

**SYDNEY
BUILDING
APPROVALS
CENTRE**

- Principle Certifying Authority
- Building Regulation Consultation
- NatHERS Certifications
- Town Planning
- Building Approvals
- Inspections

DA (3) 09.10.2003
SYDNEY BUILDING APPROVALS CENTRE PTY LTD

ABN 96 081 945 904

Unit 18 Christies Homemaker Centre

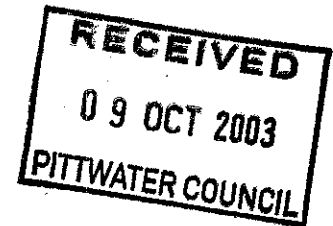
173-185 Canterbury Road, Bankstown NSW 2200

Phone: 9790 4741

Fax: 9796 4792

DX 11215 BANKSTOWN www.sbac.com.au

RESIDENTIAL • INDUSTRIAL • COMMERCIAL



Date: 3 October 2003

Pittwater Council
DX 9018, MONA VALE

**PREMISES: Lot 102, DP 1043971, 212 Garden St Warriewood
CONSTRUCTION CERTIFICATE: CC181/03**

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

A handwritten signature in black ink, appearing to be "Peter Ruck".

Peter Ruck
Building Surveyor

Pittwater Council

ABN: 61340837871

TAX INVOICE

OFFICIAL RECEIPT

09/10/2003 Receipt No 126431

To SYDNEY BUILDING APPROVALS
CENTRE PTY LTD

DX 11215
BANKSTOWN

Qty/ Applic	Reference	Amount
----------------	-----------	--------

1	RMIC-Rord	\$27.27
GL Rec 1 X	DP:1043971 CC:181/03	
	EST	\$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 09/10/2003 11:57:39 AM
Cashier BKilroy

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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.CC181/03

Environmental Planning and Assessment Act 1979 (as amended)

Date of determination:

3 October 2003

Attachments:

Development address:

Lot 102, DP 1043971, 212 Garden Street
WARRIEWOOD NSW

Applicant:

Wincrest Homes Pty.Ltd.
DX 8272, PARRAMATTA

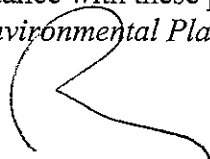
**Plans and specifications
approved**

Plans, drawings & Specifications
Two Storey Dwelling Class 1a & Garage Class 10a

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:

3 October 2003

Certificate no:

CC181/03

Certifying Authority

Name of certifying authority:

Peter Ruck

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

2603

Development consent

Number and date of

1063/02

Determination:

28 March 2003

Sydney Building Approvals Centre

Application for a construction certificate

If you want to carry out some building work or subdivision work (such as building roads or a stormwater drainage system), you need a construction certificate before you can start work. You can use this form to apply to us for a construction certificate. To complete the form, please place a cross in the boxes ☐ and fill out the white sections as appropriate. To minimise delay in receiving a decision about your application, please ensure you submit all relevant information.

1. Details of the applicant

Mr ☐	Ms ☐	Mrs ☐	Dr ☐	Other ☐
First name		Family name		Company/Organisation
				Wincrest Homes
Unit/street no.		Street name		
		P.O. Box 3606		
Suburb or town		State	Postcode	
PARRAMATTA		NSW	2124	
Daytime telephone		Fax	Mobile	
9635 1644		9633 4806		
Email				
annfawincrest.com.au				

2. Identify the land

Unit/street no.	Street name		
	GARDEN STREET		
Suburb or town		Postcode	
WARRIEWOOD		2102	
Lot no.	Section		
102			
DP/MPS no.	Volume/folio		

You can find the lot no., section, DP/MPS no. and volume/folio details on a map of the land or on the title documents for the land. If you need additional room, please attach a schedule and/or a map with these details.

3. Estimated cost of the development

\$ 163 000.00 including GST

4. Describe the development

What type of work do you propose to carry out?

Building work ☒

Subdivision work ☐

Describe the work:

TWO STOREY NEW DWELLING

For building work, what is the class of the building under the Building Code of Australia?

This can be found on the development consent.

Has development consent been granted for the development?

No ☐

Yes ☒

What is the development application no.?

What date was development consent granted?

5. Information to be attached to the application

You need to provide material with your application that is relevant to the type of work you propose to do. Please indicate the material you have attached by placing a cross in the appropriate boxes ☐

If you are going to carry out **building work**:

☐ a copy of any compliance certificates on which you rely.

☐ detailed plans of the building (4 copies)

The plans must be drawn to a suitable scale and consist of a general plan and a block plan.

The general plan of the building is to:

- show a plan of each floor section
- show each elevation of the building
- show the level of the lowest floor, the level of any yard or unbuilt area on that floor and the level of the ground
- indicate the fire safety and fire resistance measures (if any) and their height, design and construction

Where you propose to alter, add to or rebuild a building that is already on the land, or modify plans that have already been approved, please mark the general plan (by colour or otherwise) to show the change you propose to make.

☐ detailed specifications of the building (4 copies)

The specifications are to:

- describe the construction (including the standards that will be met), the materials which will be used to construct the building and the methods of drainage, sewerage and water supply
- state whether the materials proposed to be used are new or second hand and give details of any second-hand materials to be used.

Where you propose to modify specifications that have already been approved, please mark the approved specifications (by colour or otherwise) to show the modification.

☐ a plan of the existing building, drawn to scale, where the application involves building work to alter, enlarge or extend that building

This plan will assist us to assess whether the work will reduce the fire protection capacity of the building.

5. continued

- ☐ where you propose to meet the performance requirements of the Building Code of Australia (BCA) by using an alternative solution to the deemed-to-satisfy provisions of the BCA:
- a list of the performance requirements you will meet by using the alternative solution
 - the details of the assessment methods you will use to meet those performance requirements
 - a copy of any compliance certificates on which you rely
- ☐ evidence of any accredited component, process or design on which you seek to rely
- Components, processes or designs that relate to the erection or demolition of a building are accredited under the Environmental Planning and Assessment Regulation 2000.*
- ☐ details of the fire safety measures, unless you are building a single dwelling or a non-habitable building or structure (such as a private garage, carport, shed, fence, antenna, wall or swimming pool). These details are to include:
- a list of any fire safety measures you propose to include in the building or on the land
 - if you propose to alter, add to or rebuild a building that is already on the land, a list of the fire safety measures that are currently used in the building or on the land
- The lists must describe the extent, capability and the basis of design of each measure.*
- ☐ the attached schedule, completed for the development
- The information in the schedule will be used by the Australian Bureau of Statistics to report each quarter on the building activity that occurs in the economy. Building statistics allow governments and businesses to accurately identify main areas of population growth and demand for products and services.*

You may also need to pay a long service levy under section 34 of the *Building and Construction Industry Long Service Payments Act 1986* (or where such a levy is payable by instalments, the first instalment of the levy) before we can issue a certificate to you.

5. continued

3. If you are going to **change the use of a building** or the classification of a building under the Building Code of Australia and you are doing building work (unless the building will now be used as a single dwelling or a non-habitable building or structure (such as a private garage, carport, shed, fence, antenna, wall or swimming pool)):
- ☐ a list of any fire safety measures you propose to include in the building or on the land
 - ☐ if you propose to alter, add to or rebuild a building that is already on the land, a list of the fire safety measures that are currently used in the building or on the land
 - ☐ details as to how the building will comply with the Category One fire safety provisions of the Building Code of Australia
- The lists of fire safety measures must describe the extent, capability and the basis of design of each measure.*

6. Signatures

The owner(s) of the land must sign this application if:

- at the time the owner signed the development application, the owner did not give consent to the applicant to lodge a construction certificate, or
- the owner of the land has changed since the owner signed the development application.

As the owner(s) of the above property, I/we consent to this application.

Signature

M. Lawrence / SECRETARY

Name

SETTEE PTY LTD

Date

16.12.02

Signature

Name

Date

The applicant, or the applicant's agent, must sign the application.

Signature

M. Lomona

Name, if you are not the applicant

Date

16.12.07

7. Privacy policy

The information you provide in this application will enable us to assess your application. If the information is not provided, your application may not be accepted. Please let us know if the information you have provided in your application is incorrect or changes.

Schedule to application for a construction certificate

Please complete this schedule. The information will be sent to the Australian Bureau of Statistics.

All new buildings

Please complete the following:

Residential buildings only

Please complete the following details on residential structures:

- Will the new dwelling(s) be attached to other new buildings? **YES**
- Does the site contain a dual occupancy?
(NE dual occupancy = two dwellings on the same site) **NO**

Materials – residential buildings

Please indicate the materials to be used in the construction of the new building(s):

Walls	Code	Roof	Code	Floor	Code	Frame	Code
Brick (double)				Concrete or slate	☒	Timber	☒
Brick (veneer)	☒	Concrete or slate	☒				
Concrete or stone				Not specified	☐	Not specified	☐
Fibre cement							
Curtain glass	☐		☐				
Not specified	☐						

Sydney Building Approvals Centre

Notice to commence building or subdivision work and appointment of a principal certifying authority

This form can be used to:

- notify the council that you intend to commence building or subdivision work
- notify the council and us, if the Minister of Urban Affairs and Planning granted development consent or a complying development certificate, that you have appointed a principal certifying authority

To complete this form, please place a cross in the boxes ☐ and fill out the white sections as appropriate.

1. Details of the applicant

First name	Family name	Company/Organisation
		Wincrest Homes
Unit/street no.	Street name	
	P.O. Box 3606	
Suburb or town	State	Postcode
PARRAMATTA	NSW	2154
Daytime telephone	Fax	Mobile
9635 1644	9633 4806	
Email		
amf@wincrest.com.au		

2. Details of the land to be developed

Unit/street no.	Street name
	GARDEN STREET
Suburb or town	Postcode
WARRIEWOOD	2101
Lot/no.	Section
102	
DP/MPS no.	Volume/folio

3. Description of the work proposed

Type of work proposed
Building ☒
Subdivision ☐
Description of the work
TWO STOREY NEW DWELLING

4. Details of the development approvals granted

Details of the development consent

Development application no.

1063/2

Date the consent was granted

28/3/03

OR

Complying development certificate no.

Date the certificate was issued

Where a construction certificate has been issued for the building

Construction certificate no.

CC 181/03

Date the certificate was issued

3/10/05

5. Steps taken by the applicant

Indicate the steps you have taken by placing a cross in the appropriate boxes ☐

☐ I have met all the conditions in the development consent or the complying development certificate required to be satisfied before I can begin work

☒ I have appointed a principal certifying authority

Name of the principal certifying authority

Sydney Building Approvals

Address of the principal certifying authority

173 - 185 Canterbury Road

BANKSTOWN. NSW. 2200

Telephone no. of the principal certifying authority

9790 4741

Where the principal certifying authority is an accredited certifier

Accreditation body of the certifier

BSAP

Accreditation no. of the certifier

2603

6. Residential building work

1. Are you going to build a house or other dwelling or alter or add to a dwelling?

No ☐

Yes ☒ Please complete part 2 below

2. Are you an owner-builder?

Yes ☐ What is your owner-builder permit no.?

No ☒ Will the work be carried out by someone who is licensed to do so?

Yes ☒ What is the name of the builder?

Wincrest Homes PL

What is the telephone no. of the builder?

9635 1644

What is the contractor licence no. of the builder?

38383

6. continued

Have you attached to this notice evidence that the licensed person is insured to carry out this type of work?

Yes ☒

No ☐

No ☒

Have you attached to this notice a declaration (signed by each owner of the land) that the reasonable market cost of the labour and materials to be used is less than \$3000?

Yes ☒

No ☐

7. Date the work will commence

ASAP

8. Signatures

The principal certifying authority must sign the notice.

I acknowledge that I have seen evidence that the builder is licensed and insured, or that I have seen evidence that the building works are to be undertaken by a person with an owner-builder permit.

I acknowledge that I have been appointed by the applicant to carry out the role of the Principal Certifying Authority for this development.

Signature



Name

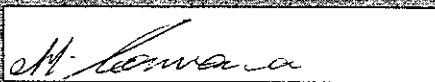
Peter Ruck

Date

3/10/03

The applicant, or the applicant's agent, must sign the notice.

Signature



Name, if you are not the applicant

WINCREST HOMES P/L

Date

16-12-02

9. Privacy policy

The information you provide in this notice is required under the *Environmental Planning and Assessment Act 1979* if you are going to erect a building or carry out subdivision work. If you do not provide the information you cannot commence the work. The information will be held by us and by the council. Please let us know if the information you have provided in this notice is incorrect or changes.

certificate

of insurance

Setlee Pty Ltd
P O Box 3606
PARRAMATTA NSW 2150

FORM 1

HOME BUILDING ACT 1989

Section 92

Certificate in respect of insurance

CONTRACT WORK

A contract of insurance complying with Section 92 of the Home Building Act 1989 has been issued by: Royal & Sun Alliance Insurance Australia ACN 005 297 807 ABN 48 005 297 807

In Respect Of: Single Dwelling

At: Lot No: 102 Unit No: House No:
Garden St
WARRIEWOOD NSW 2102

Carried Out By: Wincrest Homes Pty Limited
ABN:

Subject to the Act and the Home Building Regulation 1997 and the conditions of the insurance contract, cover will be provided to a beneficiary described in the contract and successors in title to the beneficiary.

Signed for and on behalf of the insurer:

AON  **HIA INSURANCE SERVICES**
Tailormade for the trade

HIA INSURANCE SERVICES P/L
ABN 84 076 460 967
An associated company of
Aon Risk Services Australia Ltd
PO Box 241
Ryde NSW 2112
Telephone (02) 9808 7222
Facsimile (02) 9808 7233
CLAIMS ENQUIRY LINE
1800 554 255

Certificate No: 269460
Owner's Copy
Issue Date 23/05/2003

Please note that Aon Risk Services Australia Ltd ABN 17 000 434 720 is arranging the insurance policy as agent of the insurer below.

They also act as agent of the insurer below and not as agent of the insured in dealing with or settling any claim.

Total includes Policy Fees, Stamp Duty and GST.

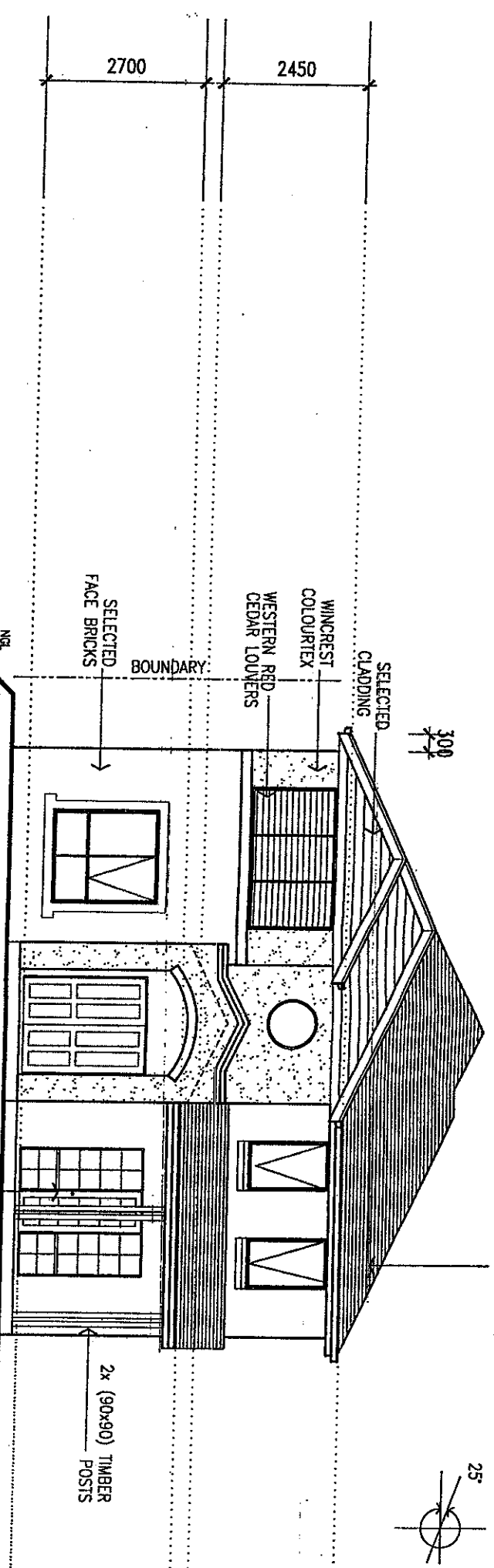
Insurer:

- Royal & Sun Alliance Insurance
Australia Ltd

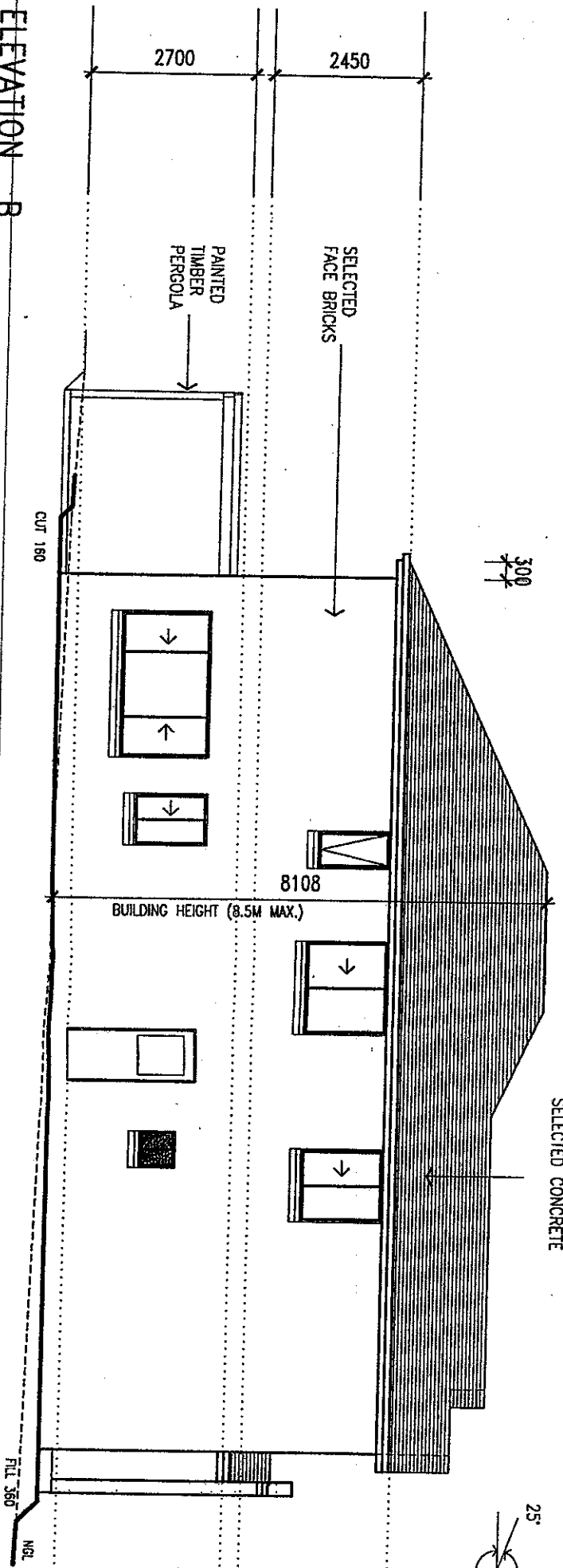


NOTE:

- ALL WINDOWS TO PLACED DIRECTLY UNDER EAVES
- INFILL PANELS ABOVE SLIDING DOORS AND EXTERNAL DOORS WHERE REQ'D
- GARAGE DOOR HEAD HEIGHT 2140mm



ELEVATION A



ELEVATION B

THE COUNCIL OF PITWATER
APPROVED
DEVELOPMENT CONSENT PLAN

SYDNEY BUILDING APPROVALS
CENTRE PTY LTD
AC NO 945 912
CONSTRUCTION CERTIFICATE
AS Issued under the Environmental Planning & Assessment Act 1979
Construction Certificate No: **cc161/03** Plan No: **2603**
Certifier: Peter Kuik Accreditation No: 2603
Signed: **3/1/03** Date: **3/1/03**

Fernbrook Sanctuary
Approved Date: 21-11-02
Approved By: *[Signature]*
Note: Pittwater Council approval required prior to site start
Stockland
Stockland (Constructors) Pty Limited
A B N: 71 000 664 885

ISSUE		AMENDMENTS		DATE	Copyright reserved. No part of these plans may be reproduced or transmitted in any form without the written permission of Wincrest Homes Pty Ltd.  Wincrest Homes Pty Ltd ACN 002 989 755 Gold Builders Licence N 38383 18 Pitt St, Parramatta NSW 2150 Ph: (02) 9655 1644 Fax: (02) 9653 4806	CLIENT: PROPOSED RESIDENCE FOR: Wincrest Homes		DESIGN NAME: FS12	
A		PLAN REVISION (Gg)		15.11.02		DESIGN N : SPECIAL		JOB N: DATE: 28.07.02	
						ADDRESS: PROPOSED RESIDENCE AT: Lot 102 Garden St Fernbrook Sanctuary		DRAWN: AT CHECKED:	
								SCALE: 1:100 DRAWING N : OF	
								DO NOT SCALE DRAWING	

- ALL WINDOWS TO FIRST FLOOR TO BE PLACED DIRECTLY UNDER EAVES
- GROUND FLOOR WINDOW HEAD HEIGHT 2200
- INFILL PANELS ABOVE SLIDING DOORS AND EXTERNAL DOORS WHERE REQ'D
- GARAGE DOOR HEAD HEIGHT 2140mm

Architectural drawing of a house elevation. The drawing includes the following elements:

- Dimensions:**
 - Overall width: 2700
 - Overall height: 2450
 - Roof slope: 25°
 - Window height: 300
- Materials and Features:**
 - PAINTED CONCRETE ROOF TILES
 - PAINTED TIMBER PERGOLA
 - SELECTED FACE BRICKS
 - BOUNDARY
 - CUT 360
 - NGL
- Windows:**
 - Three windows are shown, each with a downward arrow indicating the direction of view.
 - The central window is larger and has a grid pattern.
- Compass Rose:**
 - Indicates the orientation of the drawing, with a 25° angle marked.

~~300~~ ~~300~~

2700

2450

WINCREST COLOURTEX

PAINTED APPLY TIMBER PERGOLA

Not prio

SELECTED FACE BRICKS

300

25

DE

Stockland

Approved Date: 24-11-02
Approved By: *[Signature]*
Note : Pittwater Council approval required
prior to site start

Stockland (Constructors) Pty Limited
A B N: 71 000 064 835

ISSUE	AMENDMENTS	DATE
A	PLAN REVISION (GG)	15.11.02

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Wincrest Homes Pty Ltd.

Wincrest Homes Pty Ltd
ACN 002 989 755
Gold Builders Licence N 38383
18 Pitt St, Parramatta NSW 2150
Ph: (02) 9635 1644 Fax: (02) 9633 4806

PROPOSED RESIDENCE FOR:
Wincrest Homes

ADDRESS:

PROPOSED RESIDENCE AT:
Lot 102 Garden St
Fernbrook Sanctuary

DESIGN NAME: FS12

DESIGN N :
FACADE:
SPECIAL

JOB N:	DATE: 28.07.02
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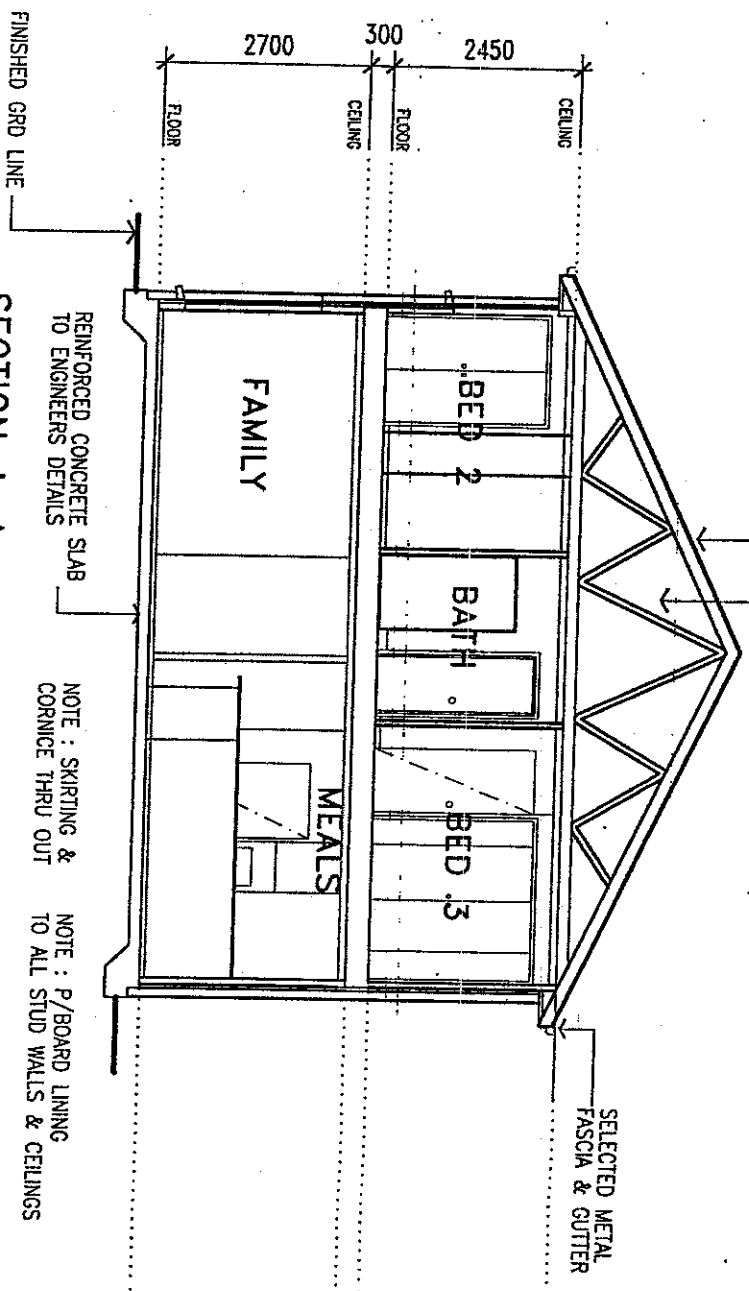
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SCALE: 1:100

DRAWING N : OF

DO NOT SCALE DRAWING

SELECTED CONCRETE
ROOF TILES_____



- GRD FLOOR WINDOW HEAD HT : 2143
- FIRST FLR WINDOWS TO BE PLACED DIRECTLY UNDER 300 EAVE LINE
- GARAGE DOOR HEAD HEIGHT 2140mm
- ALL ANGLED WALLS ARE AT 45°

NUMBER	HEIGHT	WIDTH	STYLE	TYPE
1	600	610	OBS.	SLIDING
2	1200	850	CLEAR	SLIDING
3	1460	2410	CLEAR	SLIDING
4	2410	2410	CLEAR	SLIDING
5	1460	1810	CLEAR	AWNING
6	1460	2170	CLEAR	AWNING
7	2100	610	BARS	FIXED
8	2100	610	BARS	FIXED
9	1800	1570	CLEAR	SLIDING
10	1370	2170	CLEAR	SLIDING
11	1370	1570	CLEAR	SLIDING
12	1200	610	OBS.	SLIDING
13	1200	1570	CLEAR	SLIDING
14	1200	1570	OBS/T	SLIDING
PIT/WATER	1200	1570	CLEAR	SLIDING
17	1200	1210	OBS/T	SLIDING
18	1370	850	CLEAR	AWNING
19	1370	850	CLEAR	AWNING
20	DIA	850	CLEAR	FIXED
21	1370	2410	LOUVERS	AWNING
SD 1	2100	2410	CLEAR	SLIDING

SECTION A-A

REINFORCED CONCRETE SLAB TO ENGINEERS DETAILS

NOTE : SKIRTING &
CORNICE THRU OUT

NOTE : P/BOARD LINING
TO ALL STUD WALLS & CEILINGS

GENERAL NOTES:

DESIGN/STRUCTURAL

- PART B CHEMICAL SPRAY TO PERIMETER OF HOME
- AS/NZS 3000-2000 ELECTRICAL REQUIREMENTS: SAFETY SWITCH TO FRIDGE AND LIGHT
- CIRCUITS; INSULATING SWITCH FOR WALL OVEN
- R1.5 WALL INSULATION TO EXTERNAL WALLS OF LIVING AREAS
- R2.5 CEILING INSULATION TO FAMILY, MEALS AND FIRST FLOOR

INTERNAL

- 6/8m x 13mm PAINTED COLONIAL ARCHITRAVES AND SKIRTING
- TAUBMANS 'LIVING PROOF' PAINT TO WALLS
- SELECTION 'B' TILES TO NON-TILED LIVING AREAS.
- NATURAL GAS INTERNAL PLUMBING FOR COOKTOP, HWS. 2 INTERNAL
- DOUBLE POWER POINTS THRU' OUT HOME.
- ALL ITEMS AS PER THE FENNBROOK SANCTUARY INCLUSIONS LIST.

HEATING POINT
Certification Certificate No. 6616103
Certifier: Peter Ruck
Signed:

Approved Date: 2/-1/-02
Approved By: *P. J. Jones*

0. Note: Pitwater Council approval required prior to site start

Stockland

Stockland Construction Pty Limited

SECTION AND WINDOW SCHEDULE

ISSUE	AMENDMENTS
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PLAN REVISION (CG)	A
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15.11.02

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Wincrest Homes Pty Ltd.



Wincrest Homes Pty Ltd
ACN 002 989 755
Gold Builders Licence N 38363
18 Pitt St, Parramatta NSW 2150
Ph: (02) 9635 1644 Fax: (02) 9633 4808

CLIENTS

PROPOSED RESIDENCE FOR:

WINCREST HOMES

ADDRESS:

PROPOSED RESIDENCE AT:

LOT 102
GARDEN STREET
FERNBROOK SANCTUARY

DESIGN NAME:

DESIGN N :

FACADE:

JOB N: 66661	DATE: 27.08.02
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DATE: 27.08.02

DRAWN: M.C.

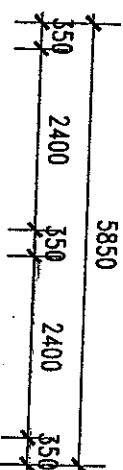
CHECKED:

SCALE: 1:100

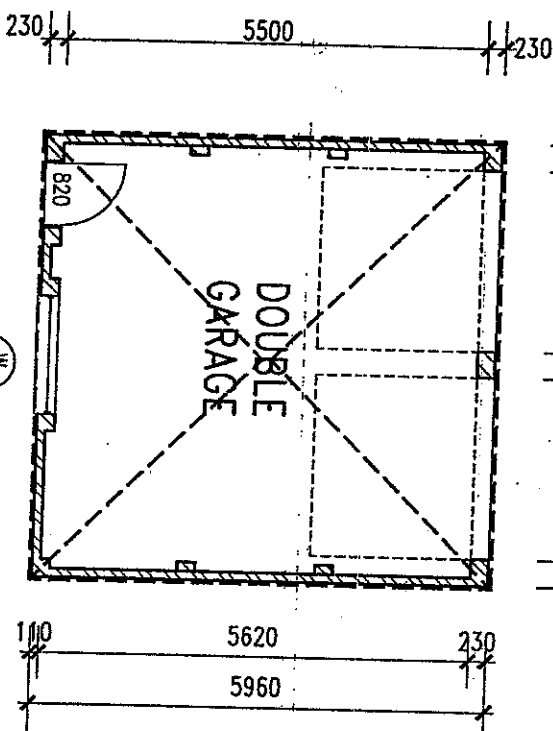
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DO NOT SCALE DRAWING

ELEVATION A

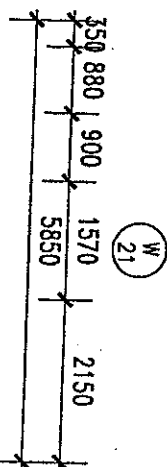


ELEVATION B



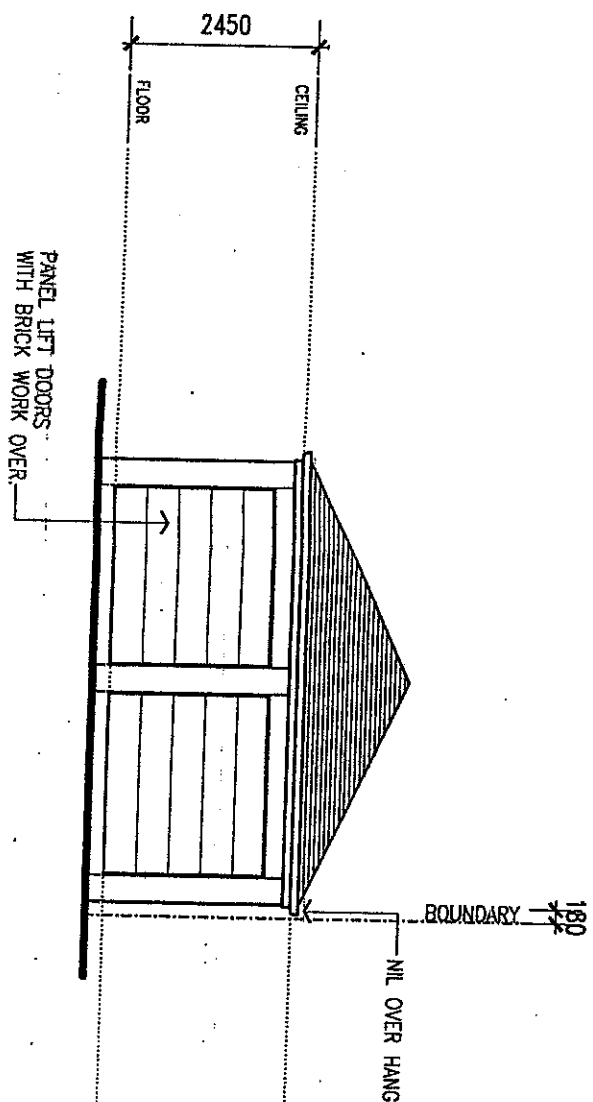
ELEVATION B

ELEVATION C

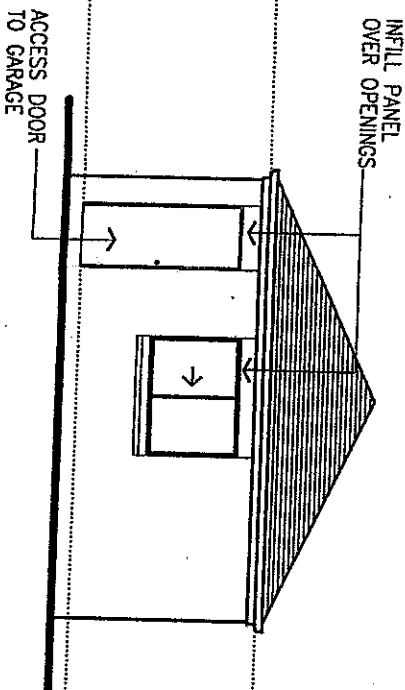


PLAN:

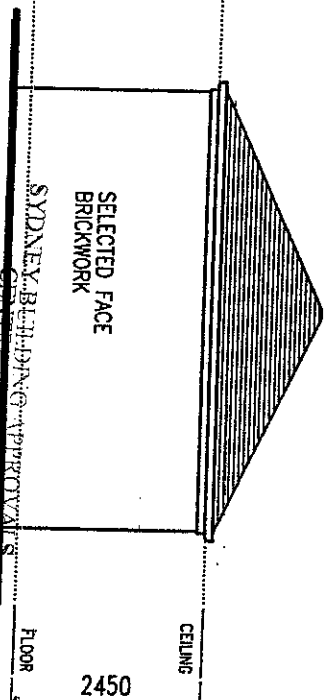
Fernbrook Sanctuary
 Approved Date: 21-11-02
 Approved By: *[Signature]*
 Note: Pittwater Council approval required prior to site start
Stockland
 Stockland (Constructors) Pty Limited
 A B N: 71 000 064 835



ELEVATION A



ELEVATION C



ELEVATION D

THE COUNCIL OF PITTWATER
APPROVED
 DEVELOPMENT CONSENT PLAN

CONSTRUCTION CERTIFICATE
 Issued under the Environmental Planning & Assessment Act 1979
 S109(1)(b)(ii), S1A(2) & S1A(3)
 Construction Certificate No: 2141
 Plan No: *[Signature]*
 Date: 31/10/02
 Accreditation No: 2603

ISSUE	AMENDMENTS	DATE	Copyright reserved. No part of these plans may be reproduced or transmitted in any form without the written permission of Wincrest Homes Pty Ltd.
A	PLAN REVISION (GG)	15.11.02	

Wincrest HOMES Wincrest Homes Pty Ltd ACN 002 989 755 36383 18 Pitt St, Parramatta NSW 2150 Ph: (02) 9655 1644 Fax: (02) 9653 4806	CUSTOMER: PROPOSED RESIDENCE FOR: WINCREST HOMES ADDRESS: PROPOSED RESIDENCE AT: LOT 102 GARDEN STREET FERNBROOK SANCTUARY	DESIGN NAME: - DESIGN N: - FACADE: - JOB N: - DATE: - DRAWN: GG CHECKED: - SCALE: 1:100 DRAWING N: OF DO NOT SCALE DRAWING
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A Total Concept Landscape Architects

47 Carter Street, Cammeray NSW 2062
Principal: John Storch B.L. ARCH. (UNSW) AAILA RLA
ABN: 73 278 166 292

Phone: (02) 9959 5965
Fax: (02) 9959 5383
Mobile: 0407 245 201

LANDSCAPE CERTIFICATION

To: Wincrest Homes Pty Ltd
PO Box 3606
PARRAMATTA NSW 2124

Certification no: 102
Date: 20 April 2003

**RE: RESIDENTIAL DEVELOPMENT
LOT 102 GARDEN STREET, WARRIEWOOD
DESIGN CERTIFICATION**

I am a qualified Landscape Architect.

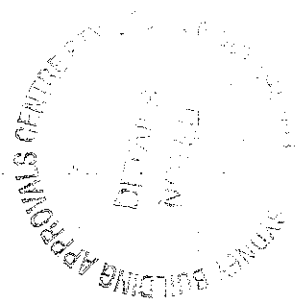
I hold a Bachelor of Landscape Architecture and I am a registered Landscape Architect.

I am appropriately qualified to certify this component of the project.

I hereby state that the landscape design prepared by us for the above address have been provided generally in accordance with planning policies relevant to DCP and planning guidelines for Warriewood Valley.

John Storch
NAME


SIGNATURE



PLANTING SCHEDULE

SYMBOL BOTANICAL NAME COMMON NAME POT SIZE NO. HEIGHT SPREAD

TREES

EP	EUCALYPTUS PUNCTATA	GREY GUM	45LT	1	10m	6m
ER	EUCALYPTUS ROBUSTA	SWAMP MAHOGANY	45LT	1	20m	10m
OG	CERATOPETALUM GUMMIFERUM	NSW XMAS TREE	45LT	1	6m	3m
MO	MELALEUCA QUINQUEMNERVIA	PAPERBARK	45LT	1	10m	5m

SHRUBS AND GROUNDCOVERS

CCT	CALLISTEMON CITRINUS	CRIMSON BOTTLEBRUSH	SLT	9	2m	2m
CC	CALLISTEMON 'CAPTAIN COOK'	RED BOTTLEBRUSH	SLT	13	1.5m	1.5m
GS	GREVILLEA SERICEA	SPIDER FLOWER	SLT	12	2m	1m
LL	LOMANDRA LONGIFOLIA	NATIVE GRASS	SLT	12	1m	1m
MR	MELALEUCA BRACCTEATA	PAPERBARK	SLT	2	2m	1.5m
OP	'REVOLUTION GOLD'					
OP	OMALANTHUS POPULIFOLIUS	BLEEDING HEART	15LT	2	4m	3m
PD	PULTENAEA DAPHNOIDES	PULTENAEA	15LT	9	1.5m	1.5m
PP	PANDOREA PANDORANA	WONGA WONGA VINE	2.5LT	3		CLIMBER

Note: 1. All dimensions and levels shall be verified by Contractor on site prior to commencement of work.

2. All detailing of drainage to paved areas shall be by others.

3. All levels shall be determined by others and approved on site by client.

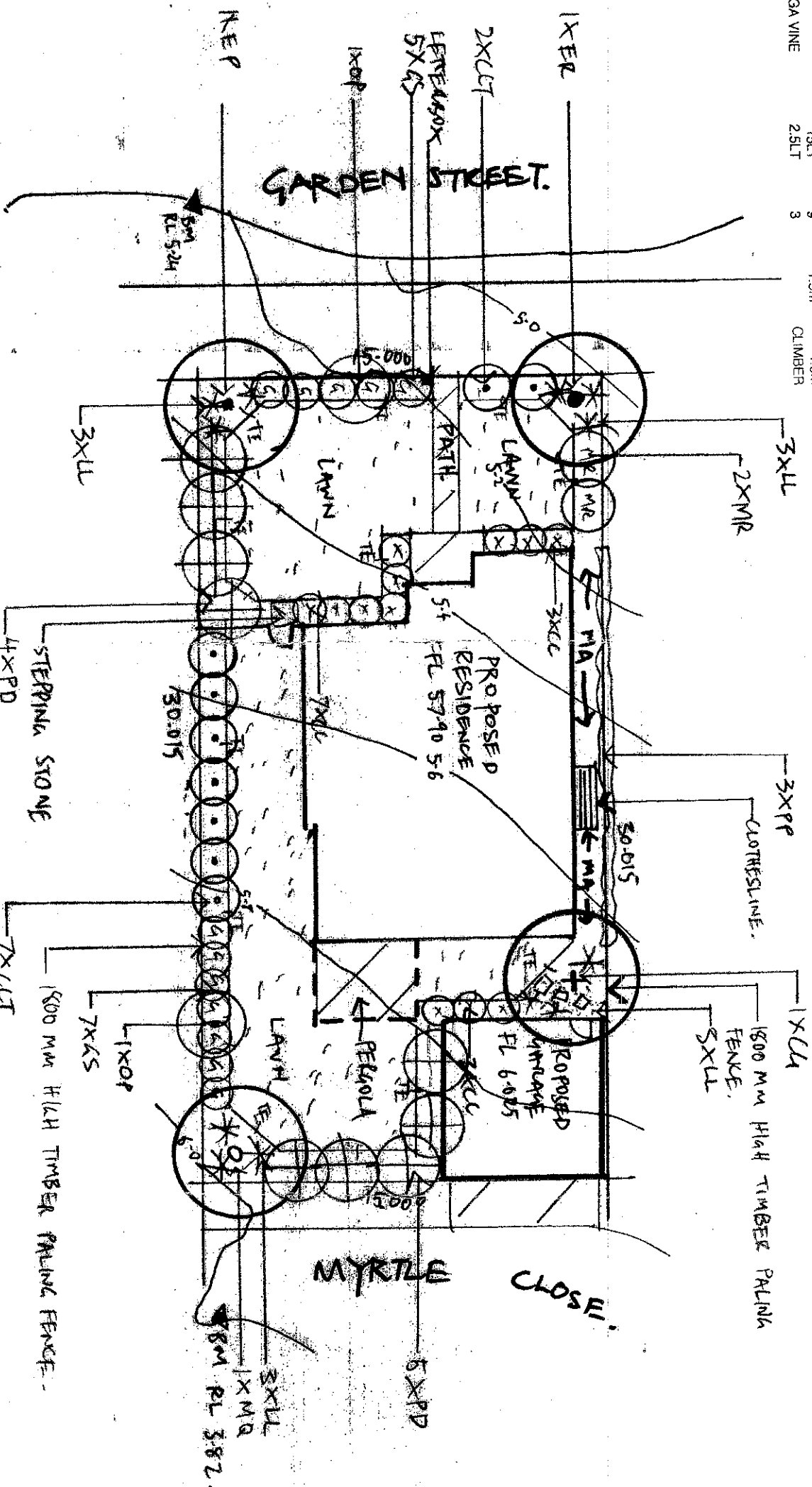
4. Do not scale from drawings.

5. If in doubt contact Landscape Architect.

6. All boundaries shall be surveyed prior to commencement of construction works.

LEGEND

- FFL 5.90 PROPOSED LEVEL
- 5.0 - EXISTING CONTOUR
- PAVED AREAS
- LAWN AREAS
- CLOTHESLINE
- TIMBER LAWN EDGE



I hereby certify that all landscape works designed herein by A Total Concept Landscape Architects comply with Building Code of Australia & Pittwater Council's Landscape DCP/Policy Plan no. 23 - Landscape and Vegetation Management and draft Warrivood Valley Development Control Plan.

J. STORCH B.L. Archt (UNSW) AAILA Landscape Architect

LANDSCAPE PLAN

LOT 102 GARDEN STREET, WARRIEWOOD

PREPARED FOR
WINCREST HOMES
18 PITT STREET, PARRAMATTA NSW 2124

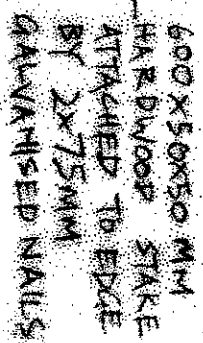
DESIGNED BY
A Total Concept

Landscape Architects

47 Carter Street Cammeray NSW 2062
Design: J. Storch Scale: 1:200 November 2002
Sheet 1/3



DETAIL 1:
CANAL TREE ST,
(DO NOT SCALE)



DETAIL 2:
AL TIMBER E
(DO NOT SCALE)

DETAILS PAGE
LOT 102 GARDEN STREET,
WARRIEWOOD

PREPARED FOR
WINCREST HOMES P/L

DESIGNED BY

A Total Concept

Landscape Architects

47 Carter Street Cammeray NSW 2062

3/3

Outline Landscape Specification

Initial Preparation: Verify all dimensions & levels on site prior to commencement. Do not scale from drawings. Locate all underground & above ground services & ensure no damage occurs to them throughout contract. Spray approved weedicide to all proposed lawn & garden areas to manufacturer's directions. Remove existing concrete pathways, footings, walls etc. not notated to be retained & weeds from site. Levels indicated on Plan are nominal only and are derived from Architectural Plans & Drawings by others. Final structural integrity of all items shall be the sole responsibility of Landscape Contractor.

Soil Preparation: Cultivate to depth of 300mm all proposed lawn & garden areas incorporating minimum 100mm depth of organic clay breaker into existing site soil. Do not cultivate beneath existing trees to be retained. In areas where fill is required gain required shapes & levels using a premium grade soil mix. In areas where excavation is required to allow for installation of 500mm depth of premium grade topsoil mix to garden areas and 300mm depth of premium grade topsoil mix to lawn areas. Undertake all required action to ensure that no rootballs of proposed plants sit in clay wells and that all garden areas and lawn areas drain satisfactorily. Note it is intended that wherever possible existing levels shall not be altered through garden and lawn areas. It is the Contractor's responsibility to ensure that the end result of the project is that all lawn and garden areas drain sufficiently (both surface & subsurface), are at required finished levels and have sufficient soil depths to enable lawn and plants to thrive and grow. Should alternative works to those specified be required to achieve the above result, Contractor shall inform Builder at time of Tender and request instructions.

Lawn Edging: Install 125 x 25mm approved tanalith impregnated pine edging to lines as indicated. Secure 450x50x50mm hardwood stakes pointed at end at maximum 1500mm centres to edging using 2x 50mm galvanised steel nails per stake. Top of edging shall finish flush with surrounding surfaces.

Planting: Purchase plants from an approved nursery. Plants to be healthy & true to type & species. Set out plants to positions indicated on plan. Following approval, plant holes shall be dug approximately twice width and to 100mm deeper than plant rootballs that they are to receive. Base and sides of hole shall be further loosened. Fertiliser, followed by 100mm depth of topsoil mix shall then be placed into base of hole and lightly consolidated. Base of hole shall then be watered.

Remove plant container and install plant into hole. Rootball shall be backfilled with surrounding topsoil and topsoil firmed into place. An approved shallow dish shall be formed to contain water around base of stem. Base of stem of plant shall finish flush with finished soil level. Once installed plant shall be thoroughly watered and maintained for the duration of the Contract.

Staking: All trees shall be staked using 2 x 38mm x 38mm x 2000mm long hardwood stakes per plant and with hessian webbing ties installed to Landscape Architect's on site instructions.

Mulching: Install 75mm depth of 25mm diameter hardwood mulch to all garden areas, covering mulch down around all plant stems & to finish flush with adjacent surfaces.

Turfing: Prepare for, level & lay cultivated wintergreen couch turves to all areas nominated on plan as being lawn. Roll, water, fertilise, mow & maintain lawns as necessary until completion of maintenance period. At same time make good all existing lawn areas using same lawn type. Lawns in shade shall be over sown with an approved seed mix. Allow to return and return council's nature strip as required.

Clotheslines & Letterboxes: Install clotheslines to position as indicated to manufacturer's instructions. Clothesline type shall be equal to 'Hills Quickdry'. Install selected letter boxes to positions as indicated on Plan to comply with Australia Post specifications and requirements. Letterbox type to be free standing on post and capable of holding A4 envelopes.

Fencing: An approved 1800mm high lapped and capped paling fence shall be installed to all lines as indicated on plans. All timber for use in fence shall be tanalith impregnated hardwood of grade suitable for intended use. Fence shall take up slopes rather than stepping. All components of fence shall be preprimed prior to assembly and painted approved colours upon installation using premium quality paints. All metal used in construction of fencing shall be galvanised steel.

Paving: Areas to be paved shall be excavated or filled to allow for installation of bedding materials. Levels and falls shall be as per Plan. Surface drainage on paving shall be towards grated drains with all drains connected to stormwater system and installed by Builder.

Completion: Prior to practical completion remove from site all unwanted debris occurring from work. Satisfy Council that all landscaping work has been undertaken in strict accordance with Council's landscape codes & guidelines.

Maintenance Period: A twelve month maintenance period shall be undertaken by owner or owner's representative as set out herein. Owner shall have care and maintenance of all work specified under this Contract and shall rectify any defective work for a period of 52 weeks following Practical Completion of Landscape Works. This period shall be herein known as the Maintenance Period. Work shall also include for the care and maintenance of all existing vegetation to be retained and proposed vegetation. Site shall be attended at least weekly and as otherwise required. The following works shall be undertaken during the Maintenance Period.

- (a) **Recurrent works** Undertake recurrent works throughout the Maintenance Period. These works shall include but are not limited to watering, weeding, fertilising, pest and disease control, returfing, staking and tying, replanting, cultivation, pruning, aerating, renovating, top dressing and the like.
- (b) **Watering** Regularly water all plants and lawn areas to maintain optimal growing conditions. Contractor shall adjust the water quantity utilised with regard to climatic conditions prevalent at the time.
- (c) **Replacements** Immediately replace plants which die or fail to thrive (at discretion of Landscape Architect) with plants of same species or variety and of same size and quality unless otherwise specified. Plant replacement shall be at Contractor's expense, unless replacement is required due to vandalism or theft, which shall be determined by Landscape Architect. Required replacement of plants due to vandalism or theft shall be undertaken by Contractor and shall be paid for by Client at an agreed predetermined rate.
- (d) **Mulched surfaces** Maintain mulched surfaces in clean, tidy, weed-free condition and shall reinstate mulch as necessary to maintain specified depths.
- (e) **Stakes & ties** Adjust and/or replace stakes and ties as required. Remove stakes and ties at end of Maintenance Period if directed by Landscape Architect.
- (f) **Lawn areas** Lawn areas shall be mown at regular intervals to ensure non heading of lawn with a fine-cutting mulching mower and clippings left on lawn to mulch and self-fertilise lawn areas. Primary cut after laying of lawn by others shall be determined on site taking into consideration season, watering and growth rate of lawn. Following the primary cut all lawns shall be regularly mown as required to ensure a healthy lawn and a neat appearance. Care shall always be taken to ensure that no clippings are left on surrounding roads or garden areas after mowing. Replace lawn areas that fail to thrive at discretion of Landscape Architect. All new and made good lawn areas shall be barricaded off from pedestrian traffic by use of star pickets and brightly coloured plastic safety mesh until establishment of lawn. Barricades shall be removed upon establishment of lawn area.
- (g) **Weeding** Remove by hand, or by carefully supervised use of weedicide, any weed growth that may occur throughout Maintenance Period. This work shall be executed at weekly intervals so that all lawn and garden areas may be observed in a weed-free condition.
- (h) **Pruning** Prune new and existing plants (excluding existing trees) as necessary to maintain dense foliage conditions. Any rogue branches, or branches overhanging or obstructing pathways, roads, doorways, etc., shall be removed by approved horticultural methods.
- (i) **Spraying** Spraying for insect, fungal and disease attack shall be undertaken as required and in accordance with spray manufacturer's recommendations at intervals taking into account the season of year during which landscape works are to be implemented.
- (j) **Tree Care** Should any existing trees be damaged during construction works immediately engage an experienced arboriculturist and then undertake any rectification work recommended by arboriculturist.

LANDSCAPE SPECIFICATION LOT 102 GARDEN STREET, WARRIEWOOD

PREPARED FOR
WINCREST HOMES P/L

DESIGNED BY

A Total Concept

Landscape Architects

47 Carter Street Cammeray NSW 2062

Design: J Storch Scale: 1:200 NOVEMBER 2002\

2/3

NASSERI ASSOCIATES

CIVIL, HYDRAULIC & STRUCTURAL ENGINEERING

Suite 9, 5-19 Burnt Street, Seaforth, NSW 2092

P O Box 714 Balgowlah NSW 2093

TEL. (02) 9948 8555 FAX.(02)9948 8655

Mobile : 0410 308064

YOUR REFERENCE
Wincrest Homes

OUR REFERENCE
D1298

DATE
10 September 2003

TO PITTWATER COUNCIL,

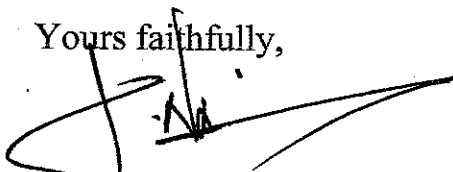
DESIGN CERTIFICATE

RE: – Lot 102 Garden Street, Fernbrook Sanctuary

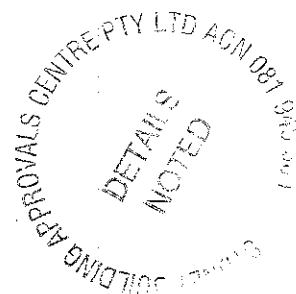
This is to certify that the hydraulic plans from Nasser Associates job no. D1298 dated 10 September 2003 for the above-mentioned property are in accordance with Pittwater Council's Policy and Guidelines for the Stormwater – dated February 1996, Development Application Conditions (In particular Condition B23) and relevant Australian Standards Codes.

If you require further information on the above matters, please contact the undersigned on the above telephone numbers.

Yours faithfully,



J. NASSERI
BE, MIEAust
NPER, CPEng.



Hydraulic Plans

Including Rainwater Tank Details,
Elevation Details,
Retaining Wall Details
and
Stormwater System
for

Proposed Single Residential Development at

Lot 102, D.P. 1043971,
Garden Street,
FERNBROOK SANCTUARY
(WARRIEWOOD)

10 September 2003

Pittwater Council
Consent No. N1063/02
Our Job Number: D1298

Nasseri Associates

Civil, Hydraulic and Structural Engineering
Suite 9, 5-19 Burnt Street, Seaforth NSW 2092
P O Box 714 Balgowlah NSW 2093
Tel. (02) 9948 8555
Mobile. 0410 308064
Fax. (02) 9948 8655
Email. [jnasseri @bigpond.net.au](mailto:jnasseri@bigpond.net.au)

Hydraulic Details:

1. Notes	1
2. Overall Site Plan	2
3. Drainage Plan (1 in 200)	3
4. RWT Details	4
5. Silt Arrestor Pit & Retaining Wall details	5

IMPORTANT NOTE:

The following hydraulic plans should be read in conjunction with;

- 1. Architectural plans from Wincrest Homes Pty Ltd, job no. 6661 dated 28 July 2002 (Phone: (02) 9635 1644).**
- 2. Pittwater Council's DA Conditions (In particular Condition B23).**

GENERAL NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH PITTWATER COUNCIL STANDARD SPECIFICATIONS AND TO THE SUPERVISING ENGINEER'S SATISFACTION.
2. THESE PLANS ARE TO BE READ IN CONJUNCTION WITH ARCHITECTURAL PLANS FROM WINCREST HOMES Pty.Ltd. JOB No. 6661, DATED 28 JULY 2002 (TEL (02) 9635 1644).
3. ALL STORMWATER PIPES TO BE 90 DIA. UPVC AT 1% MIN. FALL, UNLESS NOTED OTHERWISE. PIPE UNDER DRIVEWAY TO BE SEWER GRADE.
4. DEPTH AND LOCATION OF SEWER & SERVICES TO BE CONFIRMED PRIOR TO COMMENCEMENT OF DRAINAGE WORKS.
5. THE CONTRACTOR SHALL IMPLEMENT EROSION AND SEDIMENTATION CONTROL MEASURED AS NECESSARY, AND TO THE SATISFACTION OF COUNCIL PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND DURING CONSTRUCTION.
6. ENSURE FINISHED GROUND LEVELS ARE SLOPING AWAY FROM THE DEVELOPMENT & INTO PITS OR YARD SUMPS.
7. PLAN IS SUBJECT TO COUNCIL APPROVAL.

IMPORTANT NOTES

- THE FOLLOWING IMPORTANT STORMWATER NOTES ARE FROM CONSENT No. N1063/02, DATED 26 MARCH 2003 FROM PITTWATER COUNCIL (CONDITION B23):
1. RAINWATER TANKS MUST HAVE A TOTAL VOLUME OF 6.3m³ AND AN OVERFLOW PIPE, WHICH IS CONNECTED TO THE MAIN STORMWATER SYSTEM.
 2. THE TANK IS TO COLLECT THE MAJORITY OF ROOF RUNOFF AND STORE IT FOR IRRIGATION PURPOSES ONLY.
 3. ALL TANK OVERFLOW IS TO BE DIRECTED TO THE SITE'S PIPED STORMWATER DISPOSAL DRAINAGE SYSTEM.
 4. ALL RAINWATER TANK ARE TO BE INSTALLED AND MAINTAINED TO PREVENT CROSS CONNECTION WITH THE POTABLE WATER SUPPLY.
 5. NO 'TOPPING UP' DEVICE (FROM THE POTABLE WATER SUPPLY) SHALL BE PROVIDED FOR THE RAINWATER TANKS.
 6. ALL RAINWATER SERVICES SHALL BE CLEARLY LABELLED 'NON-POTABLE WATER' WITH APPROPRIATE HAZARD IDENTIFICATION.
 7. PIPEWORK USED FOR RAINWATER SERVICES SHALL BE COLOURED PURPLE IN ACCORDANCE WITH AS 1344.1 VALVES AND APERTURES SHALL BE CLEARLY AND PERMANENTLY LABELLED WITH SAFETY SIGNS TO COMPLY WITH AS 1319.
 8. CONNECTION OF AN AUTOMATIC IRRIGATION SYSTEM TO THE RAINWATER TANK TO ENSURE FULL UTILISATION OF THE STORED WATER AND TO MAINTAIN THE REQUIRED IRRIGATION RATE IS ENCOURAGED.

NASSERI ASSOCIATES

CIVIL, HYDRAULIC & STRUCTURAL ENGINEERING
SUITE 9, 5-19 BURNT STREET, SEAFORTH 2092
PO BOX 714, BALGOWLAH, NSW 2093
TEL. (02) 9948 8555
FAX. (02) 9948 8655
MOB. 0410 308 064
EMAIL. jnasseri@bigpond.net.au

J. NASSERI

B.E., M.L.E. Austl.

NPER, CP Eng.

10 Sept. 2003

SYMBOLS & NOTATIONS

---	STORMWATER LINES	SL	FINISHED SURFACE LEVEL
o	DRAIN PIPE	FPL	FINISHED FLOOR LEVEL
●	100 DIA YARD SUMP	FPL	FINISHED PLATFORM LEVEL
	225x100 GRATED BOX DRAIN	---	SEDIMENT CONTROL BARRIER
INV	INVERT LEVEL (PIPE / PIT)	---	PROPOSED BOUNDARY
NS	NATURAL SURFACE LEVEL	---	SEWER

HYDRAULIC DETAILS

CLIENT WINCREST HOMES
LOT 102 GARDEN STREET, WARRIEWOOD

NOTES

DESIGNED JN

DRAWN ME

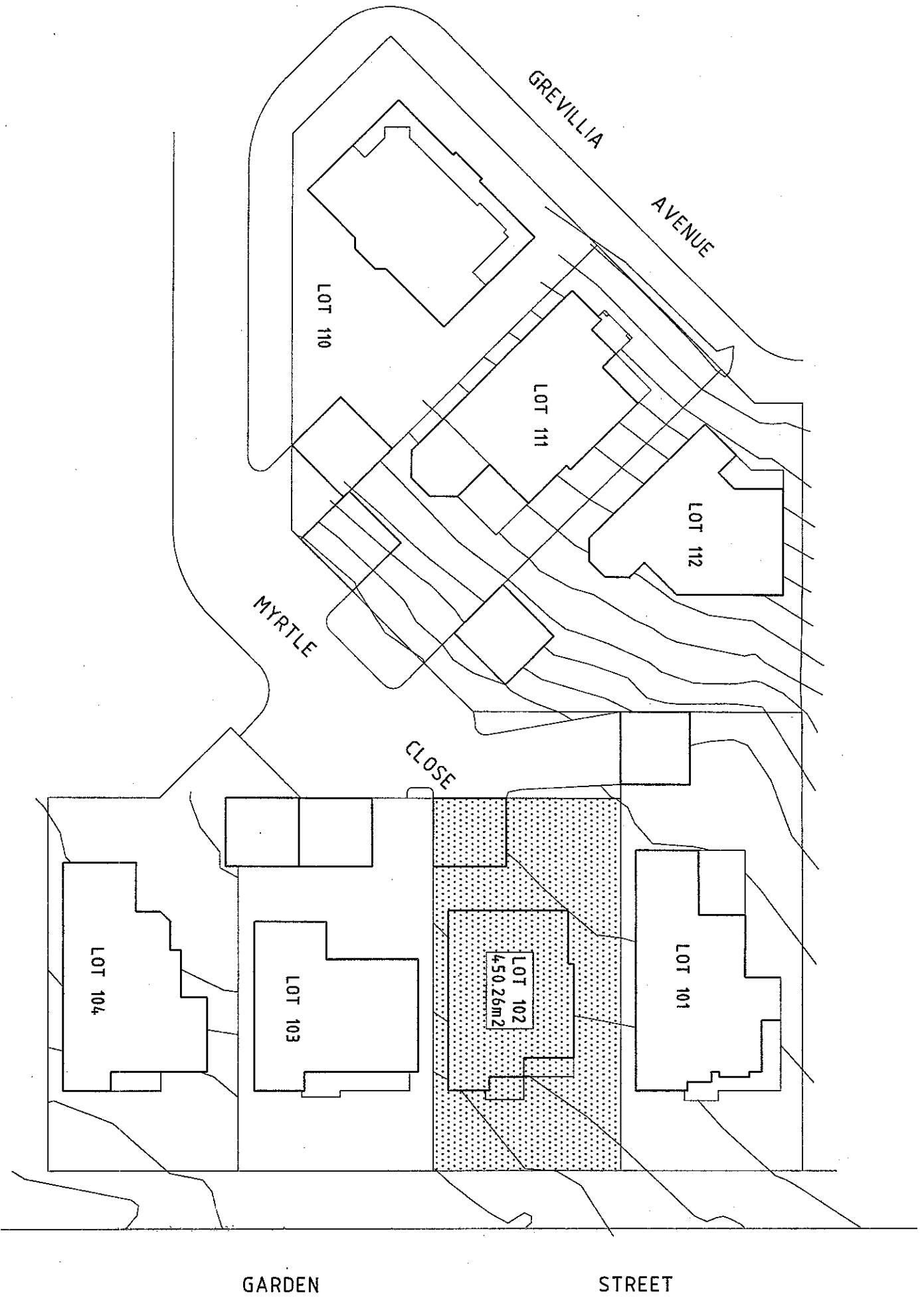
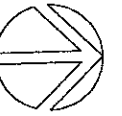
CHECKED JN

SCALE AS SHOWN

CAD REF. ENG/WINCREST

JOB No. D1298

SHEET No. 1 of 5



OVERALL SITE PLAN

SCALE 1:400

NASSERI ASSOCIATES

CIVIL, HYDRAULIC & STRUCTURAL ENGINEERING
SUITE 9, 5-19 BURNT STREET, SEAFORTH 2092
PO BOX 714, BALGOWLAH, NSW 2093
TEL. (02) 9948 8555
FAX. (02) 9948 8655
MOB. 0410 308 064
EMAIL. jnasseri@igpond.net.au

[Signature]
J. NASSERI
B.E., M.I.E. Aust.
NPER, CP Eng.

10 Sept. 2003

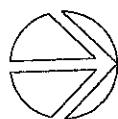
SYMBOLS & NOTATIONS

--- S ---	STORMWATER LINES	SL	FINISHED SURFACE LEVEL
o	DOWPIPE	FPL	FINISHED FLOOR LEVEL
●	100 DIA YARD SUMP	FPL	FINISHED PLATFORM LEVEL
	225x100 GRATED BOX DRAIN	---	SEDIMENT CONTROL BARRIER
INV	INVERT LEVEL (PIPE / PIT)	---	PROPOSED BOUNDARY
NS	NATURAL SURFACE LEVEL	---	SEWER

HYDRAULIC DETAILS

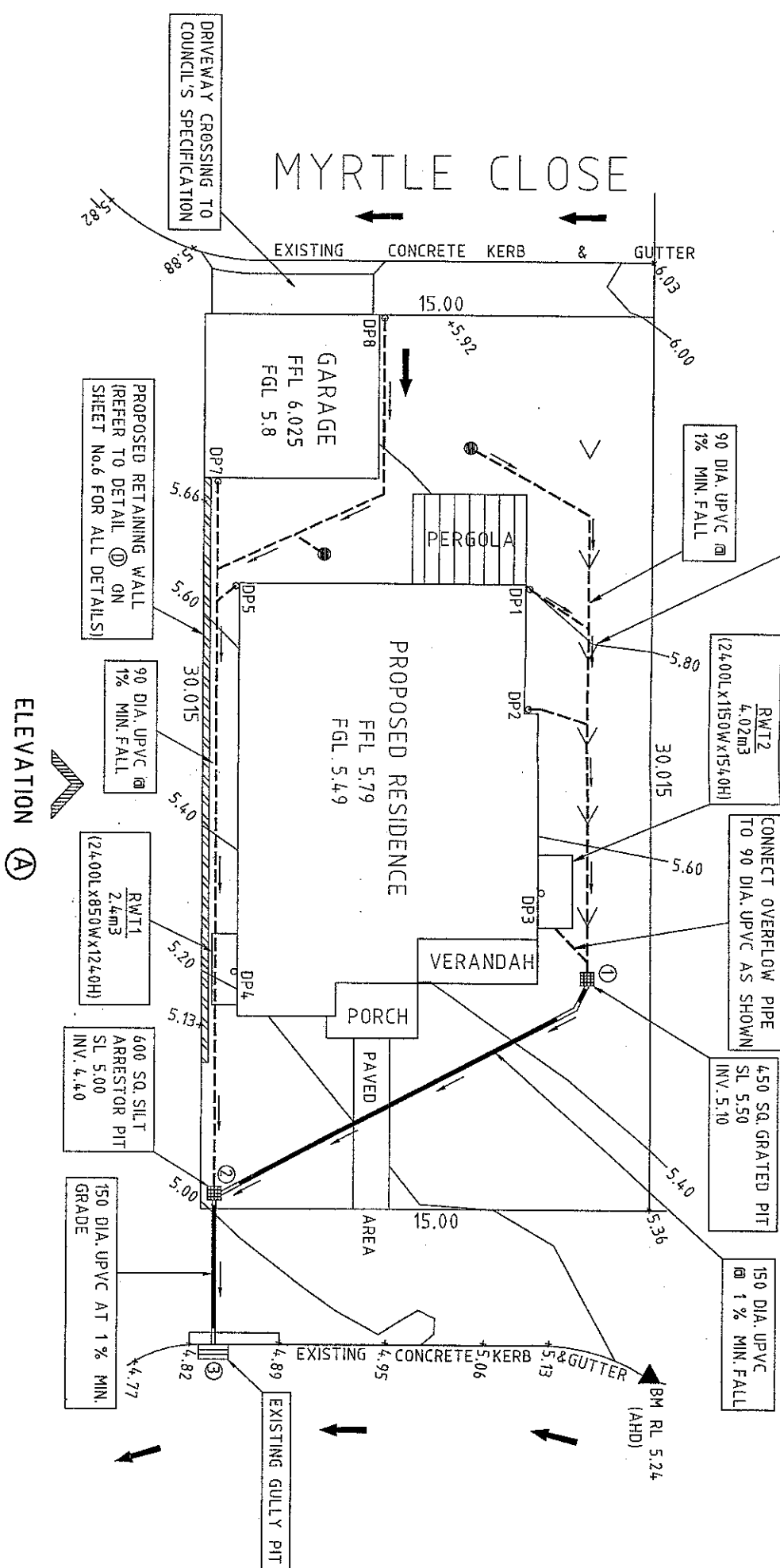
OVERALL SITE PLAN

ISSUE	AMENDMENTS	DATE
CLIENT WINCREST HOMES LOT 102 GARDEN STREET, WARRIEWOOD		
DESIGNED JIN	DRAWN ME	CHECKED JIN
SCALE AS SHOWN	CAD REF. ENG./WINCREST	JOB No. D1298
		SHEET No. 2 of 5



CREATE A SWALE OR EARTH MOUND FOR OVERLAND FLOW PATH TO DIVERT SURFACE WATER TO PIT ①

ELEVATION ②



GARDEN

STREET

PIT SCHEDULE

PIT No.	PIT SIZE (mmxmm)	TOP RL (m)	INVERT RL (m)	DEPTH (mm)	REMARKS
①	450 x 450	5.50	5.10	400	Medium duty grate, hinged & locked
②	600 x 600 SILT ARRESTOR	5.00	4.40	600	Medium duty grate, hinged & locked

DRAINAGE PLAN

SCALE 1:200

SPECIAL NOTE

RAINWATER TANK SIZES ARE FROM CITY RAINWATER TANKS (AUSTRALIA) Pty. Ltd. "SLIMLINE CORRUGATED TANKS"

NASSERI ASSOCIATES

CIVIL, HYDRAULIC & STRUCTURAL ENGINEERING
SUITE 9, 5-19 BURNETT STREET, SEAFORTH 2092
PO BOX 714, BALGOWLAH, NSW 2093
TEL. (02) 9948 8555
FAX. (02) 9948 8655
MOB. 0410 308 064
EMAIL. jnasseri@igpond.net.au

SYMBOLS & NOTATIONS

STORMWATER LINES
DOWNSPIRE
100 DIA. VARD SLUMP
225x100 GRATED BOX DRAIN
INVERT LEVEL (PIPE / PIT)
NATURAL SURFACE LEVEL
SEWER

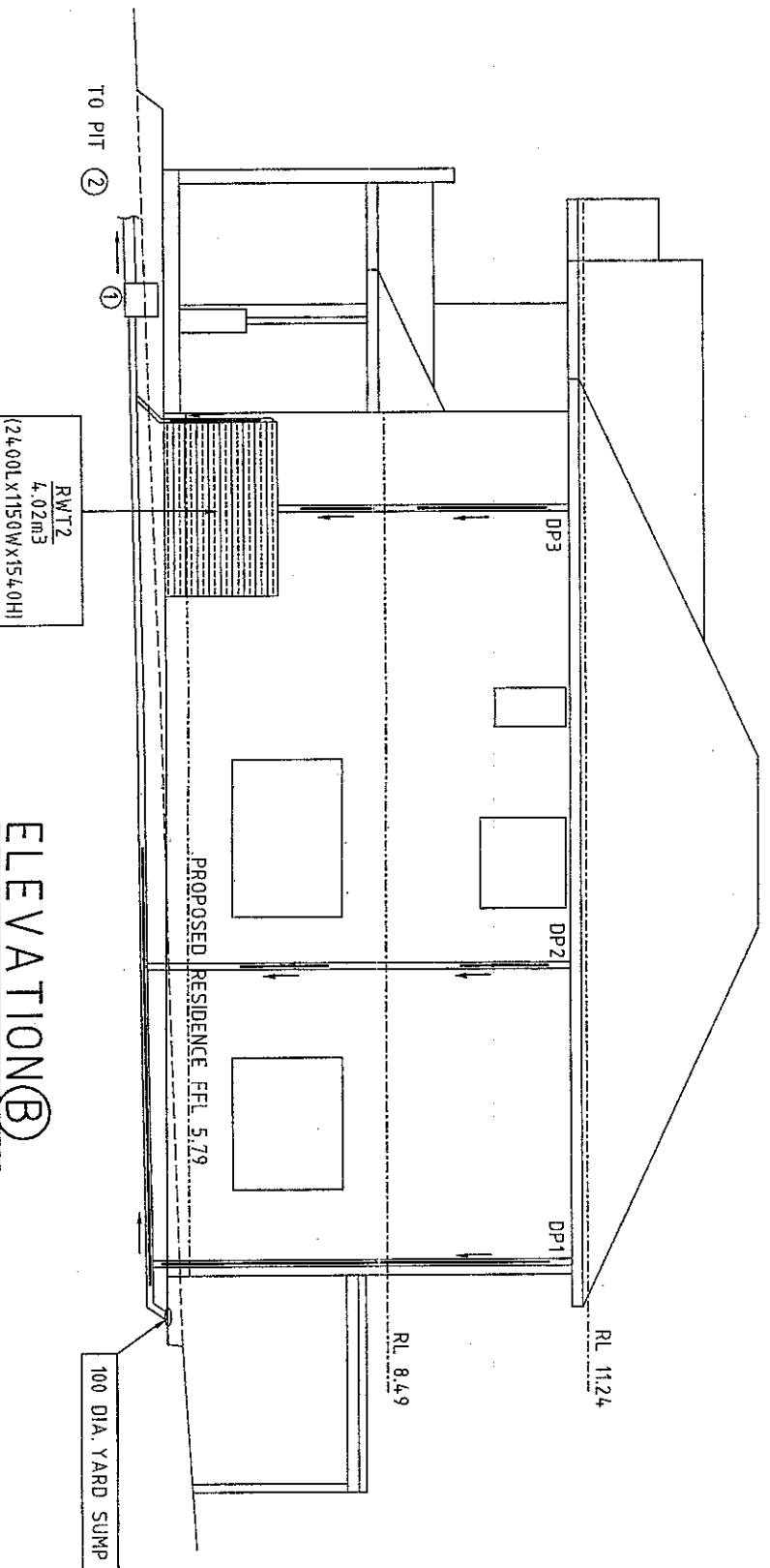
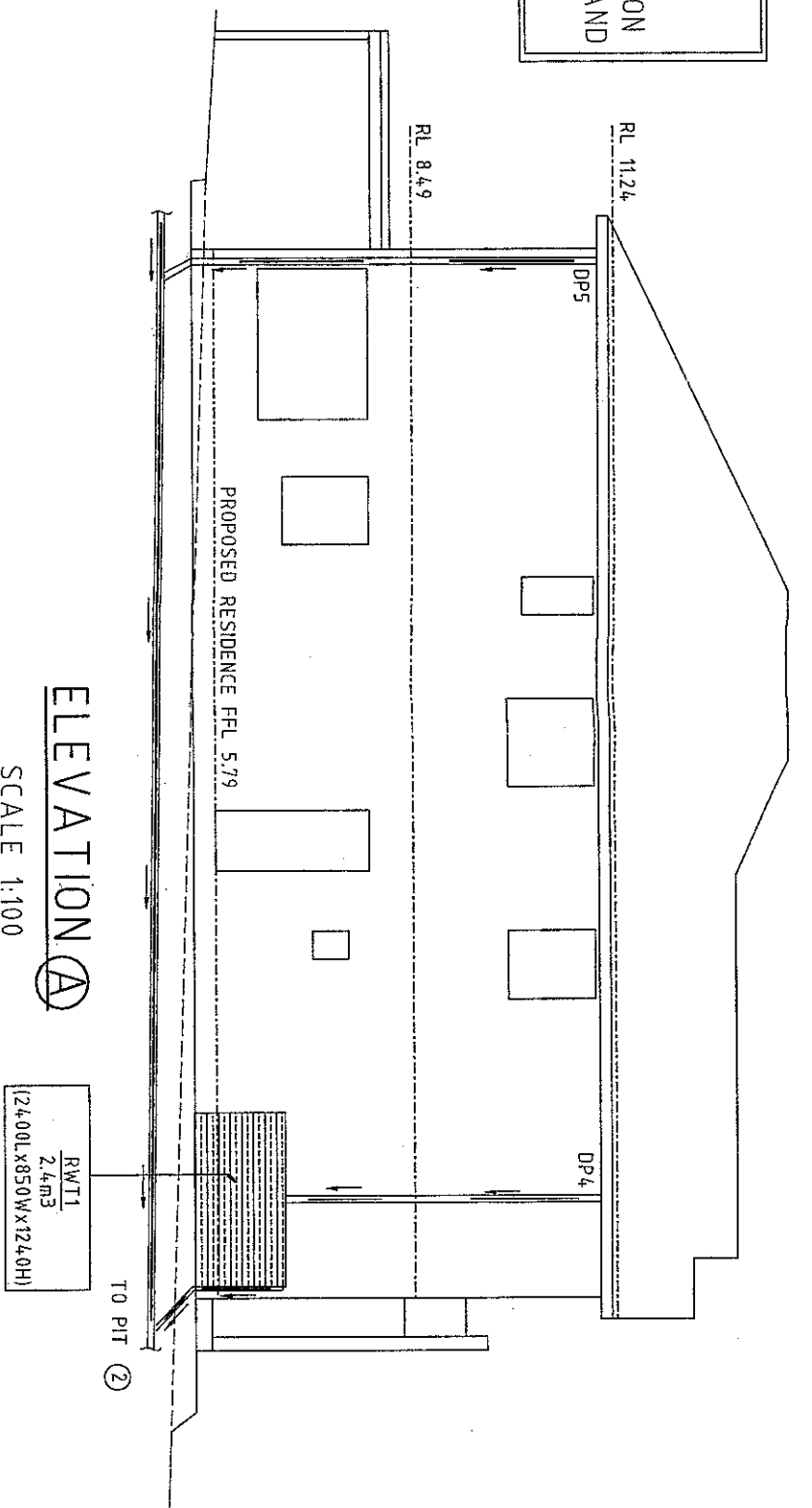
HYDRAULIC DETAILS

DRAINAGE PLAN

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IMPORTANT NOTE

THE LOCATION OF RAINWATER TANKS
CAN BE ALTERED DURING CONSTRUCTION
TO SUIT THE POSITION OF WINDOWS AND
DOORS AROUND THE HOUSE



SYMBOLS & NOTATIONS

- STORMWATER LINES
- FFL FINISHED FLOOR LEVEL
 - FPL FINISHED PLATFORM LEVEL
 - X SEDIMENT CONTROL BARRIER
 - S SEWER
- 100 DIA YARD SUMP
- 225x100 GRATED BOX DRAIN
- INVERT LEVEL (PIPE / PIT)
- NATURAL SURFACE LEVEL

HYDRAULIC DETAILS

ELEVATIONS

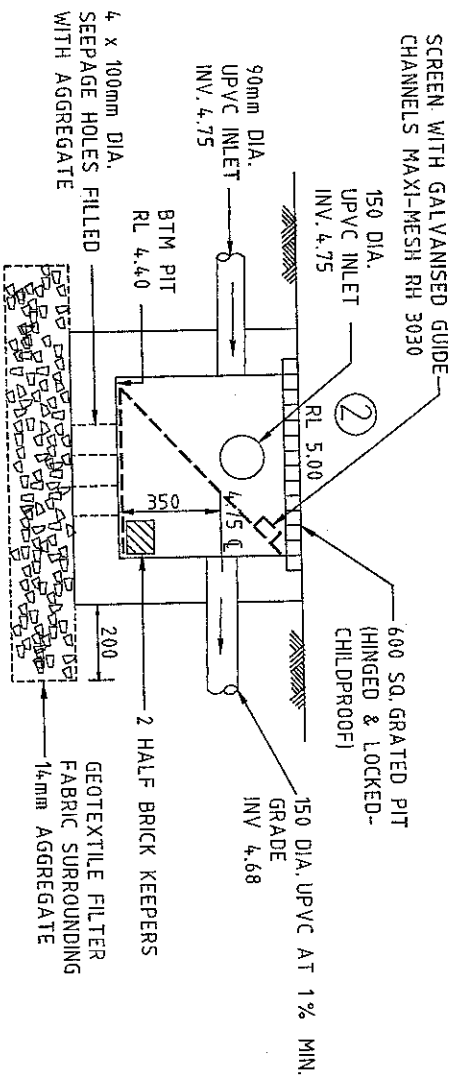
NASSERI ASSOCIATES
CIVIL, HYDRAULIC & STRUCTURAL ENGINEERING
SUITE 9, 5-19 BURNETT STREET, SEAFORTH 2092
PO BOX 714, BALGOWLAH, NSW 2093
TEL. (02) 9948 8555
FAX. (02) 9948 8655
MOB. 0410 308 064
EMAIL. jnasseri@bigpond.net.au

J. NASSERI
B.E., M.I.E. Aust.
NPER, CP Eng.

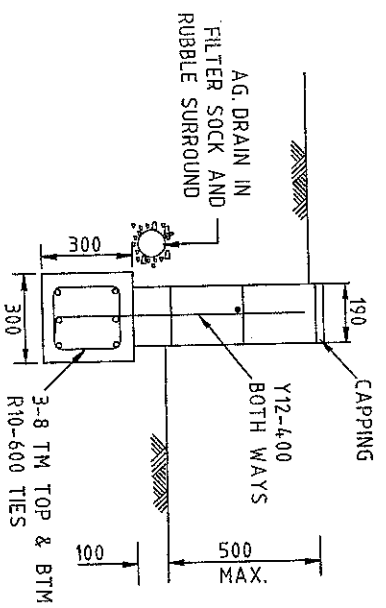
10 Sept. 2003

ISSUE	AMENDMENTS	DATE
DESIGNED	JN	DRAWN
ME	CHECKED	JN
SCALE	AS SHOWN	

CLIENT WINCREST HOMES	CAD REF. ENG/WINCREST	JOB No. D1298	SHEET No. 4 of 5
LOT 102 GARDEN STREET, WARRIEWOOD			



DETAIL C
SILT ARRESTOR PIT
SCALE 1:25

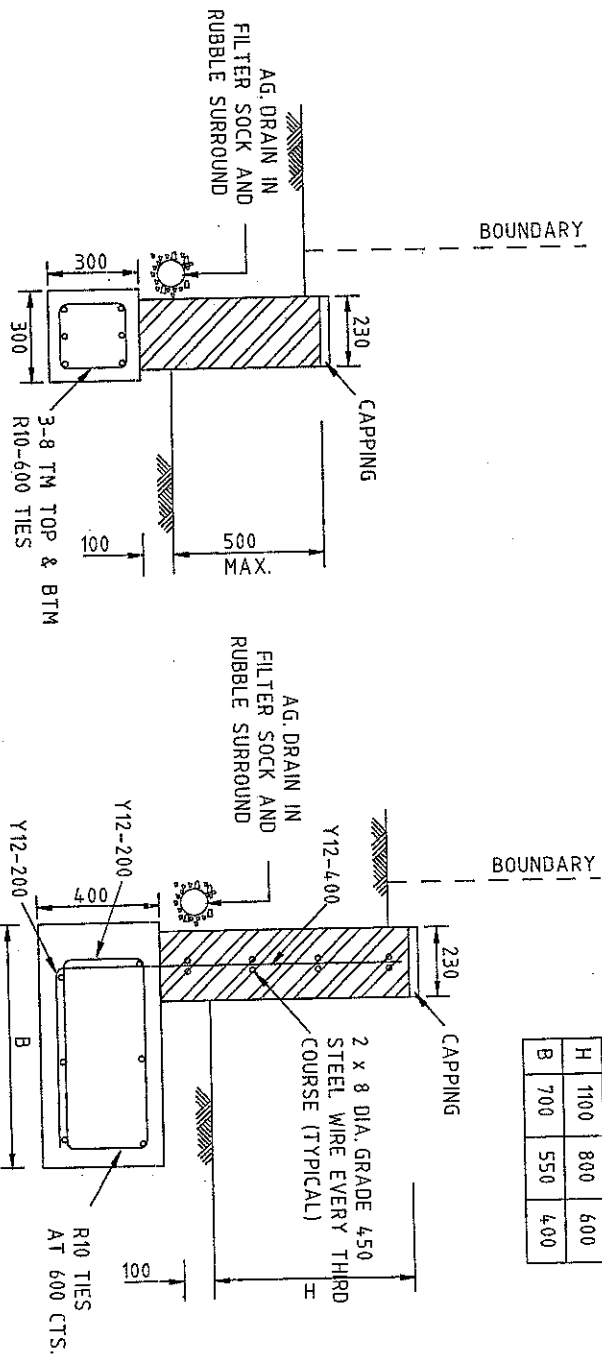


UNDER 500mm HIGH

- NOTES**
1. HOLLOW BLOCKS GRADE 12 (AS 1500), $F'c = 12 \text{ MPa}$.
 2. CLEAN OUT ALL CORES.
 3. MORTAR 1:4 (CEMENT : SAND).
 4. GROUT ALL CORES, $F'c = 12 \text{ MPa}$, SLUMP 230mm, 10mm MAX. AGG. IN 600mm MAX. LIFTS.
 5. CONCRETE FOOTINGS $F'c = 25 \text{ MPa}$.
 6. ALLOWABLE BEARING PRESSURE 150 kPa.

H	1100	800	600
B	700	550	400

H	2000	1600	1200	800	600
B	1200	1000	800	600	500

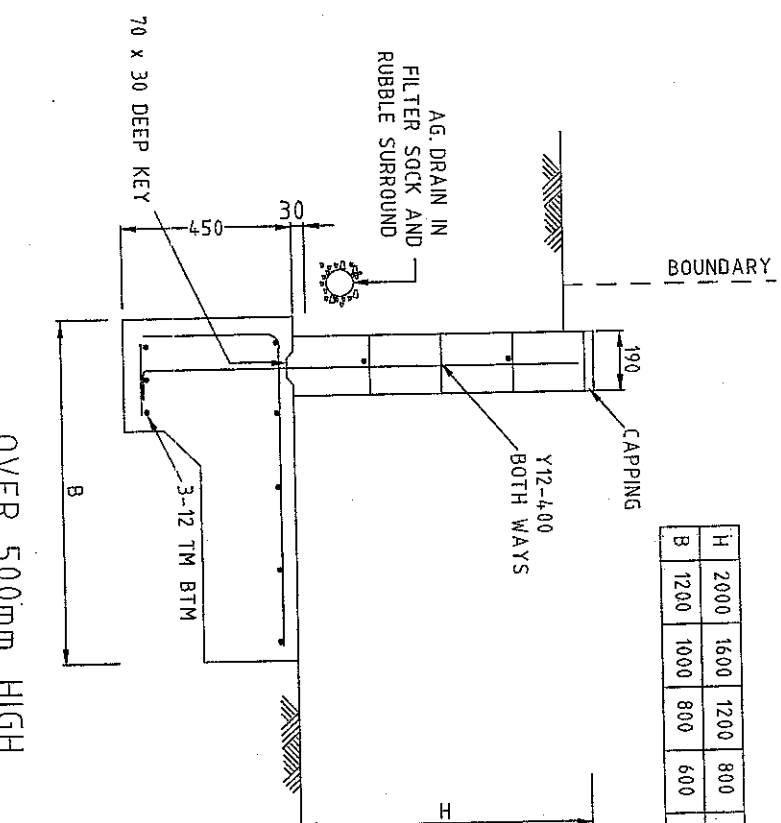


UNDER 500mm HIGH

OVER 500mm HIGH

OPTION 1:

BRICK RETAINING WALL



OVER 500mm HIGH

OPTION 2:

BLOCK RETAINING WALL

DETAIL D
RETAINING WALL DETAIL
SCALE 1:25

NASSERI ASSOCIATES

CIVIL, HYDRAULIC & STRUCTURAL ENGINEERING
SUITE 9, 5-19 BURNT STREET, SEAFORTH 2092
PO BOX 714, BALGOWLAH, NSW 2093
TEL. (02) 9948 8555
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MOB. 0410 308 064
EMAIL. jnasseri@bigpond.net.au

SYMBOLS & NOTATIONS

- STORMWATER LINES
- FINISHED SURFACE LEVEL
- FINISHED FLOOR LEVEL
- 100 DIA. YARD SUMP
- 225x100 GRATED BOX DRAIN
- INVERT LEVEL (PIPE / PIT)
- NATURAL SURFACE LEVEL
- PROPOSED BOUNDARY
- SEWER

HYDRAULIC DETAILS

SILT ARRESTOR PIT & RETAINING WALL DETAILS

ISSUE	DATE
1	

DESIGNED	DRAWN	CHECKED	SCALE	CAD REF.	ENG/WINCREST	JOB No.	SHEET
JN	ME	JN	AS SHOWN			D1298	No.5 of 5

J. NASSERI
B.E., M.I.E. Austl.
NPER, CP Eng.
10 Sept. 2003

BARRY T. SYME & ASSOCIATES PTY LTD

CONSULTING STRUCTURAL ENGINEERS

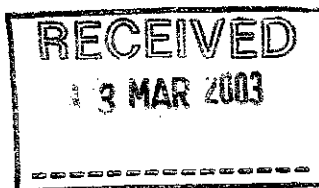
P.O. BOX 279, FAIRFIELD 1860



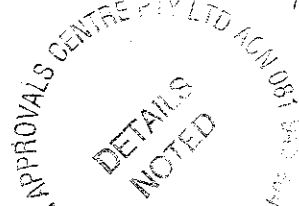
BARRY T. SYME, B.E., M.I.E. Aust. CPEng.(Reg)
NPER STRUCTURAL
A.B.N.66 010 374 865
PHONE: 9726 7666
FAX: 9728 4376
DX: 25080 FAIRFIELD



WINCREST HOMES PTY. LTD.



OUR REF: 21657
YOUR REF: 6661/080/01



DOCUMENT/DRAWING TRANSIT

FOR: Wincrest Homes

AT: Lot 102 garden St Warriewood

ATTENTION: Alan Torres

PLEASE NOTE THE FOLLOWING:-

- ☐ Dropped Edge Beam Included
- ☐ Additional Piers Required
- ☐ Other _____

BARRY T. SYME & ASSOCIATES PTY LTD

CONSULTING STRUCTURAL ENGINEERS

P.O. BOX 279, FAIRFIELD 2165

With Compliments

Please note,

*This is Class "P" due to site conditions,
otherwise - same as Class "M".*

BARRY T. SYME

DOCUMENTS ATTACHED INCLUDE

- ☒ Waffle Raft Slab Plans
- ☒ Deep Beam Details
- ☒ Steel Beam Details
- ☐ Building over Sewer Details

- ☒ Site Classification Report
- ☒ Wind & Durability Classification
- ☒ Control Joints Sketch
- ☐ Other _____

BARRY T. SYME, B.E., M.I.E. Aust. CPEng.(Reg)
NPER-3 STRUCTURAL A.C.N.003 084 357
PHONE: 9726 7666 FAX: 9728 4376 DX: 25080 FAIRFIELD

SIGNED

DATE

10.03.03

BARRY T. SYME & ASSOCIATES PTY LTD

CONSULTING STRUCTURAL ENGINEERS

P.O. BOX 279, FAIRFIELD 1860



BARRY T. SYME, B.E., M.I.E. Aust. CPEng.(Reg)

NPER STRUCTURAL

A.B.N.66 010 374 865

PHONE: 9726 7666

FAX: 9728 4376

DX: 25080 FAIRFIELD

10th March, 2003

Our Job **21657**

Your Ref **6661/080/01**

Wincrest Homes Pty Ltd

P. O. Box 3606

PARRAMATTA NSW 2124

STRUCTURAL CERTIFICATE

RE: LOT 102 GARDEN STREET, WARRIEWOOD
External Garage Wall (2.9m Max. Height)
BCA. 96 Clause 3.3.1 Reinforced/Unreinforced Masonry
Wind Design Class: N2 (Vu), W33N (Vp)
Structure: Category H1 : Domestic

Please be advised that structural sufficiency of the external garage wall has been assessed by the writer. The assessment has been carried out in accordance with the requirements of AS 3700 masonry code, AS 1170:4 Earthquake Code, and BCA 96 CL 3.3.1.

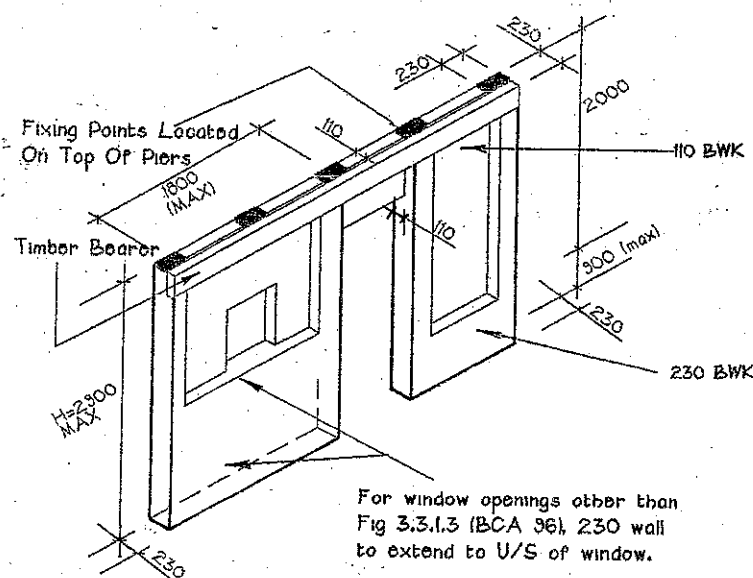
Accordingly this certificate verifies that the structural design of the wall as per the sketch, complies with the performance requirements P2.1 as specified in section 2 of Building Code of Australia - Volume 2, Housing Provisions and Section 3.3.1.

This certificate applies to construction, which is within the sketch parameters as shown below and for the wind design class of N2 (Vu), W33N (Vp).

Should you have any queries whatsoever, please do not hesitate to contact the writer at any time.

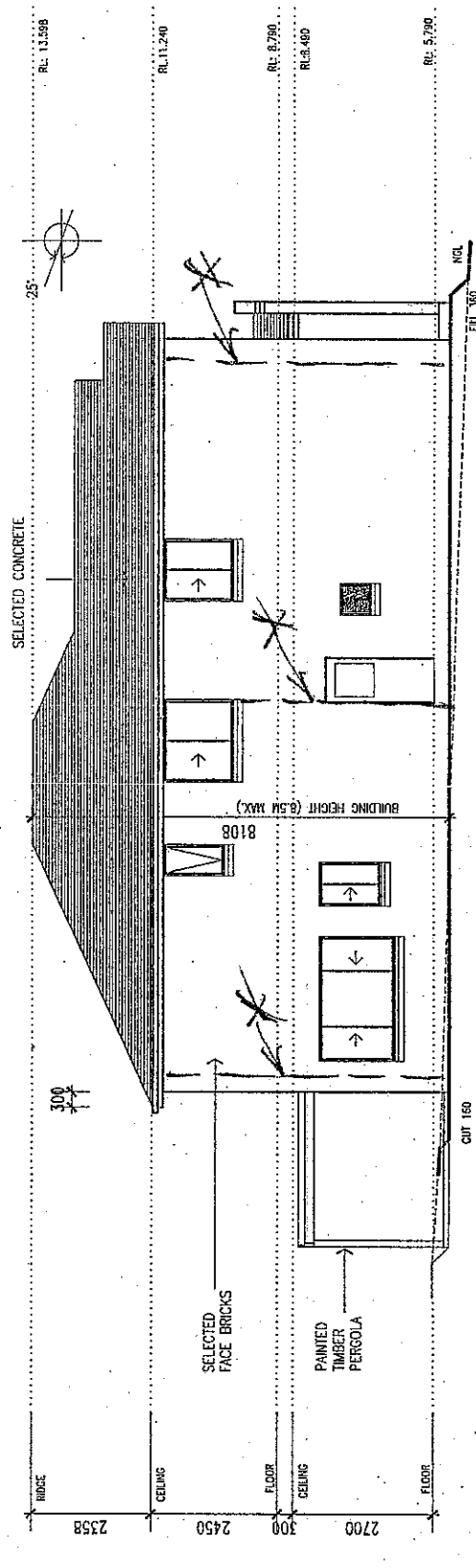
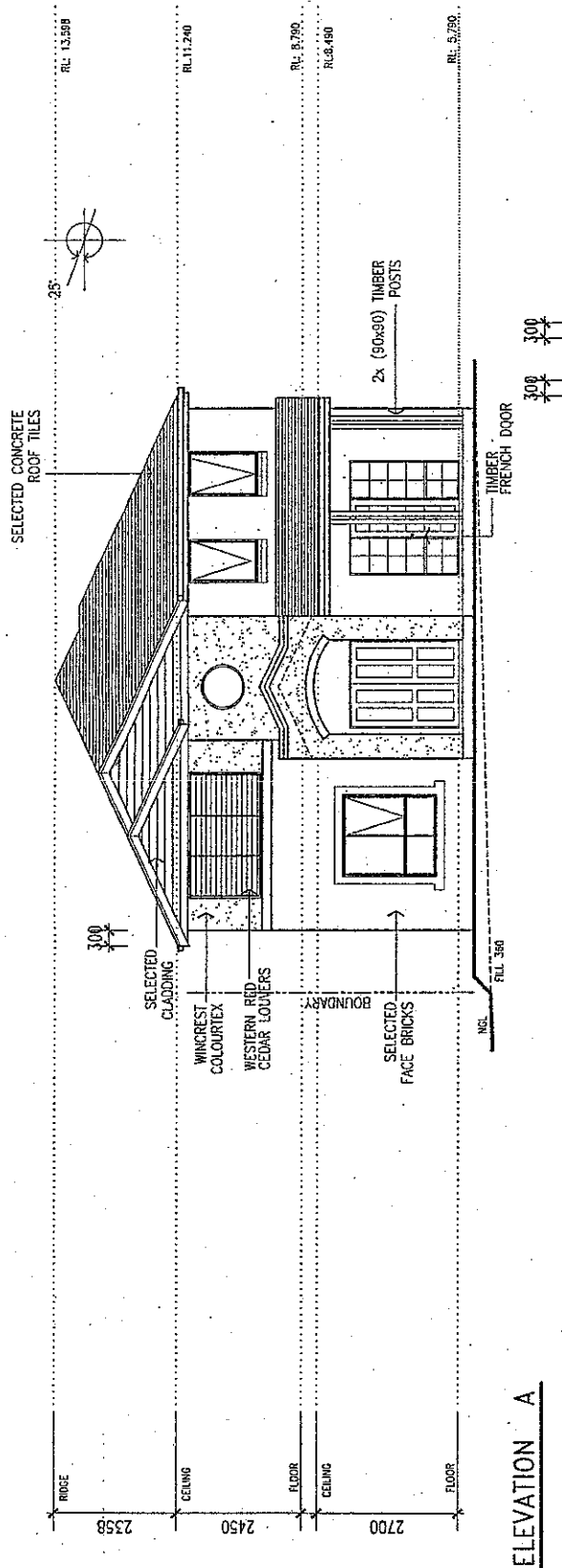
Yours faithfully,

BARRY T. SYME



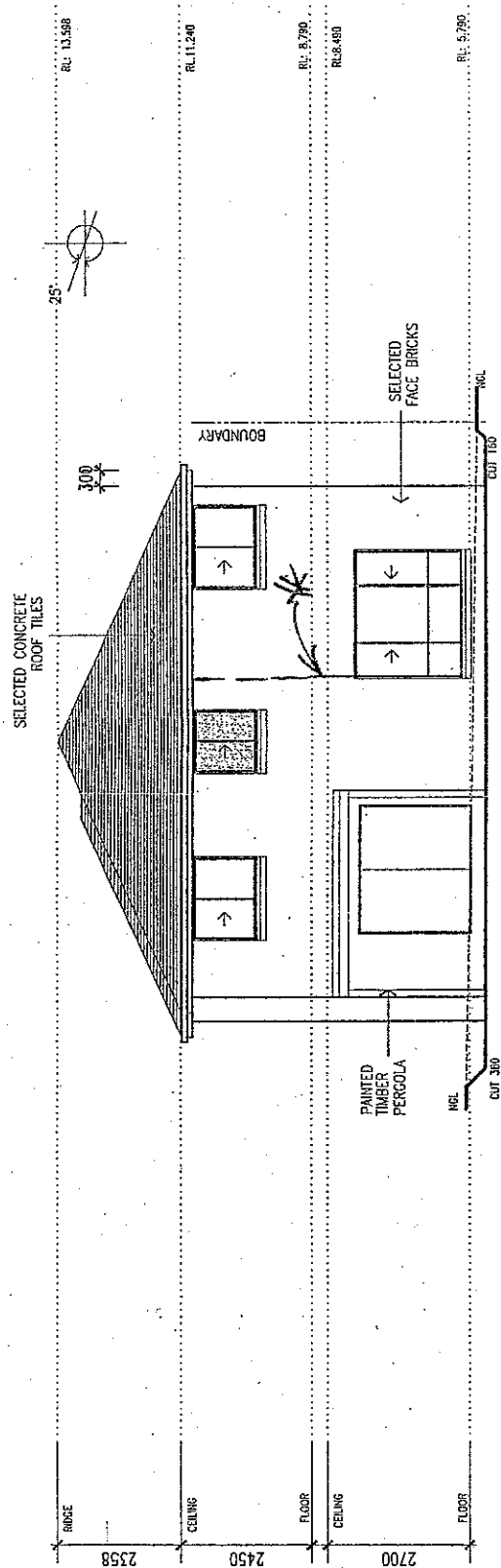
TYPICAL BRICKWALL DETAIL

- ALL WINDOWS TO PLACED DIRECTLY UNDER EAVES
- INFILL PANELS ABOVE SLIDING AND EXTERNAL DOORS WHEN
- GARAGE DOOR HEAD HEIGHT



ISSUE	AMENDMENTS	DATE	Copyright reserved. No part of these plans may be reproduced or transmitted in any form without the written permission of Wincrest Homes Pty Ltd.	 Wincrest Homes Pty Ltd ACN 002 989 755 36383 Gold Builders Licence N 18, Pitt St, Parramatta NSW 2150 Ph: (02) 9635 1644 Fax: (02) 9633 4806	CLIENT: PROPOSED RESIDENCE FOR: Wincrest Homes ADDRESS: PROPOSED RESIDENCE AT: Lot 102 Garden St Fernbrook Sanctuary	DESIGN NAME: FS12	
A	PLAN REVISION (GC)	15.11.02				DESIGN N : FACADE: SPECIAL	JOB H: DATE: 28.07.02

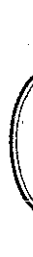
- ▶ ALL WINDOWS TO FIRST FLOOR TO BE PLACED DIRECTLY UNDER EAVES
- GROUND FLOOR WINDOW HEAD HEIGHT 2200
- ▶ INFILL PANELS ABOVE SLIDING DOORS AND EXTERNAL DOORS WHERE REQ'D
- GARAGE DOOR HEAD HEIGHT 2140mm



Architectural drawing of a house plan showing a side elevation and a floor plan. The side elevation shows a roof with "SELECTED CONCRETE ROOF-TILES" and a ridge. The floor plan shows a "WINCREST COLOURTEX" wall, a "PAINTED TIMBER PERGOLA", and a "CUT 360". Dimensions include 2358, 2450, 2700, 300, 360, 140, 1200, 1358, 1790, 1400, and 1590. A north arrow is present.

ELEVATION D

21657
Contract Joints

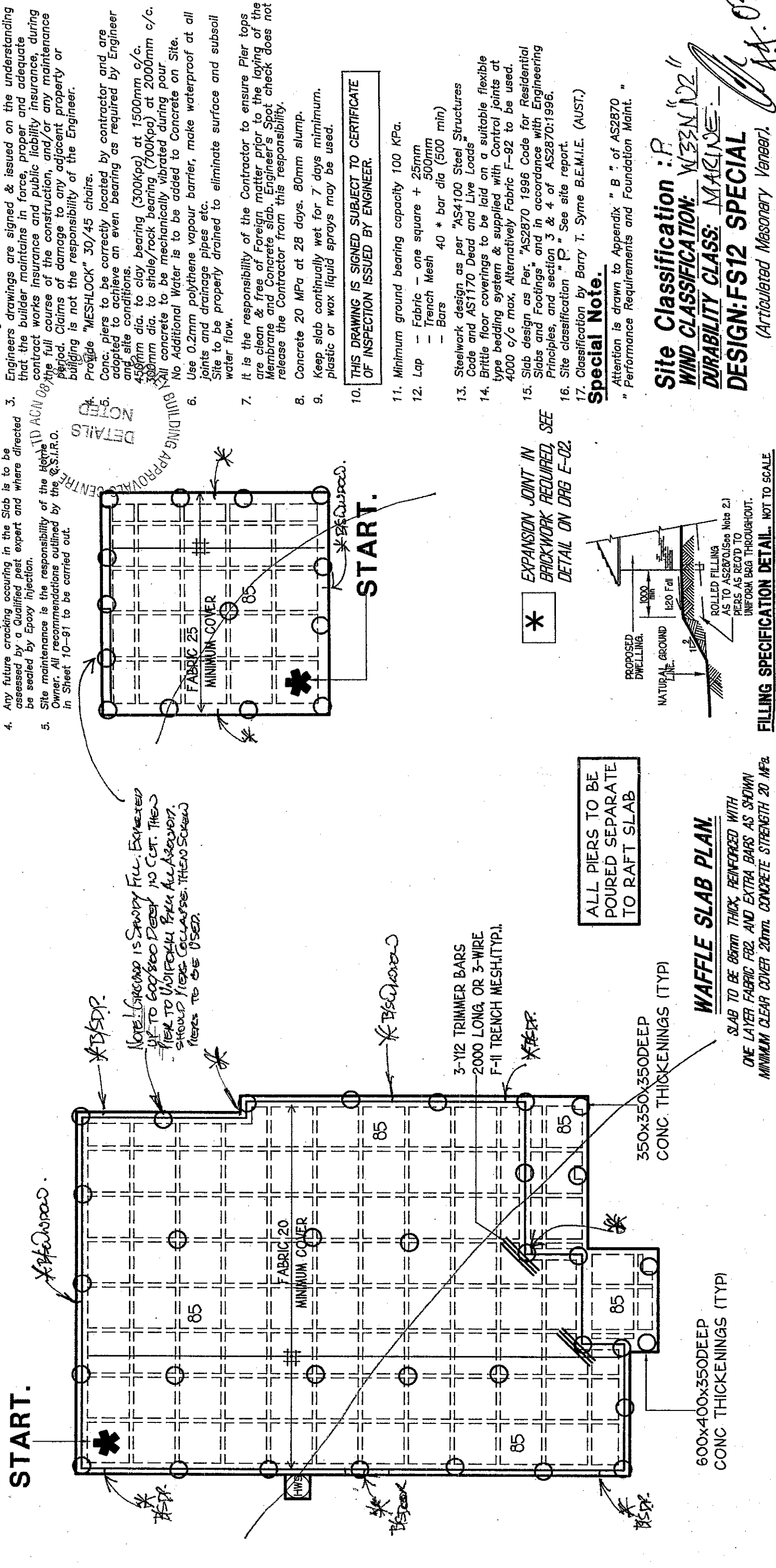
ISSUE	AMENDMENTS	DATE	Copyright reserved, No part of these plans may be reproduced or transmitted in any form without the written permission of Wincrest Homes Pty Ltd.	 Wincrest Homes Pty Ltd ACN 002 993 755 Gold Builders Licence N 38383 18 Pitt St, Parramatta NSW 2150 Ph: (02) 9635 1644 Fax: (02) 9633 4806	CLIENT: PROPOSED RESIDENCE FOR: Wincrest Homes ADDRESS: PROPOSED RESIDENCE AT: Lot 102 Garden St. Fernbrook Sanctuary	DESIGN NAME: FS12 DESIGN N : FACADE: SPECIAL JOB N: DATE: 28.07.02 DRAWN: AT CHECKED: SCALE: 1:100 DRAWING N : OF DO NOT SCALE DRAWING			
A	PLAN REVISION (66)	15.11.02							

INTERNAL PIERS - UNLESS OTHERWISE NOTED, ALL PIER TOPS TO BE @ 2000 C/C TO BE FOUNDED TO FIRM NATURAL BEARING BUT ONLY WHERE ROLLED FILL IS LOCATED UNDER EDGE BEAM, OR ALTERNATIVELY IN ORDER TO ACHIEVE AN EVEN BEARING THROUGHOUT IE. IF SHALE OR ROCK ENCOUNTERED IN CUT.

EXPECTED CONCRETE PIERS REQUIRED TO UNIFORM BEARING. ENGINEER & COUNCIL TO INSPECT GROUND BEARING/PIERS PRIOR TO LAYING OF MEMBRANE. PIER SIZES AND SPACINGS - SEE NOTE 5.

600x600x350 DEEP MASS CONCRETE THICKENINGS. (TYP)

600x400x350 DEEP CONC THICKENINGS (TYP)



GENERAL NOTES.

- This drawing to be read in conjunction with the Architectural Drawings and Specifications. All construction to be carried out as per the relevant Australian codes. For all conditions on site during construction, "IF IN DOUBT-STOP WORK AND ASK".
- Strip top soil and vegetation. Bench site by cut & fill to required level. Fill to be placed as per AS2870(6.4.2) and in layers of 150mm thick using multiple passes of excavator. Engineer to be advised should fill exceed 450mm deep before proceeding with any further works. The actual preparation of the Building Platform to this specification is not the responsibility of the Engineer.
- Engineers drawings are signed & issued on the understanding that the builder maintains in force, proper and adequate contract works insurance and public liability insurance, during the full course of the construction, and/or any maintenance period. Claims of damage to any adjacent property or building is not the responsibility of the Engineer.
- Provide "MESHLOCK" 30/45 chairs.
- Conc. piers to be correctly located by contractor and are adopted to achieve an even bearing as required by Engineer and site conditions.
- 450mm dia. to clay bearing (300KPa) at 1500mm c/c. 300mm dia. to shale/rock bearing (700KPa) at 2000mm c/c. All concrete to be mechanically vibrated during pour.
- No Additional Water is to be added to Concrete on Site.
- Use 0.2mm polythene vapour barrier, make waterproof at all joints and drainage pipes etc.
- Site to be properly drained to eliminate surface and subsoil water flow.
- It is the responsibility of the Contractor to ensure Pier tops are clean & free of Foreign matter prior to the laying of the Membrane and Concrete slab. Engineer's Spot check does not release the Contractor from this responsibility.
- Concrete 20 MPa at 28 days. 80mm slump.
- Keep slab continually wet for 7 days minimum. plastic or wax liquid sprays may be used.
- THIS DRAWING IS SIGNED SUBJECT TO CERTIFICATE OF INSPECTION ISSUED BY ENGINEER.
- Minimum ground bearing capacity 100 KPa.
- Lap - Fabric - one square + 25mm
- Trench Mesh 500mm
- Bars 40 * bar dia (500 min)
- Steelwork design as per "AS4100 Steel Structures Code and AS1170 Dead and Live Loads".
- Brittle floor coverings to be laid on a suitable flexible type bedding system & supplied with Control joints at 4000 c/c max, Alternatively Fabric F-92 to be used.
- Slab design as per "AS2870 1996 Code for Residential Slabs and Footings" and in accordance with Engineering Principles, and section 3 & 4 of AS2870:1996.
- Site classification "P". See site report.
- Classification by Barry T. Syme B.E.M.I.E. (AUST.)

Special Note.

Attention is drawn to Appendix "B" of AS2870 "Performance Requirements and Foundation Maint."

Site Classification: P "N2"
WIND CLASSIFICATION: W33N12
DURABILITY CLASS: MAKE-
DESIGN: FS12 SPECIAL
(Articulated Masonry Veneer).

PROJECT	FOR: WINCREST AT: Lot 102 Garden St WARRIEWOOD
DRAWN	A.Z.
CHKD	B.S.
DATE	7/3/03
APPROVED	B.T. SYME B.E.M.I.E. (AUST)

SCALE Don't
JOB No. 21657
DRG. No. REV.
E-01
SHEET 1 OF 4

WAFFLE SLAB PLAN

WAFLE SLAB PLAN.

ALL PIERS TO BE POURED SEPARATE TO RAFT SLAB

EXPANSION JOINT IN BRICKWORK REQUIRED, SEE DETAIL ON DRG E-02.

WAFFLE SLAB PLAN.

SLAB TO BE 85mm THICK, REINFORCED WITH ONE LAYER FABRIC F82 AND EXTRA BARS AS SHOWN. MINIMUM CLEAR COVER 20mm. CONCRETE STRENGTH 20 MPa.

600x600x350 DEEP MASS CONCRETE THICKENINGS. (TYP)

600x400x350 DEEP CONC THICKENINGS (TYP)

350x350x350 DEEP CONC. THICKENINGS (TYP)

3-Y12 TRIMMER BARS 2000 LONG, OR 3-WIRE F-11 TRENCH MESH (TYP.)

85

185

START.

WAFLE SLAB PLAN.

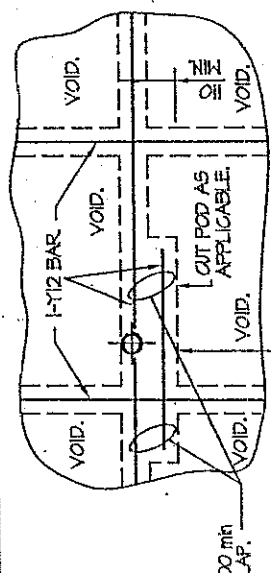
ALL PIERS TO BE POURED SEPARATE TO RAFT SLAB

EXPANSION JOINT IN BRICKWORK REQUIRED, SEE DETAIL ON DRG E-02.

WAFFLE SLAB PLAN.

SLAB TO BE 85mm THICK, REINFORCED WITH ONE LAYER FABRIC F82 AND EXTRA BARS AS SHOWN. MINIMUM CLEAR COVER 20mm. CONCRETE STRENGTH 20 MPa.

600x600x350 DEEP MASS CONCRETE THICKENINGS. (TYP)



PIPE THRU RIB DETAIL

AS APPLICABLE

NOTES: THE MINIMUM STEM WIDTH SHALL BE 100 mm AND ADDITIONAL REINFORCEMENT FOR EXTERNAL RIBS WHERE STEM WIDTH EXCEEDS 150 mm SHALL BE PROVIDED AS FOLLOWS:

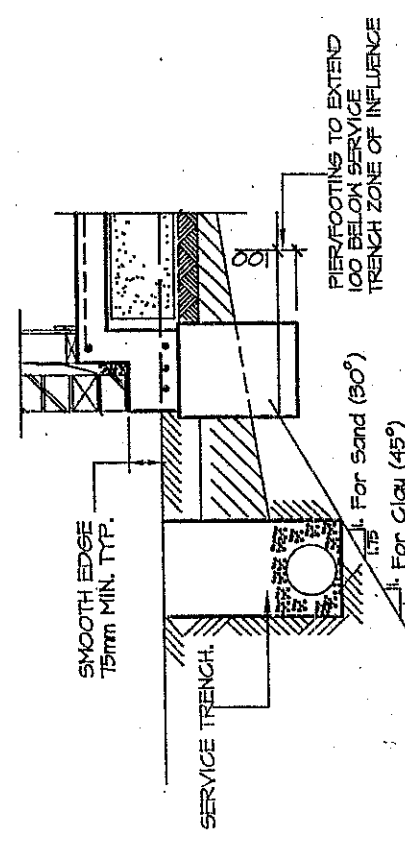
STEM WIDTH, mm	EXTRA TOP STEEL	EXTRA BTM STEEL
151 TO 220	1Y12	2Y12
221 TO 330	2Y12	3Y12
331 TO 440	3Y12	4Y12

A MORE EXTENSIVE DISCUSSION OF THIS MATERIAL IS CONTAINED IN THE CERO PAMPHLET, 10-11, GUIDE TO HOME OWNERS ON FOUNDATION MAINTENANCE AND FOOTING PERFORMANCE AND ITS RECOMMENDATIONS SHOULD BE FOLLOWED.

THE SITE SHALL BE GRADED OR DRAINED SO THAT WATER CANNOT RUN SPATELY OR NEAR RELATIVE TO THE HOUSE. THE GRADE SHALL BE GRADED TO A UNIFORM FALL OF 50mm MINIMUM AWAY FROM THE HOUSE OVER THE FIRST METRE.

PLANTING OF TREES SHOULD BE AVOIDED NEAR THE FOUNDATION OF A HOUSE FOR EIGHT YEARS. THEY CAN CAUSE DAMAGE DUE TO DRYING OF THE CLAY AT SUBSTANTIAL DISTANCES.

RECOMMENDED SITE PREPARATION



SERVICE TRENCH DETAIL

(BUILDER TO ENSURE DETAIL COMPLIANCE)

SITE CLASSIFICATION "P"

DESIGN CODE: AS2870.1996

SCALE	Don't
JOB No.	21657
DRG. No.	REV.
E-02	
SHEET 2 OF 4	

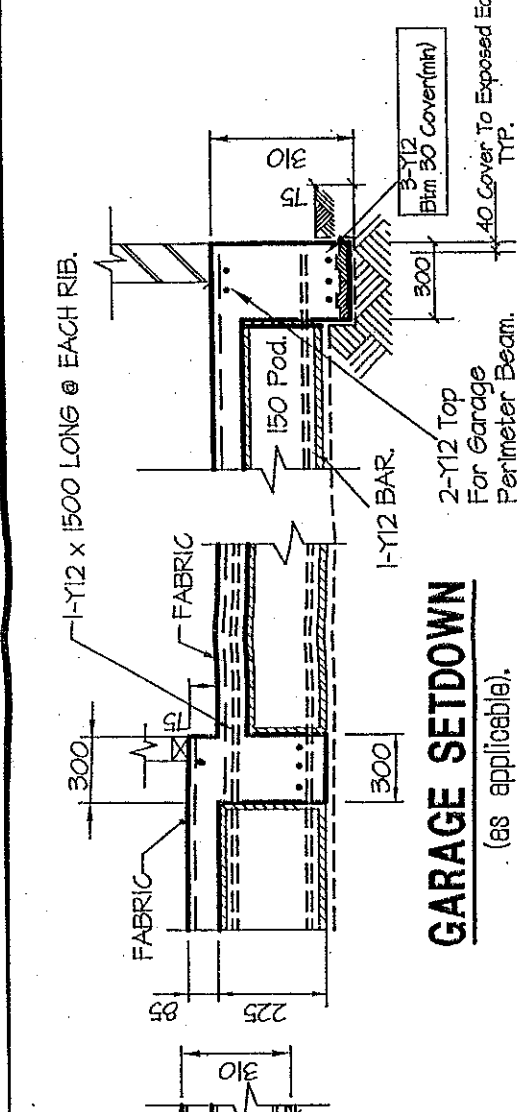
PROJECT FOR: *Wincrest*
AT: *LOT 102, GARDEN ST. WARRIEWOOD*
TITLE: *RIBBED RAFT SLAB DETAILS*

DRAWN	Shariel
CHKD	B.S.
DATE	7/3/03
APPROVED	<i>[Signature]</i>
B.T.SYME BEMIE(AUST)	

BARRY T. SYME & ASSOCIATES PTY LTD
CONSULTING STRUCTURAL ENGINEERS
PH. 726 7666

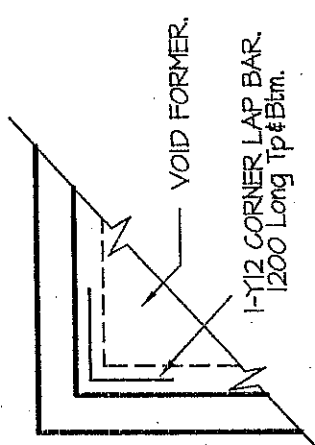
Wincrest HOMES

39-41 HARRIS ST, DX 26080 FAIRFIELD
FAIRFIELD 2165 A.B.N.66 010 374 865

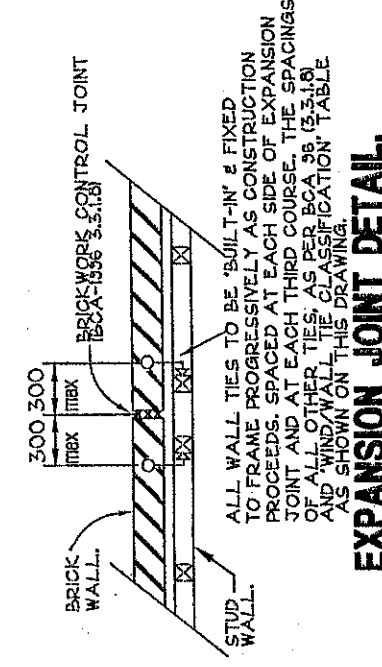


GARAGE SETDOWN

(as applicable).

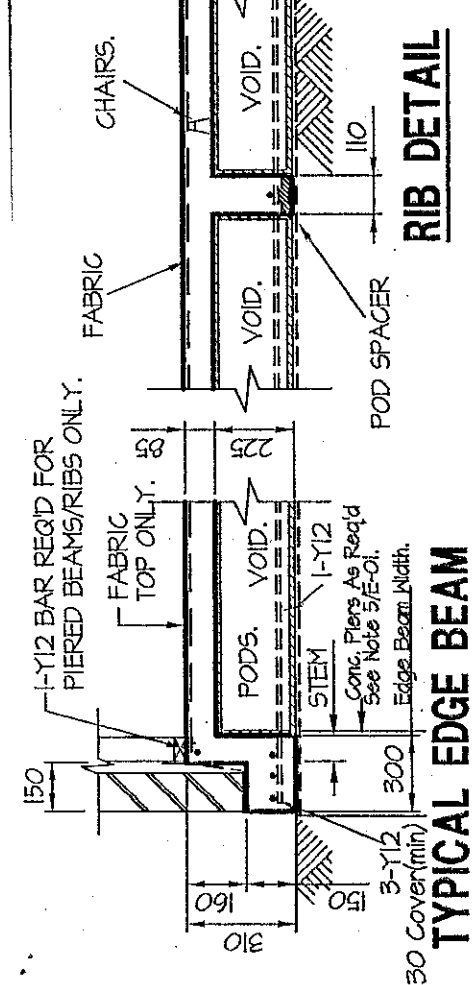


CORNER DETAIL

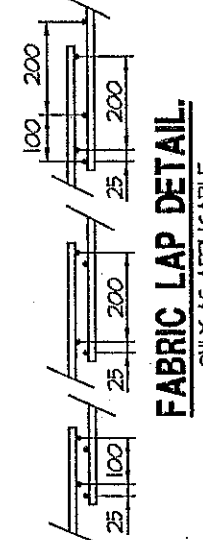


EXPANSION JOINT DETAIL

5000c/c max.

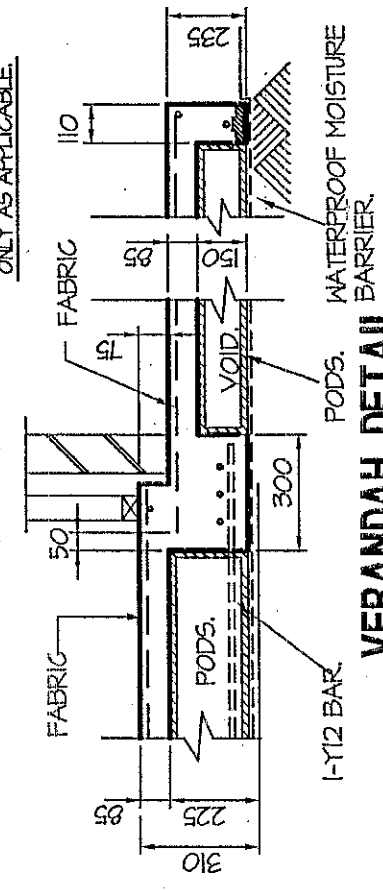


RIB DETAIL

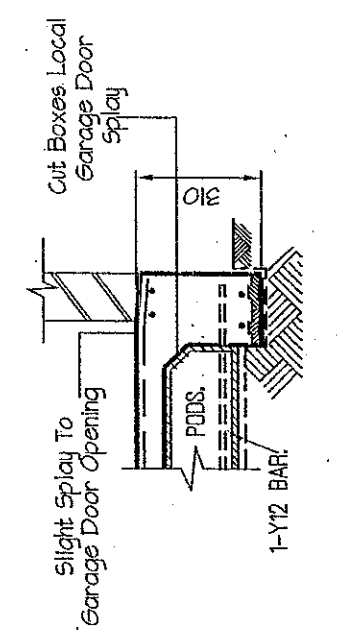


FABRIC LAP DETAIL

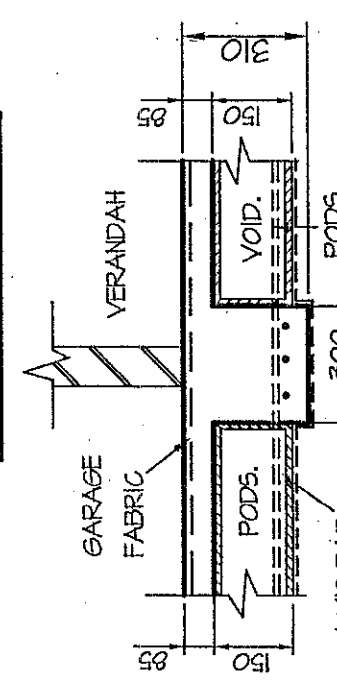
ONLY AS APPLICABLE



VERANDAH DETAIL



GARAGE DOOR REBATE DETAIL

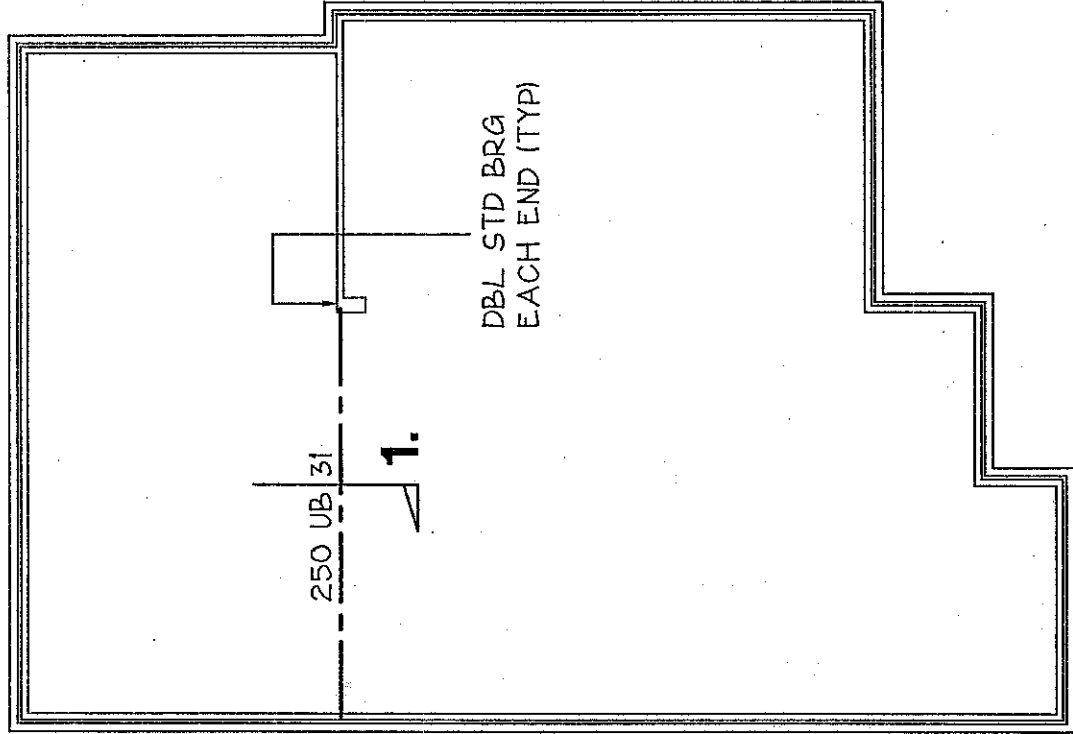


GARAGE/VERANDAH DETAIL

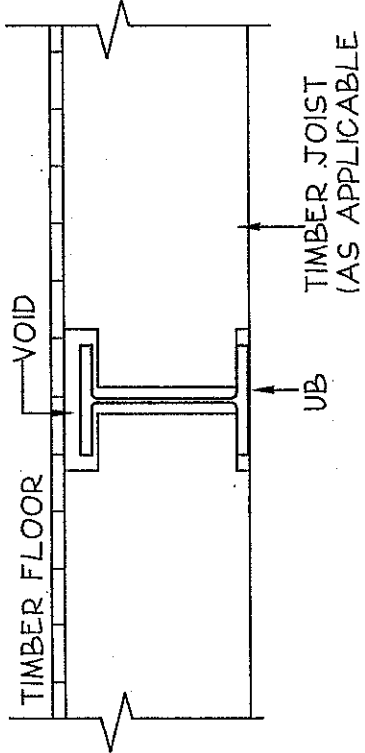
DURABILITY CLASSIFICATION			
CATEGORY	WALL TIES	GRADE OF BRICKS	STRUCTURAL STEEL
severe marine	R4 - (Stainless or Polymer)	AS/NZS 4456.10	AS 3700 (Surface finish)
marine	R3	EXPOSURE	M4 (1:4) GALVANISED (AZLP) 1600g per square metre
exterior	R2	GENERAL PURPOSE	M3 (1:5) AS/ANZ 2312/1994
		GENERAL PURPOSE	M2 (1:2:8) AS/ANZ 2312/1994

WIND/WALL TIE CLASSIFICATION		
WIND Class	WALL TIE	HORIZONTAL SPACING
M1	W28N1	600
M2	W33N2	600
M3	W41N3	450 (5 COURSES)
WALL TIE SPACINGS AROUND OPENINGS 300c/c EACH WAY.		
POLYMER WALL TIES RATED 'LIGHT DUTY ONLY' (W28N1)		
(Vp = PERMISSIBLE STRESS METHOD)		

DIMENSIONS SHALL NOT BE OBTAINED BY SCALING



BEAM PLAN.



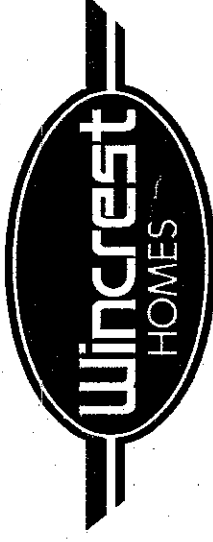
SECTION 1.

NOTE: STEELWORK DESIGNED IN ACCORDANCE WITH AS4100 "STEEL STRUCTURES CODE" AND AS1170.1/AS1170.2 "DEAD AND LIVE LOADS AND WIND LOADS." STRUCTURAL STEEL TO BE GRADE (BHP 300 PLUS) U.N.O. SURFACE PREPARATION & FINISH TO COMPLY WITH AS/NZS 2312 - 1994.		DURABILITY CLASSIFICATION.	
CATEGORY (durability.)	severe marine	STRUCTURAL STEEL (Surface finish)	
	marine	GALVANISED (GZLP) (600g per square metre)	
	exterior	AS/ANZ 2312/1994.	
		AS/ANZ 2312/1994.	

NOTE:
ALL BOLTED JOINTS TO BE SPANNER TIGHTENED.

Design: FS12 SPECIAL

BARRY T. SYME & ASSOCIATES PTY LTD CONSULTING STRUCTURAL ENGINEERS PH. 726 7666		DRAWN A.Z. CHKD B.S. DATE 7/3/03 APPROVED	PROJECT FOR: WINCREST AT: LOT 102 Garden ST WARRIEWOOD	SCALE Don't
		TITLE BEAM DETAILS.	JOB No. 21657 DRG. No. E-04 REV.	SHEET 4 OF 4



39-41 HARRIS ST, DX 25080 FAIRFIELD
FAIRFIELD 2165 A.B.N.66 010 374 866

*DIMENSIONS SHALL NOT BE OBTAINED BY SCALING.

ADDRESS OF PROPERTY: LOT 102

GARDEN ST. WARRIEWOOD

GENERAL HOUSING SPECIFICATIONS

between

SETH PTY LTD

OWNER

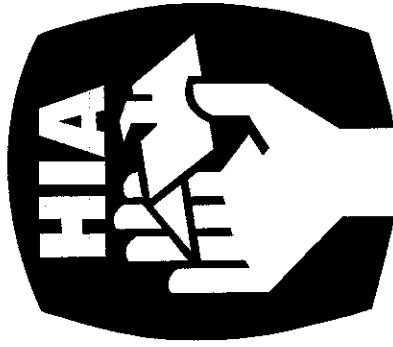
and

WILCAEST HOMES PTY LTD

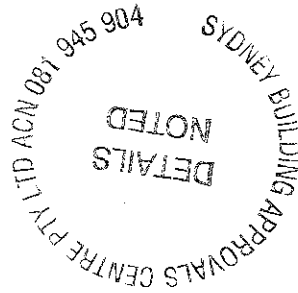
CONTRACTOR

CONTRACTOR LICENCE NO: 38303

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Housing Industry Association (NSW) Division.



Housing Industry
Association



INDEX **GENERAL HOUSING SPECIFICATIONS** (Revised November 2000)

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18.0 PRIME COST ITEMS

List hereunder all P.C. Allowances		
Kitchen and Vanity Cupboards (kitchen sink included)		
Stove/Wall Oven/Hot Plates		\$.....
Bath per item	per item	\$.....
W.C. Suites	per item	\$.....
Laundry Tub		\$.....
Entry Door		\$.....
Door Furniture		\$.....
Garage Door		\$.....
Hot Water System		\$.....
Shower Screen		\$.....
Wall and Floor Tiles supply only		\$...../m
Bricks		\$...../000

19.0 SIGNATURES

This is the specification referred to in the Building Agreement				No.	Date:
Signed by the said Owner in the Presence of			Owner's Signature	/...../.....	Date
Witness			Owner's Signature	/...../.....	Date
Signed by the said Contractor in the Presence of			Contractor's Signature	/...../.....	Date
Witness			Contractor's Signature	/...../.....	Date

1.0 INTRODUCTIONS

1.1 General

This Specification details the works to be executed and the materials to be used in carrying out those works at the Site.

This Specification shall be read as a general specification only. The extent of the works shall be governed by the Approved Plans and Special Details where applicable.

Any works not fully detailed shall, where appropriate, be sufficiently performed if carried out in accordance with applicable Manufacturer's Recommendations or Engineer's Recommendations.

1.2 Preliminary Use

This Specification forms part of the Building Contract Documents, and should be read in conjunction with the Building Agreement, Engineer's Reports, Plans and any other special details.

1.3 Prevailing Documents

Where there is a difference between Plan and Specification the Plan will take precedence. The Contractor must at all times maintain a legible copy of the plans and specification bearing the approval of the appropriate authorities.

1.4 Size and Dimensions

All sizes and dimensions given in this Specification are in millimetres unless otherwise stated and are nominal only.

1.5 Prime Cost Items

Prime cost items listed in this Specification are Contractors cost prices, they do not include Builders margins, cost of cartage and freight. Should any of these items not be required, credit will be made at the listed price in the contract's final progress claim.

1.6 Definitions

"Special Details" in respect of any item or part of the works means any drawings, plans, specifications, calculations or other documents (including Engineer's Recommendations) prepared in order to define or detail the work to be done and the materials to be used.

"Engineer's Recommendations" includes any Soil Classification Report, Preliminary Footing Report, Construction Footing Report and any other Report, Recommendation, site or other instruction, calculations or plans prepared by an Engineer in respect of the Works.

Where the words "Local Authority" are mentioned they shall mean the Local Council, or other Governing Authority, or Private Certifier with Statutory responsibility for the compliance of the work performed.

4.3 Setting Out
The Contractor shall accurately set out the Works in accordance with the Site Plan and within the boundaries of the Site.

5.0 EXCAVATIONS

5.1 Subject to Clause 3.7 the Site covered by the Building and an area at least 1,000mm wide around the Building or to boundaries of the Site – whichever is the lesser, shall be cleared and/or graded as indicated on the Site Works Plan.
Top soil shall be cut to a depth sufficient to remove all vegetation
Excavations for all footings shall be in accordance with the Engineer's Recommendation or Part 3.2.2 BCA 96 Housing Provisions.

6.0 FOUNDATIONS AND FOOTINGS

6.1 Underfloor Fill
Underfloor fill shall be in accordance with AS 2870 or Part 3.2 BCA 96 Housing Provisions.

6.2 Termite Risk Management
Termite treatment shall be carried out in accordance with Part 3.1.3 BCA 96 Housing Provisions or AS 3660.1.

6.3 Vapour Barrier
The underfloor vapour barrier shall be in accordance with AS 2870 or Clause 3.2.2.6 BCA 96 Housing Provisions.

6.4 Reinforcement
Reinforcement shall conform and be placed in accordance with AS 3600, AS 2870 and the Engineer's recommendations.
Support to all reinforcement shall be used to correctly position and avoid any undue displacement of reinforcement during the concrete pour.

6.5 Concrete
Concrete shall not be less than Grade N20 except where otherwise approved by the Engineer.
Structural concrete shall be in accordance with AS 3600. Pre-mixed concrete shall be manufactured in accordance with AS 1379 with delivery dockets kept on Site and available for inspection by the Engineer.

Concrete shall be placed and compacted in accordance with good building practice. In hot (above 30 degrees Celsius) and windy conditions concrete must be cured by covering with plastic sheeting, spraying with a curing compound or pouding of water on the surface, or as directed by the Engineer.

6.6 Footings and Slabs on Ground
Concrete slabs and footings shall not be poured until approval to pour concrete is given by the Engineer or the Local Authority.

NOTE: Bench levels and floor levels on the Site Works Plan shall be regarded as nominal, unless specified otherwise.

12.4 Cavity Ventilation (Weep Holes)

Cavities shall be cleared of all mortar droppings and weep holes shall not exceed 1,200mm centres, be in accordance with AS 3700, or Clause 3.3.4.3 of the BCA 96 Housing Provisions.

12.5 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.

12.6 Masonry Accessories

Compliance with Part 3.3.3 of BCA 96 Housing Provisions in acceptable construction practices. All wall ties shall be manufactured in accordance with AS 2699 and be installed in accordance with AS 3700. Wall ties to meet corrosion resistant rating of the site. Provide appropriate ties to articulated joints in masonry.

12.7 Lintels

Lintels used to support brickwork opening in walls must be suitable for the purpose under Part 3.3.3 BCA 96 Housing provisions. Provide one lintel to each wall leaf. Where necessary clearance must be allowed at heads of frames to allow for shrinkage of timber frames.

12.8 Cleaning

Clean all exposed brickwork with an approved cleaning system. Care should be taken not to damage brickwork or joints and other fittings.

13.0 CLADDING AND LININGS

13.1 External Claddings and Linings

Sheet materials or other external cladding shall be fixed in accordance with the manufacturer's recommendations and any applicable special details.

13.2 Internal Wall and Ceilings Linings

Provide gypsum plasterboards or other selected materials to walls and ceilings. Plasterboard sheets to have recessed edges and be a minimum of 10mm thick. Internal angles from floor to ceiling to be set. Set corners or provide cornices for ceilings as required. The lining of wet area walls shall be constructed as per AS 3740 or Part 3.8.1 BCA 96 Housing Provisions. Wet area lining to be fixed in accordance with the manufacturer's recommendations.

Where required in open veranda's, porches and eaves soffits, material indicated on the drawing shall be installed. The ceiling access hole shall be of similar material to the adjacent ceiling. Suitable cornice moulds where required shall be fixed at the junction of all walls and ceilings.

13.3 Waterproofing

All internal wet areas and balconies over internal habitable rooms to be water proofed to AS 3740 or Part 3.8.1 BCA 96 Housing Provisions.

11.2 Roofing

Provide and install a metal roof together with accessories all in accordance with the manufacturer's instructions.

Except where design prohibits, sheet shall be in single lengths from fascia to ridge. Fixings of sheet shall be strictly in accordance with the manufacturer's recommendations. Incompatible materials shall not be used for flashings, fasteners or downpipes.

11.3 Rainwater Goods

Metal Rainwater goods shall be manufactured in accordance with AS 2179. Rainwater goods shall be installed in accordance with AS 2180 or Part 3.5.2 BCA 96 Housing Provisions.

UPVC components to be manufactured in accordance with AS 1273. Rainwater goods to be compatible with other materials used.

11.4 Sarking

Sarking if used under roof coverings must comply and be fixed in accordance with AS/NZS 4200.1 for materials and AS/NZS 4200.2 for installation.

11.5 Sealants

Appropriate sealants shall be used where necessary and in accordance with manufacturer's specifications.

11.6 Weatherproofing

Flashings shall comply with AS 2904, AS 1804, AS 3700 and Part 3.3.4 BCA 96 Housing Provisions.

12.0 MASONRY

12.1 Bricks

All clay bricks and brickwork shall comply with AS/NZS 4455, AS/NZS 4456 and AS 3700. Clay bricks are a natural kiln fired product and as such their size may vary over a small range. Tolerances shall only be applied to the total measurements over 20 units, not to the individual units.

12.2 Concrete Blocks

Concrete blocks are to be machine pressed, of even shape and well cured in accordance with AS 2733. Autoclaved Aerated Concrete blocks shall be in accordance with the manufacturer's Product Specification at the time the work is being carried out.

12.3 Damp Proof Courses

All damp proof courses shall comply with Part 3.3.4 BCA 96 Housing Provisions, AS 3700 and AS 2904. The damp proof membrane shall protrude to the external face of the masonry member in which it is placed.

6.7 Suspended Slabs

All concrete slabs, other than those supported on solid ground or properly compacted filling, shall be constructed as suspended slabs. These slabs shall be constructed in accordance with the Engineer's recommendations.

6.8 Foundation Walls

On footings as previously specified build brick walls to the thickness shown on plan to level underside of floor bearers and/or plates.

6.9 Sub-Floor Ventilation

Provide adequate cross ventilation to the space under suspended ground floor. No section of the under floor area wall to be constructed in such a manner that will hold pockets of still air.

6.10 Sub-Floor Access

Provide access under suspended floors in position where indicated on plan.

6.11 Curling

All slabs shall be cured in accordance with AS 3600.

7.0 RETAINING WALLS

7.1 Retaining Walls

Retaining walls shall be constructed as shown on the plans and/or special details designed by an Engineer and if applicable approved by the Local Authority whether the construction of such shall be the obligation of the Owner or the Contractor.

8.0 EFFLUENT DISPOSAL/DRAINAGE

8.1 In both sewered and unsewered areas, fit bath, wash basin, kitchen, wash tubs, pedestal pan and floor grate to shower recess in positions shown on plan. (Refer to schedule of fittings). 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 Sewerage Authority concerned.

8.2 Septic System

Provide and install a septic system where applicable to the requirements of Local Authority and in accordance with the manufacturer's instructions.

8.3 Storm Water Drainage

Allow for the supplying and laying of storm water drains where shown on Site Plan. Drains to be a minimum of 90mm UPVC pipes laid to an even and regular fall so as to have a minimum cover of 150mm. Drains to discharge into street gutter where possible. Where outlets are shown within the Site they are to discharge at least 3,000mm clear of the building. If the Authority's requirements give rise to a variation, any additional cost plus Builder's margin is to be borne by the Owner.

14.0 JOINERY

14.1 General

All joinery work (metal and timber) shall be manufactured and installed according to good trade practices.

14.2 Door Frames

External door frames shall be a minimum of 32mm thick fitted with 10mm thick door stops. Internal jamb linings shall be a minimum of 18mm thick fit with 10mm thick door stops. Metal door frames shall be installed where indicated on drawings in accordance with the manufacturer's recommendations.

14.3 Door and Doorsets

All internal and external timber door and door sets shall be installed in accordance with AS 1909. Timber Doors and Door Sets and shall be manufactured in accordance with AS 2688 and AS 2689.

14.4 Window and Sliding Doors

Sliding and other timber windows and sliding doors shall be manufactured in accordance with AS 2146 and be installed in accordance with AS 2147.

Aluminium windows and sliding doors shall be installed in accordance with manufacturer's instructions.

All glazing shall comply with AS 1288 or Part 3.6 BCA 96 Housing Provisions.

14.5 Architraves and Skirting

Provide architraves and skirting as nominated on the drawings or listed on the Schedule of Works.

14.6 Cupboards/Kitchens/Bathroom

Units shall be installed to manufacturer's recommendations. Bench tops shall be in a water resistant material.

14.7 Stairs, Balustrades and other Barriers

Provide stairs or ramps to any change in levels, and balustrades or barriers to at least one side of ramps, landings and balconies as per BCA Housing Provisions, Part 3.9.1 for stair construction and 3.9.2 for balustrades.

15.0 SERVICES

15.1 Plumbing

All plumbing shall comply with the requirements of the Supply Authority and the work is to be carried out by a licensed plumber.

Fittings shall be supplied and installed as specified.

3.2 Engineer's Recommendations

If the Building Agreement so indicates, the Owner shall, at the Owner's expense, provide the Contractor with reports and recommendation (including soil classification) as to the foundations and/or footings requirements for the Works prepared by an Engineer.

If the Contractor instructs any party to provide such recommendations, the Contractor does so only as an agent for the Owner.

3.3 Trades Persons Engaged by Owner

The Owner shall not engage or employ any tradesperson, trade-contractor or any other person to work on the Site without the consent of the Contractor which consent may be subject to such terms and conditions as the Contractor may stipulate.

3.4 Items Supplied by Owner

For all items referred to in the Specification to be supplied by the Owner, it is the responsibility of the Owner to arrange payment for delivery of and protection against damage and theft of all these items.

Delivery is to be made when requested by the Builder to the Site. If not available when required the Owner shall be obliged to make an alternative selection.

3.5 Water Supply

The Owner shall, at the Owner's expense, supply adequate water to the Site for construction purposes. Unless otherwise specified, the Contractor shall pay the standard water metre connection fee to the Water Supply Authority providing this service is prelaid to the Site ready for use. The Owner shall be responsible for any fee to be paid in excess of the standard water metre connection fee.

3.6 Sanitation

Unless otherwise specified, the Owner shall, at the Owner's expense, supply sewerage connection riser or common effluent drainage connection riser on the Site. Unless otherwise specified, the Contractor shall pay the standard sewer connection fee to the Supply Authority providing this service is to prelaid to the Site and ready for use.

The Owner shall be responsible for any fee to be paid in excess of the Standard sewer connection fee.

3.7 Site Clearance

At the Owner's expense clear only the Site area of building work including vegetation stumps, boulders, rubble and the like to a minimum distance of 1,000mm outside the building or to the boundaries of the allotment, whichever is the less and fill any depressions within the area covered by the building.

4.0 PLANS, PERMITS AND APPLICATION FEES

4.1 Permits and Fees

Unless otherwise agreed, the Contractor shall lodge all necessary application notices, plans and details with the Local Authority for approval prior to commencement of construction.

4.2 Mines Subsidence

In areas affected by mines subsidence the appropriate authority to be consulted and work carried out in accordance with their requirements as a variation, any additional cost plus Builders Margin is to be borne by the Owner.

- 4.3 Setting Out
The Contractor shall accurately set out the Works in accordance with the Site Plan and within the boundaries of the Site.

5.0 EXCAVATIONS

- 5.1 Subject to Clause 3.7 the Site covered by the Building and an area at least 1,000mm wide around the Building or to boundaries of the Site – whichever is the lesser, shall be cleared and/or graded as indicated on the Site Works Plan.
Top soil shall be cut to a depth sufficient to remove all vegetation
Excavations for all footings shall be in accordance with the Engineer's Recommendation or Part 3.2.2 BCA 96 Housing Provisions.

6.0 FOUNDATIONS AND FOOTINGS

- 6.1 Underfloor Fill
Underfloor fill shall be in accordance with AS 2870 or Part 3.2 BCA 96 Housing Provisions.
- 6.2 Termite Risk Management
Termite treatment shall be carried out in accordance with Part 3.1.3 BCA 96 Housing Provisions or AS 3660.1.
- 6.3 Vapour Barrier
The underfloor vapour barrier shall be in accordance with AS 2870 or Clause 3.2.2.6 BCA 96 Housing Provisions.
- 6.4 Reinforcement
Reinforcement shall conform and be placed in accordance with AS 3600, AS 2870 and the Engineer's recommendations.
Support to all reinforcement shall be used to correctly position and avoid any undue displacement of reinforcement during the concrete pour.
- 6.5 Concrete
Concrete shall not be less than Grade N20 except where otherwise approved by the Engineer.
Structural concrete shall be in accordance with AS 3600. Pre-mixed concrete shall be manufactured in accordance with AS 1379 with delivery dockets kept on Site and available for inspection by the Engineer.
Concrete shall be placed and compacted in accordance with good building practice. In hot (above 30 degrees Celsius) and windy conditions concrete must be cured by covering with plastic sheeting, spraying with a curing compound or ponding of water on the surface, or as directed by the Engineer.
- 6.6 Footings and Slabs on Ground
Concrete slabs and footings shall not be poured until approval to pour concrete is given by the Engineer or the Local Authority.
NOTE: Bench levels and floor levels on the Site Works Plan shall be regarded as nominal, unless specified otherwise.

- 12.4 Cavity Ventilation (Weep Holes)
Cavities shall be cleared of all mortar droppings and weep holes shall not exceed 1,200mm centres, be in accordance with AS 3700, or Clause 3.3.4.3 of the BCA 96 Housing Provisions.

- 12.5 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.

- 12.6 Masonry Accessories

Compliance with Part 3.3.3 of BCA 96 Housing Provisions in acceptable construction practices. All wall ties shall be manufactured in accordance with AS 2699 and be installed in accordance with AS 3700. Wall ties to meet corrosion resistant rating of the site. Provide appropriate ties to articulated joints in masonry.

- 12.7 Lintels

Lintels used to support brickwork opening in walls must be suitable for the purpose under Part 3.3.3 BCA 96 Housing provisions. Provide one lintel to each wall leaf. Where necessary clearance must be allowed at heads of frames to allow for shrinkage of timber frames.

- 12.8 Cleaning

Clean all exposed brickwork with an approved cleaning system. Care should be taken not to damage brickwork or joints and other fittings.

13.0 CLADDING AND LININGS

- 13.1 External Claddings and Linings

Sheet materials or other external cladding shall be fixed in accordance with the manufacturer's recommendations and any applicable special details.

- 13.2 Internal Wall and Ceilings Linings

Provide gypsum plasterboards or other selected materials to walls and ceilings. Plasterboard sheets to have recessed edges and be a minimum of 10mm thick. Internal angles from floor to ceiling to be set. Set corners or provide cornices for ceilings as required. The lining of wet area walls shall be constructed as per AS 3740 or Part 3.8.1 BCA 96 Housing Provisions. Wet area lining to be fixed in accordance with the manufacturer's recommendations.

Where required in open veranda's, porches and eaves soffits, material indicated on the drawing shall be installed. The ceiling access hole shall be of similar material to the adjacent ceiling. Suitable cornice moulds where required shall be fixed at the junction of all walls and ceilings.

- 13.3 Waterproofing

All internal wet areas and balconies over internal habitable rooms to be water proofed to AS 3740 or Part 3.8.1 BCA 96 Housing Provisions.

9.0 TIMBER FRAMING GENERALLY

9.1 Timber Framing

All timber framework sizes, spans, spacing, notching, checking and fixing shall comply with the provisions of AS 1684 or Part 3.4.3 BCA 96 Housing Provisions. Alternative structural framing to Structural Engineer's details and certification.

The work shall be carried out in a proper and tradesperson like manner and shall be in accordance with recognised and acceptable trade practices.

9.2 Floor Framing

All floors not specified to be concrete are to be framed at the level shown. Span and spacing of bearers is to conform to the requirements of the span tables for the appropriate member size. Deep joists to upper floors, where shown are to be fitted with solid blocking or herringbone strutting as required. All sizes and stress grades of timber members and tie down methods are to be in accordance with AS 1684.

9.3 Wall Framing

Plates are to be trenced to a depth not exceeding 10mm to provide uniform thickness where studs occur. Where plates are machine gauged to a uniform thickness, trenching may be omitted. Wall framing is to be erected plumb and straight and securely fastened to floor framing. Provide a clear space of 40mm between outer face of wall frame and inner face of brick veneer walls. Tie brickwork to studs with approved veneer ties. Ties are to slope downwards towards the veneer wall.

Studs in each panel of walling shall be stiffened by means of solid noggings or bridging pieces at not more than 1,350mm centres over the height of the wall. Bottom plates shall be fixed to the concrete slab in accordance with AS 1684.

9.4 Heads Over Opening (Lintels)

All sizes, stress grade and bearing area shall conform to AS 1684 or NSW Timber Framing Manual. Heads exceeding 175mm in depth shall be seasoned or a low shrinkage timber species use. Plywood web lintels conforming to the requirements of Plywood Association of Australia may be used. Glue Laminated beams conforming with AS 1328. If approved by the Lending Authority. Laminated Veneer Lumber beams to manufacturer's specification and data sheets may be used.

9.5 Roof Trusses

Where roof truss construction is used, trusses shall be fabricated in a properly equipped factory and erected, fixed and braced in accordance with the fabricator's written instructions.

9.6 Bracing

Timber frames must be braced in accordance with Clause 3.4.3.8 BCA 96 Housing Provisions. Bracing units shall be determined as appropriate for the design wind velocity for the building or AS 1684. Bracing shall be evenly distributed throughout the building.

9.7 Flooring

Cover floor joists with strip or sheet flooring as shown on plan. Thickness of flooring to be appropriate for the floor joist spacing. With particular regard to ground clearance and installation in wet areas, structural sheet flooring shall be used strictly in accordance with the manufacturer's recommendations or Part 3.4.3 BCA 96 Housing Provisions.

Strip flooring shall be in accordance with AS 1684.

When listed in Schedule of Works, floors shall be sanded to provide an even surface and shall be left clean throughout.

9.8 Roof Framing

Roofs are to be pitched to the slope shown on plan and constructed in accordance with Clause 3.4.3.6 BCA 96 Housing Provisions or AS 1684. Provide tie-down as required for the appropriate design wind velocity and roof covering. Provide all rafters, ridges, hips, valleys, pulins, struts, collar ties and wind bracing as appropriate with all sizes and stress grades in accordance with AS 1684.

Metal fascias shall be installed in accordance with the manufacturer's recommendations.

9.9 Timber Posts

Posts supporting carports, verandas and porches shall be timber suitable for external use, or as otherwise specified, supported on galvanised or treated metal post shoes. Post shall be bolted to all adjoining beams as required by AS 1684 for the wind speed classification assessed for the Site.

9.10 Corrosion Protection

All metal brackets, facing plates and other associated fixings used in structural timber joints and bracing must have appropriate corrosion protection.

9.11 Hot Water Storage Tank Platforms

Where a hot water storage tank is to be installed in the roof space, the tank platform shall be supported directly off the wall plates and must not be supported on ceiling joists.

All hot water services installed in the roof space shall be fitted with an appropriate spill tray and overflow drain pipe.

10.0 STEEL FRAMING GENERALLY

10.1 Steel Framing

Steel floor, wall or roof framing approved by the Local Authority shall be installed in accordance with the manufacturer's recommendations and AS 3623 or Part 3.4.2 BCA 96 Housing Provisions.

11.0 ROOFING

All roof cladding to comply with the relevant structural performance and weathering requirements of BCA 96 Housing Provisions and be installed as per the manufacturer's requirements.

11.1 Tiled Roofing

Concrete and terracotta tiles shall comply with AS 2049 and be installed in accordance with AS 2050.

Cover the roof of the dwelling with first quality approved 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. Capping and verge tiles are to be well bedded and neatly pointed. Roofing adjacent to valleys should be fixed so to minimise as far as practicable water penetration. As roof tiles are made of natural products slight variation in colour is acceptable.