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- Principle Certifying Authority
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SYDNEY BUILDING APPROVALS CENTRE PTY LTD

ABN 96 081 945 904

Unit 18 Christies Homemaker Centre

173-185 Canterbury Road, Bankstown NSW 2200

Phone: 9790 4741

Fax: 9796 4792

DX 11215 BANKSTOWN www.sbac.com.au

RESIDENTIAL • INDUSTRIAL • COMMERCIAL

CONSTRUCTION CERTIFICATE No.CC593/03

Environmental Planning and Assessment Act 1979 (as amended)

Date of determination:

10 November 2003

Attachments:

Development address:

Lot 31, DP 314402, 15 Boronia Rd
INGLESIDE NSW

Applicant:

Huxley Building Pty.Ltd.
DX 8281, PARRAMATTA

**Plans and specifications
approved**

Plans, drawings & Specifications
Two storey dwelling Class 1a

Certificate

I certify that the work if completed in accordance with these plans and specifications will comply with the requirements of s 81 A(5) of the *Environmental Planning and Assessment Act 1979*

Signature:



Date of endorsement:

10 November 2003

Certificate no:

CC593/03

Certifying Authority

Name of certifying authority:

Peter Ruck

Accreditation no.:B.S.A.P.

2603

Development consent

Number and date of

806/02

Determination:

11 July 2003

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RESIDENTIAL • INDUSTRIAL • COMMERCIAL

Date: 10 November 2003

Pittwater Council
DX 9018, MONA VALE

PREMISES: Lot 31, DP 314402, 15 Boronia Rd Ingleside
CONSTRUCTION CERTIFICATE: CC593/03

Dear Sir/Madam,

Please find enclosed a Construction Certificate, Notification of work to commence (Form 7), Plans, Engineers details & specification for the above premises.

Should you require any further assistance to the matter please do not hesitate to contact Sydney Building Approvals Centre on Tel: 9790 4741.

Yours Faithfully



Peter Ruck
Building Surveyor

SYDNEY BUILDING APPROVALS CENTRE

- * PRINCIPLE CERTIFYING AUTHORITY
- * BUILDING REGULATION CONSULTATION
- * NATHERS CERTIFICATION
- * FIRE ENGINEERED SOLUTIONS
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- * BUILDING APPROVALS
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SYDNEY BUILDING
APPROVALS CENTRE P
ACN 081 945 904
Unit 2, 107 Taylor Street
CONDELL PARK, 2200

DX 11215 BANKSTO

TEL: 9790 4741
FAX: 9796 4792

* Residential * Industrial * Commercial

CONSTRUCTION CERTIFICATE

(Environmental Planning & Assessment Act 1979 Section 109(1)(b)(ii), 81A (2) & 81A(4))

SUBJECT LAND

Address: No. 15 Lot 2 Section _____ DP/SP 314402
Street BARONIA ROAD
Suburb INGLESIDE

DESCRIPTION OF DEVELOPMENT

Construct two-storey brick veneer
& tile dwelling

VALUE OF WORK \$ 215,417

TYPE OF WORK

☐ Subdivision ☒ Building

DEVELOPMENT CONSENT

Development Application No. No 806/02

Date of determination: 10/6/03

BUILDING CODE OF AUSTRALIA BUILDING CLASSIFICATION

Nominated on the development: Class 1A

Consent: _____

REQUIRED ATTACHMENTS

☐ Yes

☐ No

☐ NA

SCHEDULE (for building work only)

To be attached ☐ Yes

☐ No

CONSENT OF OWNER

As the owner/s of the above property, I/we consent to this application
(if applicable, company seal is required)

Name: _____

Address: CT Locked Bag 5270
Parramatta 2124

Contact No.: Home _____ Work 9842 9888

Mobile _____ Fax _____

Signature: REFER AUTHORITY ATTACHED

APPLICANT

Name: HUXLEY BUILDING PTY. LIMITED ABN 50 081 917 731

Address: DX 8281 PARRAMATTA

Contact No.: Home _____ Work 9842 9888

Mobile _____ Fax 9842 9890

Signature: per J Nesbitt 30/9/03

For and on behalf of Huxley Building Pty. Ltd.

SCHEDULE

This schedule is required to be completed (for building work only) for the purposes of providing information to the Australian Bureau of Statistics

What is the area of the land (m²) 8618 m²

Gross floor area of the existing building (m²) NIL

What are the current uses of all or parts of the building(s)/land? (If vacant, state vacant)

VACANT LAND.

Does this site contain a dual occupancy? ☐ YES ☒ NO

What is the gross floor area of the proposed addition or new building (m²) 330.96 m²

What are the proposed uses of all parts of the building(s)/land?

Private Residential

Number of pre-existing dwellings NIL

Number of dwellings to be demolished NIL

How many dwellings are proposed ONE

How many storeys will the building consist of? Two

Please tick the box which best describes the materials the new work will be constructed of:

Walls:

- ☒ brick veneer (12)
- ☐ full brick (11)
- ☐ single brick
- ☐ concrete block (11)
- ☐ concrete/masonry (20)
- ☐ concrete (20)
- ☐ steel (60)
- ☐ fibrous cement (30)
- ☐ hardiplank (30)
- ☐ timber/weatherboard (40)
- ☐ cladding-aluminium (70)
- ☐ curtain glass (50)
- ☐ other (80)
- ☐ unknown (90)

Roof:

- ☐ aluminium (70)
- ☐ concrete (20)
- ☒ concrete tile (10)
- ☐ fibrous cement (30)
- ☐ fibreglass (80)
- ☐ masonry/terracotta shingle tiles (10)
- ☐ tiles (10)
- ☐ slate (20)
- ☐ steel (60)
- ☐ terracotta tile (10)
- ☐ other (80)
- ☐ unknown (90)

Floor:

- ☒ concrete (20)
- ☐ timber (10)
- ☐ other (80)
- ☐ unknown (90)

Frame:

- ☒ timber (40)
- ☐ steel (60)
- ☐ other (80)
- ☐ unknown (90)

Residential Construction Warranty

Certificate of Insurance

Huxley Building Pty Ltd
10 Phillip Street
PARRAMATTA NEW SOUTH WALES 2150

Royal & Sun Alliance
Insurance Australia Ltd
ABN 48 005 297 807

Form 1
Section 92
Home Building Act 1989

CERTIFICATE IN RESPECT OF INSURANCE

Builder's Copy
Issue Date: 19/09/2003
Certificate No.: RCW71037874

Contract Of Insurance Complies With: Section 92

Of The: Home Building Act 1989

Type Of Insurance: As per the Home Building Act 1989, Insurance is
issued in the name of the Building Owner as
insured

Issued By: Royal & Sun Alliance Insurance Australia Ltd
ABN 48 005 297 807

Building Contract Details

Contract Date: September 9, 2003

Declared Building Contract Value: \$215,417

(Refer policy for Indemnity limit)

Carried Out By: Huxley Building Pty Ltd
ABN: 50081917731

License No.: 92052C

For: Robert Richer and Janet Gobsill

In Respect Of: Single Dwelling
At:

House No: 15 Boronia Road

INGLESIDE NEW SOUTH WALES 2101

Permit Authority: Pittwater Council

Subject to the Act, the Home Building Regulation 1987, and the conditions of the insurance contract, cover will be provided to a beneficiary described in the contract and successors in the title to the beneficiary. Please note when the Insurer has issued this Certificate of Insurance, the Insurer is not entitled to refuse to pay a claim, or to cancel the insurance contract, on the grounds that the premium was not paid. This policy is to be read in conjunction with the policy wordings, if you have not received a copy of the policy wording please contact the Insurer Royal & SunAlliance.

INVOICE

Total Premium: \$2,380.00

Total Includes Policy Fees, Stamp Duty and GST.

Signed for and on behalf of the insurer:

Insurer: Royal & SunAlliance Insurance Australia Limited ABN 48 005 297 807

ROYAL &  SUNALLIANCE
CONSTRUCTION & ENGINEERING

Pittwater Council

ABN: 61340837871

TAX INVOICE
OFFICIAL RECEIPT

12/11/2003 Receipt No 128969

To SYDNEY BUILDING APPROVALS
CENTRE PTY LTD

DX 11215
BANKSTOWN

Qty/ Applic	Reference	Amount
1	RMIC-Rcld	\$27.27
GL Rec 1 X	CC593/03	
	GST	\$2.73
GL Rec		
To GL Receipt:		

Total Amount:	\$30.00
Includes GST of:	\$2.73

Amounts Tendered

Cheque	\$30.00
Total	\$30.00
Rounding	\$0.00
Change	\$0.00
Nett	\$30.00

Printed 12/11/2003 11:20:39 AM
Cashier BKilroy

LOT 31 & PART LOT 30
SECTION A
DP 11786
8618m2

OUTER FIRE PROTECTION
ZONE 35m

GAE 146.625 7.5%

15.000

DRIVEWAY GRADE
SCALE 1:200

OPEN SWHALE AND DRAIN TO RETURN
WATER FLOWS TO NATURAL COURSE
(WORK BY OWNER)

INNER FIRE PROTECTION
ZONE 25m

LEGEND

- SEWAGE BUND MOUND 0.5m HIGH
- SILT FENCE
- PROTECTION FENCING
- LOT 1
DP 314402

- BUSH/VEGETATION TO BE RETAINED (EP2)
- ENERGY DISSIPATOR (CLOSELY PLACED
SANDSTONE 400mm X 400mm) TO DISSIPATE
FLOWS
- SANDSTONE OUTCROPS TO BE RETAINED
- TRANSPIRATION ZONE

To be brush cut
to 200mm

MANAGED
BUSH

LOT 32
DP 11786

PROPOSED
RESIDENCE

FFL 146.700
FGL 146.500

4.200 DIA. PROPOSED
WATER TANKS 1500 DE
BODY

6.294

4.200 DIA. PROPOSED
WATER TANKS

WC

7.000

5.007

147

148

149

150

151

152

153

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164

RELOCATED
SHED REFERRED
DA
N0879/02
COLOUR - MIST GREEN.

PROPOSED POSITION
OF ENVIRON CYCLE
TREATMENT SYSTEM
(WORK BY OWNER)

1.2m MOUND TO COLLECT
OVER LAND WATER FLOW
(WORK BY OWNER)

- WORK BY OWNER
- CLEARING OF TREES, ROOTS, SHRUBS
- RETAINING WALLS
- SEPTIC CONNECTION FROM 1.0m BEYOND
HOUSE TO ENVIROCYCLE SYSTEM
- ENVIROCYCLE SYSTEM
- STORMWATER (90mm) CONNECTION
FROM DOWNPIPES TO HOUSE TO PITS AND
TANK BY OWNER
- DISPOSAL OF SURFACE WATER

31-07-03

BORONIA ROAD

31-07-03

Ecological Consultant

Bush Fire Consultant, Refer Appendix 1 for credentials

BUSHLAND MANAGEMENT PLAN

15 Boronia Road, Ingleside NSW



Plate 1. View of site from Boronia Road October 2002



August 2003—Dragonfly Environmental
Environmental Consultants
ph/fax. (02) 9918 4486



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Limitations Statement

The purpose of this report is to compile a Bushland Management Plan for 15 Boronia Road, Ingleside in accordance with the requirements of Pittwater Council DCP 25. The scope of services were as per DCP 25 and by the time and budgetary constraints imposed by the Client.

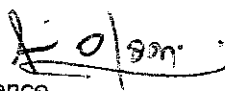
Statement of Authorship

This report: **Bushland Management Plan—15 Boronia Road, Ingleside** and the study described herein were undertaken by contract by Dragonfly Environmental. The principle author of the report is André Olson whose qualifications are BSc. The author was involved in the Flora/Fauna impact assessment study undertaken in 1998 and visited the site again in October 2002 and July 2003.

Information presented in this report is based on an objective study based to site visits, previous work in the Ingleside area, associated reports by other consultants (Flora and Fauna Impact Study and On-site Waste-water Report). Opinions expressed in this report are the professional, objective opinions of the author and are not specifically intended to advocate any particular proposal or pre-determined position.

Signature of Principle Author

André Olson (BSc) Aquatic Science



Purpose of the document

This Bushland Management Plan is to aid the owners of 15 Boronia Road, Ingleside manage their property and immediate surrounds in a way that maximises the long-term ecological viability of the site and surrounds.

The plan is required because the property and surrounds are

- (i) known habitat for Red-crowned Toadlets
- (ii) mostly pristine heath and open woodland communities
- (iii) habitat for threatened plant and animals species
- (iv) part of an identified wildlife corridor with the classification MH (Major Habitat Area)
- (v) classified as Core bushland in the Draft DCP for Biodiversity (Pittwater Council 1998);

Defined as the Blue Hatch Area—this heathland is known for its conservation significance.

The site has been identified as Class D fauna habitat (Pittwater Council).

Class D has the following description:

Areas which are significant in terms of fauna habitat but can accept low density, strategically located residential development subject to a detailed fauna study which indicates that such development, with a high level of ameliorative measures designed to retain or improve habitat, can be applied to ensure the continued viability of fauna populations, and should be preserved."

1 CURRENT STATE OF THE SITE

1.1 Location

The site is 15 Boronia Road, Ingleside, in the Pittwater LGA (hereafter referred to as 'the site'). See Flora Fauna report for location description including reference to neighboring reserves. Surrounding area is Bushland as defined in SEPP 19—Bushland in Urban Areas.

1.2 Site Description

Close to the ridge-top the site is underlain by Hawkesbury sandstone. Soils are sandy and shallow. Currently the site is Bushland, the rear $\frac{3}{4}$ of the site are in pristine condition. The front $\frac{1}{4}$ is disturbed (see Skeleton & Burcher 2002, Plate 1 and Map from DCP 25). The site is mapped as all core bushland in DCP 25, however the front portion of the site is cleared and in its current state would be classified as cleared within Core Bushland.

The proposed house and associated works are described in the Development Application submitted to Pittwater Council (2002). In general the proposed development is a house, porous drive, water tanks and on-site waste water system. The potential impacts of these works on the flora and fauna of the site and surrounding bushland are described in the Flora and Fauna Report (2002).

This updated BMP is based on previous reports and two site visits in July 2003.

A bush fire consultant was present on the last site visit 31.07.03 and reviewed the recommendations outlined in this plan. In short, the asset protection zone and the two areas of vegetation to be retained do not compromise the effectiveness of the asset protection zone or the safety of the dwelling at the time of the site inspection. For full report refer to Appendix 1.

1.3 Bushland Vegetation

1.3.1 Native Species

High diversity health grading into Woodland see Flora Fauna Report for species list.

1.3.2 Major trees on the site

Trees on the site are important general habitat for fauna. However, there are no trees of individual high conservation significance.

1.3.3 Importance to Fauna

As per Flora and Fauna impact study. In summary the site is of importance to Red-crowned Toadlets a threatened species. Surrounding heath is important to other threatened and endangered species.

2 PROTECTION OF EXISTING VEGETATION/NATURAL FEATURES

2.1 Protection Fencing

Fencing is to be a minimum of star pickets with bright colored protection mesh.

- /// Fence off all bush land areas outside APZ as per Plan 1 shown in pink (29.07.03)
- /// Fence off trees within APZ area as per Plan 1
- /// Fence off bushland within APZ and conduct hazard reduction on this vegetation. Understorey sedges/rushes to be kept, over-storey species are to be cut to 1-1.5m tall. Leave some vertical stems for bird habitat. All cut material must be gathered and removed from site. This section is to be made weed free and retained weed free for the life of the development.

2.2 Sediment Fencing

- /// Sediment fencing is to be placed between works and bushland, and between works and vegetation/watercourse being retained within the APZ. Sediment fencing is not to be removed until all works are complete and land is stabilised. Areas requiring fencing are shown in purple dashed line on Plan 1.

2.3 Natural Features

- /// All exposed sandstone is to be retained *in situ*. Sandstone surfaces are not to be damaged by machinery etc. Exposed sandstone is to be fenced until works are completed. If any archeological/Aboriginal markings etc. are discovered at any time these are to be reported to Council and National Parks and Wildlife.

3 VEGETATION MANAGEMENT

3.1 Vegetation Management in APZ

- /// Only one area requires further clearing. This is located on the eastern boundary adjacent to Lot 32. Clearing is not to be outside the subject site, this area is shown on the Plan 1 and is referred to as managed bushland. Vegetation here is to be brush cut to 200mm cut material must be collected and removed from the site. This area is to be maintained and kept as low vegetation. A dry sandstone wall or equivalent fire/heat retarding fence is to be erected along the boundary with Lot 32 (as per recommendation for fire management).
- /// The APZ zone is to be planted out with non-invasive grass (not Kikuyu), preferably native. Regeneration of native heath plants is desirable, providing they are kept in discontinuous clumps and brush-cut.
- /// Grass planting over the transpiration zone is discussed in this report. In summary it is to be *Paspalum distichum*, native water couch (readily available as turf from suppliers).

- /// Invasive plants are not to be planted, and noxious weeds are to be controlled at all times, even if they have moved from the property onto surrounding land.

3.2 Existing wetland

The existing wetland is 30m² (6m x 5m). *Gahnia melanocarpa* and other wetland species dominate the existing wetland (refer to Plate 2). This is an important habitat area and must be **retained for the life of the development**. The wetland area is Hazard management can be achieved by cutting over-storey to 200-600mm high. Some stems should be retained as bird habitat. Water loving species should be encouraged to spread from this area into the waterway and pond.



Plate 2: Existing wetland to be retained for the life of the development. Wetland and wet soak area are prime habitat and important for the life history of the threatened Red Crowned Toadlet. It is recommended to planted out wet soak areas with recommended plants listed in Table 1

3.3 Landscaped Areas

The objective for landscaping in this Blue Hatch area is:

"...reinstate elements of the natural environment, and maintain and enhance the natural character and environment of the area." (Pittwater Council 1994).

3.3.1 Species to be planted

Terrestrial species

Planting is to be at least 80% locally native species. Grown from local seed (suppliers details see Appendix I, there may be other nurseries that do this as well and it is recommended that the owners of the site follow this up. Any species that are not from the local area must be non-invasive. Non-invasive in this case means *will not spread into surrounding areas by growth, seeds or any other means. It also includes the spread of genetic material via hybridisation with locally native species.* For example many hybrid species of *Grevillea* (Spider Flowers) sold in nurseries will hybridise with local species.

3.4 Vegetation outside the APZ

Vegetation outside the APZ is bushland and is an Environmental Protection Zone (EPZ) for the life of the development. Development is not permitted in this area. Degradation of this area could result in making the Occupation Certificate invalid.

/// Saturate with water immediately then allow to drain. Keep moist for the first few weeks.

4 RED-CROWNED TOADLET HABITAT

4.1 Channel

Vegetate the remainder of the cut channel leading to the the pond with a selection of species in Table 1. Refer to location column in Table 1 as to whether the plant will prefer to grow on the edge, instream or in a saturated soak area.



Plate 3. Channel to be battered back and replanted



Plate 4. Channel leading to pond

4.2 Pond

1. Hand remove *Isolepis prolifera* (Plate 5) and Arum Lily (Plate 6) from pond area. The site is the top of the catchment and both plants are invasive. It is important to remove these plants before they spread.
2. Batter the edges of pond (grade of 1:4) using a shovel or equivalent (refer to Cross Section A, Figure 1).



Plate 5. *Isolepis prolifera* to be removed



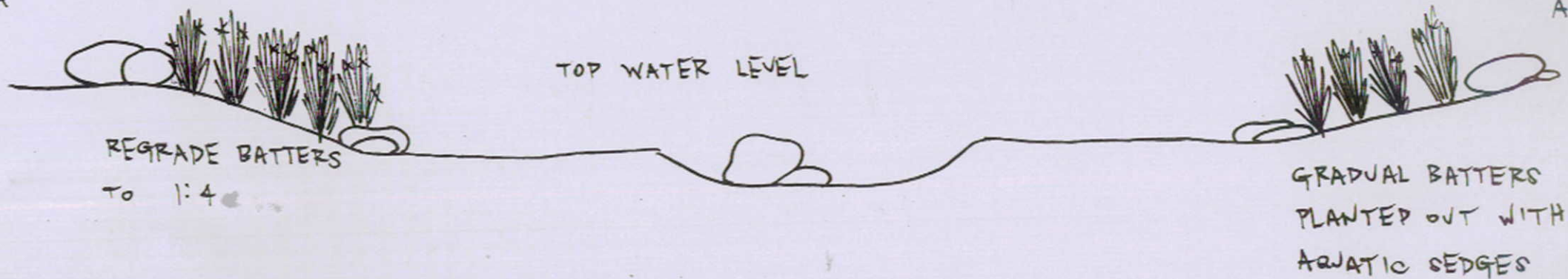
Plate 6. Arum lily to be removed

3. Pond batters are to be vegetated with sedges and ferns. Plants are to have a minimum density as per Table 1 (below). Pond batters are to be planted with at least 120 plants and comprise of at least five different species from Table 1. The pond floor is to be planted with at least 20 sedge plants from at least two different species.

4.3 Ephemeral Creek/Marsh

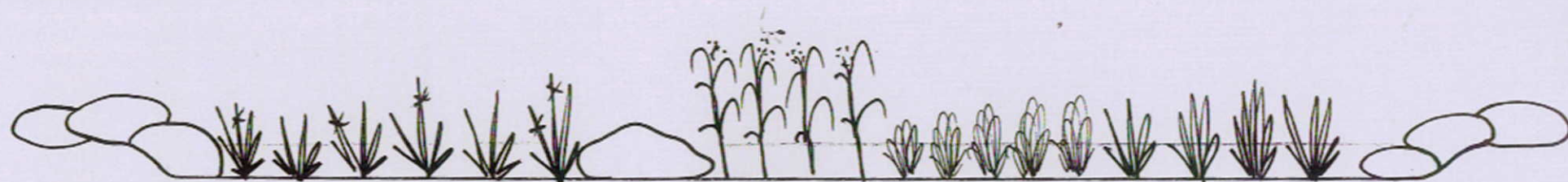
- /// Make the current flow path into a shallow bedded waterway with intermittent shallow marsh zones separated by sandstone weirs (refer to Cross Section B, Figure 1). These are soft engineering works and only require a spade/shovel to batter the existing flow path, careful use of a small machine is permitted for placement of sandstone.
- /// Utilise sandstone rocks to define edge of waterway and to prevent scouring and erosion. Sandstone is not to cover the creek bed as this is to be densely planted (refer to Table 1 for species selection). Sandstone along the edges of the waterway is not to exceed 50% cover. Areas without stone will be densely planted.
- /// Ephemeral creek batters are to be densely planted with at least 250 plants and comprise of at least five different species from Table 1.
- /// The Ephemeral creek/marsh zone is to be planted with at least 350 sedge plants from at least five different species (refer to Cross-section B, Figure 1).

A



CROSS SECTION B MARSH ZONE

B



EPHEMERAL CREEK/MARSH ZONE. DENSELY PLANTED OUT FOR FROG HABITAT.

Table 1: Plant List for Wet Areas

	Plant	Location	Planting Density (m ²)
Ferns	<i>Blechnum ambigum</i>	Soaks, Damp Ground, At or above Top Water Level	4
	<i>Blechnum cartilagineum</i>	Soaks, Damp Ground, At or above Top Water Level	6
	<i>Hypolepis muelleri</i>	Soaks, Damp Ground, At or above Top Water Level	6
	<i>Histopteris incisa</i>	Soaks, Damp Ground, At or above Top Water Level	6
	<i>Calochlaena dubia</i>	Soaks, Damp Ground, At or above Top Water Level	6
	<i>Gleichenia dicarpa</i>	Soaks, Damp Ground, At or above Top Water Level	6
	<i>Sticherus flabellatus</i>	Soaks, Damp Ground, At or above Top Water Level	6
	<i>Todea barbara</i>	Soaks, Damp Ground, At or above Top Water Level	6
Sedges	<i>Juncus planifolius</i>	In-stream, floor of ponds, on edge of bank	8
	<i>Juncus continuus</i>	In-stream, floor of ponds, on edge of bank	6
	<i>Carex appressa</i>	In-stream, floor of ponds, on edge of bank	6
	<i>Caustis reflexuosa</i>	Edge of Bank, soaks, overflow zones...	6
	<i>Cyathochaeta diandra</i>	Soaks, overflow zones	6
	<i>Ghania melanocarpa</i>	Soaks, overflow zones	6
	<i>Lepidosperma laterale</i>	Soaks, overflow zones	6
	<i>Leperodia scariosa</i>	Soaks, overflow zones	6
	<i>Restio</i> spp. (Ingleside stock)	Soaks, overflow zones	6

5 ON-SITE WASTE WATER DISPOSAL

5.1 Wastewater treatment and disposal

5.1.1 Location and Bund Wall

The Disposal area is to be as close to the front of the property as possible (proposed changes to location see Plan). A bund wall is to be built around the lower edge of the system to minimise overland flow of waste-water (as shown on Plan 1 29.07.03). On-site waste-water disposal has a high potential to degrade bushland downslope of the system.

5.1.2 Location of Transpiration Zone

The transpiration zone has been modified. It is to be moved away from the rear boundary, and equivalent area located on the site as per Plan 1. The transpiration zone must be as far away as possible from watercourse and bushland because it will cause weeds to flourish and pollute natural watercourses on the site and down stream.

5.1.3 Planting and weeding over the disposal zone

The disposal zone is to be planted with native lawn (Native Couch Grass) *Paspalum distichum*. This can be obtained as turf from a number of nurseries including Abulk. Kikyu is not to be used. Weeds occurring on or around the disposal area are to be managed at all times. Weed species are not to be allowed to enter the bushland. Weeds are to be kept out of bushland areas for the life of the development.

5.1.4 System Maintenance

Any system that is put in place is to be regularly maintained recommendations given in the Waste-water Report regarding avoiding phosphate containing soaps, detergents etc and toxic substances such as chemical drain clearer.

Details regarding the type of wastewater treatment and disposal system are discussed in the Waste-water Report 2002. The proposed system must include a polishing system such as a biofiltration unit that reduces Phosphorous and Nitrogen. Such a system limits nutrient rich water leaving the detention area in the future. Any system that is put in place is to be regularly maintained recommendations given in the Waste-water Report regarding avoiding phosphate containing soaps, detergents etc and toxic substances such as chemical drain clearer. If the system appears to be failing (i.e. releasing nutrients into the bushland and effective bushland or water quality the system is to be modified to stop deleterious effects. The site is to be connected to the sewerage system as soon as it is available.

6 WEED PLANT SPECIES

6.1 Currently on the site

Weeds are growing along the path of a polluted water plume from on-site waste-water systems of the adjacent properties. The remainder of the site is 99% weed free. Species recorded are listed below. Pampas Grass and Lantana are noxious weeds and active and constant suppression is essential if the surrounding bushland is to keep its integrity.

The following introduced species are on the site but have been 90% killed.

Species name	Common name	Status & Abundance
<i>Bidens pilosa</i>	Devil's Pitchfork	Intro. Weed ##
<i>Lantana camara</i>	Lantana	Noxious W2 ###
<i>Crocosmia crocosmiiflora</i>	Crocosmia	Intro. Weed ##
<i>Eupatorium adenophorum</i>	Crofton Weed	Intro. Weed ##
<i>Cortaderia sp.</i>	Pampas Grass	Noxious W2 ##

#one or two recorded on the site, ## common on the site in the disturbed area, ### abundant on the site in the disturbed area. Species in bold are classed as Noxious (Noxious Weeds Act 1993-see Appendix I.

Noxious Weeds

Two species classed as a noxious weeds are/were growing on the site.

Pampas Grass and Lantana. Both are classed W2 weeds thus they must be: *fully and continuously suppressed and destroyed* (Noxious Weeds Act 1993).

Action to be taken

The owner has been removing all noxious weed species from the site however the neighboring on-site waste-water systems should be upgraded ASAP to stop the cause of the weed plume. The owners of the polluting systems should be made to contribute financially to the weed suppression on the site until nutrients from their on-site systems are reduced so that they do not result in excessive weed growth. Neighbors should remove Noxious Weeds from their properties particularly from the boundaries with other properties/bushland.

6.1.1 Non-problem introduced species growing on the site

None were identified on the site. Some non-invasive non-indigenous species may be suitable for growing close to the house however all species not native to the local area should be checked by a person with sufficient knowledge about the species and local flora.

6.1.2 Edge effects

Any disturbance impacts on not only the area but the surrounding area. This is known as an edge effect and much research has been done on this. Weed encroachment is one of the main edge effects (Bennett 1999 and Bennett *et al* 1998). It is commonly accepted that edges can not be kept free from weeds without constant maintenance, especially in urban areas. Weed domination along the edge of surrounding roads is clearly apparent and without management weeds will grow along the drive to the house. Regular maintenance of plants along the drive and other disturbed areas will keep weed establishment to a minimum.

6.1.3 Aquatic weeds

The only location for aquatic weeds to establish on the site is in the proposed storm water detention area. Aquatic weeds that could establish in the stormwater detention area will not be able to grow in surrounding terrestrial habitats they could however be transported to natural wet areas by birds. The most problematic aquatic weeds that could grow in the wet areas on the site are:

- *Salvinia*, *Salvinia molesta*;
- Water Hyacinth, *Eichornia crassipes* (sometimes sold in nurseries); and
- Parrots Feather, *Myriophyllum aquaticum* (sometimes sold in pet shops).
- *Isolepis prolifera*

It is very unlikely that the first three species will establish in the detention area. The first two species are declared Noxious and as such must be vigorously and consistently suppressed. All could be controlled manually due to the small size of suitable habitat. The fourth weed *Isolepis prolifera* is just beginning on the property. This plant can be removed by hand pulling, or gently lifting roots from ground with a lever. Stems should be placed in a bag as they can continue to grow from plant material left on site.

If any plant is found that is suspected of being a weed either send the specimen to the councils weed officer or the Royal Botanic Gardens, Sydney or Sainty and Associates—wetland specialists (02) 9332 2661. Alternatively weeds may be identified in *Waterplants In Australia* by Sainty and Associates, available on loan from Mona Vale Library and the Coastal Environment Center (Narrabeen Lake).

6.2 Weed Identification and Removal techniques

*Cautionary Note

The use of herbicide near on in the waterway/damp soaks is not allowed. Many aquatic invertebrates, frogs, mollusks and crustaceans are herbicide sensitive, and can be negatively impacted upon if herbicide is administered inappropriately.

The cause of the existing weed plume should be controlled (Waste-water systems on adjacent land). Plate 7 shows entry area for nutrient rich water and recently cleared weed species.



Plate 7. Downslope of waste-water systems (adjacent properties). Weeds species surrounding natives (Bottlebrush and Cheese Tree).

Weed control measures as stated in Pittwater Council's Urban Bushland Plan of Management, (1996) are to be referred to along with the following information.

6.2.1 Lantana, *Lantana camara*

Growing along the line taken by the waste-water from adjacent property. Most has been kill/removed by the client. Follow up work, by hand, will be required where seeding and re-shooting occur.



Plate 8. Lantana on neighbouring property.

Rambling shrub to about 4m. Lantana has prickly stems and clusters of orange and yellow small flowers. Fruit is a green berry that hangs in a cluster. Problem plant that smothers native vegetation and changes community structure for plants and animals.

Dispersal

Seeds are eaten and dispersed by birds. Also spread quickly by re-growing from cut stems.

Control

Cut stems and dig out base or paint freshly cut stem with Glyphosate. Where possible burn stems (with permission) or pile away from ground/moisture as stems can re-shoot. Biological control is not suitable for the site.

Areas where Lantana has been removed should be re-vegetated or covered as soon as possible. A suitable cover is crushed sandstone (~\$15/m³ from Benedicts Quarry Belrose). Natural regeneration of surrounding native species will occur through/over sandstone. Other forms of mulch can carry weed seeds and provide a nutrient layer that generally favors weeds over natives. Once the plants are removed control of seedlings by hand pulling is easy providing it is done regularly.

6.2.2 Pampas Grass, *Corteria jubata*

Removed from the site but growing on adjacent property (one seed head present-Plate 7).



Plate 9. Young Pampas Grass (roadside ~ 100m from site)

A tussock-forming grass growing to 4 m in height. Strap-like leaves grow to 2 m. Stems are hollow and hold a 'fluffy' plumed flowerhead. Flowerheads are pink to beige and can be almost 1 m long. Plants were flowering in July.

NB Young Pampas Grass looks similar to the native *Gahnia* spp. a native plant important in the area and growing on the site. *Gahnia* generally has leaves growing off stalks whereas Pampas Grass generally grows as a clump from the base (have specimens checked if unsure).

Method of Dispersal

Seed are spread easily by wind and plant parts can spread vegetatively.

Removal

Flower heads should always be removed as soon as they are seen. Flowerheads must be bagged in a long-lasting bag, or burnt. Once Flowerheads have been removed Pampus Grass can be controlled with applications of Glyphosate. Non-chemical control involves the removal of the flowerheads, then leaves, then removal of the crown by slicing or sawing below the foliage. Plants may grow back and removal of entire plants is sometimes necessary.



Plate 10. Mature Pampas Grass (and other weeds) on adjacent property, one seed head—most seeds have already dispersed.

6.2.3 Privet

Privet was growing on the site has been removed by Client. Follow up work will be required to remove any seedlings. Privet is easily controlled by hand pulling seedlings. Seeds usually only last 1 year in the ground.

Native Cheese tree (growing on the site) looks similar to Privet.

Distinguishing features

	Cheese Tree	Privet
Leaves	Glossy	Matt
Fruits	Yellow-cream compressed disc with wavy edges	Dark spherical fruit

6.2.4 Devils Pitchfork, *Bidens pilosa*

An annual plant that grows up to around 1.5–2 m tall. Sticklike in appearance, with numerous flower heads, yellow approximately 7mm across. Balls of seed form from flowers. Each seed is about 1 cm long and 1 mm wide with barbs on the out end. Seeds easily stick to animals including humans and are transported into bushland.

Dispersal

Seeds easily stick to animals including humans and are transported into bushland.

Control

Bag the plant to avoid being stuck by seed then pull out roots (hand pulling easy).

6.2.5 Fleabane, *Conyza bonariensis*

Nearby—along roads—but not yet on the site.

Sticklike weed to around 1m tall. Leaves are concentrated at the top of the stem. Flowerheads are on the top of the plant, beige and feathery on maturity.

Dispersal

Seeds are dispersed by wind.

Control

- Bag flower heads
- Pull whole plant from the ground, wetting soil makes removal easier.

6.2.6 Yellow Daisy, *Coreopsis lanceolata*

Nearby but not yet on the site.



Plate 11. Yellow Daisy, *Coreopsis lanceolata* growing ~50m from the site.

Yellow Daisy, *Coreopsis lanceolata* is a weed species that would be a direct threat to the long-term survival of native species on the site. The Yellow Daisy is a vigorous grower and prolific seeder it quickly colonises areas and becomes dominant to the exclusion of native species (as can be seen along the Wakehurst Parkway). *Coreopsis lanceolata* should be removed from the site as soon as it is seen.

Method of Dispersal

Spreads from runners that grow from tap roots.

Removal

Remove whole plant including taproot and runners

6.2.7 Cotoneaster, *Cotoneaster glaucophyllus*

New plants are establishing in disturbed areas close to but not on the site.

A large shrub growing to about 4 m, easily recognised by its bright red berries.

Method of Dispersal

Seeds are eaten and dispersed by birds. Pied Currawongs are usual vectors in Pittwater. Cotoneaster is food for this species and increasing the breeding success of Currawongs. Currawongs are known to have higher densities in urban areas and prey on small birds and nestlings—thus removal of this plant is important.

Cotoneaster can re-shoot from cuttings.

Control

Manual removal is best particularly as the plants are currently small. Chemical control can be used—cut the tree at base and apply a woody weed or tree killer substance.

6.2.8 *Crocasmia*, *Crocasmia x crocosmiiflora* and *Gladiolus*

Growing on adjacent property downslope of waste-water plume.

Bright green leaves growing in clumps. Flowers bright orange arranged along a 'stem'.

Dispersal

Both species disperses via corms (underground swellings) that multiply rapidly. Also spreads via seed.

Control

Remove flowers before seeding and dig whole plant from the soil.

6.2.9 Black-eyed Susan, *Thunbergia alata*

Not yet on the site but within 100m and this species is invasive.

An attractive plant, occasionally grown in gardens. The vigor of this species makes it unsuitable in many areas particularly where there is bushland. Black-eyed Susan is a climber to about 3 m tall.

It can and does grow up and over shrub species smothering them. Where Black-eyed Susan establishes it reduces the structural diversity of vegetation which is a reduction in habitat space for native fauna species. Many of the shrub plants that get smothered are flower species that native birds feed from.

Dispersal

Black-eyed Susan can root at the nodes and hence travel underground and shoot up new plants away from the parent plant. It can also grow from broken plant pieces.

Control

Manual removal is most effective. All parts of the plant are to be removed and placed in a bin or bag. The root mass has to be dug out. Thick mulch is recommended to deter re-growth. Re-growth should be removed (including from underground) as soon as it is sighted.

6.2.10 Crofton Weed, *Eupatorium adenophorum*

Crofton weed has recently spread onto the site

Control

Manual removal is most effective. All parts of the plant are to be removed and placed in a bin or bag. Re-growth should be removed as soon as it is sighted.

6.2.11 Turkey Rhubarb Vine, *Acetosa sagittata*

Turkey Rhubarb has been introduced onto the site from the imported forest mulch. It is growing in area where the mulch has been spread. This is an invasive weed and should be identified and controlled ASAP.

Control

Manual removal of this weed is recommended. The plant has an underground storage tuber, and this must be dug out and removed. A legal herbicide may also be employed if an infestation occurs on site.

6.2.12 Other weed species

Other species that have been observed within 100 m of the site are listed below. Bush managers need to be familiar with these species. If any of these plants are located on the site or surrounds all efforts should be taken to eradicate them. Early detection and control is the most effective. Details on control methods for these species can be found in books in the reference list or in a Bush Regeneration Manual.

Other species recorded close to the site.



A. Honeysuckle



B. Crofton Weed



C. Whisky Grass

- Honeysuckle (see A)
- Crofton Weed, *Eupatorium adenophorum* (see B).
- Turkey Rubarb Vine, *Acetosa sagittata*
- Morning Glory, *Ipomoea indica*
- Broadleaf and Small-leaf Privet, *Ligustrum lucidum* & *L. sinense*
- Formosan Lily, *Lilium formosanum*
- Fishbone Fern, *Nephrolepis cordifolia*
- Rhus Tree, *Toxicodendron succedaneum*—(DO NOT BURN this plant, as the smoke from the wood is toxic)
- Canna Lili, *Canna indica*
- Impatiens, *Impatiens balsamina*
- Whiskey Grass (yellow grass common along the road see C)
- Wattle from WA *Acacia saligna* common on road sides (thick green leaves with 1 vein in the middle of leaf) get ID checked if not sure.

Plate 12. a,b,c.

6.3 Frequency of work

6.3.1 Weed removal—existing weeds.

Considerable work has already been undertaken by the owner of the property. Further work includes suppression of re-growth by:

- piling/removing Lantana,
- cutting and painting Lantana stumps with herbicide where appropriate (where they can not be removed without disturbing adjacent vegetation).
- hand removal of seedlings of all weed species.

If these species grow again—which is likely—on-going work is required. It is suggested that 20 hours be spent on follow up manual suppression with a follow up 8 hours three weeks later. After initial work, weeding will be required at least four times per year. Frequency will decrease once the source of water and nutrients is better managed on up slope of the site.

6.3.2 Weed removal—potential weeds.

Weeds will continue to establish in the nutrient rich run-off zone (from adjacent properties). Further the proposed on-site waste-water system for this site may have periods of failure where nutrient rich water seeps from the disposal area. Even a system in good working order has a limited capacity to hold nutrients, particularly phosphorous, over time, hence weeds will establish in areas around the proposed on-site system. Frequent removal of weeds will be required as soon as weeds start to grow. Checks of the system to ensure it is working (as per waste-water report) are essential.

The status of weeds should be recorded at least twice-yearly.

6.4 Who should do the work

Anyone who can identify weed species and has practical knowledge of the correct removal and disposal techniques. Preferably the person(s) would have done a course in Bush Regeneration. Courses are run at T.A.F.E colleges.

6.5 Recording sheets

At each of the site inspections the following should be recorded:

- weed species location;
- abundance on the site are to be recorded at the initial and subsequent inspections and;
- where weeding has been done and how well the control methods are working.
- The recording sheet—Appendix III—can be photocopied and used as a template.

7 ANIMALS

7.1 Native animals

Species known to occur on the site are listed in the Flora and Fauna reports (Skeleton & Burcher 2002 and Dalby-Ball *et al* 2000) and include a number of species of possums, birds and reptiles. Fauna of conservation significance that may use the site and surrounding bushland are listed in Appendix II) and include:

Pygmy Possum—*Cercartetus nanus*—rare and locally significant

Long-nosed Bandicoot—regionally significant terrestrial mammal;

Heath Monitor—*Veranus rosenbergi*—Endangered Species:

Long-nosed Bandicoots (Regionally Significant) and Southern Brown Bandicoots (Endangered)

Micro-bats, listed as Vulnerable, may visit the site to feed upon blossoms/insects.

Frogs Red-crowned Toadlets (on the site) and Giant Burrowing Frogs are expected on the down slope site.

7.1.1 Habitat for native animals

Nesting boxes

No tree hollows were observed on the site. Trees with hollows do occur in open woodland downslope of the site. Hollows are very important habitat for birds, particularly parrots and arboreal mammals. Many animals that are now considered Threatened or Endangered are reliant on tree hollows for living and or raising young. Nesting boxes can be placed in trees to increase habitat for these animals. Nesting boxes can be monitored by the owners to determine what species are using them. Two nesting boxes could be placed on the site. Attachment would be to a rough barked tree. Boxes should be at least 3m from the ground.

Nesting boxes are made from wood. Entrance hole size would vary depending on which animals the boxes are being designed for. We recommend entrance holes of 4–8cm in diameter and placed on the side of the box at the top. Box size can vary. Gliders and Owls are thought to prefer long hollows, up to a couple of feet long. Box attachment is usually by rope, secured around the tree trunk and around a branch. Details on designs for nesting boxes can be found at www.birdsaustralia.com.au/infosheets and see (Christensen 1988, Philipps 2000 and references therein). Boxes should be monitored to ensure undesirable species, such as Indian Mynar Birds and non-native Bees are not using them.

Dense mid-tall heath is utilised by many small bird species for nesting. The proposed lowering of this vegetation (for fuel reduction purposes see Flora/Fauna Report) will result in loss of some nesting habitat. Try to carry out fuel reduction activities in winter, outside the breeding season for most birds, and check plants for nests before cutting. Aim to keep bands of vegetation so that patches of habitat do not become isolated.

Ground cover

The current natural covering of leaf litter, rock outcrops and fallen logs provide habitat for invertebrates, frogs and reptiles. For the longevity of the site's Bushland ecosystem the invertebrates and associated organisms must be able to persist. Leaf litter is to be maintained in areas not directly affected by the development including the fuel reduced/fuel free zone. Around the house leaf-litter can be reduced to a level that it does not pose a fire problem.

7.2 Potential Problem Animals and Management Techniques

7.2.1 Mosquitoes

Mosquitoes will breed in areas of fresh, still, open water. The proposed stormwater detention areas is potential breeding area for mosquitoes. Mosquitoes can be controlled by having native predators such as dragonfly larva and native locally native crustaceans. Insectivorous bats feed on mosquitoes and these bat species are in the area.

Periodic drainage of the detention area will aid in mosquito control. Prior to emptying, water should be allowed to evaporate naturally from the basin for as long as practical.

7.2.2 Mosquito Fish (*Gambusia* spp.)

Mosquito fish *Gambusia* spp. must be immediately killed if they enter the basin. These fish have been listed as a Threatening Process on the Threatened Species Conservation Act (1995) because of their predation on tadpoles and native fish. Mosquito fish (*Gambusia* spp.) to be introduced to the detention basin.

7.2.3 Cats and Dogs

Habitat trees for arboreal mammals do occur within 300 m of the site and terrestrial native species occur on the site. For the protection of all native animals it is essential that cats are excluded from the site and dogs are restrained from entering areas of wildlife habitat. If cats from neighboring properties are seen entering Bushland the cat's owner should be notified by other residents or by Council. If a cat is not restrained from entering Bushland the owner of the cat can be fined. If the owner can not be identified the cat may be killed.

It is essential that dogs and cats are kept out of all bushland as they will attack and kill Heath Monitors and Southern Brown Bandicoots—both species are Endangered and have isolated populations in the Ingleside area.

8 WATER

Changes to the water regime can degrade bushland in the following ways:

- /// Increased water can cause changes to the composition and abundance of soil invertebrates and fungi.
- /// Increased soil moisture can increase the susceptibility of plant roots to fungal infestation (root rot).
- /// Increased soil moisture can decrease plants ability to exchange gasses in the roots leading to inefficient breakdown of materials and cell death.

8.1 Stormwater Run-off from the house and associated structures

Stormwater run-off from the property will be directed into the water tank on the site and hence is not expected to be an issue. In times where there is excessive water the sandy soils will allow the water to leave the site quickly. Any future changes to the development must ensure water leaving the site is free from contaminants and run off is in a sheet flow rather than concentrated in a way that causes excessive erosion.

8.2 Over-land flows

Stormwater from Boronia Road is not adequately managed and should be dealt with by the RTA/Council. Currently water is draining onto the site from the road and the adjacent property. A stormwater swale has been recently created to drain water off the site and direct it to an ephemeral pond (refer Flora and Fauna Report).

This stormwater swale must be stabilised and planted ASAP (see Plate13). Hesion, coir, mulch mat or similar material should be used to line/stabilise the banks. Plants, particularly *Juncus* spp. should be planted into banks through stabilising material.



Plate13. Stormwater drainage ditch leading to wet/dry pond area.



Plate 14. Stormwater drainage ditch showing weed plume and slope where water drains onto the site.

Frogs are likely to come to the drainage swale and pond. Likely species include the Striped Marsh Frog. Red-crowned Toadlets may breed in or close to the detention area if it is vegetated

appropriately. Dense vegetation and rocks with under-shelves should be placed around the pond to provide a day refuge for frogs. NB rock can not be removed or moved on-site. Removal/disturbance of Bushrock (sandstone) is listed as a Threatening Process NPWS and carries a heavy fine.

9 ABORIGINAL HERITAGE

Objective is *"that development does not occur on or impact on any items which may be of significance in terms of aboriginal heritage"* (Pittwater Council Aboriginal Heritage—web page information).

No official records for aboriginal artifacts / special places pertain to the site, however the area is likely to have been used / visited by aboriginal people. If items, engravings etc are located on the site these must be reported to National Parks and Wildlife Service and should be reported to the Pittwater Council Heritage Officer.

10 FIRE

Fire management will be one of the greatest impacts on bushland. The fire report (Hoschke 2002) recommends areas for fuel reduction (cutting vegetation to a max of 50cm). Recommendations do not take into account the impacts on Threatened Species. The Flora and Fauna Impact Assessment (Skeleton & Burcher 2002) recommends these areas be minimised as much as possible and for a focus to be on the building materials, siting of structures etc.

The Rural Fire Service is responsible for advising residents of the fire management requirements on the site. Control burning in the area is likely. It is important that burning is no more frequent than ~8-14 years as some of the plant species require this length of time to become mature enough to set seed and/or to produce underground roots/stems (lignotubers), capable of surviving fire.

Requirements of animals must also be taken into account. The Southern Brown Bandicoot is reported to need a mosaic of burnt and unburnt areas. Any control burns must take this and other species into consideration.

Methods for reducing the risk of fire or limiting the spread of fire such as using building materials with low flammability should be carried out.

Plan First / Planning for Bushfire Protection (Rural Fire Service 2002) available on the internet needs to be taken into consideration however this document does not take into consideration Threatened Species or long-term ecological viability and a compromise will have to be achieved for the site. NB The Threatened Species Act (see NPWS - on internet) must be adhered to when carrying out activities for fire safety. If unsure check with the Natural Resources Unit at Pittwater Council.

10.1 Brushcutting vegetation.

Carryout fuel reduction activities in winter, outside the breeding season for most birds, and check plants for nests before cutting. Taller dead vertical branches / stems are used by a number of bird species during courtship rituals. Birds that do this include the White-cheeked and New Holland Honeyeaters, both live on the site.

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Fire Consultant's Report

Fire Base Consulting

Building Construction in Bush Fire Prone Areas

ABN - 14 640 865 430

Reference No 31 - 07 - 2003 - 1

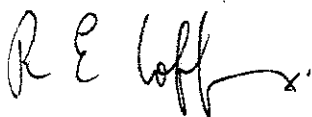
Ron Coffey
20 Lake Park Road
North Narrabeen
Sydney NSW 2101

(02) 99137907 - 0408220443
roncoffey@optusnet.com.au
roncoffey64@msn.com

Bush Fire Report - 15 Boronia Road Ingleside

For Mr Bob Richer

The site was inspected on 31st July 2003



Ron Coffey Grad I Fire E
Graduate Institute Fire Engineers
Hazard Mitigation Engineer [Bush Fire Prone areas]
Member Institute fire Engineers

Subject: Bushfire report – 15 Boronia Road Ingleside for Mr B. Richer

Reference: Planning for Bushfire protection 2001 – Development Application
NA80602 – Condition of approval No B16

The site was inspected on 31st July 2003, at the request of Mr B Richer, to confirm that the proposed asset protection zones conform with the approval conditions of the Development Consent.

The asset protection zone of 30m, as accepted in the development consent, has been cleared of trees, ground fuel and undergrowth with the exception of two small areas of native vegetation. These two areas are approximately 20m² and 12m² and have been preserved adjacent to a natural water course for flora and fauna issues.

The two preserved areas of native bush in the asset protection zone are of significant importance for the habitat of threatened species and the preserving of these areas does not compromise the effectiveness of the asset protection zone or the safety of the proposed dwelling.



Ron Coffey Grad I Fire E
Graduate of the Institute of Fire Engineers
Hazard Mitigation Engineer [bush fire prone areas]
Member of Institute of Fire Engineers
Past Fire Brigade Officer NSW Fire Brigades
Past Hazard Reduction Officer NSW Fire Brigades

APPENDIX II

Animal Species of Particular Conservation Significance Species that could occur on/near 15 Boronia Rd Ingleside.

Common Name	Scientific Name	Status in Pittwater	Status in NSW
Eastern Pygmy Possum	<i>Cercartetus nanus</i>	R locally significant	-
Eastern Quoll,	<i>Dasyurus maculatus</i>	O	V
Long-nosed Bandicoots	<i>Permeles nasuta</i>	R regionally significant	-
Southern Brown Bandicoots	<i>Isoodon obesulus</i>	E	E
All micro bats			
Brush bronzwing		R/U	M
Eastern Bristle Bird	<i>Dasyornis brachypterus</i>		V
Glossy-black Cockatoo	<i>Calytorhynchus lathami</i>	R restricted	V
Pheasant Coucal	<i>Centropus phianus</i>	Regionally Significant	
Regent Honeyeater	<i>Xanthomyza phrygia</i>		E
Rock Warbler	<i>Oriana solitaria</i>	Regionally Significant	Endemic NSW
Swift parrot*	<i>Lathamus discolor</i>	-	V
Tawny Grass-bird	<i>Megalurus timoriensis</i>	Regionally Significant	
Turquoise Parrot	<i>Neophema pulchella</i>	Regionally Significant	
Variegated Wren		R/U	
White-bellied Cuckoo-shrike	<i>Coracina papuensis</i>	Regionally Significant	
White-throated nightjar		S locally significant migratory	-
Yellow-tailed Black-cockatoo	<i>Calytorhynchus funereus</i>	R locally significant	-
Brown snake		R locally significant	
Eastern Leaf-tailed Gecko	<i>Phylurus platurus</i>	R Regionally significant	
Giant Burrowing Frog	<i>Helioporus australiacus</i>	R	V
Heath Monitor	<i>Varanus rosenbergi</i>		V
Red Crowned Toadlet	<i>Pseudophryne australis</i>	R	V
Tusked frog		R locally significant	
Tyler's toad		R locally significant	

E = Endangered (Part 1—schedule 1, TSC Act); V = Vulnerable (Part 2—schedule 2, TSC Act), R = rare, U = uncommon, M = migratory. NB this list is not exhaustive.

APPENDIX III

Summary Table for recording bushland management work

Date: _____

Work done by: _____

Plant Name	Location	Abundance* +, ++ or +++	Action taken	Further action required Y/N: when?
Pampus Grass				
Lantana				

*Abundance: += 1–10 plants (or <20m² covered), ++= 11–50 plants (or 20–50m² covered), and +++ = >50 plants (or >50m²).

Further Comments:

ENVIRONMENTAL SUSTAINABILITY POLICY FOR PITTWATER
FORM NO. 3 ECOLOGICAL SUSTAINABILITY PLAN
To be submitted with Development Application

Development Application for MR BOB RICHER

Name of Applicant

Address of site 15 BORONIA RD, INGLESIDE NSW

Declaration made by environmental consultant as part of the Ecological Sustainability Plan

I, ANDRE OLSON of DRAGONFLY ENVIRONMENTAL
(Insert Name) (Trading or Company Name)

on this the 31.07.03

(Date)

certify that I am an environmental consultant/bushland consultant as defined by the Environmental Sustainability Policy for Pittwater and I have:

Please mark appropriate box

☒ Visited the site.

☒ Consulted and relied upon findings and conclusions from all relevant reports in particular the Ecological Impact Assessment.

☒ Completed the Ecological Sustainability Concept Plan (Map) as per Pittwater Council Environmental Sustainability Policy and filled in Form 3a and attached it to the inside front cover of the Report.

☒ Completed the Ecological Sustainability Plan (Map and Report) as per Pittwater Council Environmental Sustainability Policy and filled in Forms 3a and 3b and attached them to the inside front cover of the ESP Report.

Ecological Sustainability Plan Report Details:

Report Title: BUSHLAND MANAGEMENT PLAN

Report Date: 31.07.03

Report Reference:

Author: ANDRE OLSON

Author's Affiliation DRAGONFLY ENVIRONMENTAL

I am aware that the Ecological Sustainability Plan, prepared for the above mentioned development is to be submitted in support of a Development Application and will be relied on by Pittwater Council to assess potential impacts of the development on the ecology of the site and surrounds. The life of the development is taken as at least 100 years unless otherwise stated and justified.

Signature A. Olson

Name ANDRE OLSON

Chartered Professional Status B.Sc. (Aquatic Science)

Ref: Interim Environmental Sustainability Policy for Pittwater

ENVIRONMENTAL SUSTAINABILITY POLICY FOR PITTWATER
FORM NO. 3A REQUIREMENTS FOR ECOLOGICAL SUSTAINABILITY PLAN
To be attached to Plan

Development Application for MR BOB RICHER

Address of site 15 BORONIA RD, INGLESIDE NSW

Declaration made by environmental consultant as part of the Ecological Sustainability Plan or Ecological Sustainability Concept Plan

I, ANDRE OLSON of Dragonfly Environmental

on this the 31.07.03

(Trading or Company Name)

(Date)

certify that I have completed the following as marked:

Site Plan

The following check sheet is to be completed and attached to the Map for the Ecological Sustainability Plan or Ecological Sustainability Concept Plan

Annotated plan showing the following	
All areas of native vegetation	✓ or n/a
Native trees include species, size, condition (e.g. SULE rating)	✓
Accurate survey and describe native trees within 5m of proposed works	None
Trees to be retained and those to be modified/removed	✓
Areas with medium to high regeneration potential	-infused here zone na
Areas of native vegetation to be retained	✓
Areas of vegetation proposed to be removed	✓
Areas of Noxious and Environmental Weeds	scattered
Areas of habitat features, bushrock (over 2m), caves, termite mounds etc	bushrock only
Footprint of house and associated works (fuel reduced zones, waste-water etc)	✓
Areas for exclusion fencing-during development/establishment phase	✓
Areas appropriate for storage of materials during construction	on cleared site ✓
Recommended access ways during construction	na - all ready pre-exist
Areas for bush-regeneration	na
Areas for planting trees (if appropriate)	na
Areas for planting low and or mid strata	na
Areas for landscaping	✓
Fuel reduced zone	✓
Fuel free zone	✓
Waste-water disposal zone	✓
Recommended Environmental Protection Zone (EPZ) if appropriate	rest of block/bushland
Areas for managing domestic animals (see requirements of Pittwater Council Control Documents Pittwater 21)	✓
Wildlife Corridors and Core/Fragmented Bushland (as per Pittwater Council Maps)	addressed

ENVIRONMENTAL SUSTAINABILITY POLICY FOR PITTWATER
FORM NO. 3B ECOLOGICAL SUSTAINABILITY PLAN REQUIREMENTS
 To be attached to inside front cover of ESP Report

Development Application for MR BOB RYCHER

Address of site 15 BORONIA RD, INGLESIDE NSW

Declaration made by environmental consultant as part of the Ecological Sustainability Plan

I, Andre Olson of Dragonfly Environmental

on this the 31. 07. 03

certify that I have completed the following as marked:

The following is to be completed and attached to the inside front cover of the Ecological Sustainability Plan.

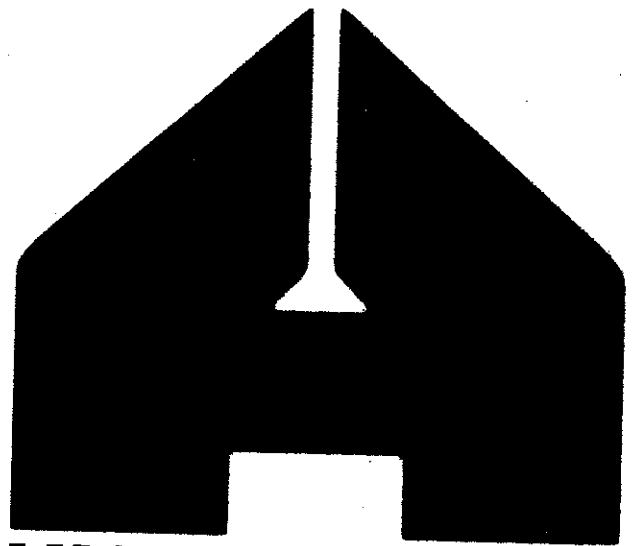
Report covering	✓ or n/a
Site Preparation Description of:	
▪ Tree, vegetation and habitat protection,	✓
▪ Sediment and erosion control for natural features,	✓
▪ Weed control,	✓
▪ Surface treatment and stabilisation (mulch etc), top soil/ litter layer treatment,	✓
▪ Site drainage with respect to natural features,	present
Weed Removal and Regeneration	
▪ List of Noxious and Environmental Weeds	✓
▪ Timeline for removing Noxious Weeds and controlling/removing Environmental Weeds (for updated weeds list see Dept of Agriculture web page). Timeline to include the area / number of weed species acceptable as a background level. Cross reference location with Map.	all to be removed
Description of Planting (if planting)	
▪ Planting aims, e.g. supplementary planting in a regeneration area, or a native vegetation area or planting in a landscape area.	✓
▪ Species list recommended for planting—as appropriate (if the ESP is replacing a Landscaping Plan give details of species to be planted and size range / species). Local native species to be used (for at least 70% of plantings, 80% in Endangered Ecol. Comm.). Identify source of local native, plant stock.	✓
▪ Description of areas for bush regeneration, trees to be retained, trees to be planted (and what size), etc	no trees to be planted.
▪ A schedule of materials—including elements such as weed matting, mulch, edging, walling, paving and fencing.	NA
▪ Description of works meeting minimum requirements of Landscaping Policy (i.e. 50% of development screened in 3 yrs).	NA - already present
Long-term Management	
▪ Management of habitat, inc. protection during construction and for the life of development. Provision of nesting boxes etc. Maintenance for 12 to 24 months after Issue of Occupation Certificate—maintenance can be by land occupier.	✓
▪ Indicate areas that are to be kept as 'bushland' for the life of the development	✓
▪ Description of exclusion areas for domestic animals as relevant	✓
▪ Reference to other documents if relevant (e.g. frequency and type of fuel reduction, care for on-site water disposal system)	✓
Check-sheets listing activities to be completed on an on-going basis.	
▪ List of Noxious Weeds & Environmental Weeds to be managed/removed.	✓
▪ Area of native vegetation and trees to be retained.	on map/plan



**30 YEAR
MEMBER**



**HOUSING INDUSTRY
ASSOCIATION**



HUXLEY HOMES

LICENCED BUILDER 92052C

GENERAL HOUSING SPECIFICATIONS

for the erection of a
brick veneer residence

Lot: 2 BORONIA RD (NO.15) Job No: 21870
INGLESIDE
Owner: RICHER B & J Ph: 9999 2552 (H)
Design: DURAL PLAN 36 RLIFE STYLE 0414449034(W)
Cncl: PITTWATER MUNICIPAL CNCL. B/A: 506/02

This is Annexure B referred to in the Building Agreement

dated _____ day of _____ 20____

Signed by the Owner

In the presence of

Signature _____

Name: _____

Name _____

Address: _____

Signature _____

Name _____

Description: _____

For and on behalf of the
Contractor
Huxley Building Pty Limited
ABN 50 081 917 731

In the presence of

Name: _____

Address: _____

Authorised Officer _____

Description: _____

Licensed Builder No. 92052C Huxley Building Pty Limited R.I.O 20/3/00
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1. GENERALLY

- 1.01 Extent of the Works: Shall be governed by the Contract Tender Letter and Working Drawings.
- 1.02 Provide: Means the supply and complete building in of specified materials, fittings, etc.
- 1.03 Regulations and Notices: The Contractor is to comply with the Building Code of Australia, the relevant State appendix thereto; and/or any amendments thereto; the requirements of Legally Constituted Authorities for Local Government and/or for services to the extent as provided for in the Contract Tender Letter. The Contractor is to give all notices, obtain all permits and pay all fees required by such Authorities. Damage/Security deposits are to be paid by the Owner.
- 1.04 Insurance: Insurance of the works against fire will be effected by the Contractor. The Contractor shall at his own expense adequately insure against Public Risk and arrange indemnification in respect of his liability under the Workers' Compensation Act of New South Wales.
- 1.05 Labour and Materials: The Contractor is to provide all labour, materials, fittings and plant required to construct and complete the building as specified in the Contract Tender Letter. Materials to be the standard specified. Workmanship in each trade to be performed by tradesman of that particular trade and in conformity with current good building practice.
- Notwithstanding that certain materials may herein after be specified, the Contractor reserves the right to substitute and/or alter any materials herein, however, they must comply with the relevant ordinances and/or Lending Authority concerned and be of no less a quality than the material they are substituting.
- 1.06 Set Out & Dimensions: The Contractor is to set out and maintain the work substantially in accordance with the drawing. Figured dimensions on plans are to be taken in preference to scale measurements. Unless otherwise stated, all dimensions are nominal. i.e. dimensions are to structural elements and do not include finished surfaces such as plasterboard, tiling etc.

- 1.07 Plans and Specification: If any alterations, amendments or variations to the said plans and specifications are required by any Governmental or semi-Governmental Authority the cost of such alterations, amendments or variations shall be charged to the Owner's account.
- 1.08 Additional Work: Should any additional work (as distinct from authorised extras and variations) not allowed for, or included in, or specifically excluded from the Contract Sum or this Specification, be required to be carried out because of site conditions, requirements of the Lending Authority and/or Statutory Authority, the cost of such work shall be to the Owner's account.
- 1.09 Final Payment: Final payment shall be by bank cheque on completion and before occupation. The Contractor shall not, under any circumstances, release the keys for the building until all outstanding monies have been paid by the Owner to the Contractor.
- 1.10 Survey: The Contractor shall allow the provisional sum as scheduled for the following survey work; (a) block peg out; (b) house set out; (c) identification survey when foundation walls complete; (d) final survey on completion of gutter and eaves. The Contractor shall not be responsible for maintenance of any survey pegs after the final survey is completed.
- 1.11 Water: Where water is available within two (2) metres of the property boundary, the Contractor will be responsible for all costs (except for excavation of rock) associated with connecting the water to the site. Where water is not available or the Supply Authority's main is further than two (2) metres from the property boundary, all costs associated with bringing water or the water service to the site shall be to the Owner's account. Unless otherwise specified in the tender, the contract includes up to ten (10) lineal metres of 19 mm water service from the main to the building.
- If water is not available the Owner shall, at the Owner's expense, supply adequate water to the site for construction purposes.
- 1.12 Council's Footpath: The Contract Sum does not include repair of damage to Council's kerb and gutter/footpath/roads or any private right-of-way/driveway caused by construction vehicles and/or work and the Contractor accepts no responsibility for damage to same. Should the Contractor be required to repair such damage, the cost shall be to the Owner's account.
- 1.13 Existing Structures: The Contractor (unless specified in the Contract Tender Letter) shall not be required to protect, repair or otherwise maintain any existing fences, structures, driveways or the like and the Contractor accepts no responsibility for any damage caused to same during the construction period.
- 1.14 Access: All weather access and storage must be available for delivery of materials by heavy vehicles onto the site and to within two (2) metres of the works. In particular, access must be available around the entire perimeter of the works for concrete delivery trucks to pour the floor slab. Any additional cost incurred by the Contractor through inadequate access or storage shall be to the Owner's account. Should inclement weather and/or inadequate site conditions cause, in the Contractor's estimation at the time, the pouring of the foundation floor slab to be impracticable without the use of a concrete pump, then the Contractor reserves the right to use such concrete pump and the cost of thereof is to be charged to the Owner's account.
- 1.15 Provisional Allowances: Works for which Provisional Allowances are listed at the end of this Specification will be charged at the scheduled rate or where no rate is provided at the Contractor's cost plus 10% for overheads, supervision and 10% for profit, and adjusted against the Provisional Allowance.
- 1.16 Prime Cost Items: Unless stated otherwise in the Tender, the Contractor shall supply and fix all P.C. items shown on the working drawings and/or detailed in the Tender.
- 1.17 Items to be Supplied by Owner: For all items, stated in the Tender, to be supplied by the Owner or where, during the construction of the dwelling it is agreed between the Owner and the Contractor that the Owner shall supply any particular item, it is the responsibility of the Owner to arrange payment for, delivery of and protection (and/or insurance) against damage and theft of all these items. Delivery is to be made when requested by the Contractor, to the site.

- 1.18 Finish as an Exhibition Home: The Contractor shall endeavour at all times to duplicate the finish and fittings in the corresponding exhibition home. However, the Contractor will not be held responsible for changes which occur due to variations in building practice and changes in the models of various fittings or materials.
- 1.19 Selections by Owner: If materials become unavailable during the course of the Building Work, the Contractor must notify the Owner and provide a recommendation for alternative materials. The Owner must provide the Contractor with the instructions within five (5) Working Days failing which the Contractor may make a substitution. Any substituted materials shall be charged as Prime Cost items in accordance with this Clause.

2. EXCAVATOR

- 2.01 Site: Unless allowed for in the contract sum, the owner is to clear the building site and grub all stumps, roots, etc. to a minimum distance of two (2) metres outside the building line or to the boundaries of the allotment, whichever is the less. Unless specifically allowed for in the contract sum the removal from site of roots, stumps, trees, undergrowth, excess fill and rubbish already on site is not the responsibility of the Contractor, but shall be stacked on site for removal by the Owner.
- 2.02 Rock or Shale: The Contractor shall allow for all excavation to be in clay or soil. Should rock, shale or any other material requiring the use of a compressor or other plant, be encountered during construction, the Owner shall pay extra for excavation and removal of such material and shall be charged at the Contractor's invoiced cost of labour and hire of compressor and/or other plant or equipment plus 10% for overheads and supervision and 10% for profit or as provided for in the Contract Tender Letter.
- 2.03 Trenches: Excavate for all footings, beams to raft slab, etc., to secure solid even bearing throughout. Should it be necessary to excavate deeper than 350 mm to secure solid bottoms and even bearing throughout, the additional cost shall be charged to the Owner's account or as provided for in the Contract Tender Letter.
- 2.04 Excess Fill: If piercing or excavation is required the removal or spreading of excess filling resulting from such work shall be the responsibility of the Owner; if, however, such work is allowed for in the Provisional Allowances, the cost thereof shall be adjusted in accordance with Clause 1.15 hereof.

3. CONCRETOR

- 3.01 General: All concrete is to be ready mixed from an approved supplier. Compression strength of concrete shall be as noted in the Engineer's drawings.
- 3.02 Footings: Provide concrete footings in accordance with Engineer's details unless provided otherwise in the Contract Tender Letter.

SHOULD ADDITIONAL FOOTINGS OR PIERING BE REQUIRED BY SITE CONDITIONS, COUNCIL, LENDING AUTHORITY OR ENGINEER, THE ADDITIONAL COST SHALL BE TO THE OWNER'S ACCOUNT.

- 3.03 Filled or Unstable Ground: If, upon commencement of the works, the nature of the ground is considered unsuitable for the footing system shown on the drawings, then the Contractor shall engage a Structural Engineer to advise on the re-design of the footing system and construct same in accordance with the details provided by the Engineer. The cost of engaging the Engineer along with any additional work shall be charged to the owner's account. Refer Building Agreement.
- 3.04 Concrete Floor Slabs: Construct a concrete floor on the ground in accordance with the Engineer's detailed drawings; surface to be suitable to lay carpet. Where required, provide concrete floors to bathroom, laundry, external patios, terraces, garage and carport.

- 5.05 Dampcourse: In concrete slab-on-ground construction a continuous cavity flashing shall be provided to the perimeter of the building, built in and securely fixed to the external wall, carried downward and across under the external leaf of brickwork. Weep holes to be provided at a maximum 1000 mm centres. Where an external cavity wall extends above an internal portion of the building, either a through flashing or a cavity gutter shall be provided immediately above the surface of the lower abutting section to prevent water penetration to lower walls or areas.
- 5.06 Veneer Wall: To be 110 mm brickwork providing a clear cavity of 25 mm from timber frame. Build in 3 mm galvanised veneer ties placed no further apart than 600 mm horizontally and 600 mm vertically. The brick veneer is to be kept 10 mm clear below roof framing and/or eaves lining and 10mm clear of window sills. All mortar joints on inside faces of walls are to be flush with brickwork. All mortar droppings are to be removed from wall ties and cavity before internal linings are fixed.
- 5.07 Arch Bars and Angle Irons: Brickwork over openings is to be supported on primed or galvanised mild steel bars or angles.
- 5.08 Flashing: Build in all flashing under window frames and above openings and meter box where required. Provide all necessary weep holes.
- 5.09 Cleaning: Clean all exposed brickwork with diluted spirits of salt and/or specified approved cleaner, wash down with clean water and leave free from cement and mortar stains.
6. STRUCTURAL FRAMING
- 6.01 Timber: Timber framing and flooring sizes shall conform to the Light Timber Framing Code AS1684 or AS7120.1.
- 6.02 Steel: Steel framing shall conform to the Manufacturers recommendations and AS3623.
- 6.03 Roof Framing: Slope of roof is to be as shown on plan. All roof members are to be seated on plates with roof loads transferred to the footings. Provide all rafters, hips, valleys, etc. as appropriate with all sizes and stress grades in accordance with AS1684 for timber and AS3623 for steel.
- 6.04 Flooring: Where shown on working drawings, cover floor joists with platform flooring in accordance with manufacturer's directions.
- 6.05 Floor Sander: Timber sheet flooring, where required is to be machine sanded to an even surface.
7. TIMBER FRAMED GROUND FLOORS
- 7.01 Generally: Where timber floors are shown on the drawings, the following clauses shall apply.
- 7.02 Concrete Footings: Provide concrete strip footings in accordance with the requirements of the Building Code of Australia/or the Engineer's details.
- 7.03 Foundation Walls: On concrete footings, build brick foundation walls to thicknesses shown on plans, up to the level of underside of the floor bearers. Build 230 x 110 mm engaged piers to support floor bearers and elsewhere as indicated on plans.
- 7.04 Sleeper Piers: Provide 230 x 230 mm brick sleeper piers built up off 350 x 350 x 150mm concrete pad footing or two courses 350 x 350mm brickwork. If any pier exceeds 1500 mm in height, the additional lower portion of that pier is to be 350 x 350 mm on 470 x 470 x 150 mm concrete pad or two courses 470 x 470 mm brickwork.
- 7.05 Floor Level: To comply with the drawings so as to provide not less than 200 mm from ground surface at any part to the underside of the floor bearers.
- 7.06 Access: Provide access under floors as shown on plan.

- 3.05 Concrete Slabs - Wet Area: Screed the concrete with a fall to outlets, or level as required and trowel the surface to floors of external patios, terraces and laundry where applicable to smooth and even finish.
- 3.06 Paths: Provide concrete paths if provided for in the Contract Tender Letter and indicated on plan. Lay paths to even grades, true lines and curves. Provide joints in the paths at a maximum spacing of 2000 mm with bitumen impregnated felt jointing strips.

4. PROTECTION FROM SUBTERRANEAN TERMITES

- 4.01 Barrier: Protect the structural elements to the work with a proprietary system which has current accreditation with the Australian Building Code Board, in accordance with AS.3660.1.
- 4.02 Certificates: The Contractor is to provide a Certificate in accordance with Australian Standard 3660.1.
- 4.03 It is incumbent upon the Owner to have the house inspected at least annually by a competent pest control operator and to comply with the operators advice.

THE OWNER'S FAILURE TO COMPLY WITH THIS CLAUSE WILL VOID ANY WARRANTY GIVEN IN RELATION TO THE CERTIFICATE.

5. BRICKLAYER

- 5.01 General: All brickwork is to be accurately bonded, carried up true and plumb in level courses to various heights and thickness as shown on plans. Bricks of clay and/or shale origin are to be sound, hard and well burnt.
- 5.02 Face Bricks: Face bricks to be used for all wall and piers to exposed elevation(s). The Contractor shall endeavour to obtain bricks as selected by the Owner; however, if bricks supplied by the Manufacturer are not to the approval of the Owner, any dispute regarding colour, size, quality, etc. shall be between the Owner and the Manufacturer and the Contractor will be indemnified by the owner for any costs involved as a result of such dispute.

The quantity of bricks the Builder is to allow shall be calculated at the rate of 52 bricks per square metre of brick wall area.

Where special bricks are selected which result in the quantity used being in excess of the quantity so calculated, the additional cost of material and labour shall be charged to the Owner's account.

If bricks selected have to be hand blended on site, the cost to do this work shall be charged to the Owner's account.

Common Bricks may be used for all other work.

- 5.03 Mortar and Joining: Mortar shall comply with AS 3700 or Part 3.3.1 BCA 96 Housing Provisions. Joint tolerances shall be in accordance with AS 3700.

Coloured Mortar: Under no condition does the Contractor guarantee, nor does the Contractor accept responsibility for, the shade or the uniformity of colour where used in mortar.

- 5.04 Engaged Piers: To be as shown on the drawings.

- 5.05 Dampcourse: In concrete slab-on-ground construction a continuous cavity flashing shall be provided to the perimeter of the building, built in and securely fixed to the external wall, carried downward and across under the external leaf of brickwork. Weep holes to be provided at a maximum 1000 mm centres. Where an external cavity wall extends above an internal portion of the building, either a through flashing or a cavity gutter shall be provided immediately above the surface of the lower abutting section to prevent water penetration to lower walls or areas.
- 5.06 Veneer Wall: To be 110 mm brickwork providing a clear cavity of 25 mm from timber frame. Build in 3 mm galvanised veneer ties placed no further apart than 600 mm horizontally and 600 mm vertically. The brick veneer is to be kept 10 mm clear below roof framing and/or eaves lining and 10mm clear of window sills. All mortar joints on inside faces of walls are to be flush with brickwork. All mortar droppings are to be removed from wall ties and cavity before internal linings are fixed.
- 5.07 Arch Bars and Angle Irons: Brickwork over openings is to be supported on primed or galvanised mild steel bars or angles.
- 5.08 Flashing: Build in all flashing under window frames and above openings and meter box where required. Provide all necessary weep holes.
- 5.09 Cleaning: Clean all exposed brickwork with diluted spirits of salt and/or specified approved cleaner, wash down with clean water and leave free from cement and mortar stains.

6. STRUCTURAL FRAMING

- 6.01 Timber: Timber framing and flooring sizes shall conform to the Light Timber Framing Code AS1684 or AS7120.1.
- 6.02 Steel: Steel framing shall conform to the Manufacturers recommendations and AS3623.
- 6.03 Roof Framing: Slope of roof is to be as shown on plan. All roof members are to be seated on plates with roof loads transferred to the footings. Provide all rafters, hips, valleys, etc. as appropriate with all sizes and stress grades in accordance with AS1684 for timber and AS3623 for steel.
- 6.04 Flooring: Where shown on working drawings, cover floor joists with platform flooring in accordance with manufacturer's directions.
- 6.05 Floor Sander: Timber sheet flooring, where required is to be machine sanded to an even surface.

7. TIMBER FRAMED GROUND FLOORS

- 7.01 Generally: Where timber floors are shown on the drawings, the following clauses shall apply.
- 7.02 Concrete Footings: Provide concrete strip footings in accordance with the requirements of the Building Code of Australia/or the Engineer's details.
- 7.03 Foundation Walls: On concrete footings, build brick foundation walls to thicknesses shown on plans, up to the level of underside of the floor bearers. Build 230 x 110 mm engaged piers to support floor bearers and elsewhere as indicated on plans.
- 7.04 Sleeper Piers: Provide 230 x 230 mm brick sleeper piers built up off 350 x 350 x 150mm concrete pad footing or two courses 350 x 350mm brickwork. If any pier exceeds 1500 mm in height, the additional lower portion of that pier is to be 350 x 350 mm on 470 x 470 x 150 mm concrete pad or two courses 470 x 470 mm brickwork.
- 7.05 Floor Level: To comply with the drawings so as to provide not less than 200 mm from ground surface at any part to the underside of the floor bearers.
- 7.06 Access: Provide access under floors as shown on plan.

- 7.07 Ventilation: To foundation walls at a height immediately under bearers, build in 230 x 150 mm vents at 1500 mm centres. Similarly, ventilation is to be provided under verandahs and/or suspended concrete floor slabs and no section of the underfloor area shall be constructed in such a manner that it will hold still pockets of air.
- 7.08 Dampcourse: On all brick work and piers, at the level of the underside of floor bearers, provide an approved dampcourse. The dampcourse material is to be in long lengths, lapped 150 mm at joints and full width at intersections.
- 7.09 Vermin Proofing: In brick veneer, provide 10 mm mesh galvanised bird-wire built into brickwork taken across cavity and secured to bottom plate.

8. JOINER

- 8.01 Generally: Joinery material is to be MDF or timber of durable species, seasoned and free of those defects which might affect its appearance and durability. All to be accurately cut and fitted and securely fixed.
- 8.02 Jamb Linings and Doors: To all internal door openings provide door jamb linings. Jamb linings with planted on stops may be used. Provide doors as specified. Accurately fit to door jamb linings; hang front, rear and other doors, unless specified elsewhere with two 85 mm steel butt hinges. External doors to be as selected. Furnish with selected lock and furniture. Internal doors to be as selected of suitable width. Furnish with selected latch and furniture. External double doors are to be rebated together and suitably weathered. Provide where shown on plan, sliding door frame(s) complete with fittings and doors of selected width and furnish with selected furniture. Provide aluminium doors and frames, if shown on plan.
- 8.03 Windows: Provide windows from approved supplier and install these frames strictly in accordance with the manufacturer's recommendations.
- 8.04 Architraves: Provide architraves to all door, window and other openings internally.
- 8.05 Skirting: Provide skirting to all rooms except tiled areas.
- 8.06 Kitchen Cupboards and Vanities: Provide properly constructed floor and wall cupboards in position and to dimensions indicated on plan. Floor cupboards to have raised floors with tow space under front face. Cover top of floor cupboards with materials as selected. Provide doors as selected. Doors to be accurately fitted and hung and furnished with selected catches and handles.
- 8.07 Built-In Cupboards: Frame up and fix cupboard(s) in position and to dimensions shown on plan; provide particle board shelves 10 mm minimum thickness. Provide doors as selected and furnish with selected catches and handles.

9. ROOFER

- 9.01 Tiles: Cover the roof of the dwelling with first quality roofing tiles as selected. The tiles are to be fixed to approved battens of sizes appropriate to the spacing of rafters/trusses in accordance with manufacturer's recommendations. Cover hips and ridges with capping and all necessary starters and apex caps. Cappings and verge tiles are to be well bedded on lime mortar and neatly pointed with coloured cement mortar.
- 9.02 Steel Roof Decking: Where shown on plan, provide and install a steel deck roof together with accessories all in accordance with the manufacturer's instructions.

10. PLUMBER

- 10.01 Eaves Gutter: Provide 110 x 0.6 mm guttering to all eaves. Set in position with sufficient fall to downpipes and secure with brackets, if required, spaced at a maximum 1200 mm.
- 10.02 Downpipes: Provide downpipes as required. Connect each pipe to gutter and roof water drains and secure to walls at a maximum spacing of 2700 mm, minimum of two (2) each downpipe.
- 10.03 Valley Gutters: Selected valley gutters are to be fixed to valley boards with edges beaded, well lapped at joints. (Approved ribbed valleys may be fixed without valley boards.)
- 10.04 Flashing: Flash around chimney stacks, exhaust flues and wherever required with approved material dressed well down onto roof slopes and taken up vertical faces at least 75 mm. Wedge stepped flashing into brickwork with approved material and point with cement mortar.
- 10.05 Sanitary Plumber: Sewered and unsewered areas. Fit bath, basin, kitchen sink, wash tub, pan and floor grate to shower recess, in positions shown on plan. Provide waste pipes with traps to the above fittings and connect to the drainage system. The whole of the work to be performed in accordance with the rules and requirements of the Authority for water and sewerage.
- 10.6 Floor Wastes: Provide overflow outlet in bathroom and separate W.C. floors. Fit grating and wastes.
- 10.7 Water Service: Allow to connect a 19 mm mains cock to the supply main and two (2) metres of 19 mm pipe to the metering position within the property. Provide a stop cock and garden tap. Allow the length scheduled of 19 mm pipe to the house. Branch off with 19 mm pipe to hot water unit and with 12 mm pipe to bath, breeching piece to shower, basins, laundry tub, washing machine and kitchen sink. Properly secure all piping and provide flange at internal wall faces. Terminate over fittings with approved high pressure taps and with high pressure hose cocks to garden points. Provide for fixing cistern and hot water unit. Provide one garden tap on rear wall of house and one at meter position.

If there is no town water and a tank is required, provide one garden tap only attached to external wall of house.

Extend from hot water unit with pipe to points over bath, basins, showers, kitchen sink, laundry tub and washing machine. Terminate at these points with taps or cocks as required. Provide inlet stop cock to hot water unit.

11. DRAINER

- 11.01 Sewered Areas: Provide a drainage system from W.C. pan and from wastes of all fittings and connect to the sewer main, all to be in accordance with the rules and requirements of the relevant Authority. Provide at least one gully outside the building.
- 11.02 Septic System: Where applicable, provide and install a septic system to the requirements of the Local Authority and in accordance with the manufacturer's instructions.
- 11.03 Storm Water Drains: Provide 90 mm P.V.C. stormwater drains laid to an even and regular fall so as to have a minimum cover of 150 mm. Drains to discharge into street gutter where possible. Where outlets are shown within the site they are to discharge at least 3000 mm clear of the building into rubble packed sumps. Should on site storage be required, work to be done in accordance with approved hydraulics detail; such work to be to the Owners Account unless provided for in the Contract Sum.

- 11.04 Additional Requirements: Should site conditions make it necessary to supply, in order to satisfy the appropriate Authorities, additional backvents, concrete encasing of drainage lines, sewer boundary traps, cast iron drainage wastes and any other requirements, such items shall be additional to the contract sum. The tender sum does not include excavation in rock or shale or the removal of excess filling resulting from the drainage installation and should such work be required, it shall be additional to the contract sum.

Where a Provisional Allowance is included in the tender for external drainage then the work executed shall be adjusted against the Provisional Allowance included in the contract sum and calculated at the rates scheduled or where no rate is provided, at the Contractor's invoiced cost plus 10% for overheads and supervision and 10% for profit.

12. ELECTRICIAN

- 12.01 General: Provide all labour and materials necessary for the proper installation of electricity service in accordance with the appropriate S.A.A. rules and the requirements of the Local Supply Authority. Arrange with the Supply Authority for the connection from supply mains to meter board. Should connection of the mains be underground or special brackets or additional poles be required, the extra cost shall be charged to the Owner's account. Provide for the proper installation and connect scheduled number of light and power points in positions to be indicated. Connect all appliances indicated on plan to local Authority's requirements.
- 12.02 Meter Box: Provide box to enclose meters in accordance with the requirements of the Authority concerned.
- 12.03 Smoke Detectors: Provide smoke detectors to AS3786 and connect to mains power supply.

13. WALL AND FLOOR TILER

- 13.01 Walls: Supply and fix ceramic wall tiles to the extent shown on the detail drawings or mentioned in the tender documents.

Tiles are to be fixed with approved adhesive to AS2358, to a backing of approved materials.

- 13.02 Floors: Cover the floor surfaces indicated on the plan with selected ceramic floor tiles:-
- a) Wet Areas - on a bed of mortar consisting of three (3) parts of sand and one (1) part of cement.
 - b) Living Areas - fix with an approved adhesive to AS2358.

General: SHADE VARIATION IS AN INHERENT FACTOR IN THE MANUFACTURE OF CERAMICS, PARTICULARLY IN DECORATIVE EFFECTS.

All ceramic tiles are subject to crazing. The degree of craze resistance varies from tile to tile, depending on the type of product and the method of fixing. No tiles are guaranteed against crazing. Fully glazed floor tiles with a high gloss finish are very susceptible to scratching during normal building operations; the Contractor does not guarantee that such scratching will not occur nor will the Contractor be responsible for any rectification thereof.

- 13.04 Waterproofing Wet Areas: Use a proprietary system which is approved for use in wet areas, shower recess bases, associated floors and wall/floor junctions which are to be tiled.

14.01 INTERNAL WALL LININGS

General: Line all walls, except to wet areas, with Gypsum plaster board. To wet areas approved water repellent sheets shall be used. Fit approved water proofing angle to internal corners of shower recesses.

- 14.02 Gypsum Plaster Board: Fix horizontally with full length sheets, end joints to be staggered, to ceiling heights. Sheets are to have recessed edges and be minimum 10 mm thick when fixed to studs spaced at up to 600 mm centres. Fixing is to be with galvanised clouts and/or approved adhesive and to be strictly in accordance with the Manufacturer's recommendations and AS2589. Internal and external angles from floor to ceiling to be set.
- 14.03 Ceiling Fixer: Provide Gypsum plaster board to all ceilings. Sheets to have recessed edges and to be a minimum of 10 mm thick in accordance with AS2588-1983. Fixing is to be with galvanised clouts and/or approved adhesive and be strictly in accordance with the Manufacturer's recommendations and AS2589.
- 14.04 Cornice: Set corners or provide 90 mm cove cornices to ceilings as required, properly fixed and set at all angles. Cornices to be in full wall lengths where practicable.

15. GLAZIER

- 15.01 General: All glass to be in accordance with AS1288 and installed in a tradesmanlike manner. Clean all glass on completion of work.

16. PAINTER

- 16.01 Generally all paint used shall be of a quality suitable for the purpose intended and the application shall be as per the manufacturer's recommendations. The colours used shall be as per Colour Schedule. All surfaces to be painted shall be properly prepared to manufacturer's recommendations.

17. COMPLETION

- 17.01 The building is to be completed in every trade. Sashes and doors to be eased, locks oiled and all plant, surplus building materials and rubbish removed from the site. Gutter and drains to be cleared and the building generally to be left clean and fit for occupation.

18. PRIME COST AND PROVISIONAL ITEMS

- 18.01 P.C. items: Unless stated otherwise in the Tender, the Builder shall supply and fix all P.C. Items shown on working drawings and/or detailed in Tender at no adjustment to the Owner.

18.02 Provisional Allowances

- (i) Included in the Contract Tender Sum there may be PROVISIONAL ALLOWANCES for works detailed in the Tender letter.

- (ii) In addition, and unless otherwise stated in the Contract Tender letter, the following PROVISIONAL ALLOWANCES are also included in the Contract Tender Sum:

1. Wall and floor tile allowance: (per square metre)	Lifestyle Specification	\$27.50
	Headstart Specification	\$19.50
2. Face brick allowance: (per 1,000 face bricks delivered to site)		\$330.00
3. Engineer's supervision and provision of Certificates		\$300.00
4. Surveyor's cost for set out, check and Final Survey and Certificates		\$475.00

18.03 Schedule of Rates: Unless specified otherwise in the Contract Tender letter, the following schedule of rates shall apply to items of work which are not specifically included in the Contract Tender letter:-

(i) Water Service - If the following work is required and such work is not specifically included in the tender letter, then such work shall be charged at the following rates:

- | | |
|---|----------|
| 1. Extend water service across road | \$319.00 |
| 2. Road boring (only chargeable if developers conduit is not available) | \$297.00 |
| 3. Minimum charge for compressor if rock is encountered in 1. or 2. | \$550.00 |
| 4. Additional 19mm water service (per metre) | \$22.00 |

(ii) Road Excavation - Excavation of rock or shale, if encountered, shall be charged at invoiced cost of labour and hire of compressor and/or other plant or equipment plus 10% for overheads and supervision and 10% profit. The minimum charge for rock excavation shall be: \$550.00

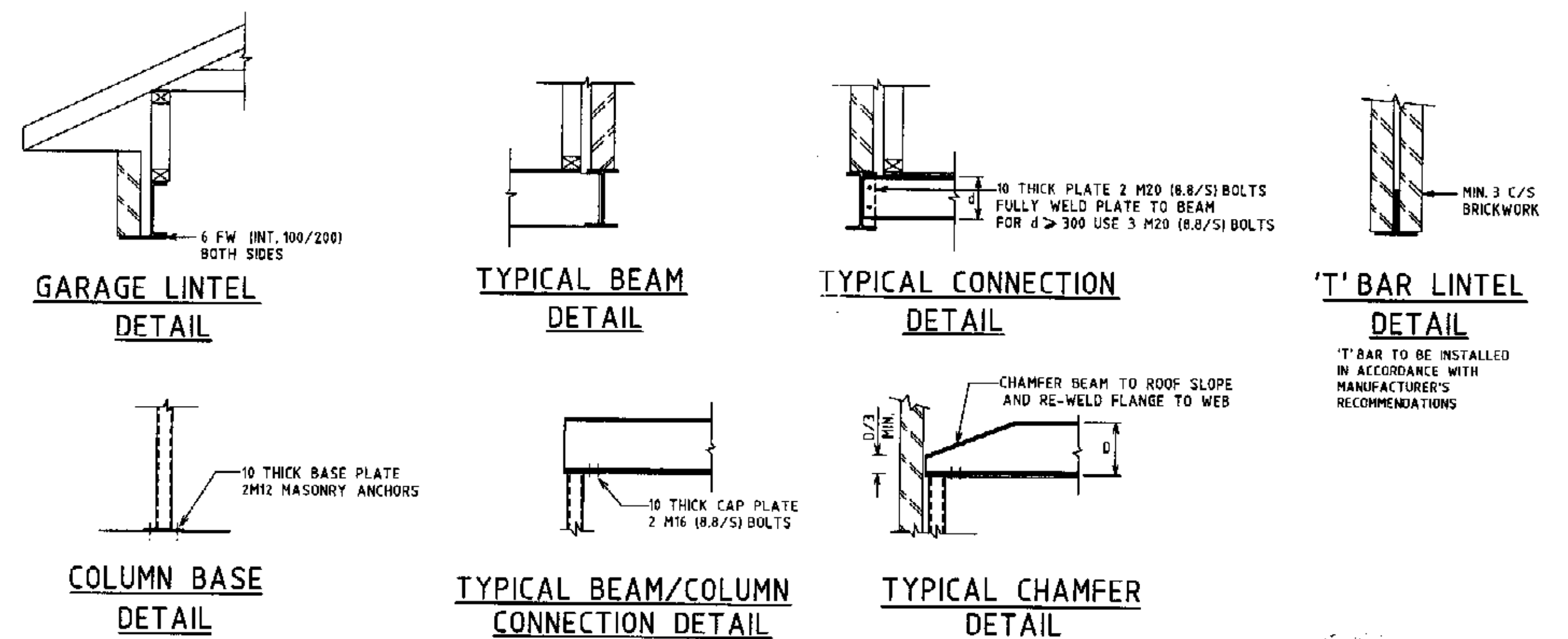
(iii) Piering - If not included in Contract Tender Letter as a Fixed Price Item, if required by Structural Engineer, Principal Certifying Authority or Lending Authority, shall be additional to the Contract Sum, and charged at invoiced cost of labour, material, hire of boring machine, and/or other plant or equipment, plus 10% for overhead and supervision and 10% for profit and the cost of this work to be adjusted against the Provisional Allowance, if any, included in the Tender Sum.

(iv) Occupation Certificate - Provision of Occupation Certificate issued under the Environmental Planning and Assessment Act 1979 under section 109C (i) and 109H if required by Owner or Lending Authority. \$150.00

18.04 G.S.T.: The above prices include G.S.T.

18.05 Exclusions: Unless specifically mentioned in the Contract Tender Letter, the following items are not included in the Contract Tender Sum.

1. Car Tracks; Paths
2. Fences
3. Landscaping; Watering Systems
4. Removal of spoil from the site
5. Floor Coverings; Ceramic Tiles to Living Areas and Front Porch/Verandah
6. Burglar Alarms; C-Bus Minder System
7. Light Fittings; Curtains; Decorator Items
8. Pergolas; Courtyards, Barbeques
9. Dishwasher
10. Air Conditioning
11. Insulation - wall and ceilings



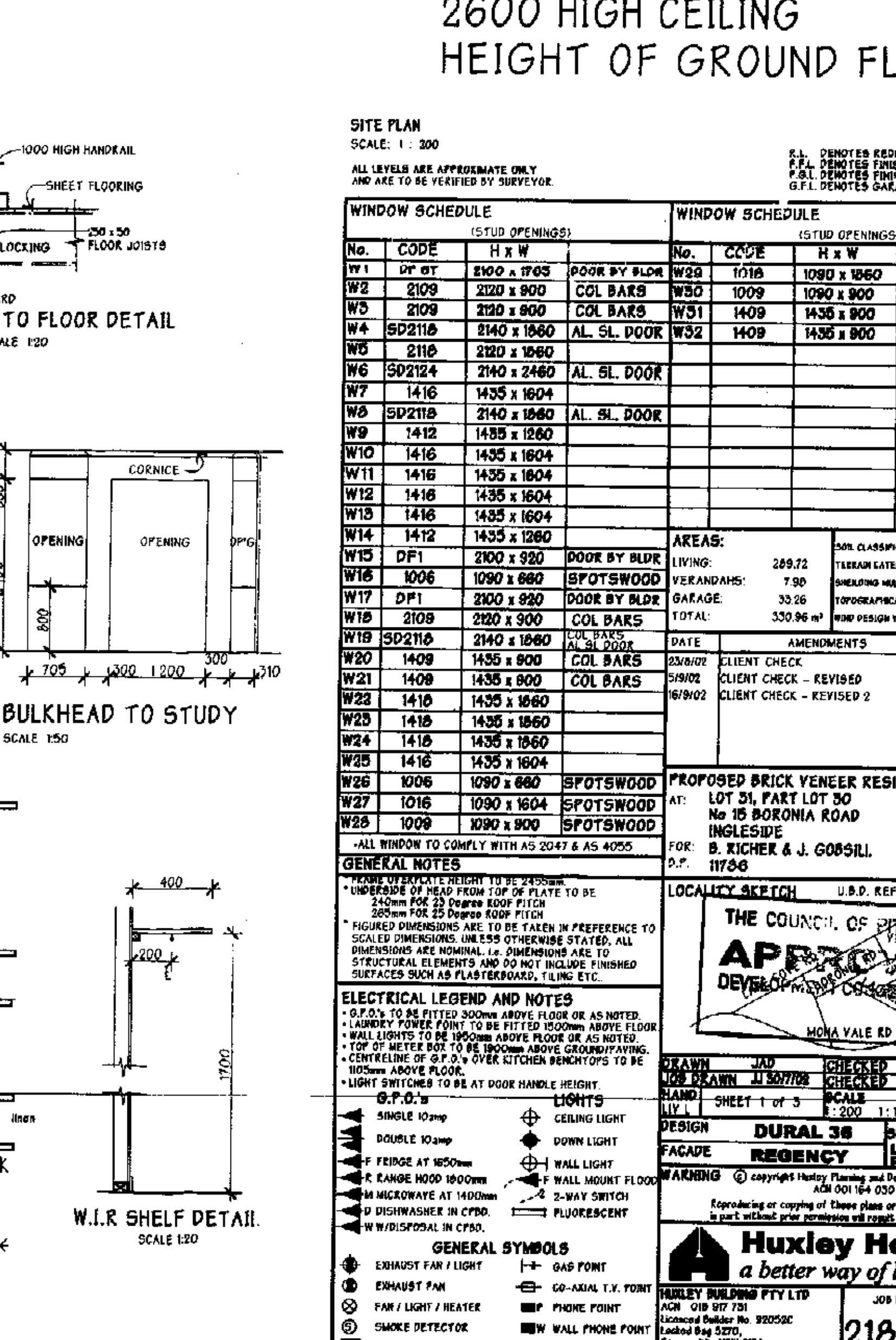
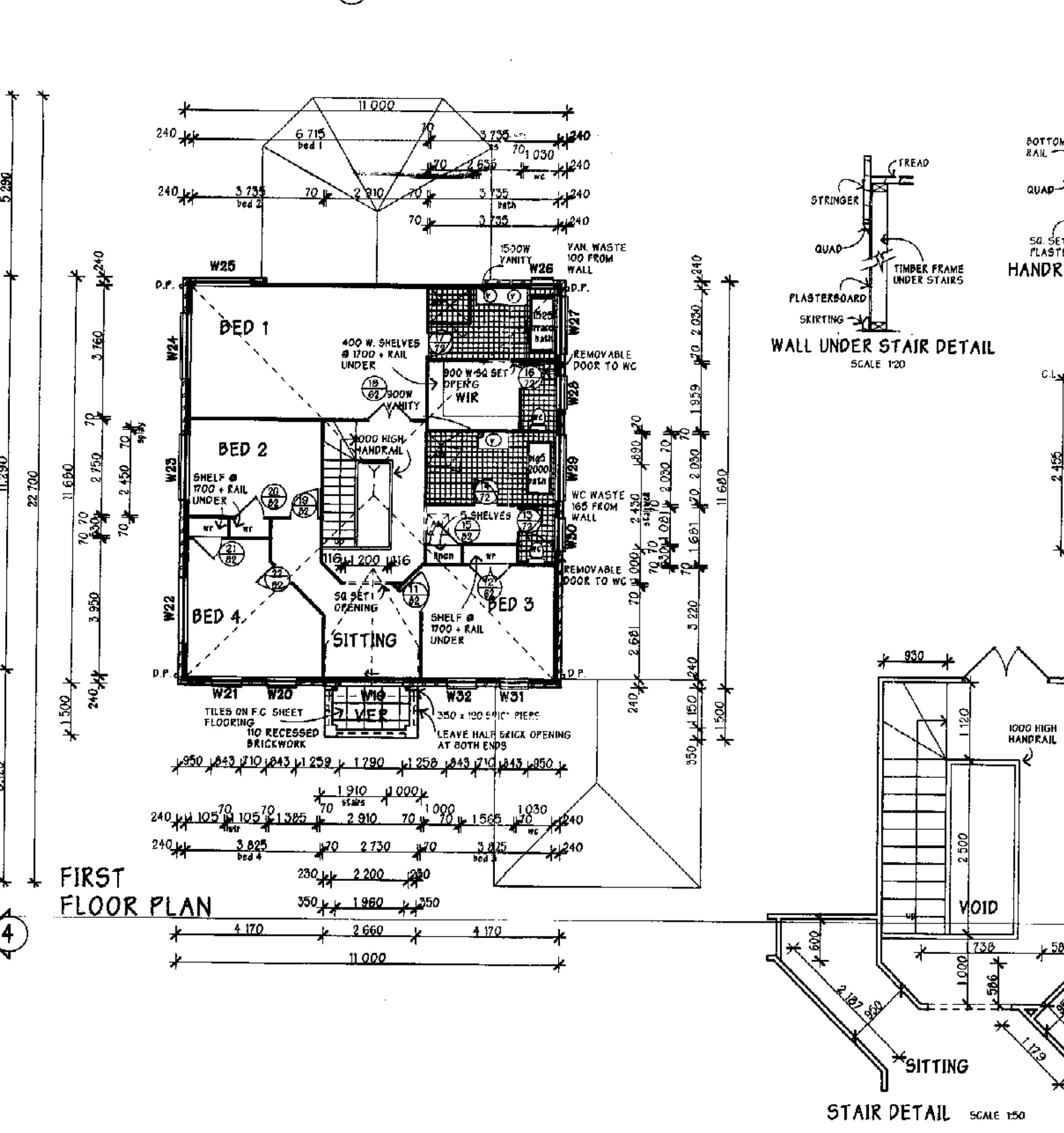
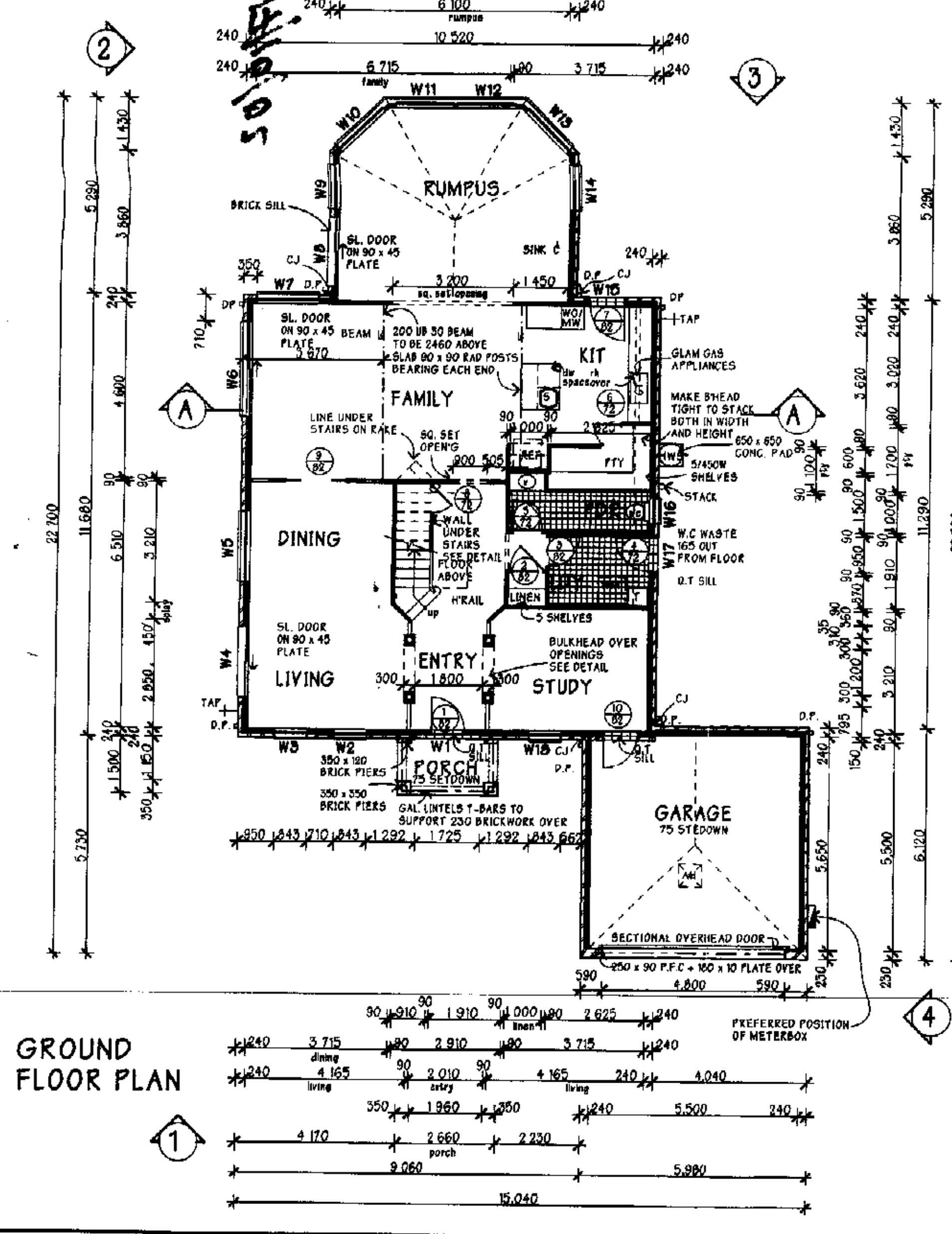
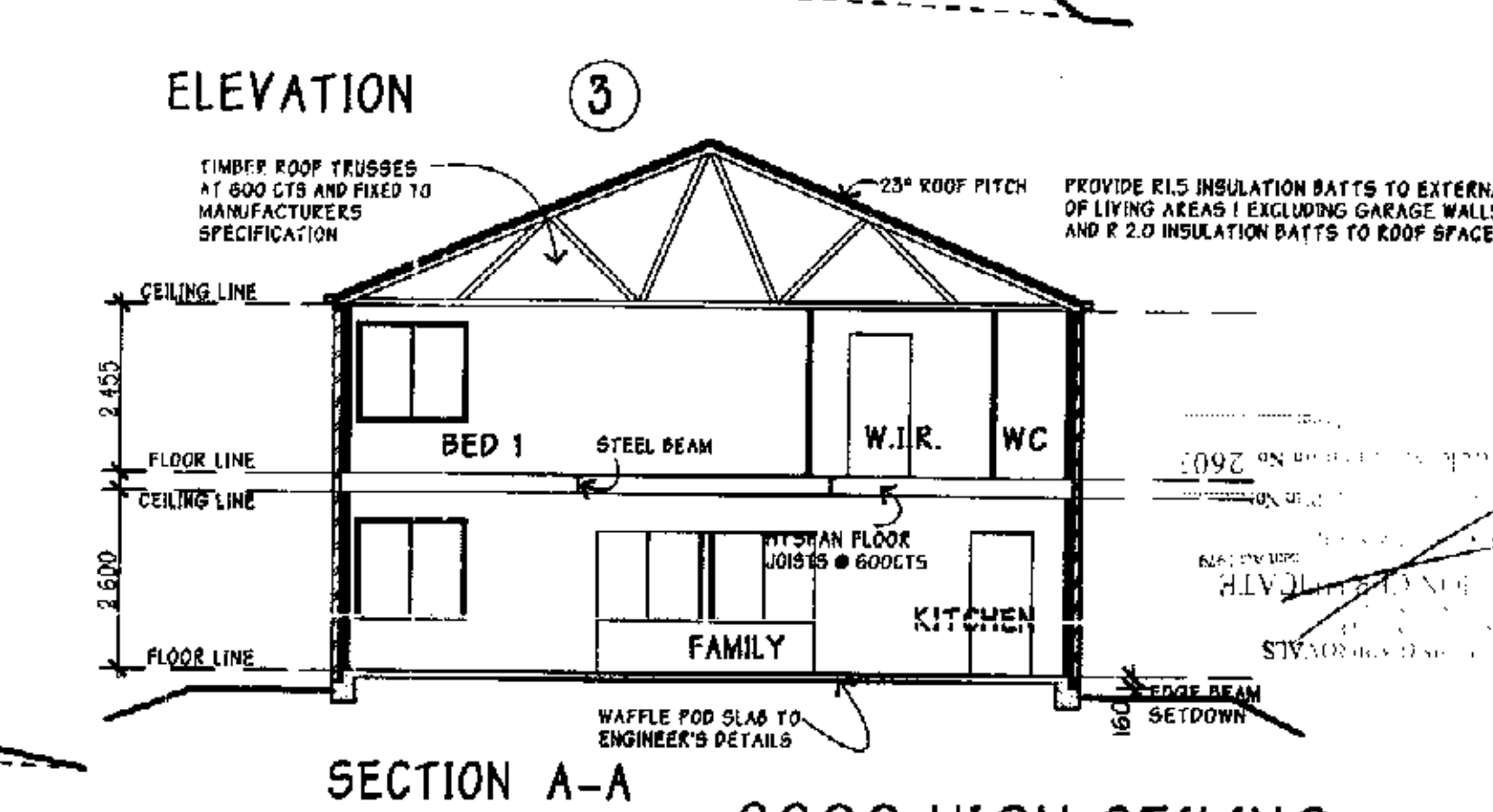
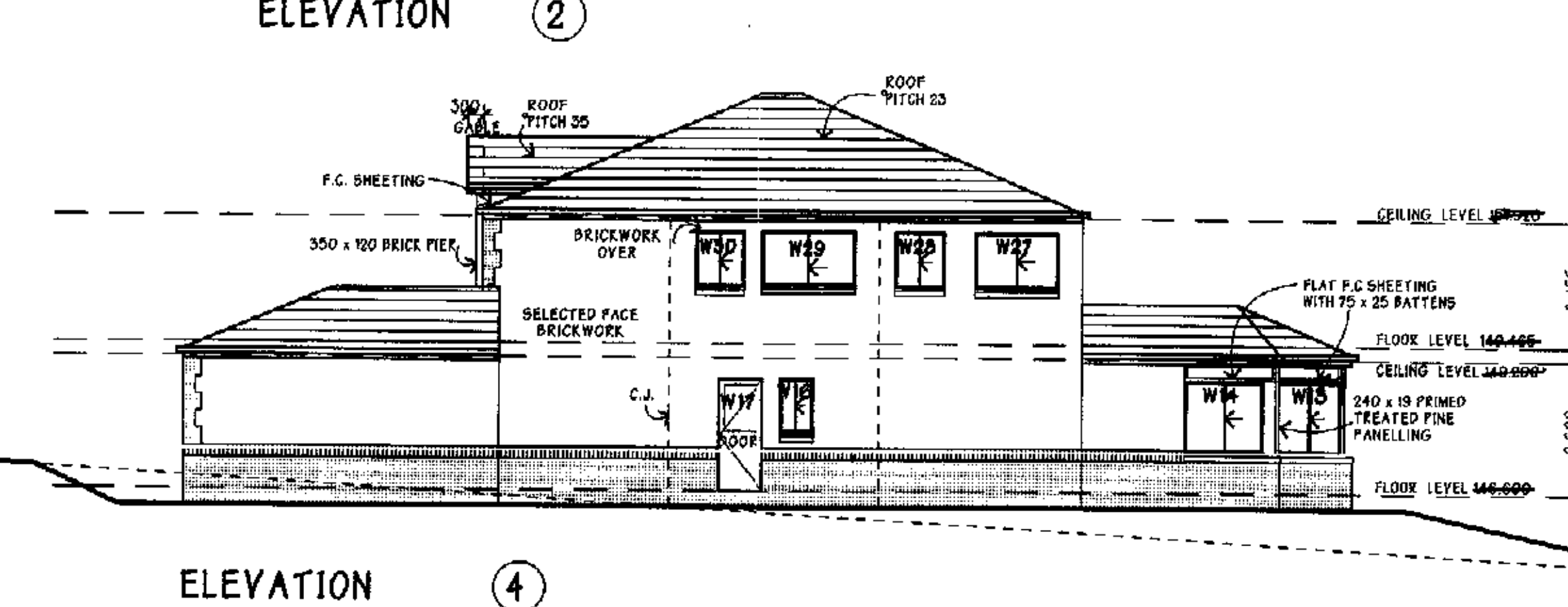
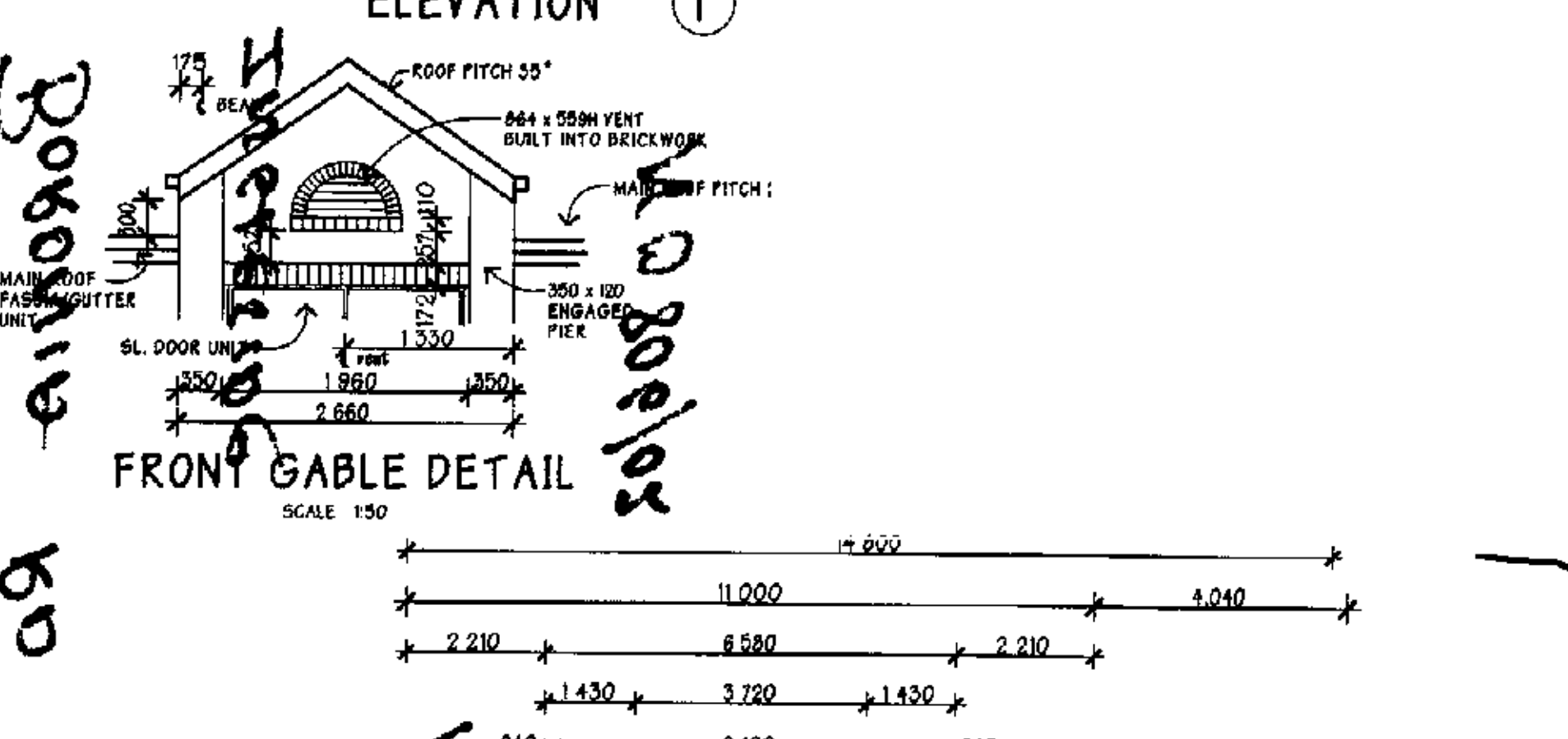
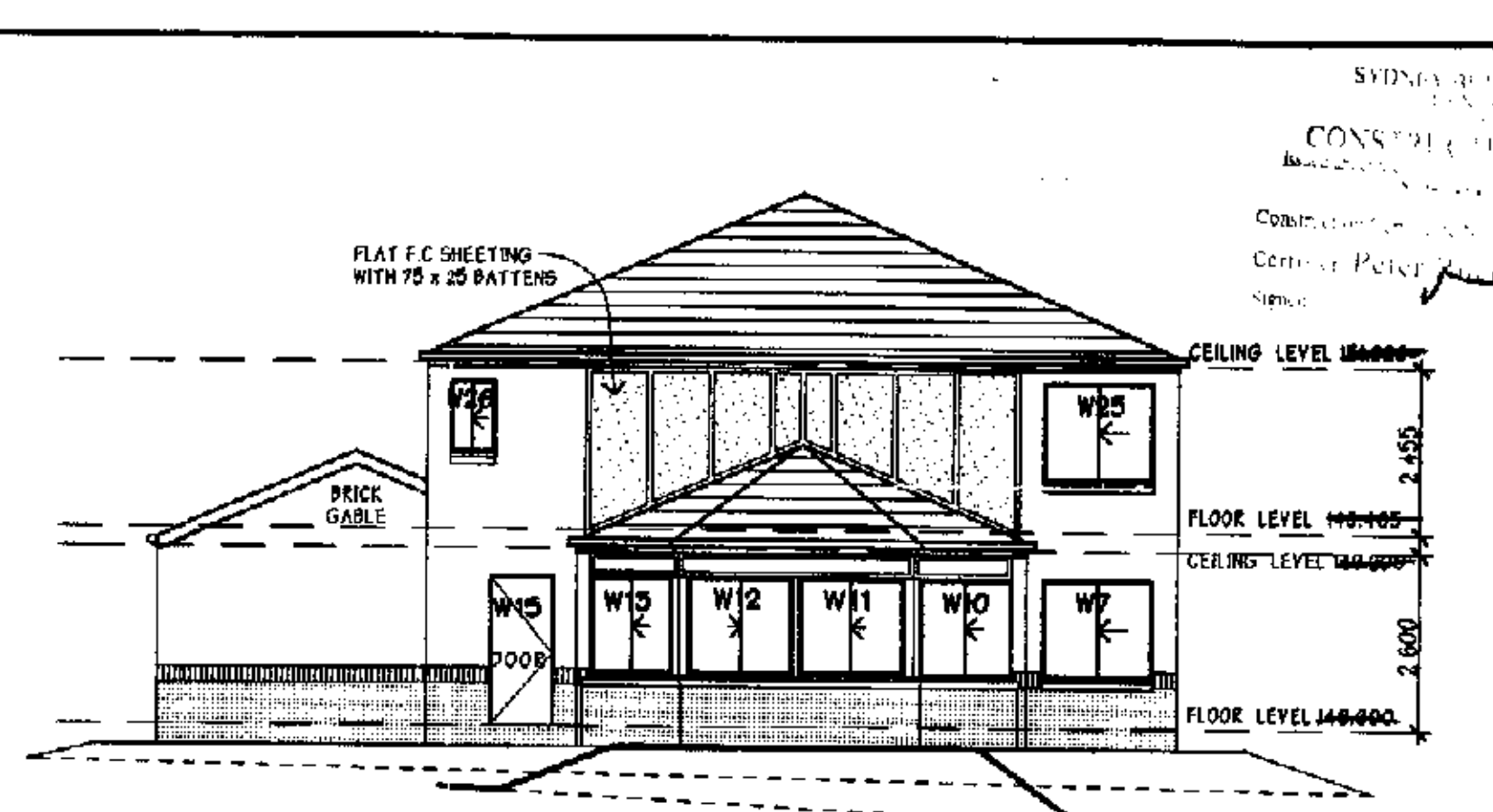
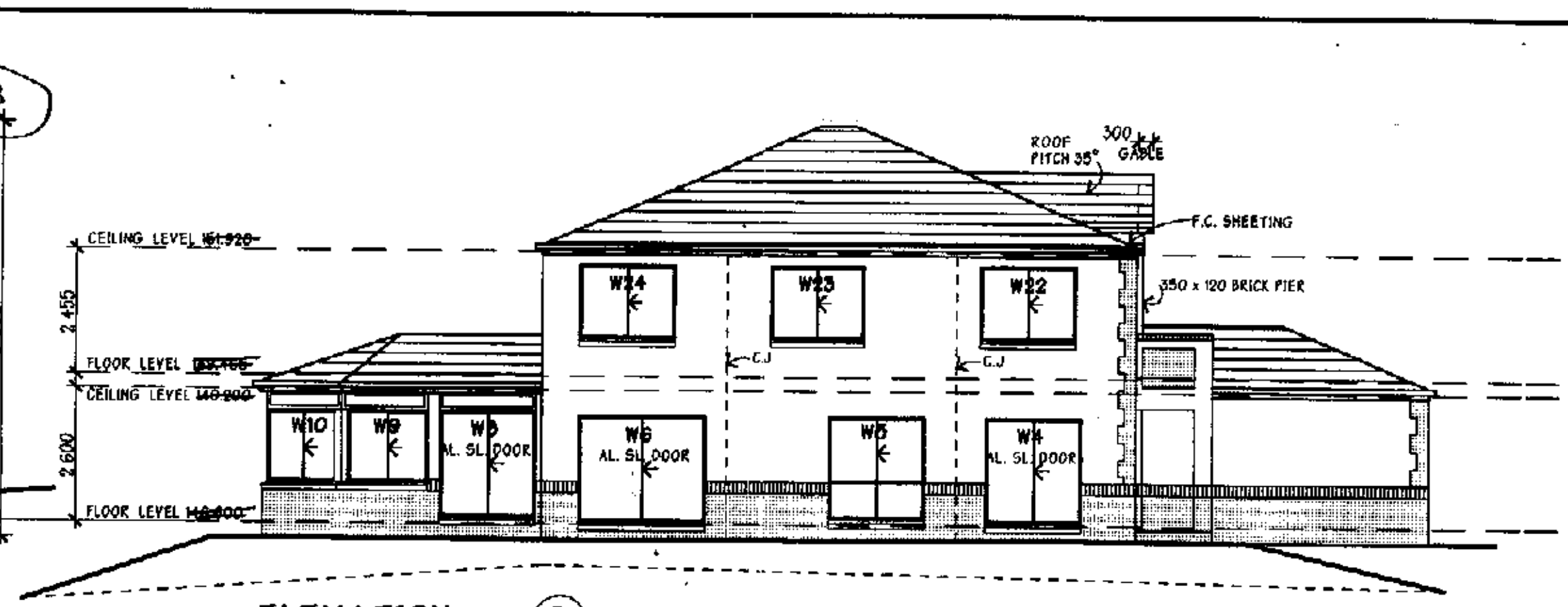
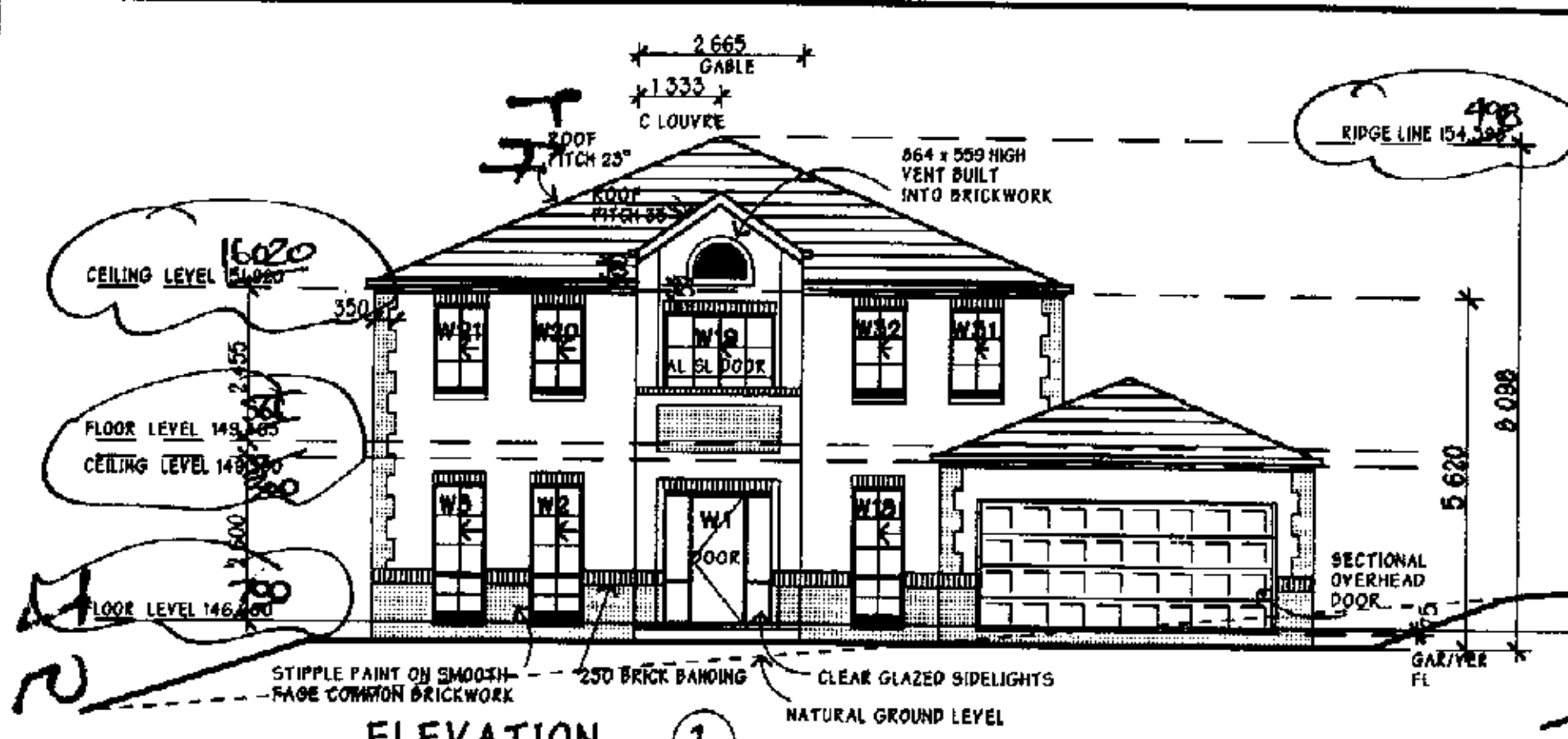
MINIMUM PIER DEPTH IS 300 BELOW FOOTING TRENCH, IF ANY PIER OR FOOTING ENCOUNTERS ROCK OR SHALE, THEN ALL FOOTING BEAMS MUST BE PIERED TO ROCK OR SHALE.

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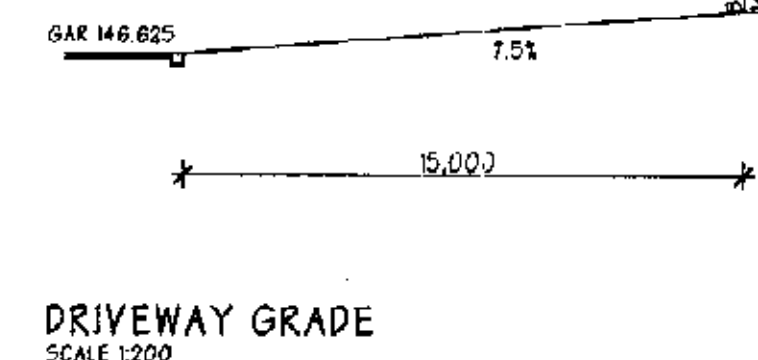
DO NOT SCALE OFF. DO NOT KEEP SUPERSEDED DRAWINGS ON SITE.



DO NOT SCALE OFF. DO NOT KEEP SUPERSEDED DRAWINGS ON SITE.



WINDOW SCHEDULE (STUD OPENINGS)				WINDOW SCHEDULE (STUD OPENINGS)			
No.	CODE	H x W	DOOR BY BLK	No.	CODE	H x W	DOOR BY BLK
W1	2109	2100 x 1700	DOOR BY BLK	W28	1016	1090 x 1604	SPOTSWOOD
W2	2109	2100 x 1700	COL BARS	W29	1009	1090 x 1604	SPOTSWOOD
W3	2109	2100 x 1700	COL BARS	W30	1009	1090 x 1604	SPOTSWOOD
W4	SD2118	2140 x 1660	AL. SL. DOOR	W31	1409	1435 x 1604	COL BARS
W5	2118	2140 x 1660	AL. SL. DOOR	W32	1409	1435 x 1604	COL BARS
W6	SD2118	2140 x 1660	AL. SL. DOOR	W33	1409	1435 x 1604	COL BARS
W7	1416	1435 x 1604	AL. SL. DOOR	W34	1416	1435 x 1604	AL. SL. DOOR
W8	SD2118	2140 x 1660	AL. SL. DOOR	W35	1416	1435 x 1604	AL. SL. DOOR
W9	1416	1435 x 1604	AL. SL. DOOR	W36	1416	1435 x 1604	AL. SL. DOOR
W10	1416	1435 x 1604	AL. SL. DOOR	W37	1416	1435 x 1604	AL. SL. DOOR
W11	1416	1435 x 1604	AL. SL. DOOR	W38	1416	1435 x 1604	AL. SL. DOOR
W12	1416	1435 x 1604	AL. SL. DOOR	W39	1416	1435 x 1604	AL. SL. DOOR
W13	1416	1435 x 1604	AL. SL. DOOR	W40	1416	1435 x 1604	AL. SL. DOOR
W14	1416	1435 x 1604	AL. SL. DOOR	W41	1416	1435 x 1604	AL. SL. DOOR
W15	DF1	2100 x 1700	DOOR BY BLK	W42	1416	1435 x 1604	AL. SL. DOOR
W16	1006	1090 x 1604	SPOTSWOOD	W43	1416	1435 x 1604	AL. SL. DOOR
W17	DF1	2100 x 1700	DOOR BY BLK	W44	1416	1435 x 1604	AL. SL. DOOR
W18	2109	2100 x 1700	COL BARS	W45	1416	1435 x 1604	AL. SL. DOOR
W19	SD2118	2140 x 1660	AL. SL. DOOR	W46	1416	1435 x 1604	AL. SL. DOOR
W20	1409	1435 x 1604	COL BARS	W47	1416	1435 x 1604	AL. SL. DOOR
W21	1409	1435 x 1604	COL BARS	W48	1416	1435 x 1604	AL. SL. DOOR
W22	1416	1435 x 1604	COL BARS	W49	1416	1435 x 1604	AL. SL. DOOR
W23	1416	1435 x 1604	COL BARS	W50	1416	1435 x 1604	AL. SL. DOOR
W24	1416	1435 x 1604	COL BARS	W51	1416	1435 x 1604	AL. SL. DOOR
W25	1416	1435 x 1604	COL BARS	W52	1416	1435 x 1604	AL. SL. DOOR
W26	1006	1090 x 1604	SPOTSWOOD	W53	1416	1435 x 1604	AL. SL. DOOR
W27	1016	1090 x 1604	SPOTSWOOD	W54	1416	1435 x 1604	AL. SL. DOOR
W28	1009	1090 x 1604	SPOTSWOOD	W55	1416	1435 x 1604	AL. SL. DOOR



SITE PLAN
SCALE 1" = 200'

ALL LEVELS ARE APPROXIMATE ONLY.
FINISH LEVELS ARE LOCATED BY SURVEY.

PL DENOTES REDUCED LEVEL
P.F.L. DENOTES FINISHED FLOOR E.L.S.
S.S. DENOTES FINISHED GRADE SURFACE
ST. DENOTES PARKING PAVEMENT LEVEL

WINDOW SCHEDULE

No.	CODE	STUD OPENINGS	H x W
W1			
W2			
W4			
W5			
W6			
W7			
W8			
W9			
W10			
W11			
W12			
W13			
W14			
W15			
W16			
W17			
W18			
W19			
W20			
W21			
W22			
W23			
W24			
W25			
W26			
W27			
W28			

WINDOW SCHEDULE

No.	CODE	H x W
W29		
W30		

AREAS:

LIVING: VERANDAH

GARAGE: TOTAL

SOIL CLASSIFICATION

TERMIN CATEGORY 3 (M)

SHEDDING MULTIPLE (M)

TOPSOIL APICAL MULTIPLE (M)

WIND DESIGN VELOCITY (M)

DATE	AMENDMENTS	REVISION
23/01/02	CLIENT CHECK	A B C D
03/002	CLIENT CHECK - REVISED	L F P S
03/003	REPOSITIONED DWELLING ON SITE	

PROPOSED BRICK VENEER RESIDENCE

AT LOT 31, PART LOT 30

NO 15 BOROMIA ROAD

INGLISIDE

FOR: S. RICHER & J. GOSBELL

DATE: 1988

GENERAL NOTES

- * ALL WINDOW TO COMPLY WITH AS 2047 & AS 4055
- * FRAME OVERLEAF HEIGHT TO BE 240mm
- * UNDERSE OF HEAD FROM TOP OF PLATE TO BE 240mm FOR 23 Degree ROOF PITCH
- * 240mm FOR 25 Degree ROOF PITCH
- * FIGURED DIMENSIONS ARE TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS UNLESS OTHERWISE STATED. ALL DIMENSIONS ARE NOMINAL I.E. DIMENSIONS ARE TO STRUCTURAL ELEMENTS AND DO NOT INCLUDE FINISHED SURFACES SUCH AS PLASTERBOARD, TILING ETC.

ELECTRICAL LEGEND AND NOTES

- * G.P.O.'S TO BE FITTED 3000mm ABOVE FLOOR OR AS NOTED
- * LAUNDRY POWER POINT TO BE FITTED 1500mm ABOVE FLOOR
- * WALL LIGHTS TO BE 1500mm ABOVE FLOOR OR AS NOTED
- * TOP OF METER BOX TO BE 1500mm ABOVE GROUND/FATING
- * CENTRELINE OF G.P.O. OVER KITCHEN BENCHTOPS TO BE 1500mm ABOVE FLOOR
- * LIGHT SWITCHES TO BE AT DOOR HANDLE HEIGHT

LEGEND

G.P.O.'S	LIGHTS
SINGLE 10amp	CEILING LIGHT
DOUBLE 10amp	DOWN LIGHT
FRIDGE AT 1650mm	WALL LIGHT
RANGE HOOD 1800mm	WALL MOUNT FLOOD
MICROWAVE AT 1400mm	2-WAY SWITCH
DISHWASHER IN CABIN	FLUORESCENT
WINDWINDSAIL IN CPFD	

GENERAL SYMBOLS

EXHAUST FAN / LIGHT	GAS POINT
EXHAUST FAN	CO-AUXIAL T.V. POINT
FAN / LIGHT / HEATER	PHONE POINT
SMOKE DETECTOR	WALL PHONE POINT
ACCESS HOLE	METER BOX

APPROVED

APPROVED FOR DEVELOPMENT

APPROVED FOR DEVELOPMENT

APPROVED FOR DEVELOPMENT

DRAWN JAD

CHECKED JAD

SCALE 1:200

SHEET 2 of 3

DATE 1.10.20

DESIGN DURAL 36

FACADE REGENCY

STYLE LIFESTYLE

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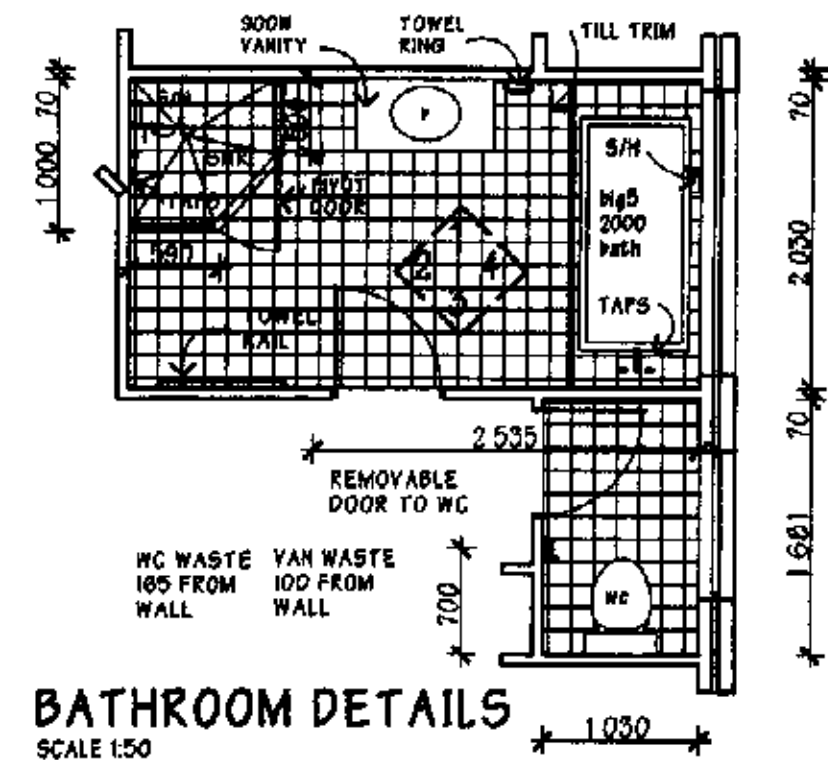
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Farmsteads & NEW 2024

1001 BURNING PTY LTD

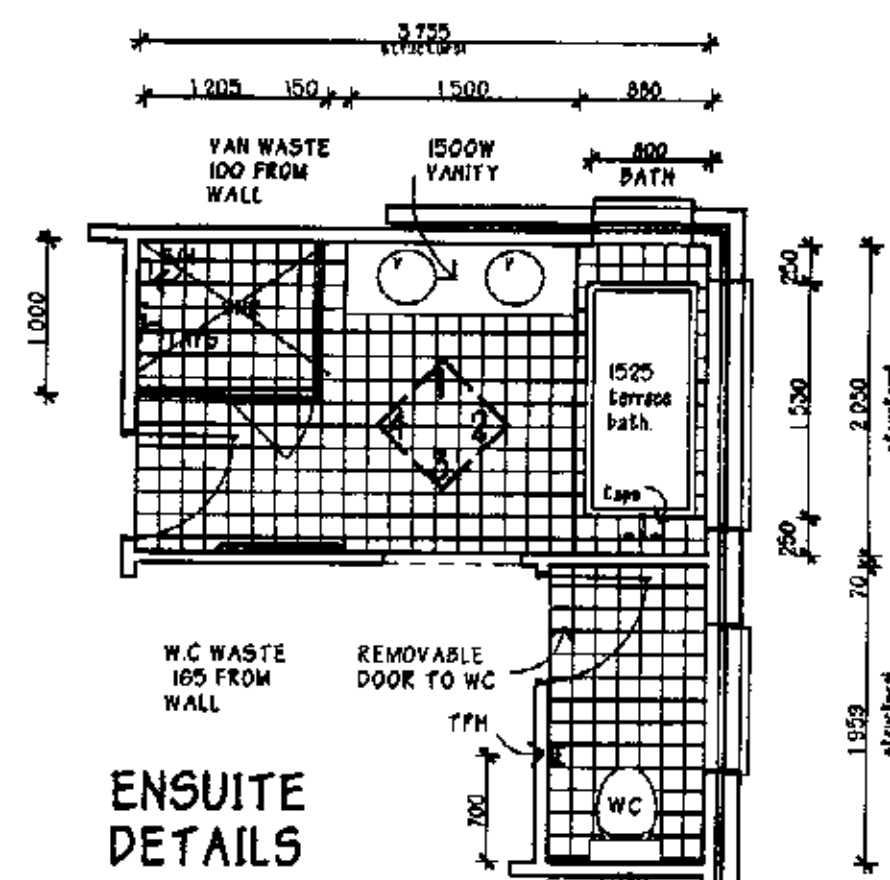
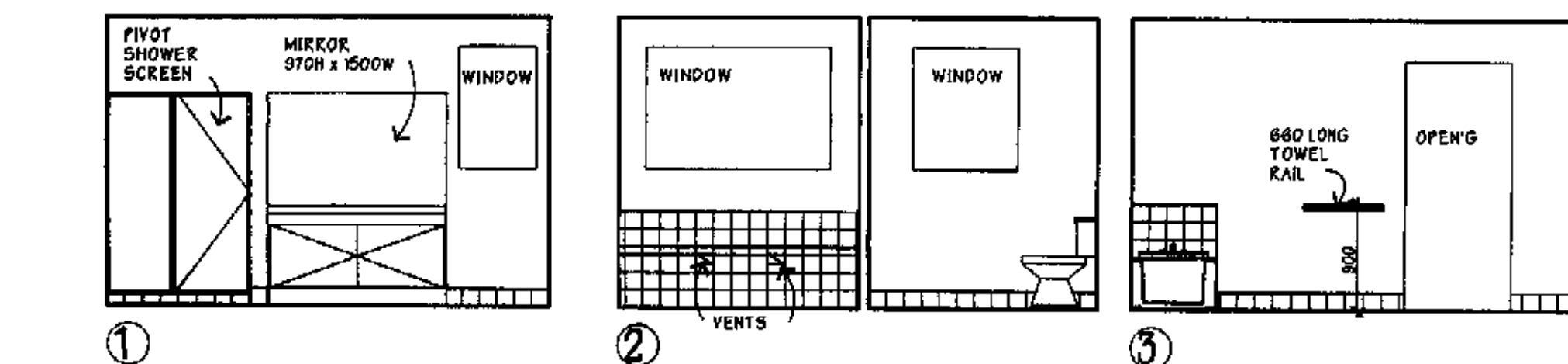
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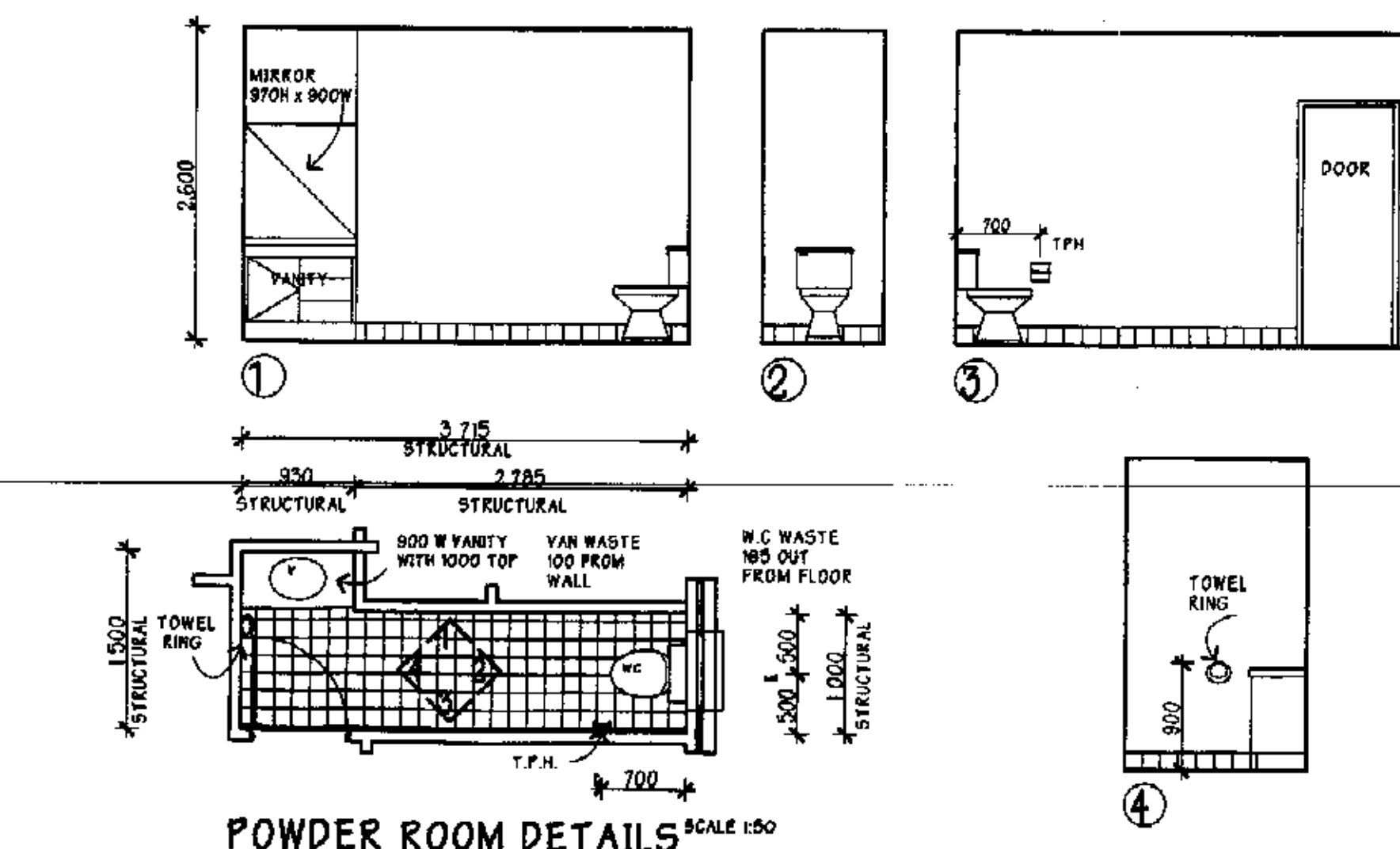


BATHROOM DETAILS

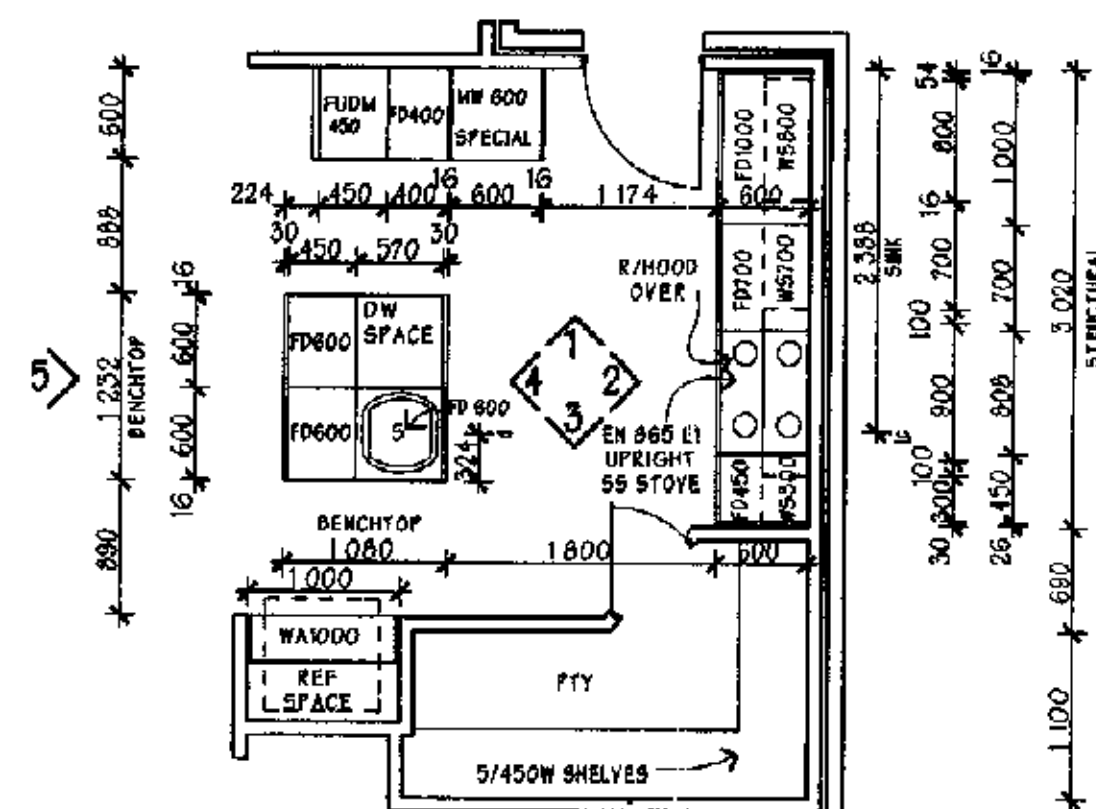
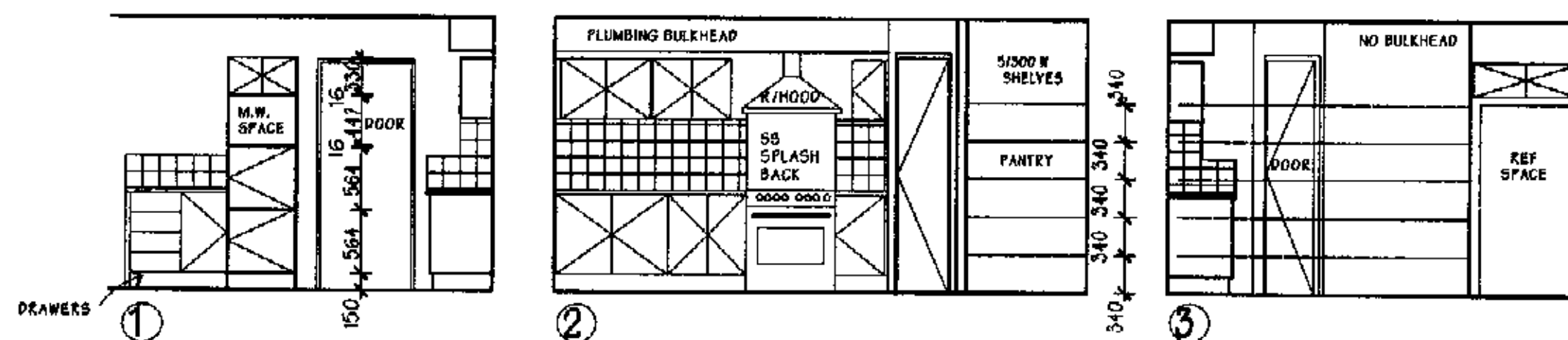
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ENSUITE DETAILS

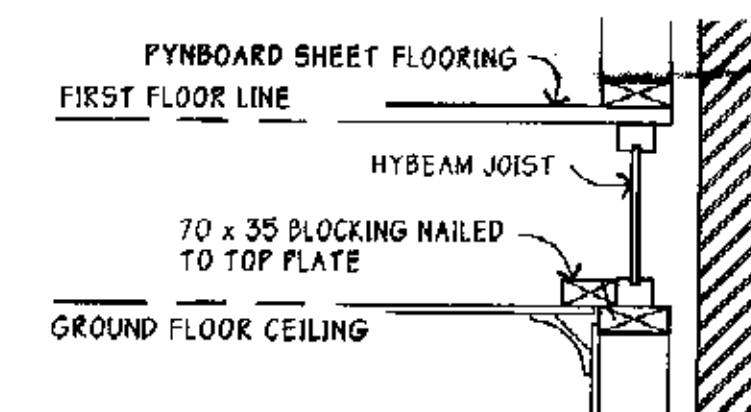
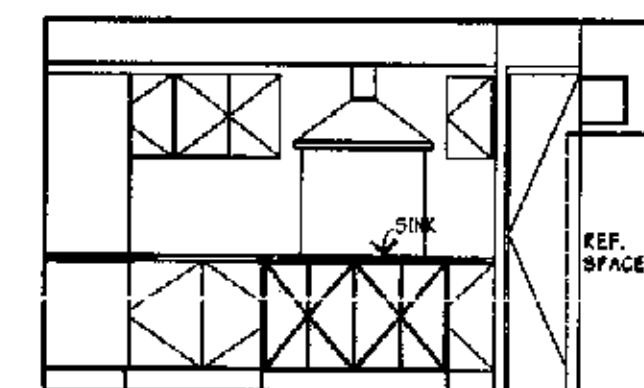
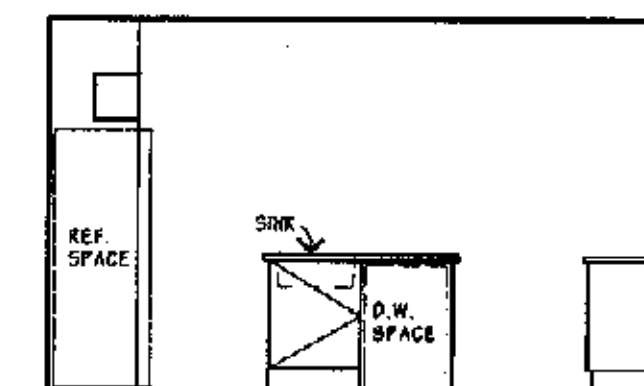


POWDER ROOM DETAILS SCALE 1:50

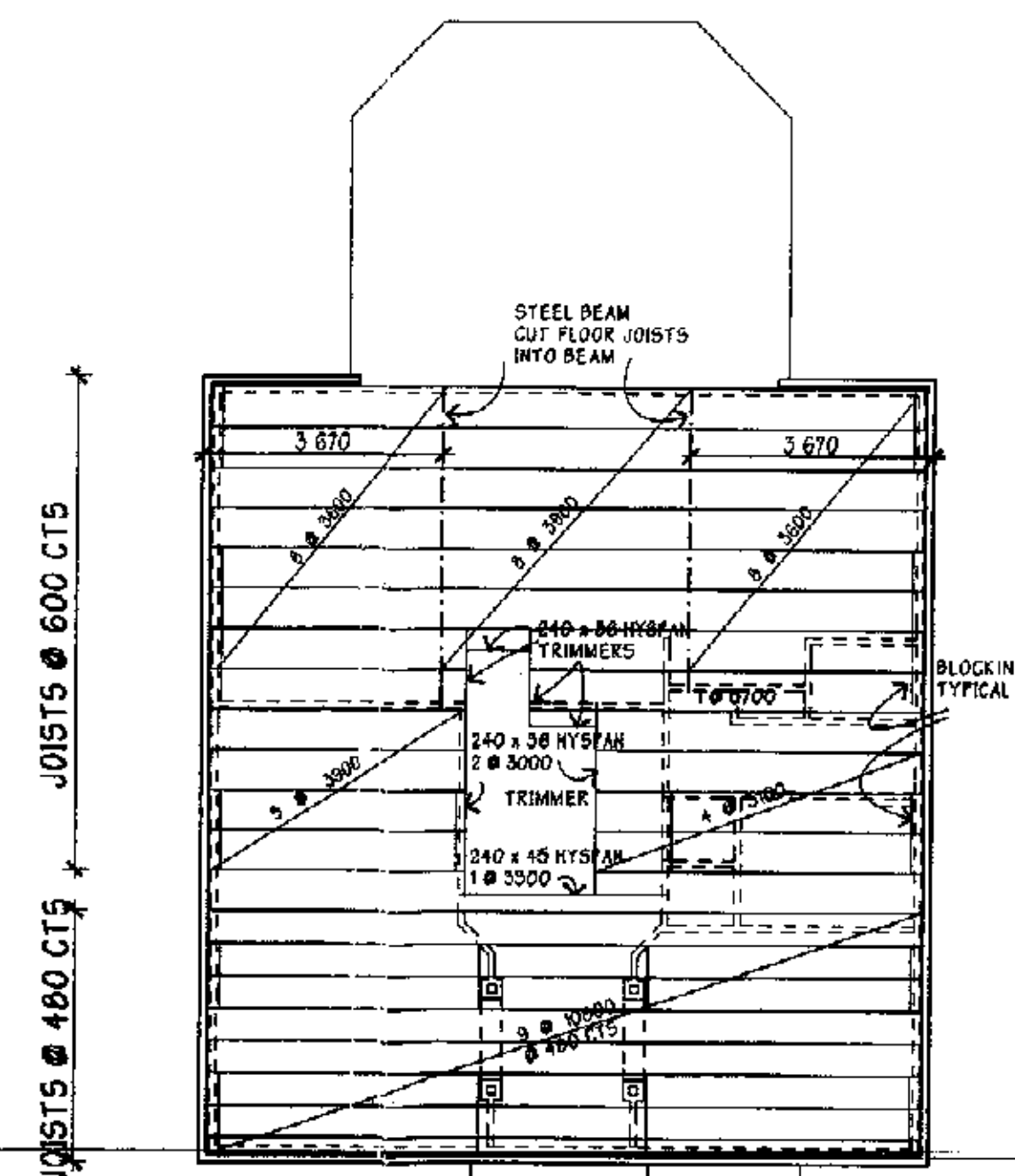


KITCHEN DETAILS

GLEM GAS STOVE

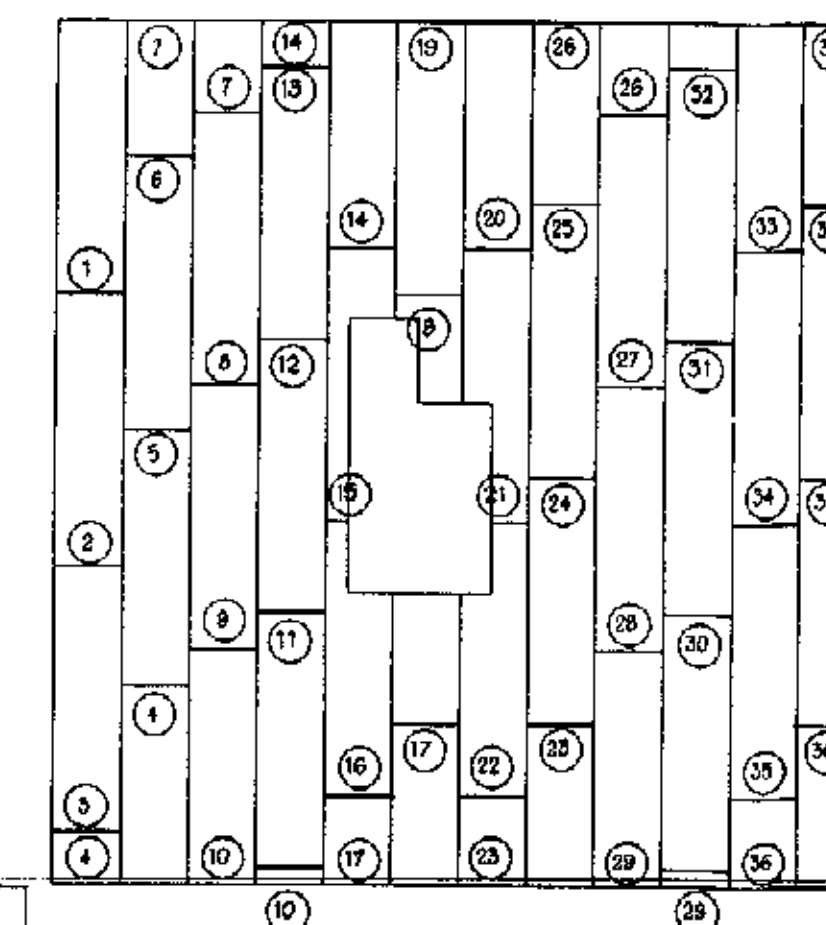


CEILING / JOIST FIXING DETAIL

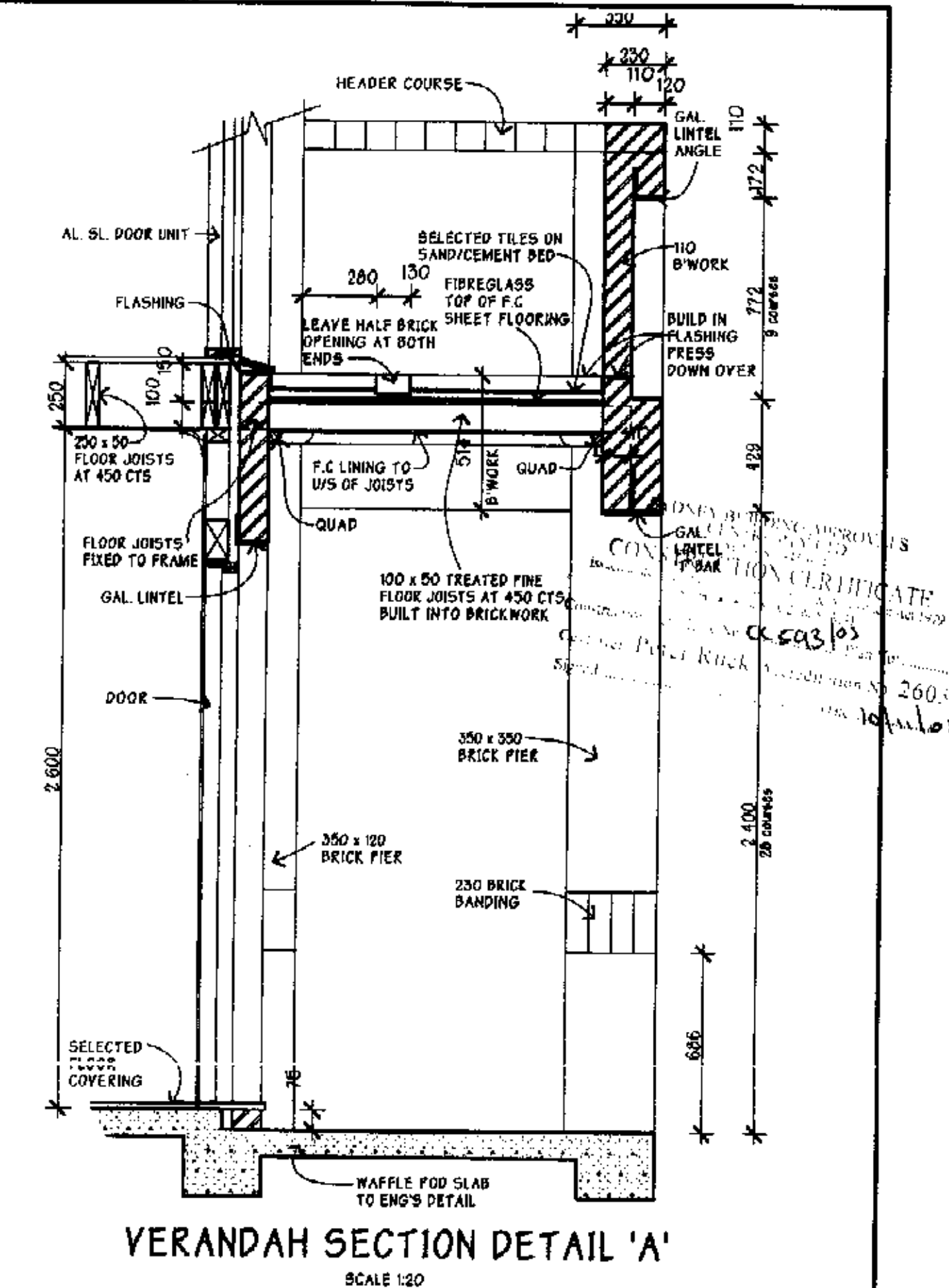


NOTE:
HJ 240 HYBEAM JOISTS

FLOOR JOIST LAYOUT
SCALE 1/8" = 1'-0"



22mm PYNEBOARD SHEET FLOORING
SHEET FLOORING LAYOUT
SCALE 1:100



VERANDAH SECTION DETAIL 'A'

SITE PLAN
SCALE: 1 : 200

ALL LEVELS ARE APPROXIMATE ONLY
AND ARE TO BE VERIFIED BY SURVEYOR.

R.L. DENOTES REDUCED LEVEL
F.F.L DENOTES FINISHED FLOOR LEVEL
F.G.L DENOTES FINISHED GROUND LEVEL
G.F. DENOTES GARAGE FLOOR LEVEL

WINDOW SCHEDULE			WINDOW SCHEDULE		
(STUD OPENINGS)			(STUD OPENINGS)		
No.	CODE	H x W	No.	CODE	H x W
W1			W28		
W2			W30		
W5					
W4					
W5					
W6					
W7					
W8					
W9					
W10					
W11					
W12					
W13					
W14					
W15					
W16					
W17					
W18					
W19					
W20					
W21					
W22					
W23					
W24					
W25					
W26					
W27					
W28					
W29					
W30					

AREAS:		POL CLASSIFICATION FLOOR CATEGORY 3 (M4) INSULATION MULTIPLIER (M4) TOPOGRAPHICAL MULTIPLIER (M4) WIND DESIGN VELOCITY (Vw)
LIVING:		
VERANDAH:		
GARAGE:		
TOTAL:		

DATE	AMENDMENTS	REV	DN
28/01/02	CLIENT CHECK	A	LF
5/01/02	CLIENT CHECK - REVISED	B	LF
16/01/02	CLIENT CHECK - REVISED 2	C	LF

PROPOSED BRICK VENEER RESIDENCE	
AT:	LOT 31, PART LOT 30, NO 15 BOKORNIA ROAD INGLESIDE
FOR:	B. RIEGER & J. GOSPILL
D.P.:	17765

GENERAL NOTES	
ALL WINDOW TO COMPLY WITH AS 2047 & AS 4055	

FRAME OVERPLATE NE
• INCREASE DE HEAD

* FOURED DIMENSIONS ARE TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS. UNLESS OTHERWISE STATED, ALL DIMENSIONS ARE NOMINAL I.E. DIMENSIONS ARE TO STRUCTURAL ELEMENTS AND DO NOT INCLUDE FINISHED SURFACES SUCH AS PLASTERBOARD, TILING ETC.

ELECTRICAL LEGEND AND NOTES

- G.P.O.'s TO BE FITTED 300mm ABOVE FLOOR OR AS NOTED.
 • LAUNDRY TOWER POINT TO BE FITTED 1500mm ABOVE FLOOR.
 • WALL LIGHTS TO BE 1950mm ABOVE FLOOR OR AS NOTED.
 • TOP OF METER BOX TO BE 1950mm ABOVE GROUND/PAVING.
 • CENTRALE OF G.P.O.'s OVER KITCHEN BENCHTOPS TO BE 1105mm ABOVE FLOOR.
 • LIGHT SWITCHES TO BE AT DOOR HANDLE HEIGHT.
- G.P.O.'s**
- LIGHTS**

SINGLE 10 amp

- DOUBLE 10 AMP
- F FRIDGE AT 1650mm
- R RANGE HOOD 1800mm
- M MICROWAVE AT 1400mm
- D DISHWASHER IN CPBD.
- DOWN LIGHT
- WALL LIGHT
- F WALL MOUNT FLOOD
- 2-WAY SWITCH
- FLUORESCENT

GENERAL EXHIBIT 6

- ### GENERAL SYMBOLS
- | | | | |
|---|----------------------|---|---------------------|
|  | EXHAUST FAN / LIGHT |  | GAS POINT |
|  | EXHAUST FAN |  | CO-AXIAL T.V. POINT |
|  | FAN / LIGHT / HEATER |  | PHONE POINT |
|  | SMOKE DETECTOR |  | WALL PHONE POINT |
|  | ACCESS HOLE |  | METER BOX |

LOCALITY SKETCH
THE COUNCIL OF PITTSWATER
APPROVED
DEVELOPMENT AND CONSENT PLAN
U.S.D. REFERENCE: 137
M4
JUL 31

LAME LANE
BOULEVARD
LAUREL RD
MONA VALE RD

DRAWN JAD
JOB DRAWN JI SCHWARTZ
CHECKED
SCALE
SHEET 3 of 3
1:200 1:100 1:50

DESIGN	DURAL 36	SPECIFICATION
FACADE	REGENCY	LIFE STYLE
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HUXLEY BUILDINGS PTY LTD ACN 018 917 751 Licensed Builder No. 920525 Locked 40270 Fernside Esd NSW 2124 Ph: (02) 9884 1236/60, Fax: (02) 9884 1260/60	<table border="1"> <tr> <th data-bbox="2715 1978 2766 1982">JOB No.</th> <th data-bbox="2766 1978 2831 1982">ISSUE</th> </tr> <tr> <td data-bbox="2715 1982 2766 1986">21870</td> <td data-bbox="2766 1982 2831 1986">C</td> </tr> </table>	JOB No.	ISSUE	21870	C
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