GENERALLY

The work shall include the new supply, installation, testing and commissions of all electrical services shown on the Architectural Drawings. Wiring shall be carried out on the loop principal. The jointing of conductors will not be permitted except in junction boxes. Conductors for lighting and power shall be in separate conduits with max. of two circuits per conduit.

11.2 ELECTRICITY SUPPLY

Supply and install new lockable meter box and sub-board as necessary for installation where shown on drawing. Install meter box set into brickwork as per drawing. Supply power from power in street to single phase power pole and lay underground to meter box and from meter box to sub board. Allow for installation of all meters. Allow to run underground.

11.3 EARTHING

Provide a complete combined earth leakage circuit breaker, equal to Clipsal, in accordance with the requirements of the supply authority for single phase power circuits. Provide separate circuit for refrigeration. Provide minimum of 5 circuits separate to the above.

11.4 LABELING METER BOX

All items of electrical distribution equipment, circuits etc. shall be clearly labeled to indicate their function.

11.5 WIRING SYSTEM

Each wiring circuit shall be defined in accordance with the requirements of authority.

Wiring generally shall be entirely concealed and shall be run in thermo-plastic sheathed cable of multi-core stranded copper conductor, 250 volt grade PVC cable in accordance with relevant S.A.A. Codes.

- Cabling alone shall not be used in any exposed position.
- Cabling may be run in wall cavities, false ceiling or under floor spaces and ducts.
- Cabling generally shall be so installed to enable future replacement of any wiring without damage to building structure or finishes.
- Plastic sheathing of cabling shall be continuous and shall extend into each junction box and fitting.
- Cabling to each structural concrete slab, column or wall shall be enclosed in 19mm P.V.C. conduit.

11.6 TELEPHONE

The Builder shall arrange with local authority for the supply from street connection and installation of internal lines indicated and pay all fees associated with service. The Builder shall supply and fix underground PVC piping as required to conceal incoming cabling. Telephone outlets to be white to match electrical switches. Provide Cat 5 wiring.

Builder to install two phone lines to positions indicated on drawings.

11.7 TELEVISION/FOXTEL

Allow to supply and fix television outlets in positions indicated on drawings. All cabling is to be concealed within conduit. Wiring shall be carried out on the star principal.

Supply and fix television cabling and antenna to positions approved by Architect for TV and FM radio reception. Allow for amplification devices to antenna to be installed within roof space with GPO. Supply and fix Optus/Foxtel cabling from street to power pole and lay underground to position next to sub board at rear of garage. Allow for all wiring in star principal with RG(9) cabling. Allow for white outlets to match electrical switches.

11.8 WIRING METHOD WITHIN BRICKWORK

Where cable risers or drops occur at brickwork, they shall be concealed in rigid PVC conduit chased into the brickwork behind the required finish and restricted to 20mm deep vertical chases in structural brick/blockwork where possible.

11.9 CONDUITS IN SLAB

Each conduit laid in slab reinforcement shall be located below top reinforcement and above bottom reinforcement and to Engineer's requirements.

11.10 INSTALLATION OF DOWNLIGHTS, WALL LIGHTS AND EXTERNAL WALL LIGHTS AND ASSOCIATED TRANSFORMERS

Supply and fix all light fittings as per lighting layout. See drawings for type of fittings. Selected downlights/wall lights to be supplied and fixed. **See P.C. Allowance for supply only of lights fittings.**

Electrical contractor to supply and fix transformers as required, cost of supplying and installing transformers separate to P.C. Allowance. Note: position of transformers is the responsibility of the electrician. No variation will be accepted for this work. Allow for conduits in slab where required. Transformers are to be positioned for future access.

11.11 ACCESSORIES

Switches, power points and dimmers are to be to Clipsal Slimline SC2000 Series white finish with white switches and sockets. Where a number of switches are together, form a gang plate. If not noted on Drawings, fix the following:

Power points fixing:	200mm above floor or at bench height as shown on drawings
Switches fixing:	1200mm above floor

11.12 EXHAUST FANS

Builder to supply and install exhaust fans as follows as shown on electrical drawings.

Bathrooms 1, 2 & Powder Room:	Fantech TD-500/150 exhaust fans

Provide external access to repair motors.
Allow for flexible ducts - all fixed to manufacturer's specification.

Vent the following rooms

Bathroom 1:	To vent through eaves lining
Bathroom 2 and Powder Room:	To vent through external wall.

11.13 SENSORS AND SMOKE DETECTORS

These items are to be supplied and are not part of light fitting P.C. Allowance. Supply and install sensors to switch outside lighting where shown on Drawing.

Allow to supply and install three (3) smoke detectors where indicated on drawings. Smoke detectors to be directly wired with a battery back-up.

11.14 AIR CONDITIONING WIRING

Allow for single phase wiring for air conditioning to position shown on drawing. Air conditioning contractor will complete all interconnecting wiring of the A/C system connected to a isolator, supplied by builder. Power supply by builder will be single phase, plus neutral and earth.

11.15 SECURITY SYSTEM

Supply and fix security system where indicated where indicated on drawing. Allow for back to base type system. **See P.C. Allowance for supply and fix.**

11.16 NEW GARAGE DOOR

Allow to supply and install motorised garage door motor where indicated on drawings. **See P.C. Allowance for supply and fix.**

11.17 AUTOMATIC PRESSURE PUMP AND RAINBANK TO RAINWATER TANKS

Allow to supply and install a GPO outlet for the automatic pressure pump and "Rainbank" rainwater harvesting controller to new rainwater tanks. **See P.C. Allowance for supply only.**

11.18 FIREPLACE

Supply power to Jetmaster, Heat-n-Glo SL-550TRS-AUD gas fireplace to living room. **Allowance for supply and install.**

11.19 APPLIANCES

Allow for the direct connection and installation of all electrical equipment. See Schedule of Electrical and Gas Appliances. **Client to supply electrical appliances builder to allow to install.**

Allow to build all appliance equipment into openings previously prepared by the cupboard contractor, as noted on the drawings.

11.20 UNDERTILE HEATING

Supply and install under tile floor heating to tiled areas where shown on drawings with Thermostats conceal within bathroom vanities, by Floorheat (Australia) Pty. Ltd. Tel: 9997 2811. **See P.C. Allowance for supply and fix.**

11.21 SCHEDULE OF ELECTRICAL AND GAS APPLIANCES

NEW APPLIANCES TO BE SUPPLIED BY OWNER, INSTALLED BY BUILDER

Qty	Brand	Model	Description	Colour	Amount
1	Samsung	SRS596NP	Fridge, (908w x 760h x 600d cabinet)		
1	Smeg	SA995XR	Oven (900 wide)		
1	Smeg	SAR93X or CIR93AX	Gas Cooktop		
1	Smeg	K24	Rangehood		
1	Panasonic	NNT791SFSS	Inverter Microwave	Stainless steel	
1	Panasonic	WANNTK6SS	Microwave trim kit	Stainless steel	

EXISTING APPLIANCES TO BE SUPPLIED BY OWNER, INSTALLED BY BUILDER

Qty	Brand	Model	Description	Colour	Amount
1	Fischer and Paykel		Dishdrawers x2		
1	Fischer and Paykel		Wall mount Dryer		
1	Miele		Washing machine		

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12.1 GENERALLY

The whole of the plumbing is to be carried out in accordance with the Regulations of Local Authority and as shown in drawings. The entire drainage system shall be carefully set out to obtain constant and maximum available falls.

12.2 MATERIALS

All materials shall conform to each requirement of the current codes and Australian Standards. Provide all fixtures, pipes and fittings and all other incidental materials necessary for the satisfactory completion of the hydraulic work, even if not specifically specified.

Allow for installing and building in the sanitary and other fixtures shown on the drawings or scheduled, listed, including accessories supplied with or required for each fixture. Provide and fit trapped PVC wastes, complete with diamond grid screw down, in chromium plated brass.

12.3 DRAWINGS

Hydraulic service lines, pits and components shown on drawings are diagrammatic and show general layout only. Allow for all diversions and adjustments, which may be necessary to carry out the work, to Architects approval. Do not scale off drawings for any purpose.

12.4 INSPECTIONS AND TESTS

The Builder shall supply all necessary equipment and apparatus, and carry out all tests required by the relevant authorities. Each sewerage line shall be subjected to a hydrostatic test. Should any joint show visible leakage it shall be made good and the system re-tested. Testing shall not commence until at least twenty-four hours after the last joint has been made. Each line shall stand, full of water, for minimum fifteen minutes before testing. Hot and cold water services shall be tested to twice the normal working pressure.

12.5 MAKING GOOD

The Builder shall co-ordinate and make good any chasing, opening or damage and restore any pavements, footpaths, lawns etc. removed or damaged as a result of this work, to the approval of the Architect.

12.6 PROTECTION OF SURFACES

Each unpainted polished surface including chromium plate, vitreous enamel and stainless steel shall be protected during construction by an application of a strippable plastic coating or similar.

12.7 PIPEWORK SUPPORTS

Each pipe run shall be adequately supported to the requirements of local authority. Piping shall be free to move without stressing pipework or jointing. Copper piping shall have 5mm thick PVC insulation between each bracket and piping.

12.8 UNDERGROUND INSTALLATIONS

Minimum cover over pipe - provide not less than the following cover to underground pipelines external to the building:

- Generally - 300mm
- Pipes subject to vehicular loading (under sealed roadways, parking areas and the like) - 600mm.

12.9 CORE AND SLEEVES

Builder shall set out the work and provide core holes and sleeves in the formwork of structural components. Each core position shall be approved by Engineer before the concrete pour. Where extensive coring is required, the Builder shall provide fully dimensioned drawings for consultant's approval before commencing work.

12.10 WATER METER

Allow to reposition existing water meter.

12.11 COLD WATER SERVICE

All cold water piping shall be copper. All copper piping shall be of not less than the following thickness:
16mm to 21mm o.d....1.2mm
25mm to 38mm o.d....1.6mm

Bends shall be made to radius and shape without thinning the metal. Extend from the meter to the building in 25mm tubing with 25mm primary branches and secondary 19mm o.d. branches and 16mm o.d. connections to each fixture and standpipe. Provide and fit a stopcock in each branch line to isolate services, fixtures or equipment for maintenance purposes.

12.12 HOT WATER SERVICES

Provide and install a 19mm o.d. copper hot water service lines. Gas hot water unit to be Rinnai Infinity 24 Plus (internal) in Garage with pipe cover. Provide and install 12mm copper overflow pipe discharging to a tundish. All service piping shall be lagged with approved synthetic lagging. Supply and fix tempering valve to bathrooms.

12.13 STORMWATER DRAINAGE

All stormwater drainage shall be designed and constructed in accordance with the documents in first quality PVC piping. A 100mm riser shall be provided, corresponding to the position of each downpipe, carefully positioned in relation to finishing levels and downpipe location. Each drain shall be laid in a straight run, bedded solidly with a constant maximum fall available to each run, and at depths to allow maximum cover consistent with falls. Each drain shall have a minimum 200mm soil or equivalent cover, except under concrete or as otherwise specified. **No lines to be exposed over rock faces.**

Provide and fix 100 dia subsoil drainage, all with filter sock as indicated. Such drainage is to discharge at stormwater detention pit indicated.

Provide and fix to Terrace 1 and 2 drainage outlets and overflows in positions as indicated with brass grates and fully conceal the piping. All stormwater collection is to be carried in the stormwater system to discharge to the distribution pit at the stormwater detention area as shown on Architects Drawings. All lines are to be concealed below ground.

12.14 STORMWATER DETENTION PIT

Allow to connect all stormwater lines, AG lines and overflow drainage lines to the grated stormwater detention pit with trash tray (ACO PS45 grated drain with Heelguard mesh grating 90045 and stormwater detention fittings or similar) Aco contact details 4747 4000. Pit and drainage connection to street to comply with Pittwater Council conditions for stormwater detention (7 litres per second). Plumber to supply certification of compliance.

12.15 RAINWATER TANKS, PUMP AND RAINBANK AUTOMATIC SWITCHING

Allow to supply and install two (2) Slate Grey 1100 litre poly corrugated-style rainwater tanks (1050mm dia x 1630mm high) to positions shown on drawing. Install to manufacturers specification and connect to automatic pressure pump and "Rainbank" switching mechanism. Connect downpipes to rainwater tanks to manufacturers specification and connection overflow from tanks into stormwater and direct to stormwater detention pit as specified.

Tanks are available through Water Warehouse at North Narrabeen (9913 7988). "Rainbank" rainwater harvesting controller and transfer pump (HP45-05) is available through Davey Products Pty. Ltd. (1300 367 866). **See PC Allowance for supply only.**

Using the "Rainbank" or similar switching mechanism connect rainwater tanks to feed the garden taps and toilet cisterns with mains water supply back-up.

12.16 SANITARY DRAINAGE AND PLUMBING

All sewer drainage and plumbing systems shall be constructed in accordance with the Water Board and other authorities' requirements. Sewer drainage from all fixtures and stacks will gravitate and connect to the Water Board sewer main. Allow for Insulco high density acoustic insulation to all aerial plumbing and stackwork. All sewerage drains under the building shall be laid with a 150mm concrete encasing, or as required by the authorities.

All service piping, risers, stacks, vents and branches shall be located inside the building and concealed unless otherwise specified. Floor wastes to be stainless steel. Plumber is to liaise with tiler for exact fixture location, to work tile modules as indicated. The Architect's approval is required, at piping layout design stage, to ensure all plumbing is concealed. Provide air conditioner grille access panels to stack inspection eyes. Allow for drainage to bath well in Bathroom 2.

12.17 SANITARY FIXTURES AND FITTINGS

The Builder shall supply and install the scheduled sanitary fixtures and fittings complete with matching brackets and accessories in the locations indicated or detailed, and to specific mounting heights. Include matching finish of visible items not normally scheduled, in order to complete the works. Refer to Schedule of Fixtures and Schedule of Fittings (Part 2). **See PC Allowance for supply only.**

12.18 GARDEN TAPS AND EXTERNAL SHOWER

Allow to supply and install garden taps and external shower to heights and positions detailed on drawing. Allow for grated drain under shower fitting to drain to sewer. See schedule of Fittings (Part 2) **See P.C. Allowance for supply.**

12.19 SCHEDULE OF FIXTURES

All fixtures to be **white finish** or **stainless steel. See PC Allowance for supply only.**

Bathroom 1	Vanity x 2	Caroma Liano semi recessed vanity basin
	WC	Caroma Smartflush Leda 2000 vitreous china, close coupled toilet suite with dual flush cistern
	Bath	Foster 1700x700 by Hoesch Design (Brightwater bathware)
Bathroom 2	Vanity	Caroma Liano semi recessed vanity basin
	WC	Caroma Smartflush Leda 2000 vitreous china, close coupled toilet suite with dual flush cistern
Powder Room	Vanity	Caroma Liano semi recessed vanity basin
	WC	Caroma Smartflush Leda 2000 vitreous china, close coupled toilet suite with dual flush cistern
Kitchen	Sink	Oliveri, Duoform DU241
Laundry	Tub	Lakeland, TI 45S with no tap holes (45litre, 470x590x235)

Schedule of Fittings part 2: All finishes to be Polished Chrome finish. **See PC Allowance for supply only.**

Bathroom 1	Shower x 2	Scala, shower/bath mixer (Reece)
		Scala, shower rose only (Reece)
	Vanity x 2	Scala, basin/sink mixer square (Reece)
	WC	Fix cistern cock

Bathroom 2	Shower x 1	Scala, shower/bath mixer (Reece) Scala, shower rose only (Reece)
	Vanity x 1	Scala, basin/sink mixer square (Reece)
	WC	Fixed cistern cock
	Bath	Scala, shower/bath mixer (Reece) Rogersellers, Luna Wall Outlet 150mm, code no. 304100
Powder Room	Vanity x 1	Scala, basin/sink mixer square (Reece)
	WC	Fixed cistern cock
Kitchen	Sink	Scala, basin/sink mixer square (Reece)
	Dishwasher	Fixed cock concealed within cupboard
Laundry	Tub	Scala, basin/sink mixer square (Reece)
	Washing machine	Fixed cocks concealed within cupboard
Outside shower	Shower	Consolidated Brass CB Ideal A3332 shower set with flo-line outlet in brass finish.
Garden taps	Standpipe x 3	Standard Brass lever, ball valve tap

12.20 PIPEWORK AND SANITARY GRATE FINISHES - Floor Waste/Vanity Bowl Grate/Vanity Waste Lines

Finish exposed PIPEWORK including fittings, supports and the like to be chrome plate to exposed locations.

Supply and install polished chrome floor wastes to bathrooms as shown on the drawings, with 100mm dia., set at a level to enable the floor to be graded. Supply and install polished chrome wastes to bath and vanity basins.

Supply and install polished chrome bottle waste to powder room vanity basin then conceal waste line in stud walls. Allow to conceal waste line from semi recessed hung vanity units in stud walls.

12.21 LAUNDRY TUB

Allow for direct connection of Washing Machine to plumbing waste below benchtop.

12.22 AIR CONDITIONING DRAINAGE

Allow to supply and install a tundish in Garage for air conditioning drainage connection.

12.23 CLEANING AND FINISHING

At completion of the work the plumbing systems shall be flushed and all waste traps and functioning correctly.

Inspection Openings:	Provide inspection openings so that each straight length of sewer line can be inspected in at least one direction. Seal the openings with purpose-made covers.
Cleaning:	During construction provide temporary covers to openings and keep the pipeline free of debris. On completion flush the pipeline with water and leave it clean.
Accessibility:	Locate fittings requiring maintenance and servicing in accessible positions. Builder to advise proprietor of positions at occupation.

12.24 COMPLETION AND CERTIFICATE

Ensure all systems operate properly without fault, and are approved by Authorities, and all certification is handed over. Leave installations neat, clean and free of debris. Rectify damage and/or unsatisfactory work to complete satisfaction of authorities and Architect.

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13.1 EXTENT OF WORK

Provide all labour, materials and equipment necessary for the completion of this trade to all areas indicated on the drawings. Render shall be 1:1:6 cement-lime-fine aggregate mix including approved waterproof agent where appropriate. Gauge shall be laid onto surfaces to a min. 10mm and max. 15mm, scratched render finish to exterior and set plaster finish on interior. Rub surface down after curing. Cement render to concrete blocks to be to block manufacturer's specifications.

13.2 WORKMANSHIP

Each surface to be rendered shall be thoroughly cleaned of any oil, dust, salt or loose material which may prevent the formation of a satisfactory bond. Inspect surfaces to be rendered and make good any defects, which may adversely affect the quality of the render before rendering commences. Where one application is specified, but the background is not sufficiently true to comply with the thickness limits for one application, or has excessively uneven suction resulting from variations in the composition of the background materials, carry out the work in two applications without extra charge.

Coversheets or similar membranes shall be used to protect finished areas adjoining rendering operations from staining or damage, due to droppings or splashes.

Reinforced concrete blockwork and brickwork or similar hard, dense surfaces shall receive an initial spatter-dash coat of one part cement to two parts coarse sand, or coating of an approved bonding agent supplied in accordance with the manufacturer's specification.

Cement applications to finish 10-13mm thickness. Work shall be carried out under suitable weather conditions so as to diminish the effect of uneven suction. The sequence of working shall be arranged so that joints in coats shall be at corners or construction joints wherever possible. Each application on any one plane shall be completed in one operation. Finishes shall be finished hard and true, free from cracks, blistering, water marking stains and other imperfections. Angles shall be true and straight. Protect newly laid applications from direct sunlight and drying wind. All work to be in accordance with manufacturer's specification and recommendations. Tolerances shall be a 3mm maximum permissible deviation in surface alignment, as measured with a 3m long straight edge placed anywhere on the surface. Corners, edges, angles should be of equivalent tolerances. Any wall chase exceeding 50mm wide shall be sheathed with well secured metal lath before the wall finish is applied. Form a shallow 'V' joint right through at the line of the junction of dissimilar materials. Provide joints right through over background movement joints.

13.3 FINISHES

External brick walls and block walls:	10-13mm thick cement render (square corners)
Ceilings/walls:	13mm Plasterboard with square set cornice
Wet areas :	13mm Water resistant grade plasterboard with square set cornice.
Bulkheads:	13mm Plasterboard with square set cornice
Garage Walls:	Flush jointed blockwork and 6mm villaboard to stud walls
Garage ceiling:	13mm plasterboard with 25x15mm custom wood cornice.

13.4 PLASTERBOARD CEILINGS

Supply and fix gypsum plasterboard sheets, fixed as recommended by the manufacturer to ceilings. Fastening tape, length, gauge and set out, bedding and topping compounds and accessories shall be as recommended by sheet manufacturer.

Stagger the end joints of the sheets in brick pattern and locate them on the centrelines of joists away from the corners of openings. Screw and adhesive fix. Set the joint over perforated paper tape.

To all bathrooms provide water resistant grade plasterboard.

13.5 WARRANTY

The builder shall provide a written warranty to the Proprietor that all plasterwork has been completed correctly and that any defects evident after the defect liability period will be rectified at no cost to the Proprietor.

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14.1 GENERALLY

Use only glass which is free from flaws and the best of the respective kinds and of the correct weight for size, all supplied and fixed in accordance with relevant Codes and Australian Standards.

14.2 WORKMANSHIP

All glass shall be accurately cut to fit into rebates. Ensure an even bearing all around the panes and with sufficient clearance to allow for expansion and contraction due to the influence of the sun, atmospheric conditions and the internal heating of the building. On completion, all cracked or broken glass panes shall be replaced by the Builder.

14.3 REPLACEMENT

Inspect all glazing and replace glass with imperfections, chips, cracks and breakages before cleaning.

14.4 WINDOWS, SLIDING DOORS

Glazing to all windows and sliding doors including hardware to be of clear glass or as noted opaque glass. No dotting or marking to be on glazing.

14.5 MIRRORS

Supply and install 6mm thick clear plate glass mirrors with polished edges to sizes detailed. Glue fix mirrors where indicated on drawing to manufacturers specification.

14.6 SPLASHBACKS

Supply and install 6mm thick clear white float glass splashbacks with polished edges to sizes detailed in bathroom 1 and powder room. Glue fix where indicated on drawing to manufacturers specification.

Supply and install 6mm thick clear starfire glass splashbacks with polished edges to sizes detailed in kitchen. Glue fix where indicated on drawing to manufacturers specification.

14.7 SHOWER SCREENS

Silicon seal where necessary. Supply and fix frameless shower screen with clear toughened glazing with polished edges to size and profile as indicated on the drawings. Allow for Madinoz MDZ SH942/A PSS door knob to Bath 2

Bathroom 1	Fixed panel with polished aluminium channel supports
Bathroom 2	Pivoting glass door with chrome patch fittings and supports equal to CDS Patch Fitting Pty. Ltd. Tel: 9605 5822

14.8 CLEANING

The Builder will clean all windows and frames to Architect's satisfaction. Builder to take precautions to avoid scratching of glass during cleaning. Scratched glass, as determined by the Architect, will be replaced or hand polished.

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15.1 SAMPLES

Provide, in the locations directed, 6 x 1m² samples to walls, 2 samples on timberwork over the appropriate preparation, of each colour finish before commencing work. Each colour shall be factory mixed.

15.2 MATERIALS

Bring all materials to the building and store in manufacturer's original sealed containers, bearing the manufacturer's standard label, indicating type, colour and instructions for use. Deliver materials in sufficient quantities in advance of the time needed, in order that work will not be delayed in any way. Each colour shall be factory mixed. Colour matching shall not be done on site. All paints shall be supplied by an approved manufacturer. Only approved products shall be allowed on the Works. Products for any one coating system shall all be of the same manufacturer. Note that this requirement applies to shop priming and undercoats carried out elsewhere.

15.3 WORKMANSHIP

Painting work shall be executed by competent tradespeople in the best tradesman-like manner conforming to traditional practice. All surfaces to be coated shall be inspected and prepared. No painting shall commence until such time as the work of all other trades has been completed within the area to be painted. No painting shall commence until render has correctly dried. Paint to have tests made to ensure correct Ph level. Where it is necessary to lay a floor covering after the painting has been completed, the last coat shall be applied after the laying of the floor covering (exceptions being floor sanding and carpet laying). All wall and floor finishes shall be adequately protected and any paint splashes removed without injury to the affected area.

No painting shall be carried out in dusty conditions or unsuitable weather. Before starting to paint in any section of the building, clean it out thoroughly and protect it against dust entry.

Use dust sheets and drop sheets wherever necessary to protect finished work and any surfaces or fixtures liable to be damaged by painter's work. Carefully mask adjacent surfaces when spraying. Remove paint spots and splashes from adjacent surfaces immediately, and restore any damaged surfaces. Rectify any improper or defective workmanship without additional charge. Coats shall be allowed to harden thoroughly before application of subsequent coats and shall be thoroughly sanded between coats. Surfaces shall be brought up to required colour before application of finishing coat. External coatings shall not be applied during, or immediately after, wet weather. External gloss coatings shall not be applied if there is a possibility of dew deposition spoiling the surface of the coating. Trade lines shall be used according to instruction on container label.

15.4 APPLICATION

Ensure that all surfaces are in a fit and proper condition to receive the coatings specified. Refer to manufacturer's recommendations. Do not paint rendered brickwork until render is correctly cured and tested by paint manufacturer.

Clean down, remove all foreign matter including grease, dust and dirt, fill cracks and holes, fine down and leave smooth. The whole surface must be thoroughly dry before coating commences. If there is mould or moss on the surface, treat it with an appropriate fungicide in accordance with the manufacturer's specification.

Apply paint systems all in accordance with manufacturer's specification and recommendations, pay particular attention to acceptable conditions such as ambient temperature and relative humidity. Internal coatings on flat ceiling and wall surfaces may be applied by roller, otherwise apply all coatings by brush, or unless approval is first obtained for alternative methods. Remove furniture, switch plates, light fittings, etc. before coating, and replace on completion. Allow each coat to harden thoroughly. The final coat will only commence after all dust producing work has been completed and all previous work which shows signs of dust in paintwork will be sanded back and prepared. The final coat shall be free of dust marks, dust or other blemishes, otherwise re-coat at no extra cost. Cutting in between different colours shall be done neatly in straight lines. Hinges, striker plates and other door hardware are not to be painted.

Materials are to be:
Internal and External Walls and Ceilings to be Dulux Premium Paints.
Decking Oil to be Cabots
Flooring system to be Feast Watson

15.5 SUBSTRATES

Metal Surfaces: Remove scale, rust, oil, grease and dust. Clean down ferrous surfaces including zinc-coated steel, with mineral turpentine immediately before priming. Allow to dry.

Masonry Finishes: All visible plaster and plasterboard shall be sanded. Fill holes, cracks and indentations with appropriate filler. Sand down to a uniform surface, and clean all surfaces prior to sealing.

15.6 COATING SYSTEMS

Colours – To be selected

1. Metal enamel (galv), Internal/External Metalwork (Gal. iron)
   One (1) coat Luxepoxy white primer
   Two (2) coats Luxethane RT

2. External Cement Render and Cladding and Soffit linings
   One (1) coat sealer (Dulux Premium Paints)
   Two (2) coats low sheen Dulux Weathershield.

4. Plaster Board linings
   One (1) coat sealer
   Two (2) coats low sheen acrylic

5. Internal Blockwork
   One (1) coat sealer
   Two (2) coats low sheen acrylic

6. All Woodwork & Internal Doors
   All woodwork shall be carefully rubbed down, nails punched, primed and puttied, knots stopped and painted with:
   One (1) coat primer
   One (1) coat undercoat
   Two (2) coats semi gloss enamel as scheduled

7. Flooring and stairs
   Two (2) coats Feast Watson Floor seal – satin lustre.

8. External woodwork, Decking timbers and timber handrail
   Two to three (2-3) coats of Feast Watson or Cabots decking oil.

15.7 PAINT MANUFACTURERS

Ensure that surface preparation complies with manufacturer's specification. Avoid re-touching the final coat.

15.8 EXTENT OF WORK

Allow to paint the whole of the works internally and externally including garage, rendered letterbox and boundary fence to Narrabeen Park Parade.

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16.1 GENERALLY

Carry out work in accordance with Rules and Regulations of supply authority concerned and in accordance with Natural Gas Code issued by the Australian Gas Company.

16.2 SERVICE

Install services with copper pipes and fittings with screw joints and assembled with an approved jointing material.

16.3 METER

Extend from new gas meter housing new fittings of size necessary to complete job. Connect to B.B.Q., kitchen hot plates and hot water unit. Allow to fix into cupboard joinery gas appliances as per Schedule of Appliances.

16.4 TESTING OF SERVICE

The completed works will be subject to pressure test in accordance with Authorities required.

16.5 METER HOUSING

House gas meter where shown on drawings and to Council and manufacturer's specification.

16.6 SCHEDULE GAS APPLIANCES

Qty	Brand	Model	Description	Colour	Amount
1	Smeg	SAR93X or CIR93AX	Gas Cooktop		

Allow to connect gas supply to gas appliance. Cooktop to be supplied by owner, installed by builder.

16.7 HOT WATER SERVICES

Supply and install Rinnai Infinity 24 Plus (internal) gas hot water unit to be to the Garage with pipe cover. **See PC Allowance for supply only.**

16.8 FIREPLACE

Supply and install Jetmaster, Heat-n-Glo SL-550TRS-AUD gas fireplace to living room. Allow for flue and galvanised flue cover to roof. All to be installed to Jetmaster's specification. **See PC Allowance for supply and install.**

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17.1 EXTENT OF WORK

The air conditioning contractor is to supply and install all air conditioning with accessories to complete the works. The system shall be designed and fabricated and installed by a competent air conditioning company, approved by the architect.

The air conditioning contractor to provide drainage lines from equipment to waste as required. Run air conditioning service lines between fancoil and compressor within PVC ducting.

17.2 CO-ORDINATION AND ATTENDANCE

The builder shall engage and co-ordinate the air conditioning subcontractor in the early construction stages to ascertain construction requiring detail change. Equipment type and locations shall be determined, ducts and routing planned, co-ordination of register positions with other services and trades.

The builder shall allow for all penetrations and chasing of walls and provide for all ancillary flashings to duct penetrations, etc. and shall trim openings in walls, required for registers and other reticulated services associated or otherwise with mechanical services. **See P.C. Allowance for supply and fix of air conditioning.**

17.3 WARRANTY

The builder shall provide a warranty for the equipment and installation from the contractor and issue to Proprietor.

0

18.1 EXISTING CONCRETE GUTTERING

Allow to repair existing concrete gutter at Narrabeen park parade where existing driveway and cross over removed. Allow to repair existing concrete gutter to street where damaged by building works.

18.2 LANDSCAPING

The following related works shall be undertaken by builder:

- Removal of existing planting specified to be removed and protection of vegetation specified to be retained.
- All Bulk and Minor earthworks to establish specified site levels and stormwater detention pit.
- Removal of all weed material, rubbish, debris and stones greater than 50mm dia.
- Supply and installation of concrete paving squares.
- Supply and installation of pebbles on compacted ground.
- Supply and installation of weed mat.
- Timber Garden retaining walls and steps with Drainage
- Timber boundary fences and gates.
- Ground preparation for rainwater tank installation.
- Supply and install clothes line

18.3 LANDSCAPING OF LAWN AREA

The following works shall be undertaken by builder:

- Supply and installation of 35x150 treated pine edges to lawn area.
- Supply and installation topsoil and lawn.

Supply and install "Sir Walter" Buffalo lawn on prepared base of 100mm depth of commercial quality turf underlay. Allow for 35x150 treated pine edging securely fixed to stakes at 900 centres between lawn and pebbled or garden bed areas as shown on drawings. **See PC allowance for supply and installation**

18.4 SOFT LANDSCAPING

Proprietor to install planting, topsoil and mulch as per landscaping plan.

18.5 EXISTING GROUND AND VEGETATION

Remove existing planting specified to be removed and establish tree protection fence around protection of vegetation specified to be retained Rake clean of foreign material and prepare the area by removing rubbish, debris, stones and existing vegetable matter ready for landscaping.

18.6 FILL

Where indicated on drawing, fill site to levels shown in 300mm compacted layers, clean of rubble and free of vegetation.

18.7 WEED ERADICATION

Eradicate weeds by environmentally acceptable methods during both construction stages.

18.8 PEBBLE PATHWAY

Supply and lay 30-50mm pebble size Nepean River pebble, as available from Australian Native Landscapes or equivalent, to a depth of 75mm to northern pathway to extent shown on drawing. Pebbles to be laid on compacted ground covered with weed mat and raked level. Allow for 35x150 treated pine edging securely fixed to stakes at 900 centres between lawn and pebbled areas. Allow to compact back fill areas with mechanical compactor.

18.9 CONCRETE AND SANDSTONE PAVERS

Supply and fix 600x600x50 ripple finish concrete pavers where noted on drawings. Lay pavers on 50mm sand/cement bed forming level area. Allow to lay pavers with uniform slope. Allow to compact back fill areas with mechanical compactor ready to take gravel and pavers.

Install existing sandstone pavers on 50mm sand/cement bed forming level area to front entry path. Allow to lay pavers with uniform slope. Pavers supplied by proprietor.

18.10 WEED MAT

Supply and install weed mat over compacted ground to pebble areas after ensuring all weeds are removed

18.11 SANDSTONE GARDEN WALL

Lay sandstone dry packed garden wall to front garden as shown on drawings. Reuse sandstone blocks salvaged from existing house. Clean blocks of existing mortar and debris. Allow for filter socked agricultural line behind wall. **See PC allowance for supply and installation**

18.12 TIMBER PALING FENCE

Supply and install 1800mm lapped and capped timber fence to northern boundary to 85 Narrabeen Park Parade to position shown on drawings.

18.13 NARRABEEN PARK PARADE AND BRUCE STREET BOUNDARY FENCE AND GATE

Supply and install 1800mm timber horizontal slat fence to western boundary, the return into the house and the eastern gate as detailed on drawings. Timber slats to be treated pine-decking boards ready for a stained finish.

Supply and install 1800mm concrete block wall with rendered finish to western as shown and detailed on drawings. Wall and footings to engineers specification.

18.14 1m BOUNDARY FENCE AND GATES

Supply and install 1000mm open vertical colourbond metal fence and two gates to boundary line where shown on drawings to architects detail. **See PC allowance for supply and installation**

18.15 RETAINING WALLS AND STEPS

Allow for Treated pine 100 x 200 retaining walls and steps to northern side of driveway as shown on drawings. Allow for agricultural drainage line and blue metal back fill behind retaining wall as per Hydraulics section. Retaining Wall to engineers specification.

18.16 CLOTHES LINE

Supply and fix Hills Paraline Duo Plus – Product No. FD450 022 salt bush finish. Supply and fix to 100x100 treated pine posts securely fixed to concrete pad footing 400x400x300 with galvanized steel shoes.

18.17 BASE TO RAINWATER TANKS

Allow to supply and install 75mm compacted and level blue metal gravel with a sand screed over to the underside of the two (2) 1100 litre poly corrugated-style rainwater tanks (1050mm dia) to positions shown on drawing. Install to manufacturers specification.

P.C. ALLOWANCE

	TENDERED AMOUNT	
Air conditioning	$6,000.00	s.f.
Audio Wiring, proprietor to supply speakers	$1,000.00	s.f.
Boundary Fence and Gates (1000mm high only)	$5,000.00	s.f.
Cabinet Joinery and Stone Benchtops : ▪ Kitchen cabinets and benchtop 20 ▪ Bathroom 1, 2 and powder room Vanity Cabinets 10 ▪ Laundry and Storage Cupboards, Bed 1 Wardrobe 12 Additional to estimate ▪ Dining room cabinet 3 ▪ Living room shelf 2	$47,000.00	s.f.
Carpet – 80sqm	$7,000.00	s.f.
Fireplace - Jetmaster	$5,000.00	s.f.
Garage Door	$2,800.00	s.f.
Lawn and Edging	$5,000.00	s.f.
Piering	$10,000.00	s.f.
Rock Excavation – bulk excavation to be allowed for in contract	$7,500.00	s.f.
Sandstone garden wall, cleaning and repairing	$2,500.00	s.f.
Security System	$2,000.00	s.f.
Stainless Steel/Timber External Balustrade above solid balustrade.- allowed for previously in contract	$7,500.00	s.f.
Termite Treatment –allowed for previously in contract	$4,000.00	s.f.
Timber Shutters	$9,000.00	s.f.
Undertile Heating	$800.00	s.f.
Dilapidation Report	$1,000.00	s.o.
Door Hardware	$6,000.00	s.o.
Gas Hot water Unit	$2,000.00	s.o.
Letter box and number	$500.00	s.o.
Light fittings	$3,000.00	s.o.
Rainwater tanks and pump and rainbank switching	$2,000.00	s.o
Schedule of Fixtures – see schedule	$7,000.00	s.o.
Schedule of Fittings – see schedule	$4,500.00	s.o.
Tiles - 40sqm floors, $50/sqm, 30sqm walls, $30/sqm	$3,000.00	s.o.
Windows, French glazed doors and front door including bi-fold hardware and SS hinges. As per window schedule.	$50,000.00	s.o.
Total (Exclusive GST)	**$201,100.00**	
Cubic metre rate for bulk rock excavation = Cubic metre rate for footings rock excavation =	s.o. = supply only s.f. = supply & fix	

N.B. P.C. Allowances do not include GST. GST to be added.

s.o. = supply only
s.f. = supply and fix

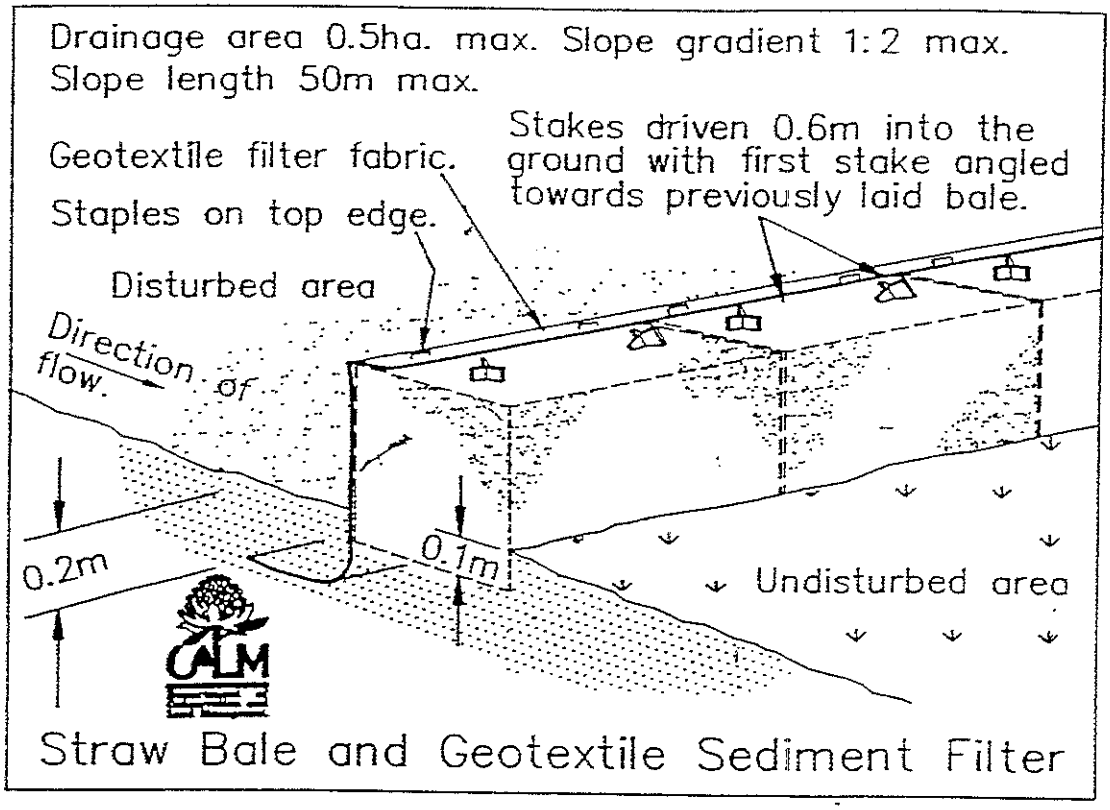

Fig. 3.23

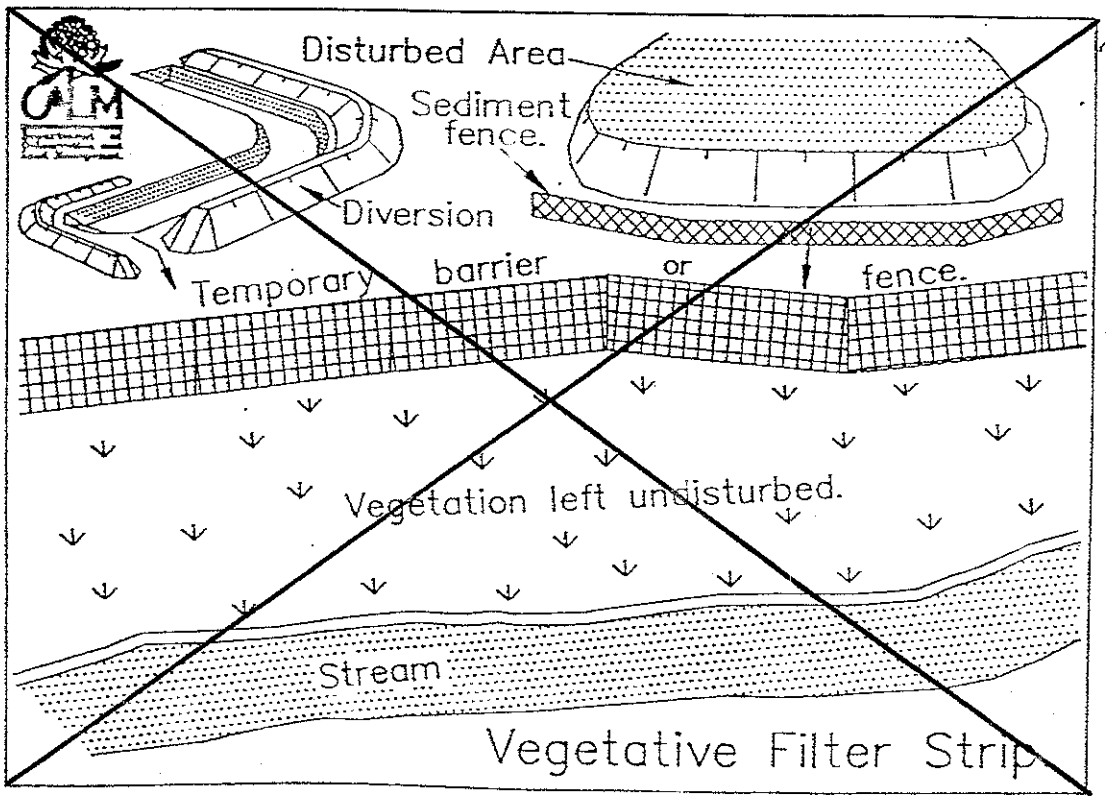

Fig. 3.24

3.4.3.3 Straw Bale-Geotextile Fabric Sediment Filters

Straw bales and geotextile filter fabric can be used together to construct an effective sediment filter. The combination, although more expensive than either material used separately, compensates for the shortcomings of each. Straw bale sediment filters are frequently ineffective because they are not firmly staked and are not butted tightly together. When wrapped and secured with geotextile fabric, the bales have additional support and the gaps between them are covered with filter material.

Straw bale and geotextile sediment filters may be used where:-

- ***the area draining to the filter is 0.5ha or less;***
- ***the maximum slope gradient behind the filter is 1:2;***
- ***the maximum slope length behind the filter is 50m.***

Detailed design will be required for any individual structures that exceed these general design parameters.

These structures are installed as follows (Figure 3.23):

1. Excavate a trench a few centimetres wider than the straw bales. Place the bales against the downslope side of the trench and anchor as described in Section 3.4.3.1.

2. Place appropriate geotextile filter fabric against the upstream face of the bales and extend it into the trench. Staple the fabric to the bales with 0.15 to 0.2m U-shaped wire pins.

3. Backfill the trench and compact the soil against the fabric and bales.

3.4.3.4 Vegetative Filter Strips

The maintenance of filter strips of existing vegetation adjacent to site boundaries, wetlands, streams and other areas of significant natural resource value, can aid in filtering stormwater runoff during and after the construction stage. This applies particularly where the vegetation comprises tall, dense grass, or ground covers on sites of low to medium slope. See Figure 3.24.

These filter strips may be contour strips located on long slopes to intercept overland flow, unmown bands across waterways, or natural swales to intercept channel flows, or buffer zones around stormwater inlets. The flatter and wider the strips, the more sediment they will retain.

The width of filter strip needed for such areas in order to provide adequate protection depends on the area to be protected, the vegetation type, the slope present, the ability

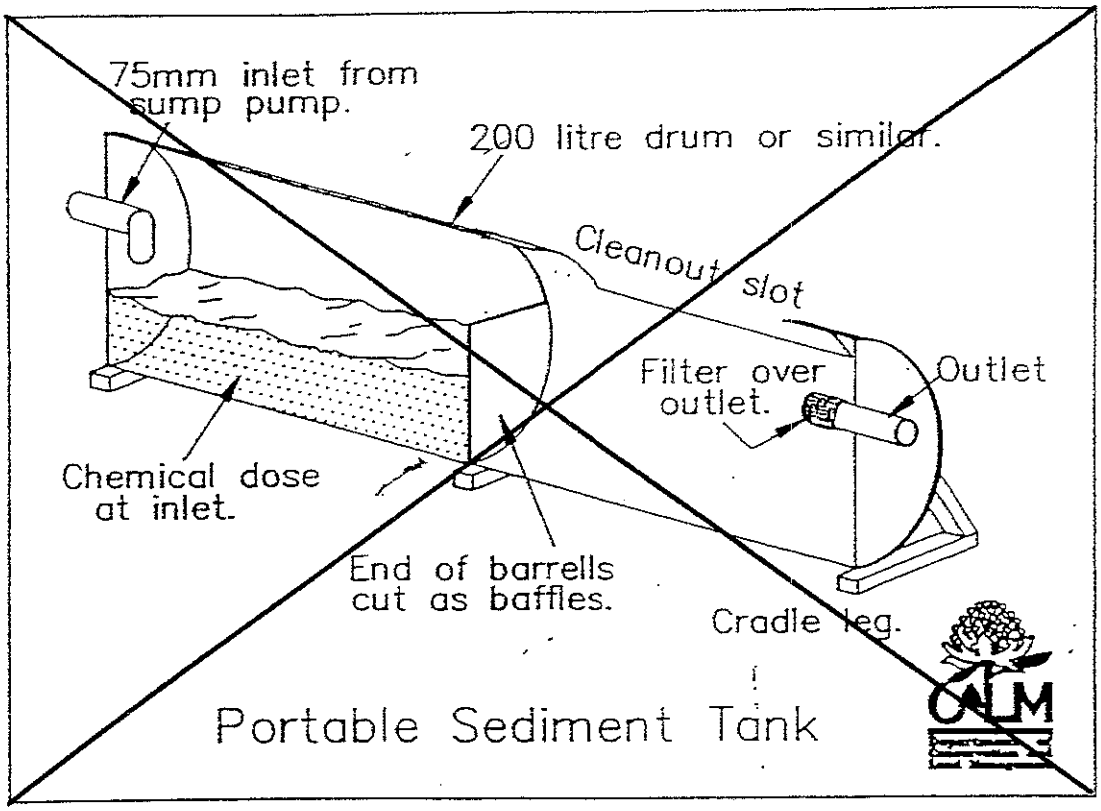

Fig. 3.25

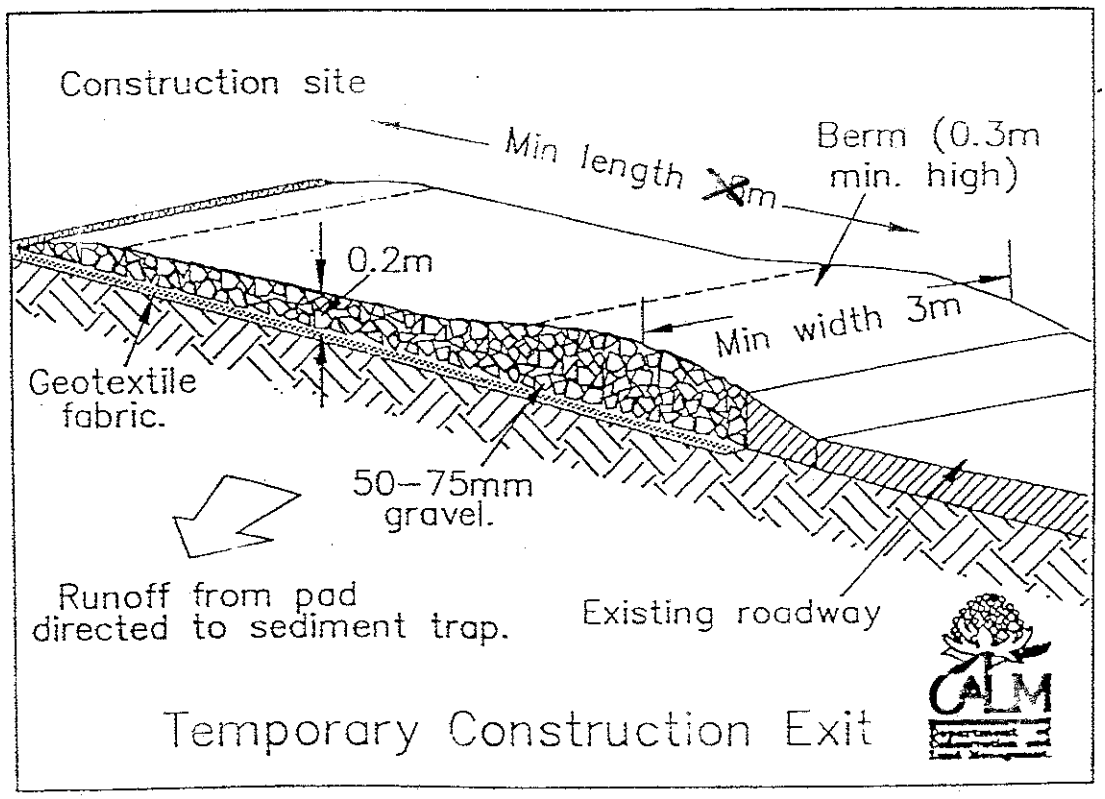

Fig. 3.26

3.4.5. TEMPORARY CONSTRUCTION EXIT

This comprises a pad of coarse gravel, occasionally with a concrete, steel or timber shaker ramp, located at exits from construction sites. It is designed to minimise the transport of sediment from construction sites onto public roads via the wheels and sides of vehicles.

When a site is dry, much of the soil is shaken from vehicles as they traverse this ramp. In wet weather, mud is hosed off on the ramp as vehicles leave the site.

The exit pad is constructed by placing a layer of geotextile filter fabric over the pad site and covering it with a layer of 50 to 75 mm sized gravel to a minimum depth of 0.2m. Its width should be no less than the full width of the exit point, and its length a minimum of 15m. (Figure 3.26)

All drainage from the exit pad should be directed into a sediment trap. A mountable berm (1:5 batters) may be required adjacent to the road footpath area, to prevent drainage directly onto the road.

Additional gravel may have to be added periodically, to maintain the correct functioning of the pad.

Robert Jones
Architects

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Australia

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Mobile 0415 224 234
email architects@kbdnet.net.au

Robert Jones and
Associates Pty Ltd
ABN 39 003 459 434

28th February 2005

Pittwater Council
Council Chambers
5 Vuko Place
WARRIEWOOD NSW 2102

RE: 83 Narrabeen Park Parade, MONA VALE - DA No. N0613/04

B10: COMPLIANCE WITH RELEVANT CODES AND STANDARDS

As per Sections 1.4 of the Specification of building works at 83 Narrabeen Park Parade, Mona Vale, all building work shall comply with the Building Code of Australia and the relevant Australian Standards.

1.4 CODES AND STANDARDS

All workmanship and materials shall comply with relevant Australian Standard, the Building Code of Australia and the planning requirements and building regulations of the Shire Council and all other relevant statutory authorities.

B26: ACCESS DRIVEWAY WIDTH COMPLIANCE

The proposed access driveway is 3.5m wide at the property boundary (Bruce Street).

B27: DRIVEWAY COMPLIANCE

(b) The driveway crossover is to be a plain concrete finish.
(c) A council authorised contractor will carry out construction of the access driveway.

B28: DRIVEWAY COMPLIANCE

The proposed means of vehicular access driveway to and within the site complies with the requirements of Pittwater Council's Policy DCP No. E3 "Driveway and Internal Roadways" and Australian Standards AS2890.1-1993: Parking Facilities – Off-street Car Parking, for a High level Driveway Profile.

B29: EROSION AND SEDIMENT MANAGEMENT PLAN COMPLIANCE

As per Sections 1.19 of the Specification of building works at 83 Narrabeen Park Parade, Mona Vale, all building work shall comply with the proposed Erosion And Sediment Management Plan as shown on architectural plan CC03, which has been designed in accordance with the

Robert Jones B Arch (Hons) ARIA

requirements of the NSW Department of Land and Water Conservation's "Urban Erosion and Sediment Control" manual.

1.19 BARRIERS & SEDIMENTATION CONTROL

...The Erosion And Sediment Management Plan as shown on architectural plan CC03 is to be constructed in accordance with the requirements of the NSW Department of Land and Water Conservation's "Urban Erosion and Sediment Control" manual. Please refer to fig. 3.23 (Straw Bale and Geotextile Sediment Filter) in conjunction with Point 3.4.3.3 - Straw Bale–Geotextile Fabric Sediment Filters and Fig. 3.26 (Temporary Construction Exit) in conjunction with Point 3.4.5 - Temporary Construction Exit attached to this specification. Minimum length of construction exit 6m.

B29a: REMOVAL OF CLAY FROM TYRES LEAVING THE SITE COMPLIANCE

See above – Temporary Construction Exit
Please note: Handbook dictates a minimum length of construction exit of 15m. As this can not be accommodated on this residential site a Temporary construction exit of 6m has been specified.

D79: FIREPLACE

The proposed fireplace as located on Architectural drawing 02 is a gas-fuelled fireplace as per Sections 7.15 and 16.3 of the architectural specification.

7.13 FIREPLACE

Supply and install Jetmaster, Heat-n-Glo SL-550TRS-AUD gas fireplace to living room. Allow for flue and galvanised flue cover to roof. All to be installed to Jetmaster's specification. See PC Allowance for supply and fix.

Robert Jones
RAIA Chartered Architect
B Arch (Hons)

Woolacotts.
CONSULTING ENGINEERS

Our Ref: 04-274

24 January 2005

The Principal Certifying Authority
Kibble House
C/- Robert Jones and Associates
57 Avalon Parade
AVALON NSW 2107

RE: 83 NARRABEEN PARK PARADE, MONA VALE
STORMWATER DRAINAGE CERTIFICATE

We certify that the stormwater drainage design shown on attached copy of Robert Jones & Associates Drawing 325/03 CC01 received 24 January 2005 complies with:

1. Australian Standard AS/NZS 3500.3

2. Development Consent N0613/04 Condition B19.

3. Pittwater Council's Policy & Guidelines for the On-site Detention of Stormwater – Feb 1996, as shown in attached copy of our calculation sheets 1 and 2.

4. Accepted Engineering Practice and Principles.

No standards or practices other than the relevant Australian Standards have been relied upon for this certification.

Yours faithfully,
WOOLACOTTS

Stephen Branch
BE(Hons) MEngSc FIEAust CPEng
NPER Structural and Civil – Membership No. 312987

Woolacott Hale Corlett & Jumikis Consulting Engineers Pty Ltd
ACN 002 791 620
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Woolacotts.
CONSULTING ENGINEERS

Job 83 Narrabeen Park Parade, Mona Vale Date 24 Jan 05.

Summary Sheet

Check of Stormwater Drainage Plan

References : DA # N0613/04 Conditions.
AS 3500.3.
Pittwater Council's "Policy & Guidelines for the on-site detention of stormwater - Feb 1996"

OSD & Stormwater Drainage : Condition B19 requires stormwater detention complying with Council's Policy & Guidelines for the on-site detention of stormwater - Feb 1996

$$SSR\ (Volume) = [0.083 - (100 - I\%) \times 2.4 \times 10^{-4}] \times I$$

I = Increase in impervious area.

Existing Impervious Area = $310m^2$

Proposed Impervious Area = $200m^2$

∴ There is a decrease in impervious area.

From policy, no detention is required.

Outlet pipe : Catchment area = 200 + 50 = $250m^2$

$$f = \frac{200}{250} = 0.80$$

0136/05

24 MAR 2005

Designed CMW | Job No 04-274 | Sheet No 1

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Woolacotts.
CONSULTING ENGINEERS

Job Mona Vale. Date 24 Jan 05

Outlet pipe cont:

$C_{10} = 0.9 + 0.0133(^{10}I_1 - 25) = 0.54$

$C_{10} = 0.9 \times 0.8 + 0.54 \times 0.2 = 0.83$

$C_{20} = 1.05 C_{10} - 0.87$

$^{10}I_{5m} = 176\text{mm/hr}$ $^{20}I_{5m} = 200\text{mm/hr}$

$Q_{10} = \frac{CIA}{360} = \frac{0.83 \times 176 \times 250}{3600} = 10\text{l/s}$

∴ 100Φ discharging freely to kerb & gutter will be sufficient.

0106/05

24 MAR 2005

Designed CMW | Job No 04-274 | Sheet No 2

GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER
FORM NO. 2 – To be submitted with detailed design for construction certificate

Development Application for ADAM KIBBLE AND ROSEMARY BURTON
Name of Applicant

Address of site 83 NARRABEEN PARK PARADE, MONA VALE

Declaration made by Structural or Civil Engineer in relation to the incorporation of the Geotechnical Issues into the project design

I, STEPHEN BRANCH (insert name) on behalf of WOOLACOTTS. CONSULTING ENGINEERS (trading or company name)

on this the 24/2/05 (date)

certify that I am a Structural or Civil Engineer as defined by the Geotechnical Risk Management Policy for Pittwater. I am authorised by the above organization/company to issue this document and to certify that the organization/company has a current professional indemnity policy of at least $2million. I also certify that I have prepared the below listed structural documents in accordance with the recommendations given in the Geotechnical Report for the above development

Geotechnical Report Details:

Report Title: GEOTECHNICAL ASSESSMENT, 83 NARRABEEN PARK PDE, MONA VALE
Report Date: 6 AUGUST 2004
Author: DOUGLAS PARTNERS P/L – GRAHAME WILSON

Structural Documents list:

04-274 / S1, S2, S3 & S4

I am also aware that Pittwater Council relies on the processes covered by the Geotechnical Risk Management Policy, including this certification as the basis for ensuring that the geotechnical risk management aspects of the proposed development have been adequately addressed to achieve an "Acceptable Risk Management" level for the life of the structure taken as at least 100 years unless otherwise stated and justified.

STEPHEN BRANCH (name) (signature)

Declaration made by Geotechnical Engineer or Engineering Geologist in relation to Structural Drawings

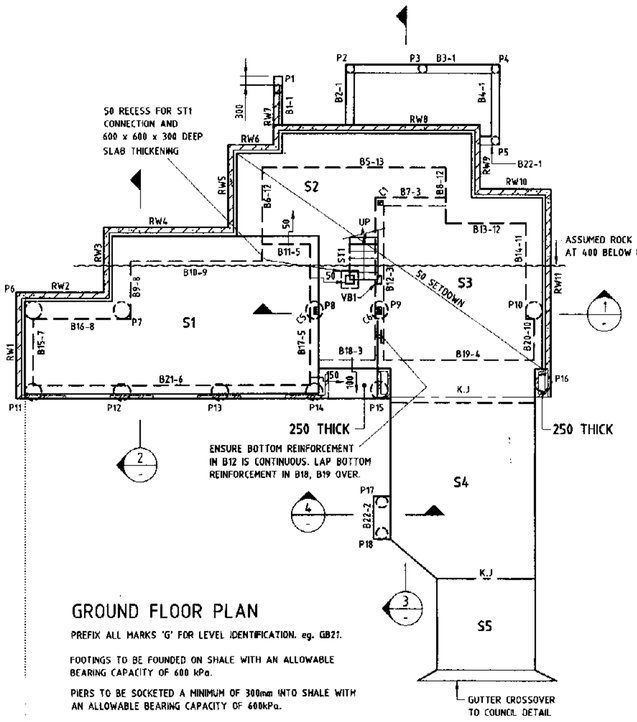
I prepared and/or technically verified the abovementioned Geotechnical Report as per Form 1 dated and now certify that I have viewed the above listed structural documents prepared for the same development. I am satisfied that the recommendations given in the Geotechnical Report have been appropriate taken into account by the structural engineer in the preparation of these structural documents. I am aware that Pittwater Council relies on the processes covered by the Geotechnical Risk Management Policy, including this certification as the basis for ensuring that the geotechnical risk management aspects of the proposed development have been adequately addressed to achieve an "Acceptable Risk Management" level for the life of the structure taken as at least 100 years unless otherwise stated and justified.in the Report and that reasonable and practical measures have been identified to remove foreseeable risk.

Signature .....
Name ..... G R Wilson
Chartered Professional Status..... RMGEO
Membership No. 10007

REGISTERED PROFESSIONAL GEOSCIENTIST
AUSTRALIAN INSTITUTE OF GEOSCIENTISTS AIG
G.R. WILSON
10,007

0136/05

24 MAR 2005



GROUND FLOOR PLAN

PREFIX ALL MARKS 'G' FOR LEVEL IDENTIFICATION. eg. GB21.

FOOTINGS TO BE FOUNDED ON SHALE WITH AN ALLOWABLE BEARING CAPACITY OF 600 kPa.

PIERS TO BE SOCKETED A MINIMUM OF 300mm INTO SHALE WITH AN ALLOWABLE BEARING CAPACITY OF 600kPa.

PIERS — P1-5, 17, 18 ..... 300 DIAMETER
P6-16 ..... 600 DIAMETER

BEAM TYPES

1	300 x 300	
2	300 x 600	
3	350 x 300	
4	350 x 1300	
5	400 x 300	
6	400 x 300 + 250 x 150 TOE	
7	400 x 300	+ 250 x 300 TOE
8	400 x 600	
9	400 x 900	
10	350 x 300	
11	350 x 600	
12	350 x 900	
13	350 x 1200	

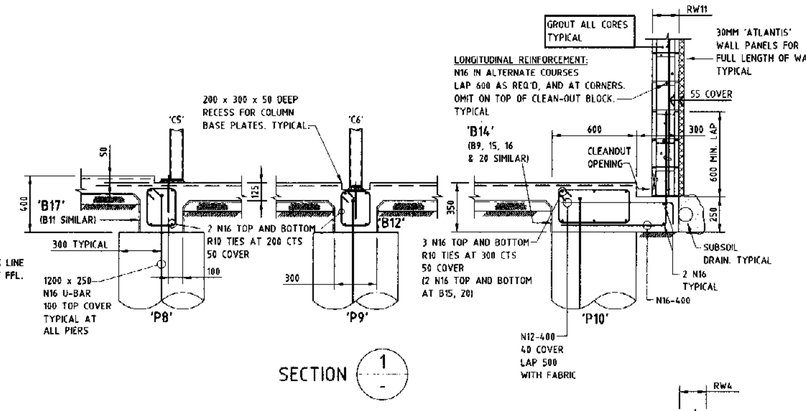
NOTATION: BEAMS B10-9. — MEMBER MARK / MEMBER SIZE

SLABS — S1, 2, 3 — 125 THICK POURED ON 0.2mm POLYTHENE MEMBRANE OVER 75mm DRAINAGE LAYER CONSISTING OF 10mm SINGLE SIZED AGGREGATE. REINFORCED WITH SL102 FABRIC (20 TOP COVER).

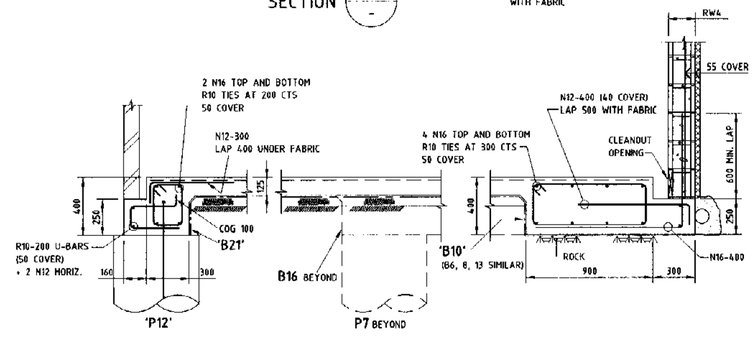
S4,5 — 125 THICK POURED ON 0.2mm POLYTHENE MEMBRANE OVER 75mm COMPACTED BASECOURSE (DGB20). REINFORCED WITH SL102 FABRIC (65 TOP COVER).

RW1 DENOTES 190 THICK REINFORCED CONCRETE BLOCK RETAINING WALL

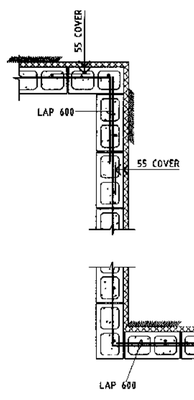
K.J DENOTES 150 DEEP PRESSED METAL KEY FORM WITH PLASTIC CAPPING. REFER TO DETAIL.



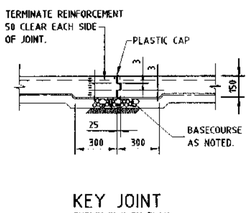
SECTION 1



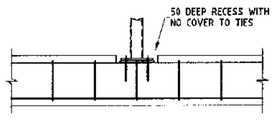
SECTION 2



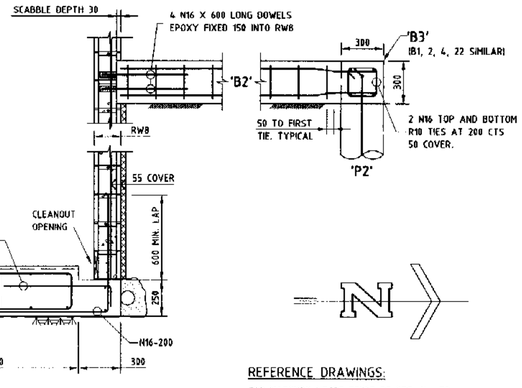
TYPICAL CORNER DETAILS FOR RETAINING WALLS

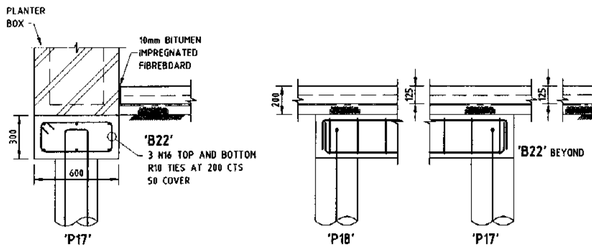


KEY JOINT
SHOWN 'K.J' ON PLAN



BEAM REINFORCEMENT AT COLUMN AND VB1 RECESS





SECTION 4

SECTION 3

GENERAL NOTES

G1 THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS DRAWINGS, SPECIFICATIONS AND AS1100 TECHNICAL DRAWING.

G2 ANY DISCREPANCIES SHALL BE REFERRED TO THE SUPERINTENDENT FOR DECISION BEFORE PROCEEDING WITH THE WORK.

G3 DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE DRAWINGS.

G4 ANY SETTING OUT DIMENSIONS SHOWN ON THE DRAWING SHALL BE VERIFIED BY THE BUILDER.

G5 DURING CONSTRUCTION THE CONTRACTOR SHALL MAINTAIN THE STRUCTURE IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED.

G6 ALL WORK SHALL COMPLY WITH THE BUILDING CODE OF AUSTRALIA, CONDITIONS OF THE DEVELOPMENT CONSENT AND RELEVANT AUSTRALIAN STANDARD CODES.

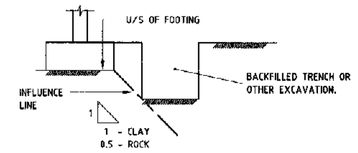
FOUNDATION NOTES

F1 UNLESS NOTED FOOTINGS SHALL BEAR UPON ROCK WITH A MINIMUM ALLOWABLE BEARING CAPACITY OF 600 kPa. REFER TO GEOTECHNICAL REPORT No.37325 DATED. 6 AUGUST 2004 PREPARED BY DOUGLAS PARTNERS PTY. LTD.

F2 FOUNDATION MATERIAL SHALL BE INSPECTED AND APPROVED BY A GEOTECHNICAL ENGINEER FOR THE NOMINATED ALLOWABLE BEARING CAPACITY PRIOR TO COMMENCING FOOTING CONSTRUCTION.

F3 FOOTINGS SHALL BE LOCATED CENTRAL UNDER WALLS AND COLUMNS UNLESS NOTED OTHERWISE.

F4 UNLESS OTHERWISE APPROVED, EXCAVATIONS NEAR NEW OR EXISTING FOOTINGS SHALL NOT BE WITHIN THE FOOTING INFLUENCE LINE.



CONCRETE NOTES

C1 ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600 CURRENT EDITION WITH AMENDMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.

C2 CONCRETE QUALITY - AS NOTED ON THE DRAWINGS. PROJECT ASSESSMENT OF STRENGTH GRADE SHALL BE USED.

C3 CLEAR COVER OF REINFORCEMENT SHALL BE AS NOTED ON THE DRAWINGS. REINFORCEMENT SHALL BE RIGIDLY SUPPORTED TO MAINTAIN SPECIFIED COVER DURING CONSTRUCTION.

C4 SIZES OF CONCRETE ELEMENTS DO NOT INCLUDE THICKNESS OF APPLIED FINISH.

C5 CONSTRUCTION JOINTS WHERE NOT SHOWN SHALL BE LOCATED TO THE APPROVAL OF THE SUPERINTENDENT.

C6 BEAM DEPTHS ARE WRITTEN FIRST AND INCLUDE SLAB THICKNESS.

C7 NO HOLES OR CHASES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE MEMBERS WITHOUT THE PRIOR APPROVAL OF THE SUPERINTENDENT.

C8 CONDUITS, PIPES ETC., SHALL ONLY BE LOCATED IN THE MIDDLE ONE THIRD OF SLAB DEPTH. (UNLESS NOTED OTHERWISE.)

C9 REINFORCEMENT SYMBOLS:
R - GRADE 250 PLAIN BAR IN ACCORDANCE WITH AS 1302
N - GRADE 500 DEFORMED BAR DUCTILITY CLASS N (D500N) IN ACCORDANCE WITH AS/NZS 4671 WITH A CARBON EQUIVALENT (CE) LIMIT OF 0.39 MAX.
SL - GRADE 500 SQUARE WELDED FABRIC, DEFORMED BARS DUCTILITY CLASS L (D500L) IN ACCORDANCE WITH AS/NZS 4671.
RL - GRADE 500 RECTANGULAR WELDED FABRIC, DEFORMED BARS DUCTILITY CLASS L (D500L) IN ACCORDANCE WITH AS/NZS 4671.

C10 REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY; IT IS NOT NECESSARILY SHOWN IN TRUE PROJECTION.

C11 SPLICES IN REINFORCEMENT SHALL BE MADE ONLY IN THE POSITIONS SHOWN. OBTAIN APPROVAL FROM THE SUPERINTENDENT FOR ANY OTHER SPLICES.

C12 WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED UNLESS SHOWN ON THE STRUCTURAL DRAWINGS.

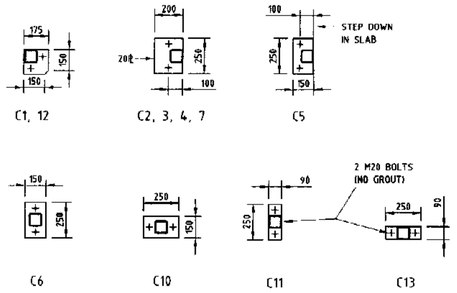
C13 FABRIC SHALL BE LAPPED 1 MESH + 50 mm.

C14 POUR COLUMNS AND WALLS A MINIMUM OF 24 HOURS PRIOR TO POURING BEAMS AND SLABS OVER.

C15 CURE CONCRETE IN ACCORDANCE WITH AS 3600. METHOD OF CURING SHALL BE SUBMITTED TO THE SUPERINTENDENT FOR APPROVAL.

C16 MASONRY WALLS SHALL NOT BE CONSTRUCTED ON SUSPENDED CONCRETE UNTIL ALL TEMPORARY SUPPORTS ARE REMOVED.

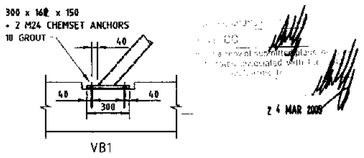
C17 WHERE SLABS OR BEAMS BEAR UPON MASONRY OTHER THAN REINFORCED BLOCK WALLS - THE TOP COURSE SHALL BE LEVEL, SMOOTH AND COVERED BY TWO LAYERS OF GALVANISED FLAT STEEL WITH GRAPHITE GREASE BETWEEN LAYERS.



TYPICAL COLUMN BASE DETAILS

C8 & 9 NOT USED

UNLESS NOTED OTHERWISE
10 BASE ℄'S + 10 GROUT (ORIENTATE BASE ℄'S TO SUIT)
2 M20 CHEMSET ANCHORS.



REFERENCE DRAWINGS:

FOR MASONRY NOTES REFER TO DRG. No. S2.

CONCRETE QUALITY

ELEMENT	Strength Grade	Slump mm	Max. Agg. mm	Cement Type
SLABS S4, S5	N32	80	20	GP
REMAINDER	N25	80	20	GP

2 4 MAR 2005

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Date 25/2/05

No.	Date	Description	Ver.	App.
Amendment				

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Architect
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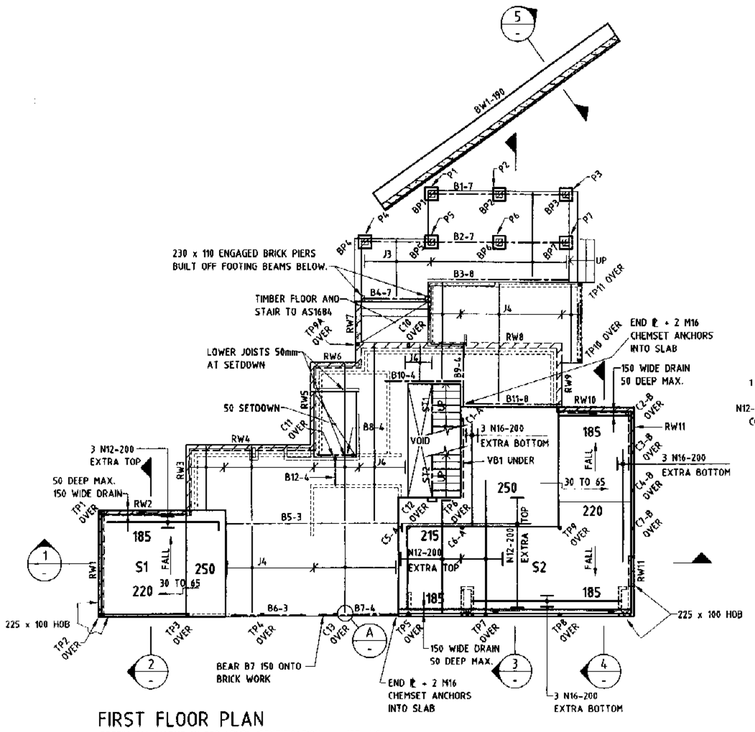
Drawing title
GROUND FLOOR PLAN AND DETAILS

Approved	Verified	Prepared	Date	Scale
11/2/05		11/2/05	FEBRUARY 2005	1:100, 1:20
Job number			Drawing number	Amendment
04-274			S1	



FIRST FLOOR PLAN

PREFIX ALL MARKS '1' FOR LEVEL IDENTIFICATION. eg. 185, 1J2

TOP OF FOOTINGS TO BE 150 MINIMUM BELOW FINISHED GROUND/FLOOR LEVEL OR TO SUIT EXISTING SERVICES

PADS

P1-7 ——— 450 x 450 x 250 DEEP MASS CONCRETE BEARING ON NATURAL GROUND WITH AN ALLOWABLE BEARING PRESSURE OF 100 kPa.

BRICK PIERS

BP1-7 ——— 230 x 230

BW1 ——— DENOTES 190 THICK REINFORCED BLOCK WALL ON 750 x 250 DEEP FOOTING BEARING ON NATURAL GROUND WITH A MINIMUM ALLOWABLE BEARING PRESSURE OF 100 kPa.

DENOTES 190 THICK REINFORCED BLOCK WALL UNDER TIMBER FLOOR.

DENOTES LOAD BEARING 190 THICK REINFORCED BLOCK WALL UNDER.

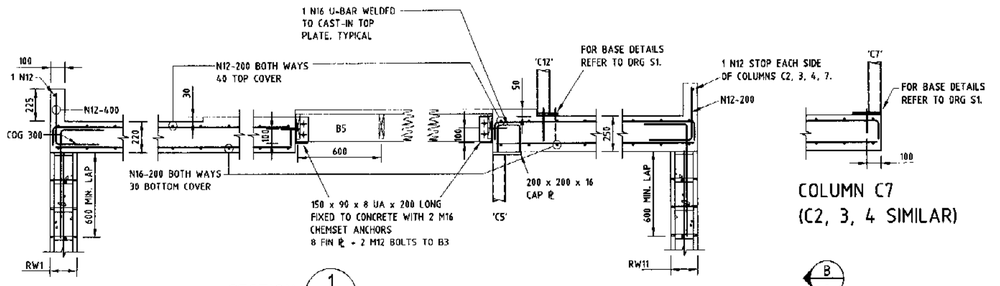
DENOTES LOAD BEARING MASONRY WALLS UNDER. FOR SLAB BEARING SURFACE REFER TO CONCRETE NOTE C18 ON DRG. No. S1.

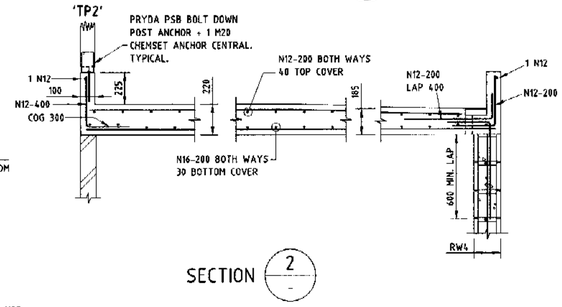
NOTATION: COLUMNS - C1-A. (MEMBER MARK) BEAMS/LINTELS - B3-5. (MEMBER SIZE)

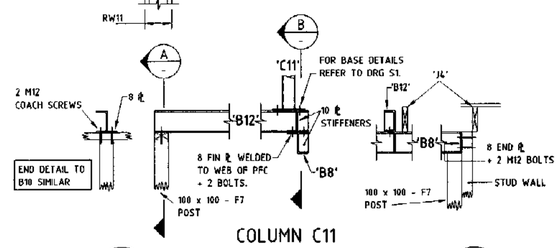
MEMBER SIZES

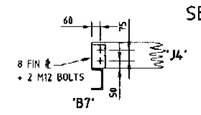
COLUMNS (C8 & 9 NOT USED)	A	89 x 89 x 6 SHS	G
	B	75 x 75 x 6 SHS	
BEAMS	3	200 x 63 HYSPAN	BEAR 150 EACH END UNLESS NOTED OTHERWISE
	4	150 PFC	
	7	150 x 75 - F7 TREATED PINE	
	8	200 x 50 - F7 TREATED PINE FIXED TO WALL/SLAB WITH M12 MASONRY ANCHORS AT 600 CTS	
JOISTS	J3	150 x 50 F7 - TREATED PINE AT 600 CTS	DOUBLE JOISTS UNDER PARALLEL WALLS OVER. TYPICAL.
	J4	175 x 36 HYSPAN - AT 600 CTS.	
VERTICAL BRACING	VB1	89 x 89 x 6 SHS DIAGNONAL	
STAIR STRINGERS	ST1, 2	200 PFC	

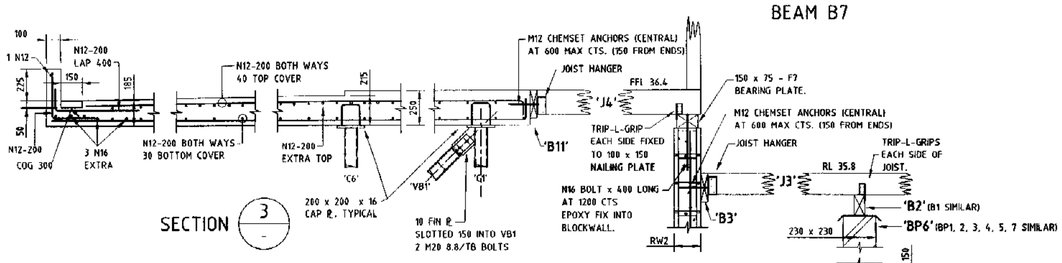
0 1 2 3 4 5 10

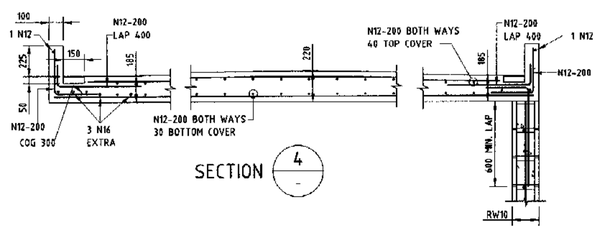


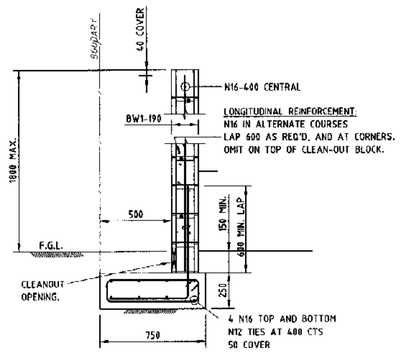












MASONRY NOTES

M1 ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3700 AND CURRENT EDITION WITH AMENDMENTS, EXCEPT WHERE VARIED BY CONTRACT DOCUMENTS.

M2 MASONRY UNITS
MINIMUM CHARACTERISTIC UNCONFINED COMPRESSIVE STRENGTH (f'uc) = 15 MPa

M3 MORTAR
MINIMUM MORTAR CLASSIFICATION M3

M4 UNLESS NOTED OTHERWISE MASONRY WALLS BUILT AGAINST STEEL OR CONCRETE COLUMNS, WALLS OR BEAMS SHALL BE FIXED TO THOSE ELEMENTS USING 50 mm WIDE x 1.5 mm THICK WITH 50 mm UPTURN GALVANISED STEEL WALL TIES AT 600 mm MAXIMUM CENTRES. POWER FIXED WITH 3.0 DIA. DRIVE PINS. EMBED EACH TIE A MINIMUM OF 450 mm INTO COURSING OF HOLLOW BLOCKWORK, 300 INTO SOLID BLOCK WORK AND BRICKWORK.

M5 CAVITY AND VENEER TIES TO BE TYPE A, MEDIUM DUTY, SPACED AT 600mm MAX CTS (VERTICAL AND HORIZONTAL). ADJACENT TO COLUMNS, CROSS WALLS, CONTROL JOINTS AND AROUND THE PERIMETER OF OPENINGS PROVIDE WALL TIES AT 300mm MAX CTS.

M6 CAVITIES IN BRICKWORK SHALL BE FILLED WITH MORTAR TO FINISH GROUND LEVEL PRIOR TO BACKFILLING AGAINST WALL. BACKFILLING AND COMPACTION OF FILL MATERIAL AGAINST BRICK WALLS SHALL BE CARRIED OUT SIMULTANEOUSLY ON EACH SIDE OF THE WALL.

M7 CHASES AND RECESSES IN LOAD-BEARING MASONRY SHALL NOT BE MADE WITHOUT THE APPROVAL OF THE SUPERINTENDENT.

M8 NON LOAD-BEARING MASONRY WALLS SHALL STOP 15 mm BELOW THE UNDERSIDE OF SLABS AND BEAMS.

M9 REINFORCED CONCRETE BLOCK WALLS SHALL COMPLY WITH THE FOLLOWING:

1. ALL BLOCKS SHALL BE DOUBLE "U" BLOCKS WITH SHALLOW TOP GROOVES FOR REINFORCEMENT.
2. ALL MORTAR DAGS SHALL BE REMOVED BEFORE FILLING CORES WITH GROUT. PROVIDE CLEAN OUT HOLES AT THE BASE OF ALL WALLS AND EACH POUR BREAK.
3. FILL ALL CORES WITH GROUT OF f'c 20 MPa SLUMP 230. 10 mm AGGREGATE SIZE. MINIMUM CEMENT CONTENT = 300kg/m^3
4. ALL PERPENDS, EXCEPT WHERE REQUIRED FOR WEEPHOLES SHALL BE FULLY FILLED WITH MORTAR.
5. CORE GROUT IS TO BE COMPACTED TO ENSURE COMPLETE FILLING OF ALL CORES.
6. PROVIDE TEMPORARY PROPPING TO WALLS WHERE REQUIRED FOR STABILITY DURING CONSTRUCTION.
7. STARTER BARS SHALL BE ACCURATELY POSITIONED BY TEMPLATES OR SIMILAR MEANS.
8. STARTER BARS SHALL BE TIED TO VERTICAL WALL BARS THROUGH INSPECTION OPENINGS AT THE BASE OF THE WALL AND ALSO ACCURATELY FIXED IN POSITION AT THE TOP BY AN APPROPRIATE METHOD.
9. REINFORCEMENT SHALL BE ACCURATELY PLACED AND FIRMLY HELD IN POSITION TO A TOLERANCE OF ± 10 mm

Development Assessment Unit
24 MAR 2005

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Principal
23/2/05

REFERENCE DRAWINGS:
FOR GENERAL, FOUNDATION AND CONCRETE NOTES REFER TO DRG. No. S1.
FOR STRUCTURAL STEEL AND TIMBER NOTES REFER TO DRG. No. S3

No.	Date	Description	Ver.	Appr.
Amendment				

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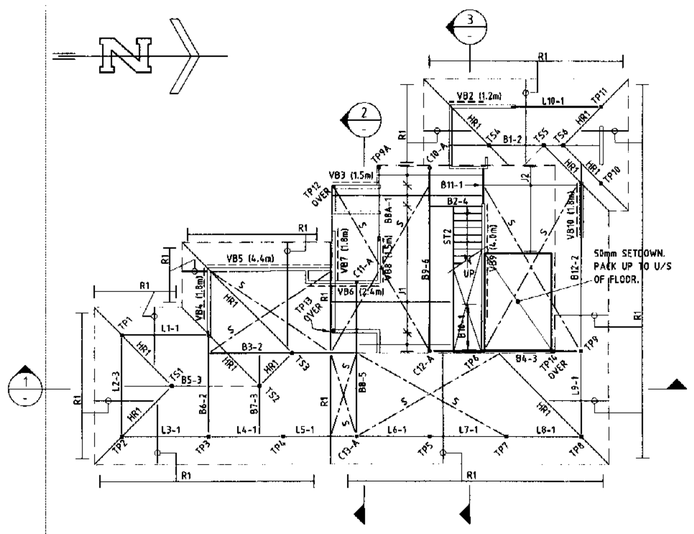
Drawing title
FIRST FLOOR PLAN AND DETAILS

Approved	Verified	Prepared	Date	Scale
11/2/05		M.H/D.Mc 11/2/05	FEBRUARY 2005	1:100, 1:20
Job number: 04-274			Drawing number: S2	Amendment



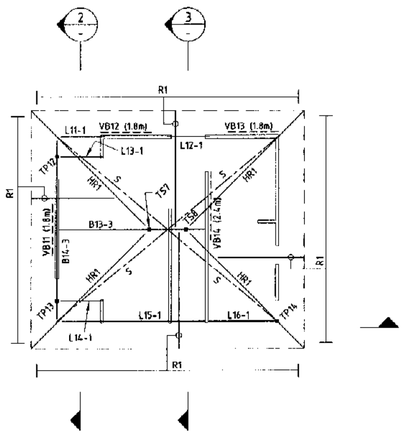
SECOND FLOOR AND LOWER ROOF PLAN

PREFIX ALL MARKS '2' FOR LEVEL IDENTIFICATION. eg. 2B6, 2L3.

MEMBER SIZES:

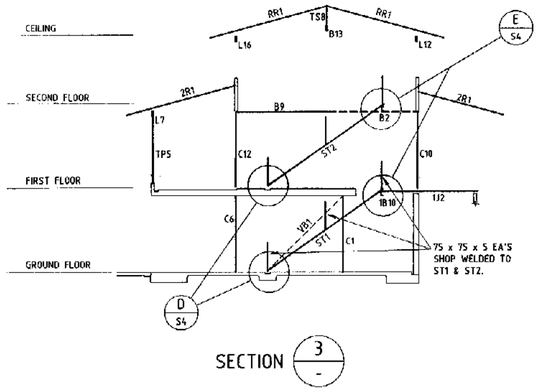
COLUMNS (C8 & 9 NOT USED)	A	89 x 89 x 6 SHS	G
	B	75 x 75 x 6 SHS	
TIMBER STRUTS	TS1-8	100 x 100 - F7	
TIMBER POSTS	TP1-14	100 x 100 - F7	
BEAMS (B)/LINTELS (L)	1	200 x 50 - F7	
	2	300 x 75 HYSPAN	
	3	200 x 63 HYSPAN	
	4	150 PFC	
	5	150 UC 23	
	6	150 UC 37	
RAFTERS	R1	150 x 50 - F7 AT 600 CTS.	
	HR1	200 x 50 - F7	
JOISTS	J1	150 x 45 HYSPAN - AT 600 CTS.	DOUBLE JOISTS UNDER PARALLEL WALLS OVER. TYPICAL.
	J2	200 x 45 HYSPAN - AT 600 CTS.	
VERTICAL BRACING	VB2-13	TYPE 'B' BRACING TO AS1684 x PLAN LENGTH SHOWN IN BRACKETS THUS (1.8m)	
	S	SPEEDBRACING INSTALLED ON TOP OF JOISTS/ RAFTERS	
STAIR STRINGERS	ST2	200 PFC	

NOTATION: COLUMNS - C12-A. BEAMS/LINTELS - B3-2. (MEMBER MARK / MEMBER SIZE)

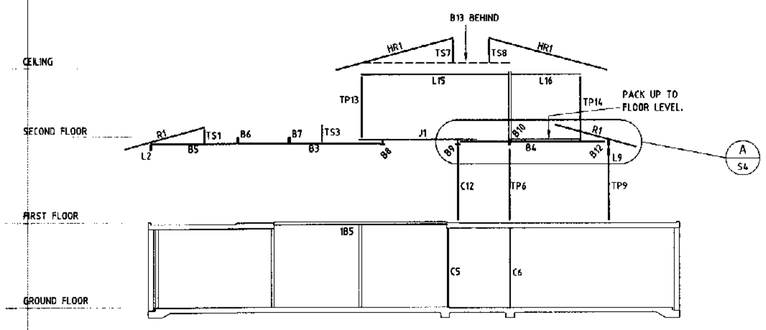


UPPER ROOF PLAN

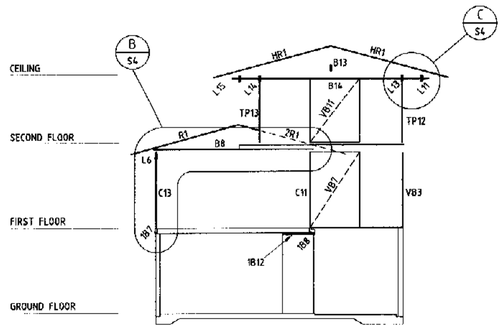
PREFIX ALL MARKS 'R' FOR LEVEL IDENTIFICATION. eg. RB13, RL15.



SECTION 3



SECTION 1



SECTION 2

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RPEQ 10007
Principal
25/2/05

REFERENCE DRAWINGS:

FOR GENERAL NOTES REFER TO DRG. No. S1

STRUCTURAL STEELWORK NOTES

S1 ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 4100 CURRENT EDITION WITH AMENDMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.

S2 STEEL QUALITY
ALL STEELWORK SHALL BE GRADE 250 UNLESS NOTED.
ROLLED SECTIONS (UB, UC, PFC, EA etc) SHALL BE GRADE 8HP-300PLUS.
RECTANGULAR HOLLOW SECTIONS SHALL BE GRADE 350 UNLESS NOTED.
COLD FORMED PURLIN AND GIRT SECTIONS SHALL BE IN ACCORDANCE WITH AS1397 AND AS1538, AND BE EQUIVALENT TO BHP GALVASPAN, COATING CLASS Z350.

S3 WELDING
ALL WELDING SHALL BE IN ACCORDANCE WITH AS 1554.
UNLESS NOTED ALL CONNECTIONS BETWEEN MEMBERS SHALL BE 6 mm CONTINUOUS FILLET WELD TYPE G.P.
BUTT WELDS SHALL BE COMPLETE PENETRATION TYPE SP.
WELDING SYMBOLS ON DRAWINGS ARE IN ACCORDANCE WITH AS 1101 PART 3.

S4 BOLTING
BOLTS SHALL BE M20 4.6/S UNLESS NOTED.
MEMBERS SHALL BE CONNECTED WITH 2 BOLTS UNLESS NOTED.
BOLTING PROCEDURES SHALL BE AS FOLLOWS:

BOLTING PROCEDURE	BOLT NAME	AUSTRALIAN STANDARD	INSTALLATION AS 4100
4.6/S	COMMERCIAL	AS 1111	SNUG TIGHTENED
8.8/S	HIGH STRENGTH	AS 1252	SNUG TIGHTENED
8.8/TF	HIGH STRENGTH	AS 1252	TENSIONED FRICTION
8.8/TB	HIGH STRENGTH	AS 1252	TENSIONED BEARING

APPROVED LOAD-INDICATING WASHERS SHALL BE USED UNDER THE BOLT HEAD OF 8.8/TF AND 8.8/TB JOINTS.

S5 HOLES IN MEMBERS FOR FIXINGS OF OTHER TRADES SHALL NOT EXCEED 14 mm DIAMETER.

S6 PLATES
ALL PLATES SHALL BE 10 mm THICK UNLESS NOTED.
BEARING PLATE DIMENSIONS PARALLEL TO WEBS ARE GIVEN FIRST.

S7 SURFACE TREATMENT
PRIMER UNLESS NOTED ALL STEELWORK SHALL BE POWERTOOL CLEANED TO A CLASS 2 PREPARATION IN ACCORDANCE WITH AS 1627.2 AND COATED WITH A MINIMUM OF 75 MICRONS OF AN APPROVED ZINC PHOSPHATE PRIMER IN ACCORDANCE WITH AS K188.

NO PRIMING COAT SHALL BE APPLIED TO CONTACTING SURFACES UTILISING 8.8/TF BOLTS NOR TO MEMBERS TO BE SUBSEQUENTLY CONCRETE ENCASED OR FIRE RATED.

[Z] MEMBERS NOTED [Z] SHALL BE GIVEN A CLASS 2.5 PREPARATION IN ACCORDANCE WITH AS 1627.4 AND COATED WITH A MINIMUM OF 75 MICRONS OF AN APPROVED INORGANIC ZINC SILICATE.

[G] MEMBERS NOTED [G] SHALL BE HOT DIP GALVANISED.

ALL BOLTS, NUTS AND WASHERS USED IN CONNECTION OF MEMBERS NOTED [Z] OR [G] SHALL BE HOT DIP GALVANISED.

MAKE GOOD PROTECTIVE COATINGS AT SITE WELDS AND UNCOATED STEELWORK AT T.F. BOLTED JOINTS.

S8 STRUCTURAL STEELWORK BELOW GROUND SHALL BE CONCRETE ENCASED AND HAVE 75mm CONCRETE COVER, REINFORCED WITH GALVANISED F41 MESH WITH 40mm COVER, LAPPED 150mm AT SPLICES.

TIMBER FRAMING NOTES

TF1 ALL DESIGN, WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 1684 AND AS 1720 CURRENT EDITION WITH AMENDMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.

TF2 TIMBER SIZES, WALL BRACING AND CONNECTION DETAILS WHERE NOT SHOWN ON DRAWINGS SHALL BE IN ACCORDANCE WITH AS 1684.

TF3 ROOF BRACING AND ANCHOR DETAILS WHERE NOT SHOWN ON DRAWINGS SHALL BE IN ACCORDANCE WITH AS 1684.

TF4 ALL TIMBER MEMBERS SUBJECT TO WEATHER EXPOSURE SHALL BE DURABILITY CLASS 1 IN ACCORDANCE WITH THE NSW TIMBER MARKETING ACT (1977) OR HAZARD LEVEL H3 FOR TREATED TIMBERS IN ACCORDANCE WITH AS1604.

0 1 2 3 4 5 10

0 1 2 3 4 5 6

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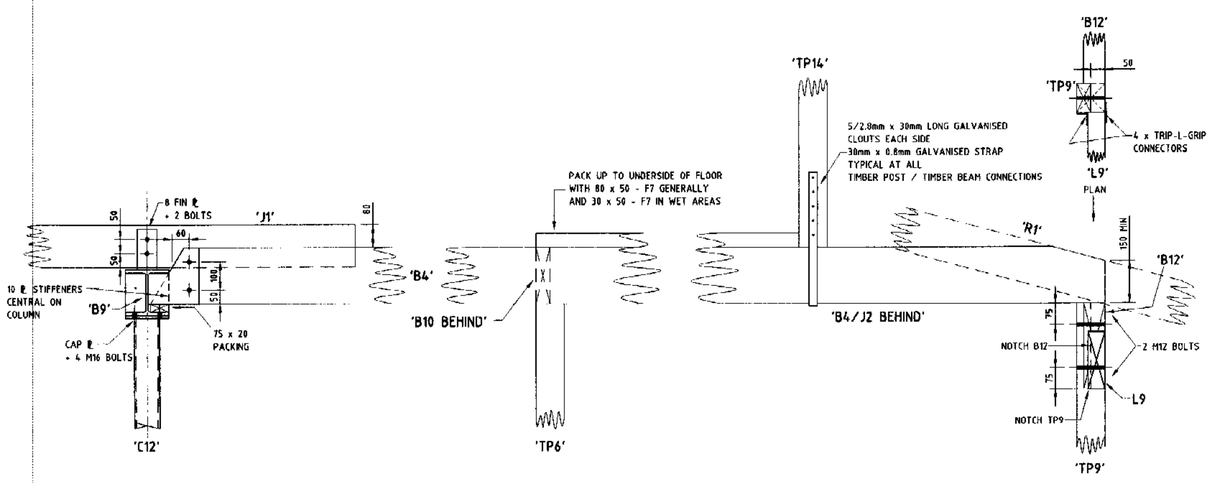
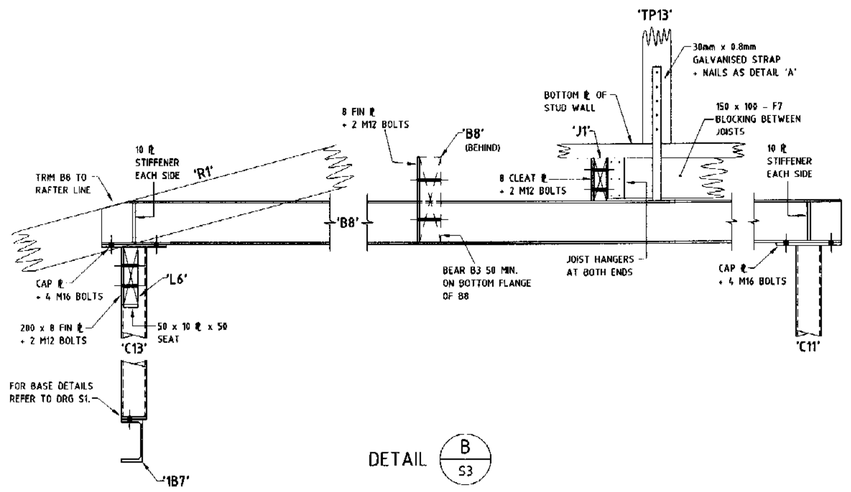
Drawing title
SECOND FLOOR AND ROOF PLANS AND SECTIONS

Approved	Verified	Prepared	Date	Scale
11/2/05		MH/DM 11/2/05	FEBRUARY 2005	1:100
Job number		Drawing number		Amendment
04-274		S3		



DETAIL A / S3



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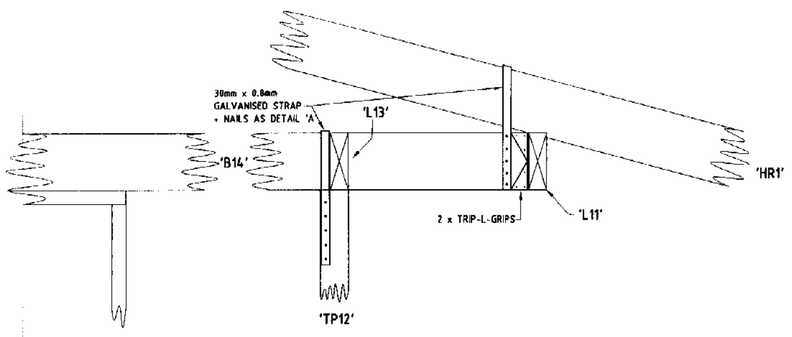

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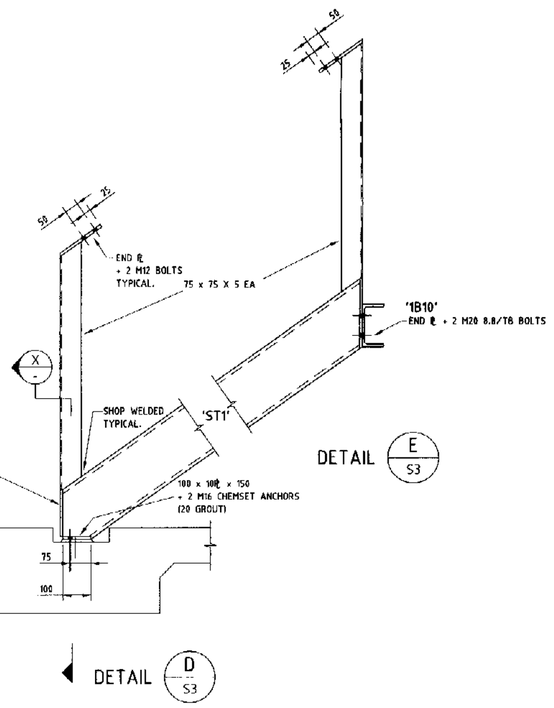

SECTION X / -

DETAIL D / S3

DETAIL E / S3

0 1 2 3 4 5 10

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25/2/05

REFERENCE DRAWINGS:

FOR GENERAL NOTES REFER TO DRG. No. S1.
FOR STRUCTURAL STEEL AND TIMBER NOTES REFER TO DRG. No. S3

DD 0336/05
24 MAR 2005

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Project

PROPOSED NEW HOUSE
83 NARRABEEN PARK PDE
MONA VALE 2103

Architect

ROBERT JONES AND ASSOCIATES PTY. LTD.
5/57 AVALON PARADE
AVALON 2107 ph. 9973 2633

Drawing title

SECOND FLOOR AND ROOF DETAILS

Approved	Verified	Prepared	Date	Scale
11/2/05		11/2/05	FEBRUARY 2005	1:10

Job number	Drawing number	Amendment
04-274	S4	

DRAINAGE NOTES

1 ALL WORK SHALL BE IN ACCORDANCE WITH AS 3500.3.2
2 ALL PIPEWORK SHALL BE SEWER GRADE UPVC AND SOLVENT JOINTED TO AS1260
3 PROVIDE A MINIMUM OF1 IN 100 FALL IN ALL PIPEWORK INCLUDING SUB SOIL DRAINS.

STORMWATER DRAINAGE LINE
STORMWATER DRAINAGE AG LINE

BRUCE STREET

All Building Construction works to comply with all relevant BCA requirements

Builder to check all dimensions on site prior to fabrication

Large/ detail drawings take precedence over smaller scale drawing

architects
ROBERT JONES AND ASSOCIATES PTY LTD
97 AVALON PARADE
AVALON BEACH NSW 2107

CLIENT
MR A. KIBBLE
MRS R. BURTON

PROJECT
KIBBLE HOUSE
83 NARRABEEN PARK PARADE
MONA VALE

DRAWING TITLE
Ground Floor Plan

SCALE
1:50

PROJECT NUMBER
325/03

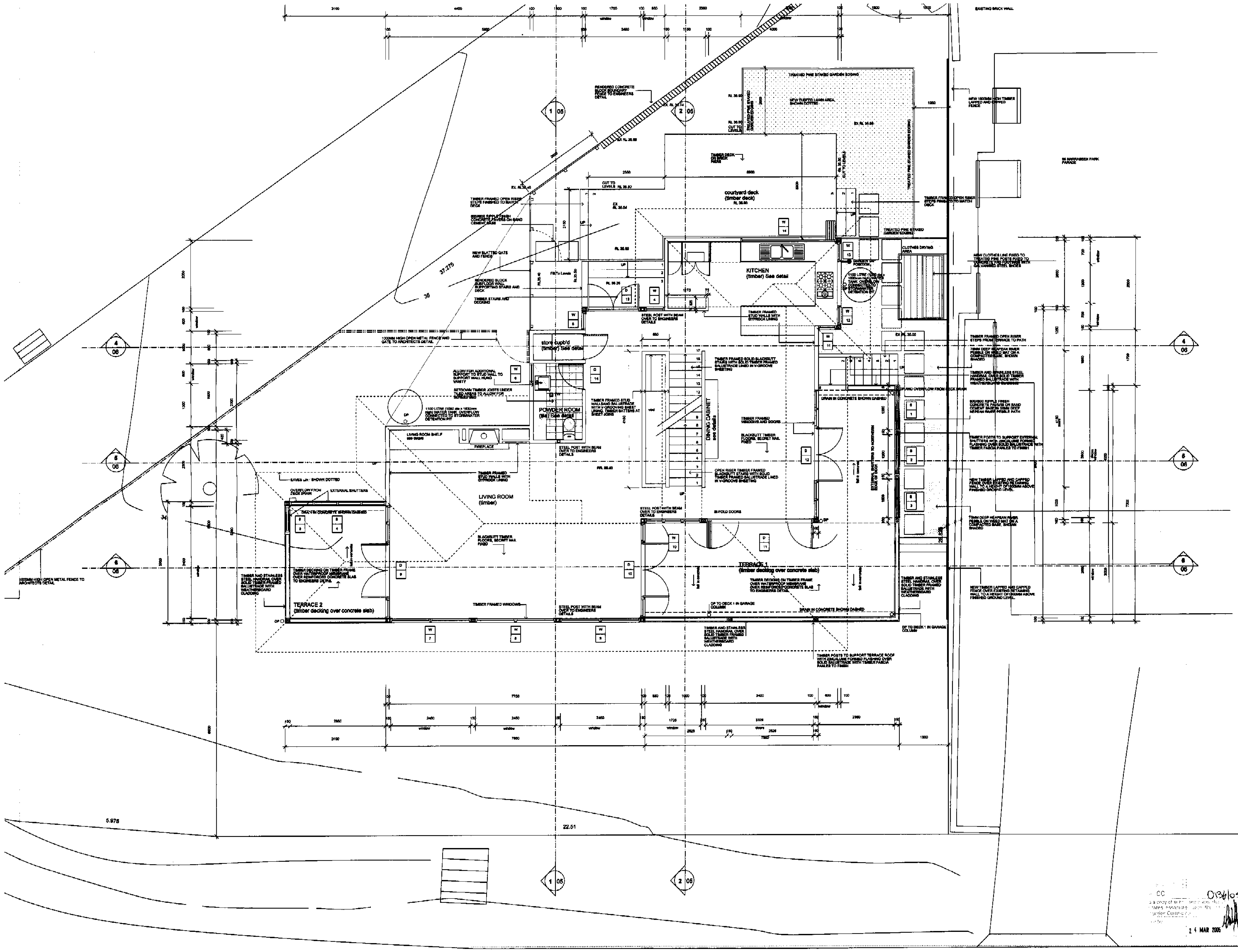
DATE JULY 2004

NORTH

CC01
DWG NO REVISION NO

0136/05

2 4 MAR 2005



All Building Construction works to comply with all relevant BCA requirements

Builder to check all dimensions on site prior to fabrication

Larger scale drawings take precedence over smaller scale drawing

architects
ROBERT JONES AND ASSOCIATES PTY LTD
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CLIENT
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MRS R. BURTON

PROJECT
KIBBLE HOUSE

83 NARRABEEN PARK PARADE
MONA VALE

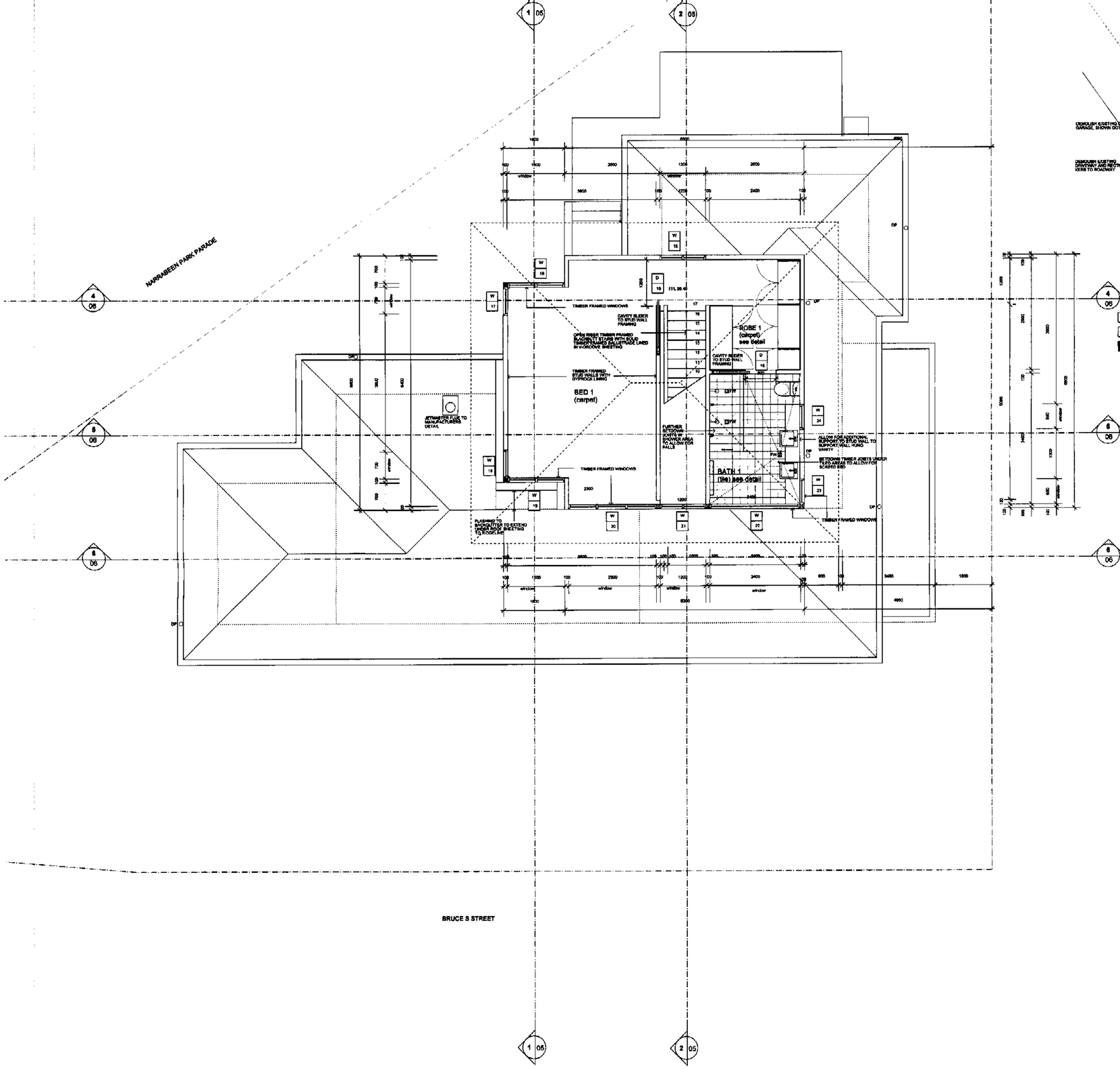
DRAWING TITLE
First Floor Plan

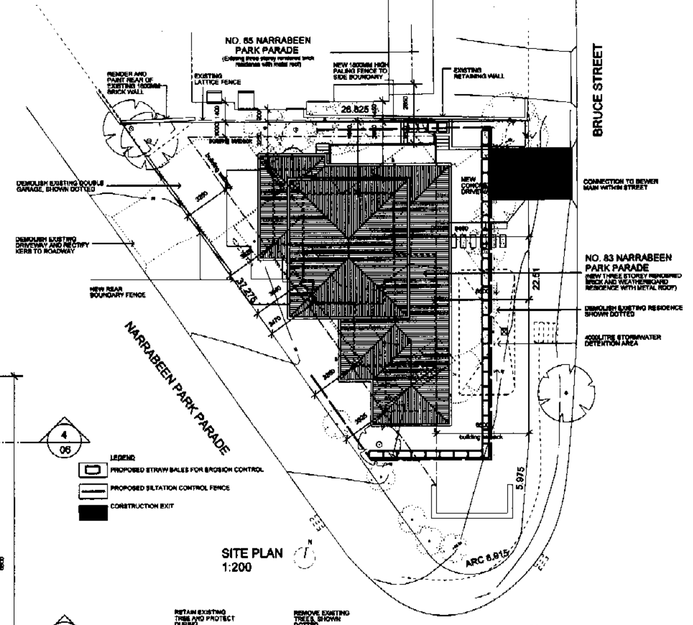
SCALE
1:50

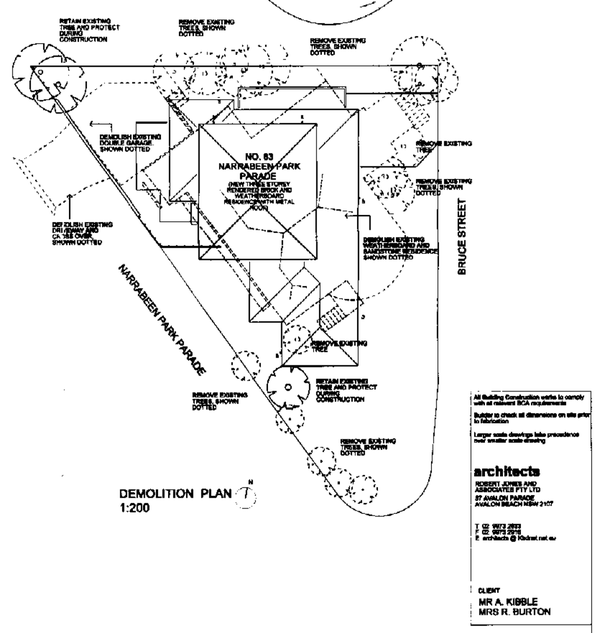
PROJECT NUMBER
325/03

DATE JULY 2004

CC02
DWG NO REVISION NO







All Building Construction works to comply with all relevant BCA requirements

Builder to check all dimensions on site prior to fabrication

Larger scale drawings take precedence over smaller scale drawing

architects

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CLIENT
MR A. KIBBLE
MRS R. BURTON

PROJECT
KIBBLE HOUSE
83 NARRABEEN PARK PARADE
MONA VALE

DRAWING TITLE
Second Floor Plan
Site Plan, 1:200
Demolition Plan, 1:200

SCALE
1:50, 1:200

PROJECT NUMBER
325/03

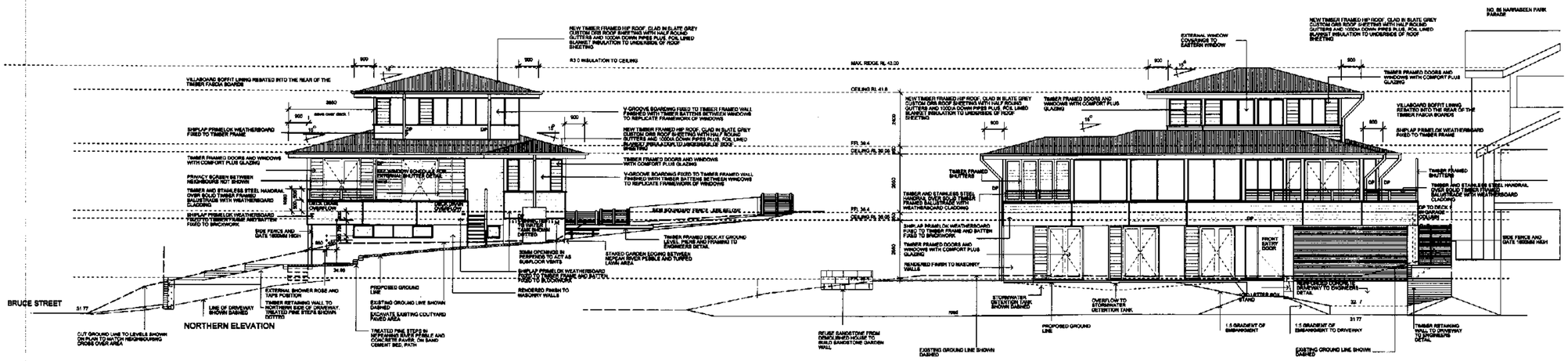
DATE JULY 2004

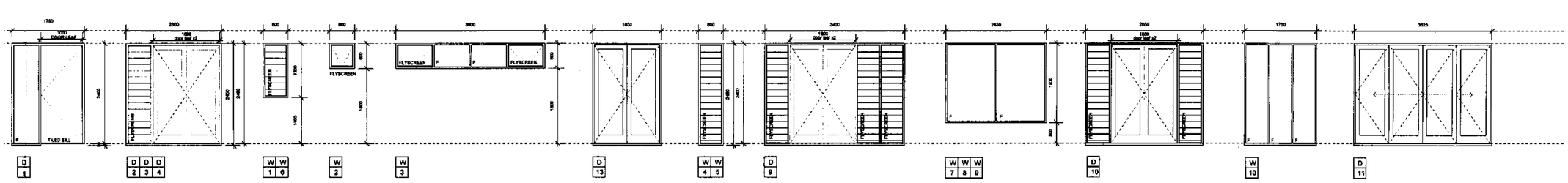
NORTH

CC03
DWG NO REVISION NO

2 4 MAR 2005

23/6/05





152MM LOUVRE BLADE AND AWNING WINDOWS WITH KEY LOCK, ALL WINDOWS KEYED ALIKE
ALL DIMENSIONS TO BE CHECK MEASURED ON SITE, FLYSCREENS AS SPECIFIED

152MM LOUVRE BLADE WITH KEY LOCK, ALL WINDOWS KEYED ALIKE
ALL DIMENSIONS TO BE CHECK MEASURED ON SITE, FLYSCREENS AS SPECIFIED

(EXTERNAL) 115MM OPERABLE BLADE

(EXTERNAL) 115MM OPERABLE BLADE

(EXTERNAL) 115MM OPERABLE BLADE

2 4 MAR 2005

All Building Construction works to comply with all relevant BCA requirements

Builder to check all dimensions on site prior to fabrication

Larger scale drawings take precedence over smaller scale drawing

architects
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E architects @ Rjones.net.au

CLIENT
MR A. KIBBLE
MRS R. BURTON

PROJECT
KIBBLE HOUSE
83 NARRABEEN PARK PARADE
MONA VALE

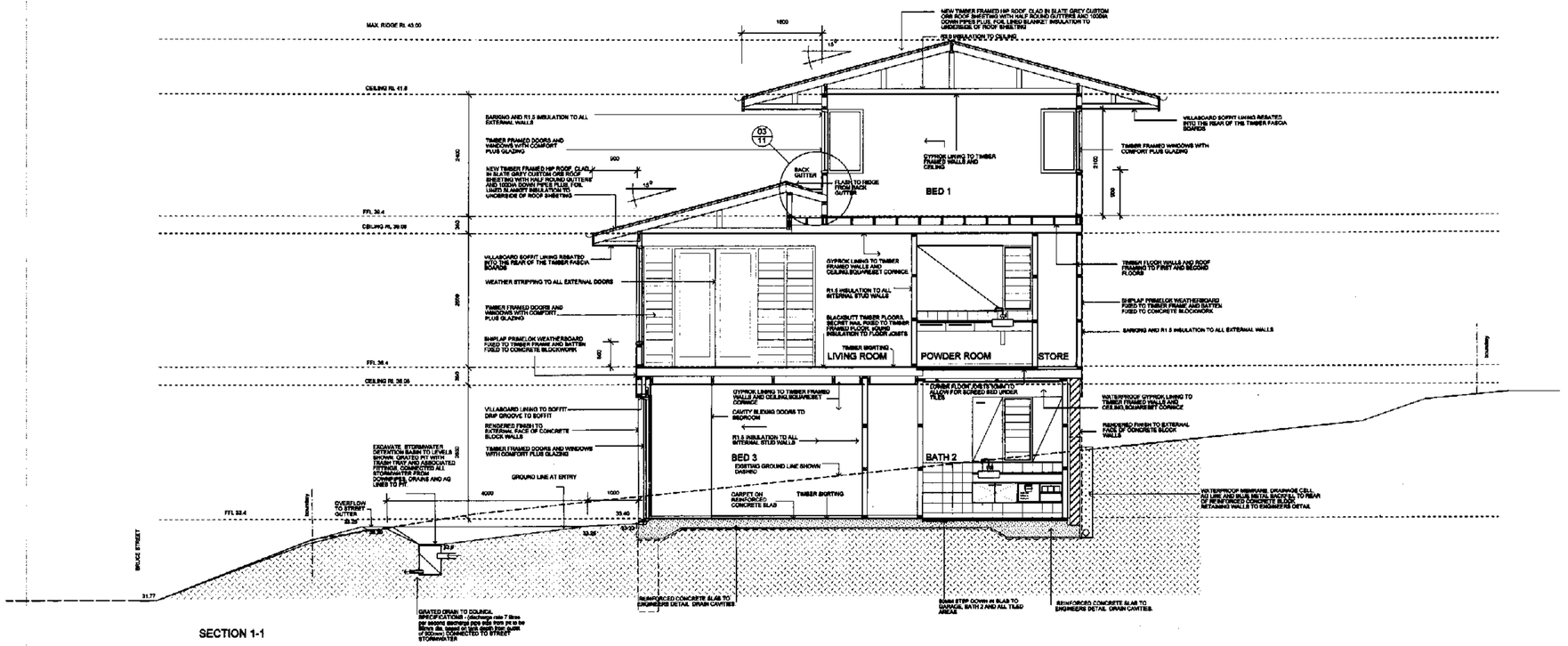
DRAWING TITLE
Elevations
Window Schedule

SCALE
1:100
1:50

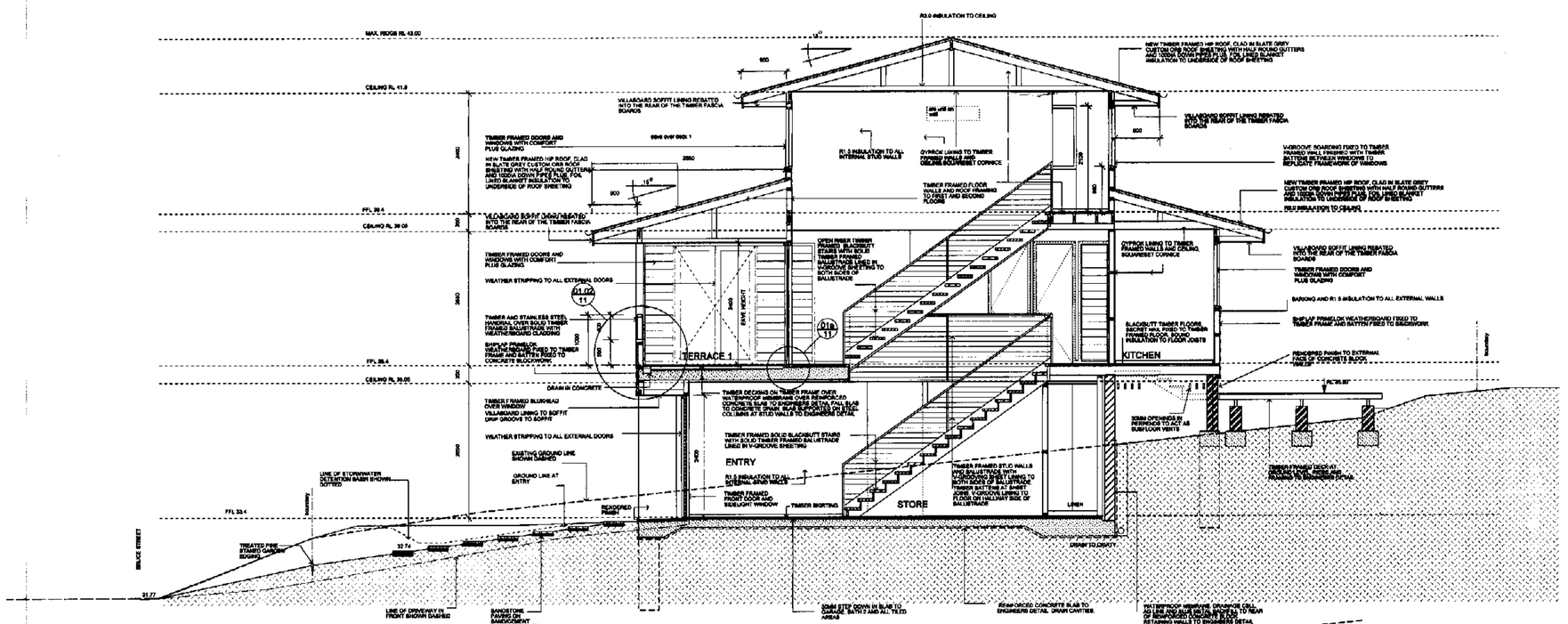
PROJECT NUMBER
325/03

DATE JULY 2004

CC04
DWG NO REVISION NO



SECTION 1-1



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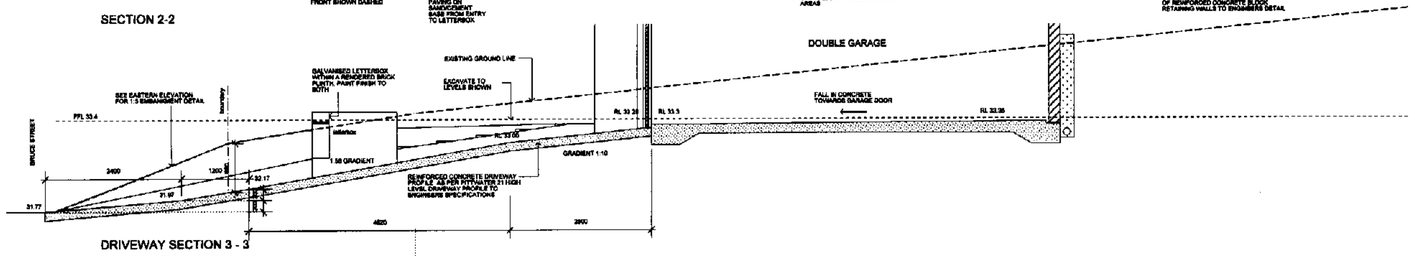

DRIVEWAY SECTION 3 - 3

All Building Construction works to comply with all relevant BCA requirements

Builder to check all dimensions on site prior to fabrication

Larger scale drawings take precedence over smaller scale drawing

architects
ROBERT JONES AND ASSOCIATES PTY LTD
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CLIENT
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MRS R. BURTON

PROJECT
KIBBLE HOUSE
83 NARRABEEN PARK PARADE
MONA VALE

DRAWING TITLE
Section 1-1
Section 2-2
Driveway Section 3-3

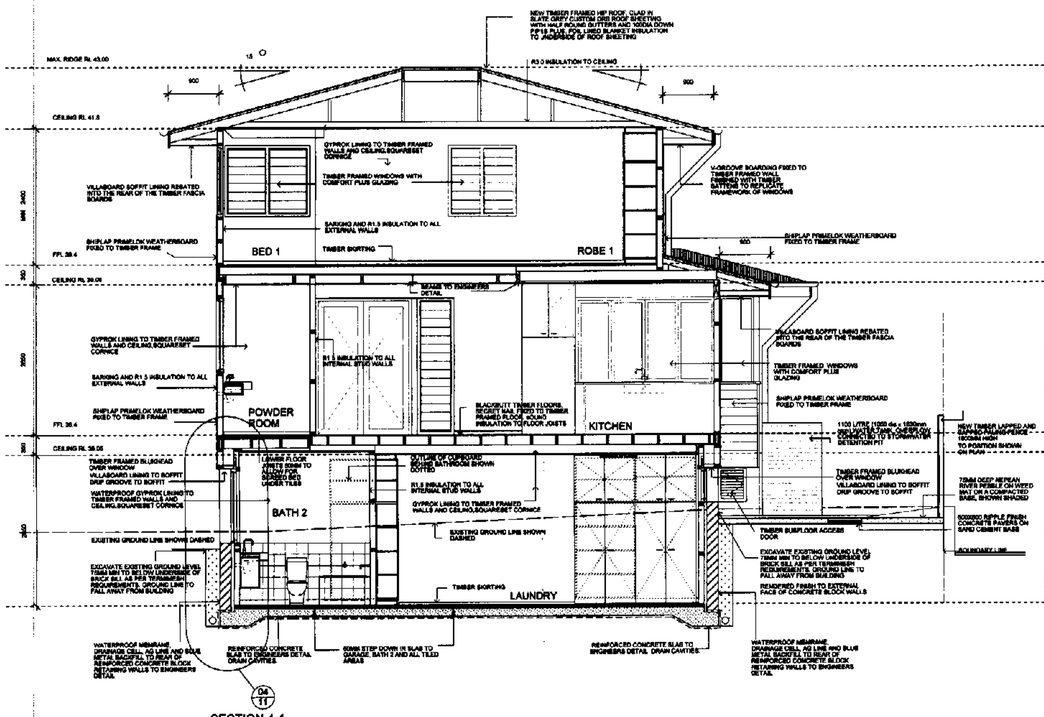
SCALE
1:50

PROJECT NUMBER
328/03

DATE JAN 2005

CC05
DWG NO REVISION NO

DA
0186/05
24 MAR 2005



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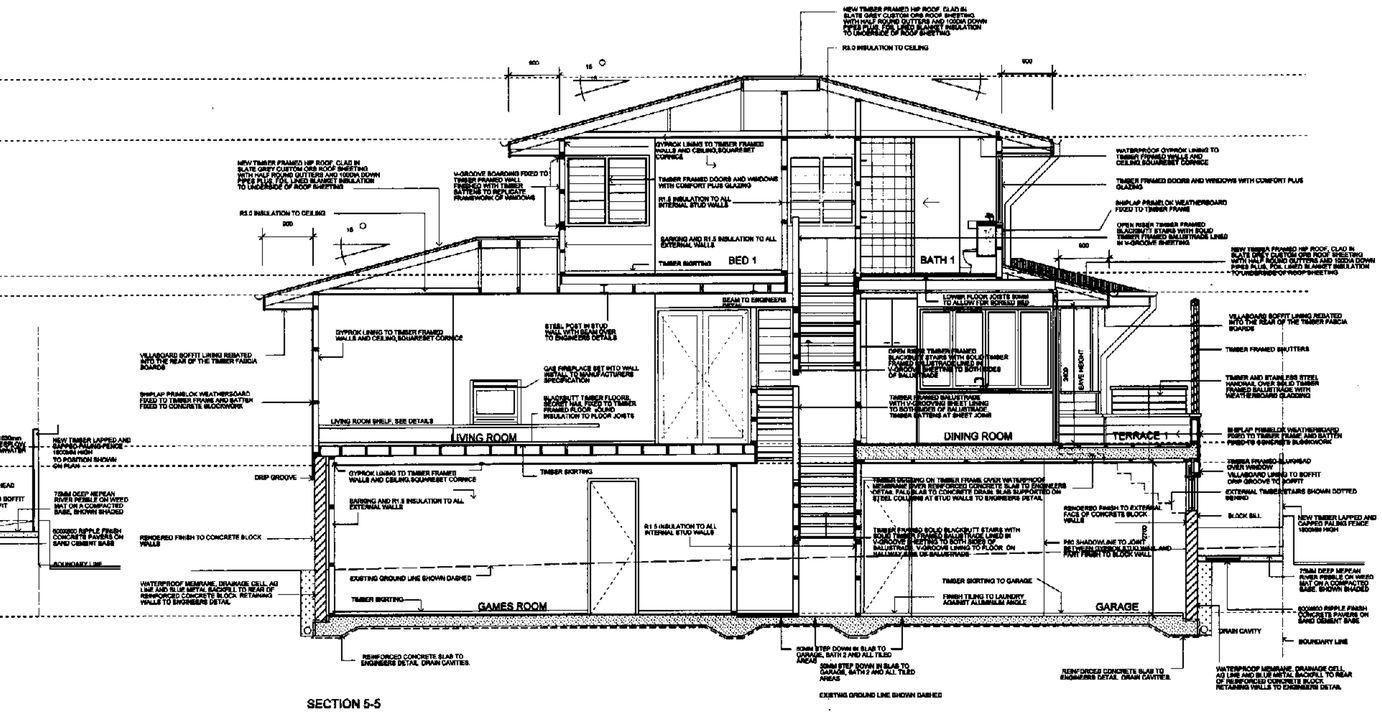

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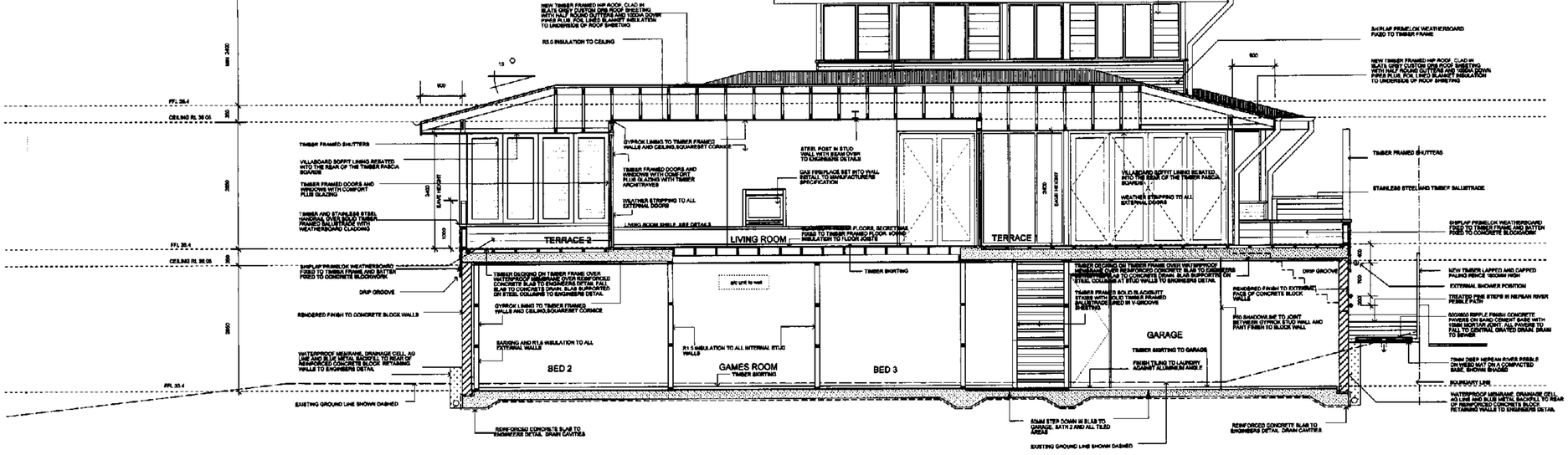

SECTION 6-6

CC 0906/05

24 MAR 2005

All Building Construction works to comply with all relevant BCA requirements

Builder to check all dimensions on site prior to fabrication

Larger scale drawings take precedence over smaller scale drawing

architects
ROBERT JONES AND ASSOCIATES PTY LTD
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E avalonbeach@robertjones.eu

CLIENT
MR A. KIBBLE
MRS R. BURTON

PROJECT
KIBBLE HOUSE
83 NARRABEEN PARK PARADE
MONA VALE

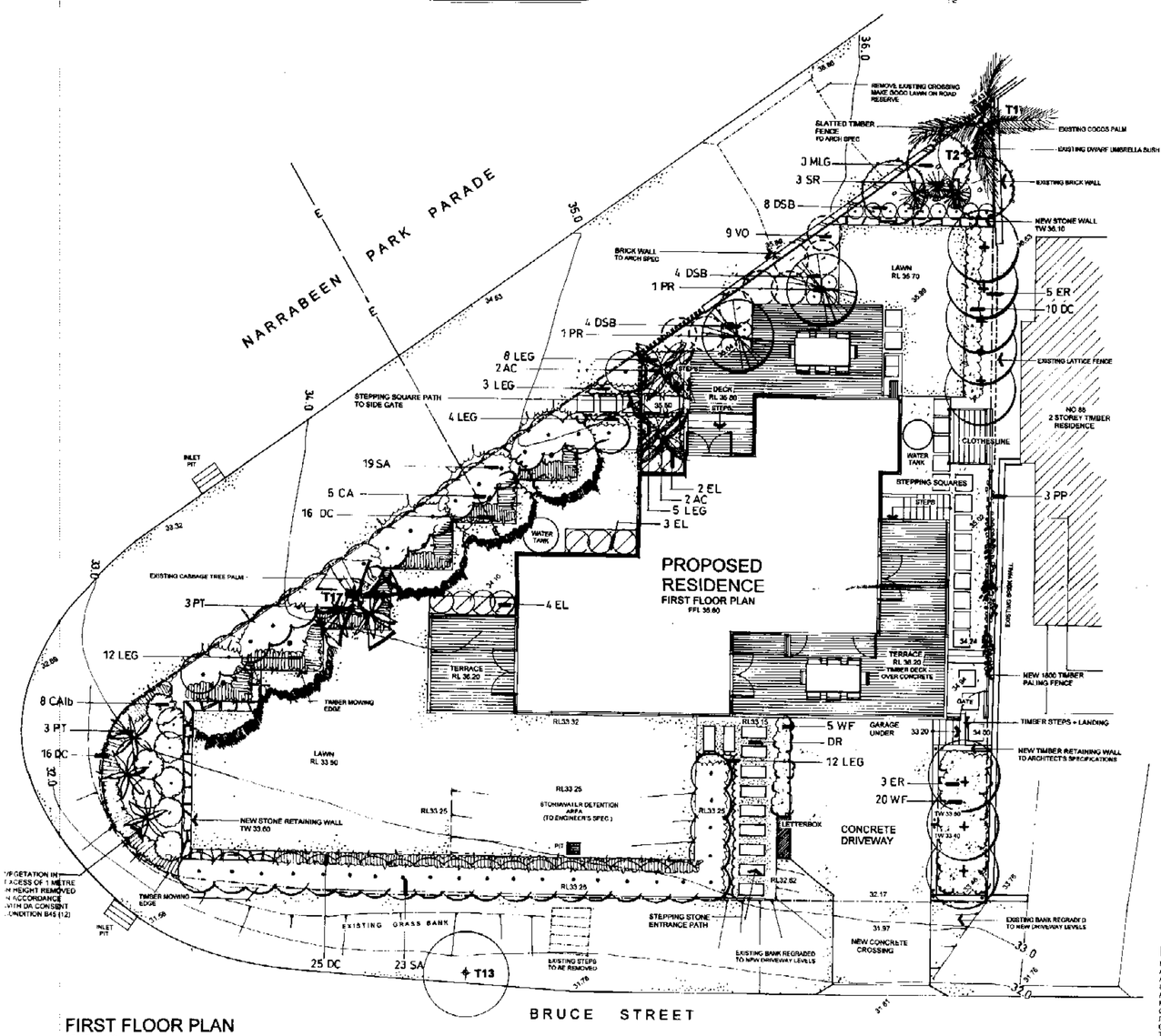
DRAWING TITLE
Section 4-4
Section 5-5
Section 6-6

SCALE
1:50

PROJECT NUMBER
326/03

DATE JAN 2005

CC06
DWG NO REVISION NO



FIRST FLOOR PLAN
SCALE 1:100

PROPOSED PLANTING SCHEDULE

TREES

KEY	BOTANICAL NAME	COMMON NAME	NO	POT SIZE
ER	ELAEOCARPUS RETICULATUS	BLUEBERRY ASH	5	200MM
CA	CUPANIOPSIS ANACARDIOIDES	TUCKEROO	6	25 LITRE
AC	ARCHONTOPHOENIX CUNNINGHAMIANA	BANGALOW PALM	4	TRANSPLANT

SHRUBS

CAlb	CORREA ALBA	WHITE CORREA	8	150MM
EL	EUPOMATIA LAURINA	NATIVE GUAVA	9	150MM
MLG	MAGNOLIA 'LITTLE GEM'	DWARF MAGNOLIA	3	200MM
PR	PLUMERIA RUBRA	FRANGIPANNI	2	ANY
PT	PHORMIUM TENAX	N.Z. FLAX	6	200MM
SR	STRELITZIA REGINAE	BIRD OF PARADISE	3	TRANSPLANT
SA	SYZYGIUM AUSTRALE 'ELITE'	DWARF LILLYPILLY	42	200MM
VO	VIBURNUM ODORATISSIMUM	VIBURNUM	8	200MM
WF	WESTRINGIA FRUTICOSA	COAST ROSEMARY	29	150MM

GROUNDCOVERS, GRASSES, CLIMBERS

DC	DIANELLA CAERULEA	BLUE FLAG LILY	79	150MM
DSB	DIANELLA 'SILVER BORDER'	VARIEGATED FLAG LILY	16	150MM
LEG	LIRIOPE 'EVERGREEN GIANT'	GIANT MONDO GRASS	52	150MM
DR	DICHONDRA REPENS	KIDNEY WEED	AS REQUIRED	
PP	PANDOREA PANDORANA	WONGA WONGA VINE	3	150MM

TOTAL PROPOSED NEW PLANTS	244	
TOTAL PROPOSED LOCAL SPECIES	132	(52%)
MINIMUM % LOCAL SPECIES REQUIRED BY DCP 21	50%	

L E G E N D

- SITE BOUNDARY
- EXISTING TREES TO BE RETAINED (T2)
- EXISTING CONTOURS (35.0)
- EXISTING SPOT LEVELS (36.11)
- PROPOSED FINISHED LEVELS (RL 33.15)
- RANKED LAWN AREAS
- TURF AREAS WITH HARDWOOD EDGE
- GRATED STORMWATER DRAIN
- ELECTRICITY LINE (E)
- CONCRETE DRIVEWAY
- MULCHED WALKWAYS
- TIMBER DECKING
- CONCRETE STEPPING SQUARES
- RECYCLED / NEW STONE STEPPING SQUARES
- TIMBER RETAINING WALL
- BRICK WALLS
- STONE RETAINING WALL
- 1800 HIGH SLATTED TIMBER FENCE

0336/05

2 4 MAR 2005

PLAN CERTIFICATION

I AM A QUALIFIED REGISTERED LANDSCAPE ARCHITECT AND HORTICULTURIST. I AM AN ASSOCIATE MEMBER OF THE AUSTRALIAN INSTITUTE OF LANDSCAPE ARCHITECTS AND A MEMBER OF THE AUSTRALIAN INSTITUTE OF HORTICULTURE. FURTHER, I AM APPROPRIATELY QUALIFIED TO CERTIFY THIS COMPONENT OF THE PROJECT. I HEREBY STATE THAT THESE PLANS OR DETAILS COMPLY WITH THE PROVISIONS OF THE PITTWATER D.C.P. No 21 AND SPECIFICALLY COMPLY WITH THE DA CONSENT CONDITIONS B, 45 (1,2,3,4,5,12) D105

TRISH DOBSON
8.2.05

NOTE
IN ACCORDANCE WITH DA CONSENT CONDITION D105 LANDSCAPING SHALL BE MAINTAINED FOR THE LIFE OF THE DEVELOPMENT

TRISH DOBSON
REGISTERED LANDSCAPE ARCHITECT
30 Binburra Avenue, Avalon NSW 2107
ph/fax 02 9918 3020 mb 0408 993020

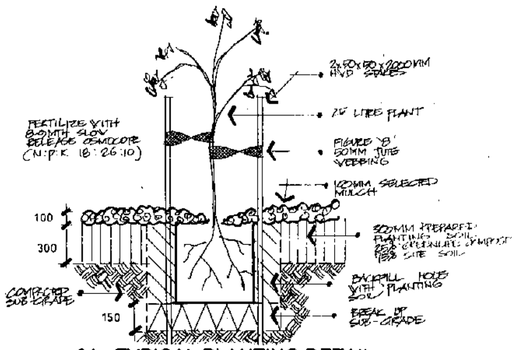
CLIENT
MR A KIBBLE, MRS R BURTON

PROJECT
83 NARRABEEN PARK PARADE
MONA VALE

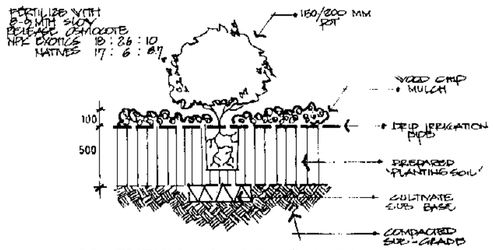
DRAWING
LANDSCAPE PLAN
CONSTRUCTION CERTIFICATE

SCALE	1:100	DATE	8.2.05
JOB	0419		

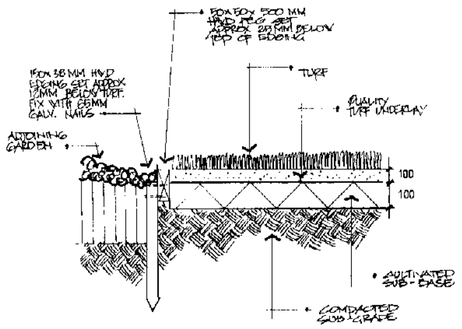
DWG **CC L01**



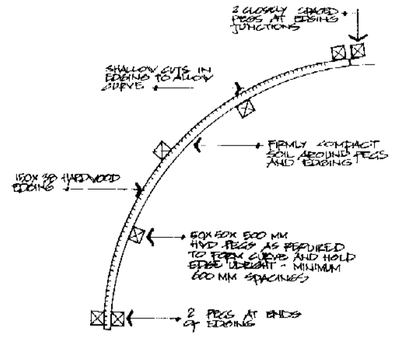
01 TYPICAL PLANTING DETAIL
25 LITRE POT
SCALE 1:20



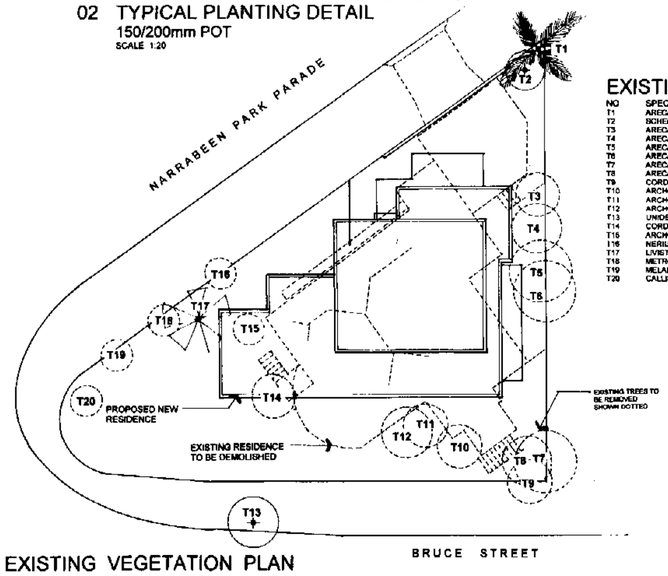
02 TYPICAL PLANTING DETAIL
150/200mm POT
SCALE 1:20



03 TYPICAL SECTION – TURF
SCALE 1:10



04 PLAN HARDWOOD TIMBER EDGE
SCALE 1:10



EXISTING VEGETATION PLAN
SCALE 1:200

EXISTING VEGETATION SCHEDULE

NO	SPECIES	COMMON NAME	TRUNK	HEIGHT	SPREAD	STATUS
T1	ARECASTRUM ROMANZOFFIANUM	COCOS PALM	300MM	3M	4M	RETAIN
T2	SCHEFFLERA ARBORICOLA VAR.	DWARF UMBRELLA	100MM	2M	3M	RETAIN
T3	ARECASTRUM ROMANZOFFIANUM	COCOS PALM	250MM	4M	3M	REMOVE
T4	ARECASTRUM ROMANZOFFIANUM	COCOS PALM	200MM	6M	4M	REMOVE
T5	ARECASTRUM ROMANZOFFIANUM	COCOS PALM	200MM	5M	4M	REMOVE
T6	ARECASTRUM ROMANZOFFIANUM	COCOS PALM	500MM	6M	5M	REMOVE
T7	ARECASTRUM ROMANZOFFIANUM	COCOS PALM	250MM	4M	4M	REMOVE
T8	ARECASTRUM ROMANZOFFIANUM	COCOS PALM	200MM	4M	3M	REMOVE
T9	CORDYLINE SP	CABBAGE TREE	200MM	4M	3M	REMOVE
T10	ARCHONTOPHOENIX CUNNINGHAMIANA	BANGALOW PALM	150MM	4M	2M	TRANSPLANT
T11	ARCHONTOPHOENIX CUNNINGHAMIANA	BANGALOW PALM	150MM	4M	2M	TRANSPLANT
T12	ARCHONTOPHOENIX CUNNINGHAMIANA	BANGALOW PALM	3X100MM	3M	2M	TRANSPLANT
T13	UNIDENTIFIED SHRUB		100MM	3M	4M	RETAIN
T14	CORDYLINE SP	CABBAGE TREE	200MM	5M	2M	REMOVE
T15	ARCHONTOPHOENIX CUNNINGHAMIANA	BANGALOW PALM	100MM	3M	2M	TRANSPLANT
T16	NERIUM OLEANDER	OLEANDER	100MM	2M	2M	REMOVE
T17	LIVISTONA AUSTRALIS	CABBAGE TREE PALM	300MM	3M	2M	RETAIN
T18	METROSIDEROS EXCELSA	N.Z. XMAS BUSH	50MM	2M	2M	REMOVE
T19	MELALEUCA ARMILLARIS	BRACELET MYRTLE	50MM	2M	2M	REMOVE
T20	CALLISTEMON SP	BOTTLEBRUSH	50MM	2M	2M	REMOVE

PLAN CERTIFICATION

I AM A QUALIFIED REGISTERED LANDSCAPE ARCHITECT AND HORTICULTURIST. I AM AN ASSOCIATE MEMBER OF THE AUSTRALIAN INSTITUTE OF LANDSCAPE ARCHITECTS AND A MEMBER OF THE AUSTRALIAN INSTITUTE OF HORTICULTURE. FURTHER, I AM APPROPRIATELY QUALIFIED TO CERTIFY THIS COMPONENT OF THE PROJECT. I HEREBY STATE THAT THESE PLANS OR DETAILS COMPLY WITH THE PROVISIONS OF THE PITTWATER D.C.P. No 21 AND SPECIFICALLY COMPLY WITH THE DA CONSENT CONDITIONS B 4S (1 2 3 4 5 12) D 10S

TRISH DOBSON
6.2.05

SPECIFICATIONS

SUBJECT TO FUTURE DETAILED SPECIFICATIONS, THE INSTALLATION OF THE LANDSCAPE IS GENERALLY TO OBSERVE THE FOLLOWING

LANDSCAPE HARDWORKS
RETAINING WALLS, PAVING, DRAINAGE AND ALL SITE CONSTRUCTION SHALL BE EXECUTED IN ACCORDANCE WITH ARCHITECT'S AND ENGINEER'S SPECIFICATIONS. ALL SITE STORMWATER SHALL BE DIRECTED TO STORMWATER SYSTEM IN ACCORDANCE WITH ENGINEER'S SPECIFICATIONS.

SOIL PREPARATION
PLANTING BEDS SHALL BE PREPARED BY REMOVING ALL VEGETATION INDICATED FOR REMOVAL, ALL BUILDERS RUBBLE AND WEED MATERIAL. SPREAD 100MM LAYER OF AUSTRALIAN NATIVE LANDSCAPE (ANL) GREENLIFE COMPOST OVER SITE SOIL AND CULTIVATE TO DEPTH OF 300MM. IMPORTED GARDEN SOIL WHERE REQUIRED SHALL BE A.N.L. 'NATIVE MIX' LOW PHOSPORUS
WHERE TREE HOLES ARE INTO CLAY BASE, GYPSUM SHALL BE ADDED AT THE RATE OF 200G PER SQ METRE AND CULTIVATED INTO HOLES. ADDITIONAL SUBSOIL DRAINAGE SHALL BE ADDED WHERE SITE DRAINAGE IS POOR

PLANTING
ALL PLANTS SHALL BE WELL GROWN & DISEASE FREE. PLANTING SHALL BE IN ACCORDANCE WITH PLANTING SCHEDULE. ONLY SUBSTITUTIONS APPROVED BY LANDSCAPE ARCHITECT SHALL BE PERMITTED. ON INSTALLATION, PLANT MATERIAL SHALL BE FERTILIZED USING AGRIFORM SLOW RELEASE TABLETS N:P:K 20:4.3:4.1
ALL GARDEN AREAS SHALL BE MULCHED WITH 75MM WOOD CHIP MULCH UPON COMPLETION OF PLANTING WORKS. ALL MULCH SHALL BE FREE OF VEGETATIVE REPRODUCTIVE PLANT MATERIAL.

LAWN
LAWN AREAS SHALL BE PREPARED WITH 100MM BASE OF COMMERCIAL QUALITY TURF UNDERLAY. TURF SHALL BE 'SIR WALTER' BUFFALO.

EDGING
CCA TREATED PINE TIMBER EDGES SHALL BE INSTALLED TO DEFINE JUNCTIONS BETWEEN PLANTING AND TURF AREAS.

STEPPING SQUARES
STEPPING SQUARES WHERE SHOWN SHALL BE 600X600 CONCRETE PAVERS AND RECYCLED/NEW SANDSTONE SQUARES TO ARCHITECT'S SPECIFICATIONS.

FENCING
NEW SIDE BOUNDARY FENCING WHERE INDICATED SHALL BE 1800MM HIGH LAPPED + CAPPED TREATED PINE. SECTIONS OF FRONT + SIDE STREET BOUNDARIES SHALL BE UNFENCED OR FENCED WITH BRICK AND SLATTED TIMBER TO ARCHITECT'S SPEC.

DECKING
DECKING SHALL BE TO ARCHITECT'S SPECIFICATIONS.

IRRIGATION
GARDEN BEDS SHALL BE IRRIGATED WITH DRIP IRRIGATION SYSTEM TO FUTURE SPECIFICATIONS.

2 4 MAR 2005

TRISH DOBSON
REGISTERED LANDSCAPE ARCHITECT
30 Stirburra Avenue, Avalon NSW 2107
phone 02 9918 3020 mb 0408 883626

CLIENT
MR A KIBBLE, MRS R BURTON

PROJECT
83 NARRABEEN PARK PARADE
MONA VALE

DRAWING
EXISTING VEGETATION + LANDSCAPE DETAILS
CONSTRUCTION CERTIFICATE

SCALE	SHOWN	DATE	6.2.05
JOB	0419		

DWG CC **L02**

Unit 9/5 Vuko Place
Warriewood NSW 2102
PO Box 882
Mona Vale NSW 1660
Tel: (612) 9970 1111
Fax: (612) 9970 7150

NOTIFICATION OF COMMENCEMENT & PRINCIPAL CERTIFYING AUTHORITY SERVICE AGREEMENT

under Environmental Planning and Assessment Act 1979 sections 81A (2) (b) (ii) or (c), or (4) (b) (ii) or (c), 86 (1) and (2)

About this form

- Use this form to appoint Pittwater Council as the Principal Certifying Authority (PCA) to carry out nominated inspections of the building / subdivision works and to issue the required Occupation Certificate
- This form must be submitted to Pittwater Council a minimum of two (2) days prior to the commencement of works.

Who can complete this form?

- The owner of the property or the person having the benefit of the development consent.
  ***Note**: The builder or other contractor cannot complete this form unless they are also the owner of the property.*

Applicant's Checklist

- Read this document ❑
- Complete pages 1, 2 & 3 ❑
- Sign on page 8 ❑
- Attach a copy of Owner Builder Permit or Home Owner Warranty Insurance Certificate. ❑

Payment of fees

- At the time of submitting this form to Pittwater Council a fee is to be paid in accordance with the following fee structure, current to 30 June 2005.

	Total Fee (including GST)	
Value of Development	**Domestic (class 1 & 10) (Code: HIND)**	**Commercial (Code: HIND)**
$0 - $5,000	$88.00	$155.00
$5,001 - $100,00	$225.00	$294.00
$100,001 - $250,000	$370.00	$412.00
$250,001 and over	$464.00	
$250,001 - $500,000		$566.00
$500,001 - $1,000,000		$721.00
$1,000,001 and over		Fee on application

- Critical Stage Inspection fees (refer to Part 6e of this form) maybe paid at the time of booking the inspection or a delayed payment until the request for either an Interim or Final Occupation Certificate.

OFFICE USE ONLY

Date of receipt:	Receipt No:	Amount Paid:	Accepted by:

1. DEVELOPMENT INFORMATION

1a) DEVELOPMENT CONSENT

Development Application No:	Determination Date:

1b) CONSTRUCTION CERTIFICATE

Construction Certificate No:	Date of Issue:

1c) DEVELOPMENT DETAILS

Type of Work:	Brief description of development:
☐ New Building ☐ Additions / Alterations ☐ Subdivision	

1d) SITE DETAILS

Unit/Suite:	Street No:	Street:		
Suburb:			Lot No:	Deposit /Strata Plan:

1e) VALUE OF PROPOSED DEVELOPMENT

Estimated value of proposed works: $ .....

1f) DATE WORK IS TO COMMENCE

Minimum notice of two (2) days is required to be given prior to commencement of works.

Date of commencement: .....

2. APPLICANT DETAILS

***Note**: The builder or other contractor cannot complete this form unless they are also the owner of the property.*

Name (owner):	
Postal Address:	Phone (H/B): ..... Mobile: ..... Email: ..... Fax: .....

3. PRINCIPAL CERTIFYING AUTHORITY

PITTWATER COUNCIL

PO Box 882
Mona Vale NSW 1660

Ph: 9970 1111
Fax: 9970 7150

4. COMPLIANCE WITH DEVELOPMENT CONSENT

Have all conditions to be addressed prior to the commencement of works been satisfied?

❑ YES ❑ NO (see Note below)

Note: If NO work must not commence.

Please be aware that failure to address these conditions may leave you liable and in Breach of the Environmental Planning and Assessment Act 1979 (as amended). Penalties may include an on-the-spot fine and/or legal action.

If you are uncertain as to these requirements please contact Council's Development Compliance Group.

5. WHO WILL BE DOING THE BUILDING WORKS?

❑ Owner Builder
Owner Builders Permit No:.....

Copy of Owner Builders permit attached: ❑ YES

If you are an Owner-Builder for the residential building work exceeding $5000 you must apply for a permit at NSW Office of Fair Trading, 1 Fitzwilliam Street, Parramatta NSW 2150 Australia. Tel: 61 2 98950111 Fax: 61 2 9895 0222.

OR

❑ Licensed Builder
Builder's License Number .....

Name of Builder:.....	Phone:.....
Contact person:	Mobile: .....
Address:	Fax: .....
.....	.....

Insurance Company:
.....

Insurance Certificate attached:
❑ Yes
❑ No – statement attached & signed by each owner of the property that the reasonable market cost of the labour & materials to be used is less than $12,000.

If you are using a licensed builder for residential building work exceeding $12,000 you must obtain Home Building Act Insurance. A certificate of insurance must be provided with this application.

6. RESPONSIBILITIES OF THE PRINCIPAL CERTIFYING AUTHORITY (PCA)

6a) Quality of Service:
Pittwater Council will carry out PCA and inspection services in a professional manner and in accordance with the requirements of the Environmental Planning & Assessment Act 1979 and Council's Code of Conduct.

6b) Site Signage:
Pittwater Council will erect a sign on the site to advise the general public of the contact details of the PCA. The sign will be erected during the Commencement Inspection, on Council's acceptance of appointment as PCA.

6c) Inspections:
Pittwater Council officers will undertake the Critical Stage Inspections of the work during construction and prior to issuing an Occupation Certificate to ascertain compliance of specified stages of construction with the Development Consent, Construction Certificate, Building Code of Australia & relevant standards of construction. On appointment as the PCA, Pittwater Council will notify the applicant in writing of the Critical Stage & other Inspections.

6d) Critical Stage and other inspections:
The following stages of construction are required to be inspected by Council (as indicated by a ✓ in the relevant box).

Note:Council's Development Compliance Officer will complete this section of the form.

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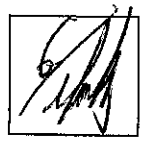
- ☑ Footing Inspection (prior to placement of concrete)
- ☑ Slab and other Steel Inspection (prior to placement of concrete)
- ☑ Frame Inspection (prior to fixing floor, wall & ceiling linings)
- ☑ Wet Area Waterproofing Inspection (prior to covering)
- ☑ Stormwater Inspection (prior to backfilling of trenches)
- ☐ Swimming Pool Safety Fence Inspection (prior to placement of water)
- ☑ Final Inspection (all works completed and prior to occupation of the building)



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***Note**: Should the building works be completed in parts & not all aspects of a Critical Stage Inspection be ready, additional inspections maybe required – with a further inspection fee payable.*

Eg: If two slabs are prepared at separate times, two separate inspection bookings and fees are required.

6e) Critical Stage and other inspection fees:
An inspection fee is required for each inspection identified in Part 6d of this form.
A separate inspection fee is required for each Critical Stage Inspection. Should works be either incomplete or incorrect at the time of inspection a further separate reinspection fee will be required.

Each inspection fee may be paid at the time of requesting an inspection or delayed for payment with the request for either an Interim or Final Occupation Certificate.

Critical Stage or other Inspection Fee Scale current to 30 June 2005 *(Code: HINR)*

Value of Development	Fee per Inspection
$0 - $150,000	$122
$150,001 and over	$225

Final inspection Fee Scale current to 30 June 2005 *(Code:FOCC)*

Type of Development	Interim Occupation Certificate	Final Occupation Certificate
Domestic (Class 1 and 10 buildings)	$258	$258
Commercial (Class 2 – 9 buildings)	$310	$310

Please note that a failure to give correct notification of required inspections may result in the issuing of a Penalty Infringement Notice (PIN or on-the-spot fine) and/or a Notice and Order by Council and may result in refusal to issue an Occupation Certificate.

6f) Inspection Results:
Pittwater Council will provide written confirmation to the applicant of the inspection results and indicate if satisfactory or if additional works are required prior to reinspection.

7. RESPONSIBILITIES OF THE APPLICANT

7a) Inspections:
A minimum of forty-eight (48) hours notice (excluding weekends and public holidays) must be given to Council to enable the specified stages of construction to be inspected as identified in Item 6 of this agreement.

Should an inspection be missed, the applicant must advise Council in writing (as soon as practicable after the event) of that fact, the circumstances causing the inspection to be missed and supporting documentation for Council's consideration. In such cases, the inspection fee, which would normally have been required, must still be paid.

The applicant must ensure that the Principal Contractor (Builder/Owner Builder) is advised of the required inspections and that the directions of Council's Development Compliance Officers are to be observed to ensure compliance with the Development Consent, Construction Certificate, Building Code of Australia and the terms of this agreement.

7b) Booking of Inspections:
The applicant shall request an inspection via Pittwater Council's Inspection Booking Hotline on 9970 1300. A minimum of forty-eight (48) hours notice must be provided to Council to arrange for completion of the inspection.

At the time of requesting the inspection, Pittwater Council will confirm an inspection time and day, name of inspecting officer and mobile contact number.

Building works must **not** proceed to the subsequent stages of construction prior to obtaining a satisfactory inspection from Council for each stage of construction specified in Item 6d of this agreement.

7c) Site Signage:
The applicant is responsible to maintain the PCA signage provided by Pittwater Council at the site until the work is completed.

The applicant is responsible to ensure that the Owner Builder or Principal Contractor (Builder) provide a rigid durable sign at the site, visible from the public place and maintained at the site until the work is completed. Such a sign shall display: (a) the name, address and telephone number of the person; (b) an after-hours emergency telephone number for the person and (c) stating "Unauthorised Entry to the Site is Prohibited".

7d) Compliance with the Development Consent and Construction Certificate:
All works must be carried out in accordance with the terms and conditions of Council's Development Consent and the Construction Certificate and relevant provisions of the Building Code of Australia and Environmental Planning and Assessment Act 1979.

Development Consent and a Construction Certificate must be obtained for any amendments or variations to the development, prior to the commencement of the amendment or variation.

Works not in accordance with the approval and Building Code of Australia may result in the refusal to issue an Occupation Certificate. Council may also serve a Notice and Order to comply with the approval and/or the institution of legal proceedings.

7e) Structural Engineering and Other Specialist Details:
The following details are to be forwarded to the PCA prior to commencement of the relevant stage of construction (as identified by a ✓). The details are to be prepared by a suitably qualified person to confirm compliance with the relevant provisions of the BCA and Australian Standards:

Note: Council's Development Compliance Officer will complete this section of the form.

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- ☐ Timber framing details including bracing and tie-downs
- ☐ Roof construction or roof truss details
- ☐ Termite control measures
- ☐ Glazing details
- ☐ Mechanical ventilation details
- ☐ Wet area construction details
- ☐ Details of fire resisting construction
- ☐ Details of essential fire and other safety measures
- ☐ Sound transmission and insulation details
- ☑ Details of compliance with development consent conditions

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7f) Certification of Works:

To ensure compliance with the Construction Certificate and Building Code of Australia (BCA), the applicant is to provide certification, verifying that the following specialist matters (identified by a ✓) have been carried out.

Each certification must:

- reference the approved Construction Certificate number, property address, relevant provisions of the BCA, Australian Standards and approved drawings.
- be prepared by an accredited certifier or other suitably qualified & experienced person to the satisfaction of Pittwater Council.

Note: Council's Development Compliance Officer will complete this section of the form.

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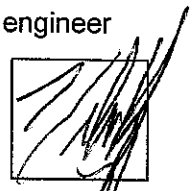
- ☑ Survey detailing building setbacks, reduced levels of floors & ridge by a registered surveyor
- ☐ Shoring and support for adjoining premises and structures by a structural engineer
- ☐ Contiguous piers or piling by a structural engineer
- ☐ Underpinning works by a structural engineer
- ☐ Structural engineering works by a structural engineer
- ☑ Retaining walls by a structural engineer
- ☐ Stormwater drainage works by a hydraulic engineer and surveyor
- ☑ Landscaping works by the landscaper
- ☐ Condition of trees by an Arborist
- ☐ Mechanical ventilation by a mechanical engineer
- ☐ Termite control and protection by a licensed pest controller
- ☑ Waterproofing of wet areas by a licensed waterproofer or licensed builder
- ☐ Installation of glazing by a licensed builder
- ☐ Installation of smoke alarm systems by a licensed electrician
- ☐ Completion of construction requirements in a bush fire prone area by a competent person
- ☐ Completion of requirements listed in the BASIX Certificate by a competent person
- ☐ Fire resisting construction systems by a competent person
- ☐ Smoke hazard management systems by a competent person
- ☐ Essential fire safety and other safety measures by a competent person (Form 15a)
- ☐ Completion of Bushland Management requirements by a suitably qualified person.
- ☐ Installation of Waste Water Management System by a suitably qualified person
- ☐ Installation of the inclined lift by a suitably qualified person
- ☐ Installation of sound attenuation measures by an acoustic engineer



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7g) Occupation Certificate:

A *Final* Occupation Certificate must be obtained from the PCA prior to the occupation or use of a new building (or part of a building) or prior to the change of an existing building use/classification. An inspection fee is to be paid to the PCA in accordance with the fee scale in Part 6e of this agreement.

An application may be made to the PCA for an *Interim* Occupation Certificate, which will be considered in accordance with the provisions of the Environmental Planning and Assessment Act 1979 and conditions of development consent.

Only the Principal Certifying Authority can issue an Occupation Certificate and the Environmental Planning and Assessment Act 1979 contains penalty provisions for failing to obtain a required Occupation Certificate.

An application for an *Interim* or *Final* Occupation Certificate must be accompanied by a final or interim *fire safety certificates* as required by the EP&A Regulations, Clauses 80E or 80F for buildings other than Class 1 and 10.

7h) Miscellaneous requirements:

The applicant is required to ensure that valid public liability insurance cover to the value of $10,000,000 (minimum) is held by the applicant and/or builder.

The applicant is required to notify Council, in writing, of any change in the details or address of the applicant or head contractor.

Pittwater Council may cancel the agreement if there is a breach of the agreement.

8. YOUR SIGNATURE

I accept the terms and conditions of this service agreement, including the associated payment of fees and appoint Pittwater Council as the Principal Certifying Authority for the subject development.

Signature:..... Date: .....

9. COUNCIL'S AGREEMENT TO APPOINTMENT

The relevant details in Parts 6d, 7e & 7f of this agreement have been completed and I acknowledge the appointment of Pittwater Council as the Principal Certifying Authority.

Officer's name: ..... on behalf of Pittwater Council

Officer's signature: ..... Date: .....

PRIVACY AND PERSONAL INFORMATION PROTECTION NOTICE

Purpose of collection:	To enable Council to act as the Principal Certifying Authority for the development.
Intended recipients:	Pittwater Council staff
Supply:	The information is required by legislation
Consequence of Non-provision:	Your application may not be accepted, not processed or rejected for lack of information
Storage:	Pittwater Council will store details of this form in a register that can be viewed by the public.
Retention period:	Hard copies will be destroyed after 7 years and electronic records will be kept indefinitely.
	Please contact Council if this information you have provided is incorrect or changes.