

BUILDING CONSENT

106352P

PROPERTY ID

006135

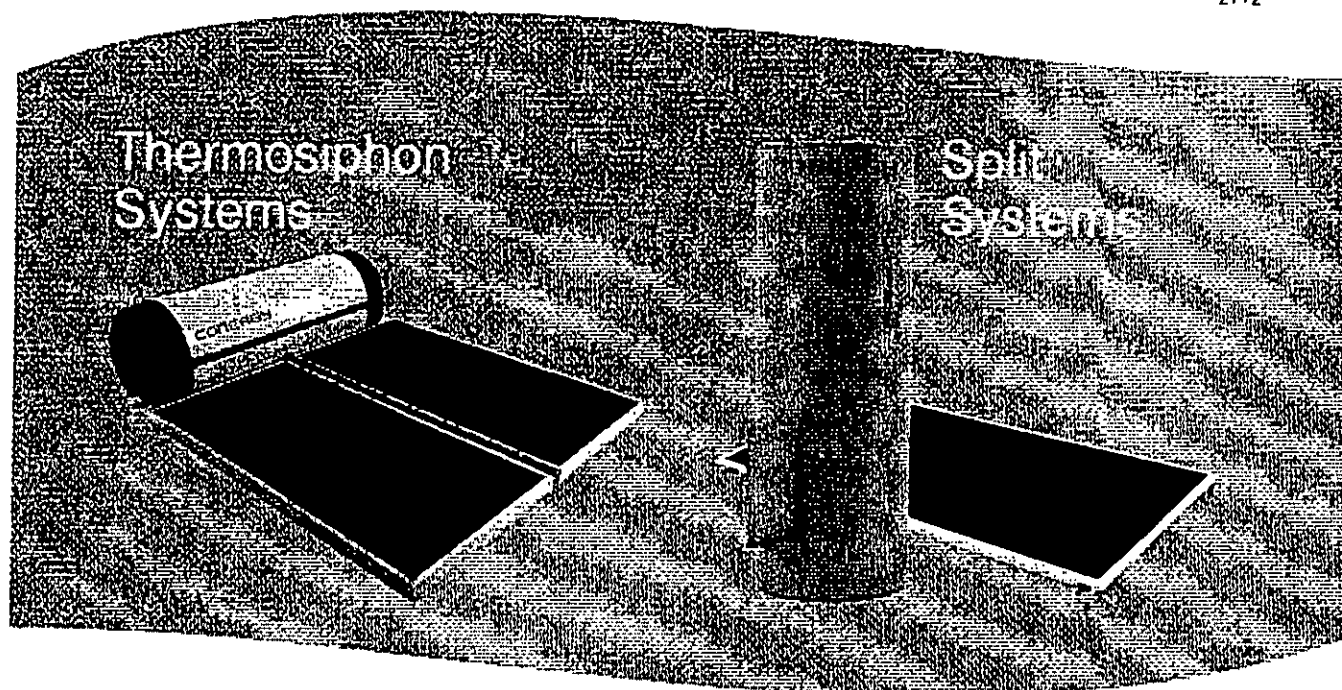
 **106352P**



A Division of Heating Partners Limited
PO Box 15-10-1, New Lynn, Auckland
© Copyright Heating Partners Ltd 2007

PRODUCT SPECIFICATIONS SOLAR HOT WATER

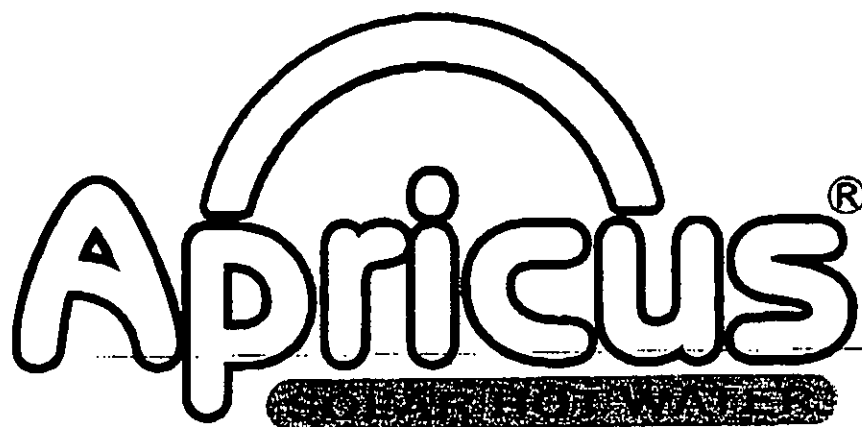
0800 SUNFLOW (786 356)
email: info@sunflow.co.nz
www.sunflow.co.nz



SunFlow® Thermosiphon Systems

Model	3004/C/KE/2BC	3004/C/KE/2SP
Storage Tank Material	Vitreous Enamel Lined Low Carbon Mild Steel	
Storage Tank Insulation	High Density Polyurethane	High Density Polyurethane
Tank Weight Empty (kg)	113	113
Tank Weight Full (kg)	425	425
Tank Size W x H x L (mm)	650 x 590 x 2000	650 x 590 x 2000
Booster Element Rating (kW)	2.4	2.4
Collector Model	2BC	2SP
Absorber Surface	Selective, Black Chrome	Selective: Titanium Oxynitride
Number of Collectors	2*	2*
Collector Size H x W x D (mm)	1938 x 970 x 82	2055 x 1040 x 100
Total Collector Area (m²)	3.82	4.27
Collector Weight Pack (kg)	30	39.8
Collector Case Material	Aluminium	Aluminium
Solar Energy Transfer Medium	Solar Fluid	Solar Fluid

* Also Available With 3 Collectors



Apricus Solar Collector
Information Booklet
(Public version)

Jan 2007

1. Apricus Product Overview

1.1. Product Range

Apricus is focused on the design and production of high quality thermal solar collectors and related products. Apricus offers the following key products:

- Evacuated tube heat pipe solar collectors
- Solar controllers
- Heat dissipators
- Solar Conversion Valves
- Other miscellaneous components

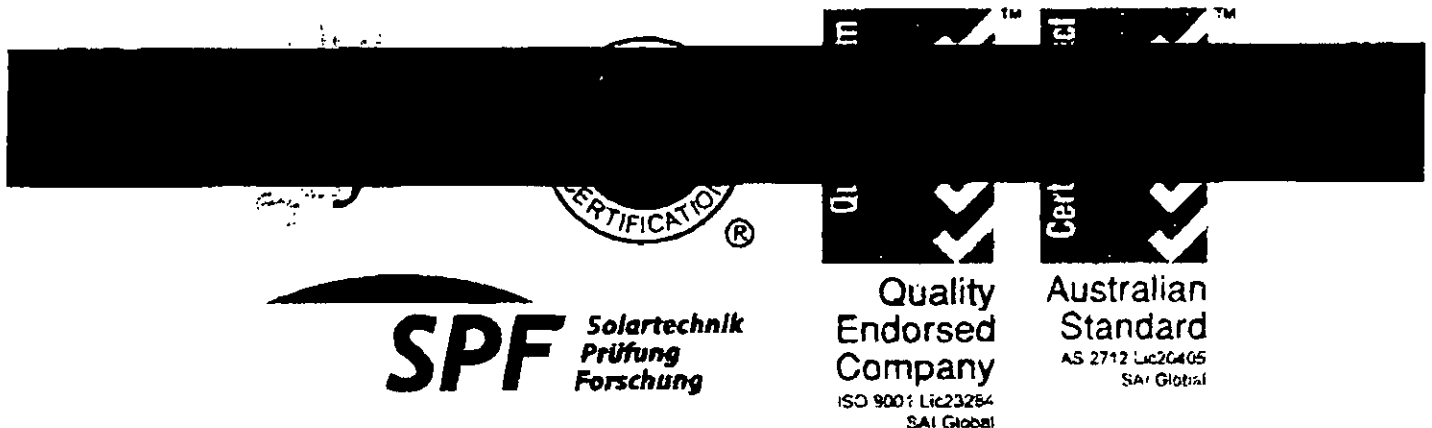
Throughout 2007, Apricus hopes to add to the product range some of the following:

- Solar cooling units
- Solar pump stations
- Insulated solar line piping

- Additional balance of system components.

If there are components or products that you think would be of benefit for Apricus to offer, please let us know.

1.2. Certification



Apricus is an ISO9001:2000 certified company, meaning that we implement comprehensive quality control and system management processes.

Apricus solar collectors are quality and performance certified by a number of international organizations, namely SRCC, FSEC, SPF and Australian Standards.

To view certificates and test reports, please visit the Apricus website:

http://www.apricus.com/html/solar_collector_certification.htm

2. General Specifications

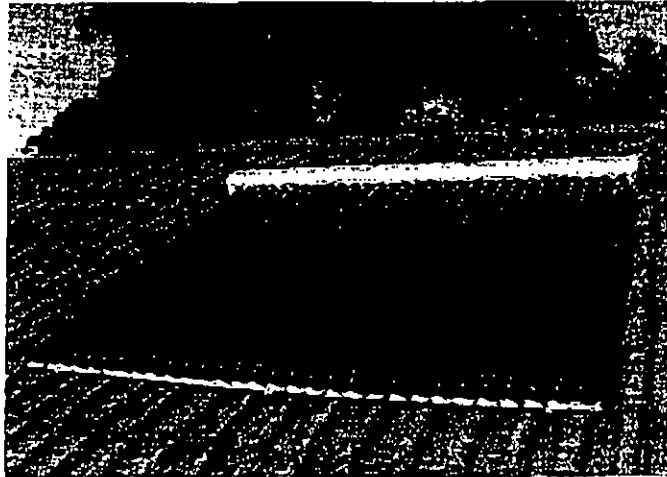
2.1. Overview

The Apricus solar collector is a thermal solar collector that uses twin glass evacuated tubes as the solar absorber. Copper heat pipes are used to transfer the heat from within the evacuated tube to a heat transfer manifold, with metal fins positioned within the evacuated tube to aid heat transfer and hold the heat pipes firmly in place.

The heat transfer manifold consists of a copper header pipe through which heat transfer liquid (water or water-glycol mix) is circulated. The header is designed with dry contact ports into which the heat pipes plug, allowing efficient heat transfer. There is no water inside the evacuated tubes, and no direct contact between the heat pipes and the heat transfer liquid, as such the system is suitable for mains pressure.

The manifold and tubes are attached to a stainless steel mounting frame, which can be mounted directly on a roof of suitable pitch. Frame kits are also available which allow mounting on flat roofs, walls or low-pitched roofs. By using commercially available frame kits, pole mounting is also possible.

The solar collector has been designed to be suitable for a wide range of system configurations including open loop, closed loop, drainback and even thermosiphon when coupled with a suitable tank. Collectors may be installed in banks of up to 5 collectors in series (150 tubes maximum) and unlimited parallel-connected banks. Apricus solar collectors can be used for both domestic and commercial applications.



2.2. Basic Collector Data

Collector Size	10 tubes	20 tubes	22 tubes	30 tubes
Overall Length ¹	1980mm / 80"			
Overall Height ²	156mm / 6.14" (manifold + standard frame)			
Overall Width ³	796mm / 31.3"	1496mm / 58.8"	1636mm / 64.4"	2196mm / 86.4"
Absorber Area ⁴	0.8m ² / 8.6ft ²	1.6m ² / 17.2ft ²	1.76m ² / 18.9ft ²	2.4m ² / 25.8ft ²
Aperture Area ⁵	0.94m ² / 10.1ft ²	1.88m ² / 20.2ft ²	2.07m ² / 22.3ft ²	2.82m ² / 30.3ft ²
Gross Area	1.57m ² / 16.95ft ²	2.96m ² / 31.8ft ²	3.24m ² / 34.8ft ²	4.35m ² / 46.8ft ²
Gross Dry Weight (Standard Frame)	34.8kg / 76.5lb	63.5kg / 139.7lb	71.3kg / 156.8lb	94.8kg / 208.5lb
Fluid Capacity	290ml / 9.8floz	520ml / 17.58floz	550ml / 18.6floz	710ml / 24floz

1. Length of frame front track
2. Height of frame front track + manifold
3. Width of manifold (not including inlet/outlet ports)
4. Absorber = Outside diameter of inner tube x exposed tube length;
5. Aperture = Inner diameter of outer glass tube x exposed tube length

2.3. Component Specifications

Copper Header

Material	>99.93% Copper Sn<0.012%, Zn<0.04%, Pb<0.003%, Fe<0.004%, Ni<0.003%, As<0.002%, S<0.003%, Bi<0.001%, Sb<0.002%
Length (overall length)	$L = (X-1) \times 70 + 240\text{mm}$ (X=No. tubes) $L = (X-1) \times 2.759" + 9.45"$
Header Pipe Dimensions	Ø18mm OD x 1.2mm Ø0.7" OD x 0.047" (>M grade copper pipe)
Brazing Rod Materials	45% Ag, 30% Cu, 25% Zn (BAg45CuZn) & 93% Cu, 7% P (BCu93P)

	0.026G/tube/min (tube = 0.26G/min)
Max Flow Rate	15L/min / 3.9G/min regardless of collector size.
Max Operating Pressure Rating	800kPa / 116psi (850kPa / 123psi PRV acceptable)

Manifold Casing & Insulation

Manifold Length	$L = (X-1) \times 70\text{mm} + 160\text{mm}$ (X=No. tubes) $L = (X-1) \times 2.759" + 6.3"$
Height	130mm / 5.15"
Width	140mm / 5.512"
Tube Spacing	70mm / 2.759"
Manifold Material	0.8mm Aluminium (Grade 3A21) Black Powder Coated (PF - Phenol Formaldehyde Resin)
Glass Wool Insulation	(~70kg/m ³ / 1.33lb/ft ³) $K = 0.043\text{W/mK}$ $R = 1.16\text{K.m}^2/\text{W}$ or $6.6\text{ft}^2.\text{°F.h/Btu}$

Frame

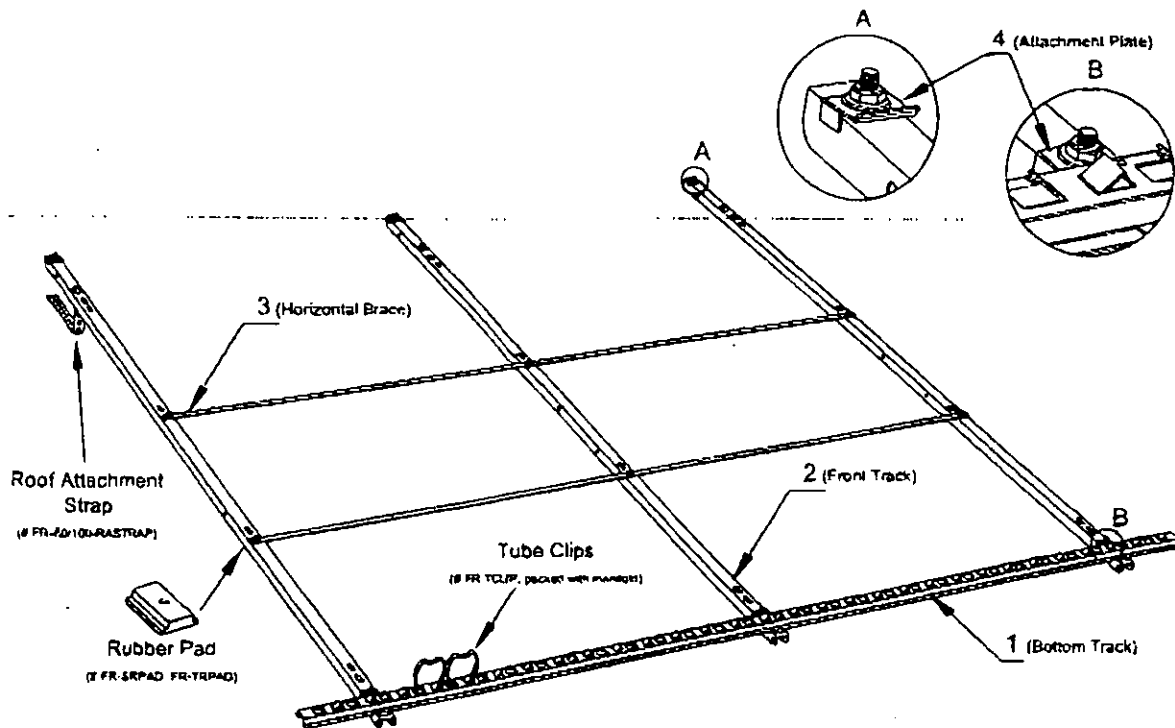
Material	1.5mm / 0.059" thick 439 Stainless Steel
SS Tube Clips	301 Stainless Steel
Bolts, Washers and Nuts	304 Stainless Steel

3.4. Standard Frame

Apricus Solar Collector Standard Frame Kit

Part #: FR-XX-STANDARD

This frame is suitable for flush installation on a pitched roof. If installing on a low pitched roof, or flat roof, an additional frame kit is required which will complement the components already contained in this standard frame kit.



Frame Packing List

Part #	Component Quantities	
	10 & 20 Tube	22 & 30 Tube
1. FR-BTRACK-XX	1	1
2. FR-FTRACK-XX	2	3
3. FR-HBRACE	2	2
4. FR-APLATE	4	6
5. FR-BOLT-M8x20	8	12
6. FR-NUT-M8	8	12
7. FR-WASH-B	4	6
8. FR-SWASH	8	12
9. FR-WASH-S	4	6
10. FR-NLOCK	8	12

Nuts and bolts are already attached to the appropriate components.

Roof Attachment Options (Components Supplied Separately)

Tiled Roof - Roof Attachment Straps

Corrugated Iron Roof - Standard Rubber Pads

Asphalt Shingle Roof - Extra Thick Rubber Pads

or

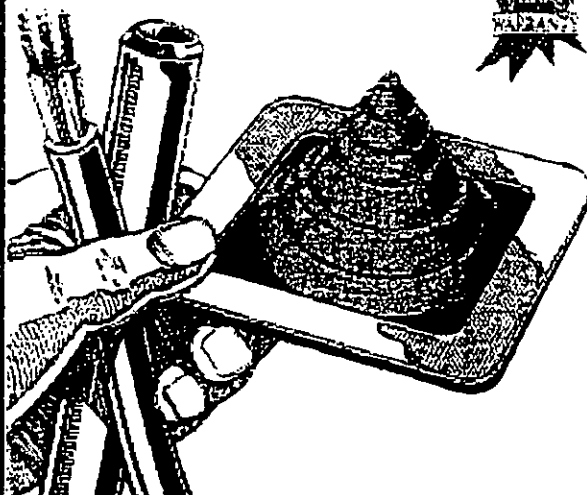
Low, Mid, High or Fixed Angle Frame Kit

SAFETY CONSIDERATIONS

- Wear gloves when handling frame components
- If installing on corrugated iron roofs, always use rubber pads, thus preventing direct contact between galvanised iron and stainless steel frame.
- Ensure roof attachment points are structurally sound
- Follow relevant safety regulations regarding working on roofs

6

Mini Dektite®



MINI D

Electrical wiring and other small diameter wall and roof penetrations, including small-bore copper tubing and lightning conductors.

Just like other Dektite® products, their flexible E.P.D.M. rubber cones are specially compounded to resist degradation from ozone and ultra violet light. Mini Dektites® are as quick and easy to install as any other Dektite®.

They cover pipe diameters up to 35mm, and roof pitches up to 60°.

You can always rely on them for a maintenance-free leak proof seal that flexes with whatever material they're mounted to.

Easy Selection Guide

Code	PIPE mm	BASE mm	PITCH	COLOUR
DS0-45 DS0-25	0-35	99x99	0 - 60°	BLACK (EPDM)* GREY (EPDM)*

E.P.D.M. withstands temperatures from -50°C to 115°C, & up to 150°C intermittently

INSTALLATION INSTRUCTIONS

7

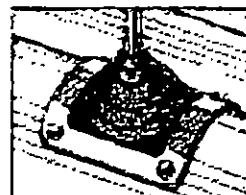
Applications include:



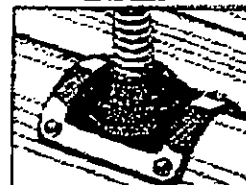
1 Simply cut Mini Dektite® cone to required size for 'snug' fit.



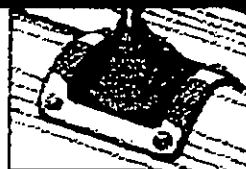
2 Push or pull cable or pipe



ELECTRICAL CABLES



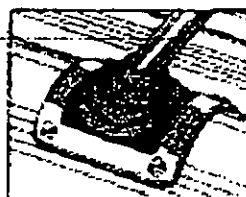
3 Apply neutral-cure Silicone® to underside of flashing (embossed ribbed section). If necessary press flashing into contours of surface configuration.



SOLAR HEATING OR HOT WATER OVERFLOWS



4 Fasten flashing to wall or roof surface with washered self drilling screws.



REFRIGERATION OVERFLOWS and LIGHTNING CONDUCTORS

Refer to page 28 for silicone usage

THE COPYRIGHT OF THIS
DRAWING REMAIN THE
PROPERTY OF
G.J. Gardner Homes.

G.J. Gardner.HOMES

G.J. Gardner Homes.
PO BOX 8103 - NEW PLYMOUTH
PHONE (06) 769 6512

FLOOR PLAN

1 : 100 AREA = 306 SQR M

WALL LEGEND

- 90x45 H1.2 framing at 450 crs max (Exterior)
- 90x45 H1.2 framing at 600 crs max (Internal)

RAD
RIGHT ANGLE DESIGN

project:
DOMBROSKI
LOWER PITONE ROAD
OKATO

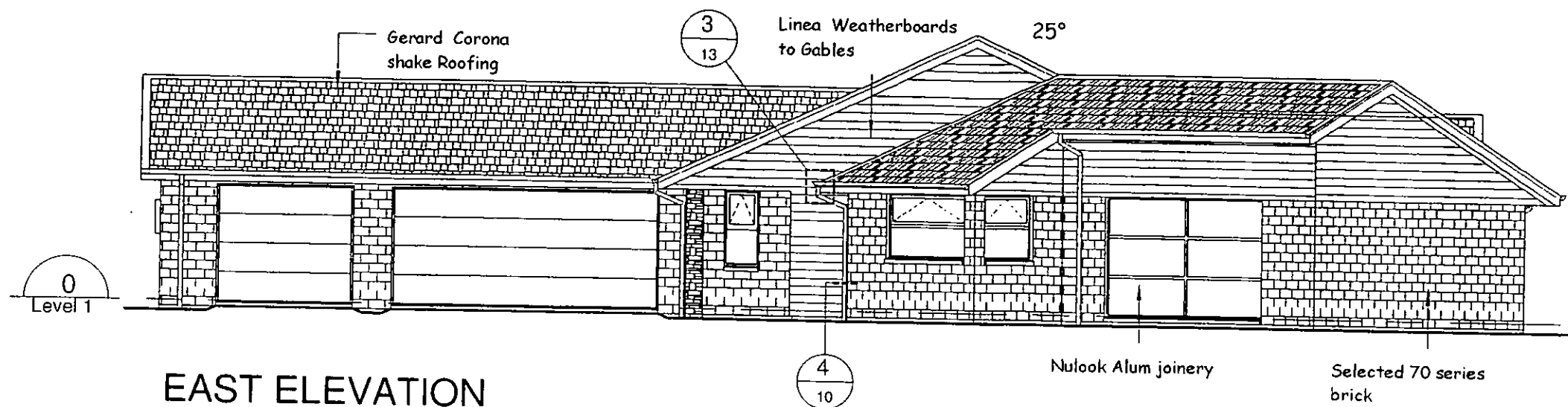
drawings:
FLOOR PLAN

1 : 100 4 A
scale: sht: rev:

Revision: A 02-12-08 - 200PFC now FB25M.

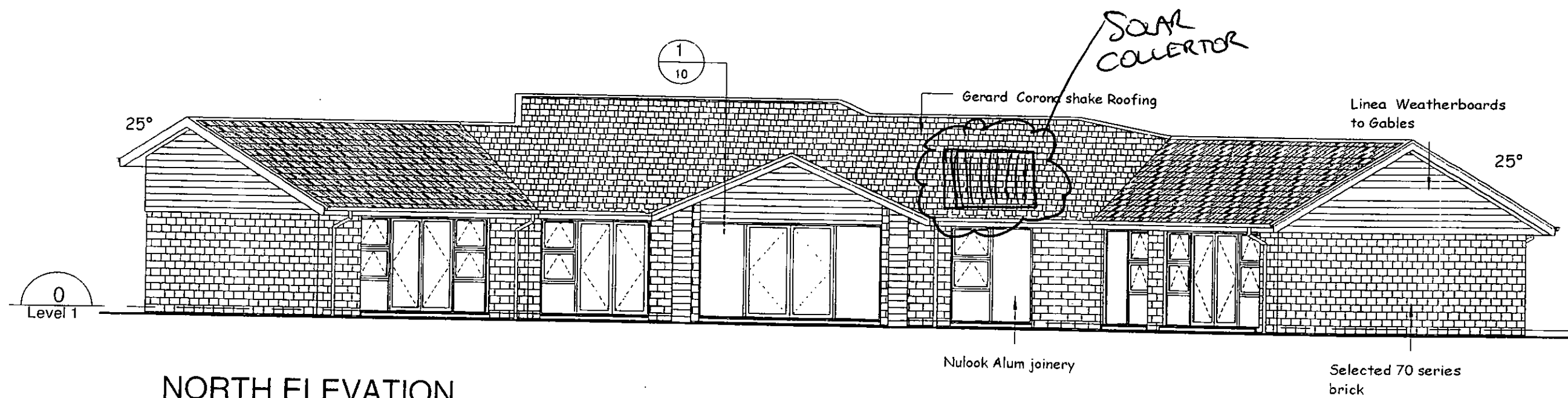
CHECK ALL DIMENSIONS. DO NOT SCALE IF IN DOUBT ASK

NPDC 06 JUN



EAST ELEVATION

1:100



NORTH ELEVATION

1:100

THE COPYRIGHT OF THIS
DRAWING REMAIN THE
PROPERTY OF
G.J. Gardner Homes.

G.J. Gardner.HOMES

G.J Gardner Homes.
PO BOX 8103 - NEW PLYMOUTH
PHONE (06) 769 6512

project:
DOMBROSKI
LOWER PITONE ROAD
OKATO

drawings:
ELEVATIONS

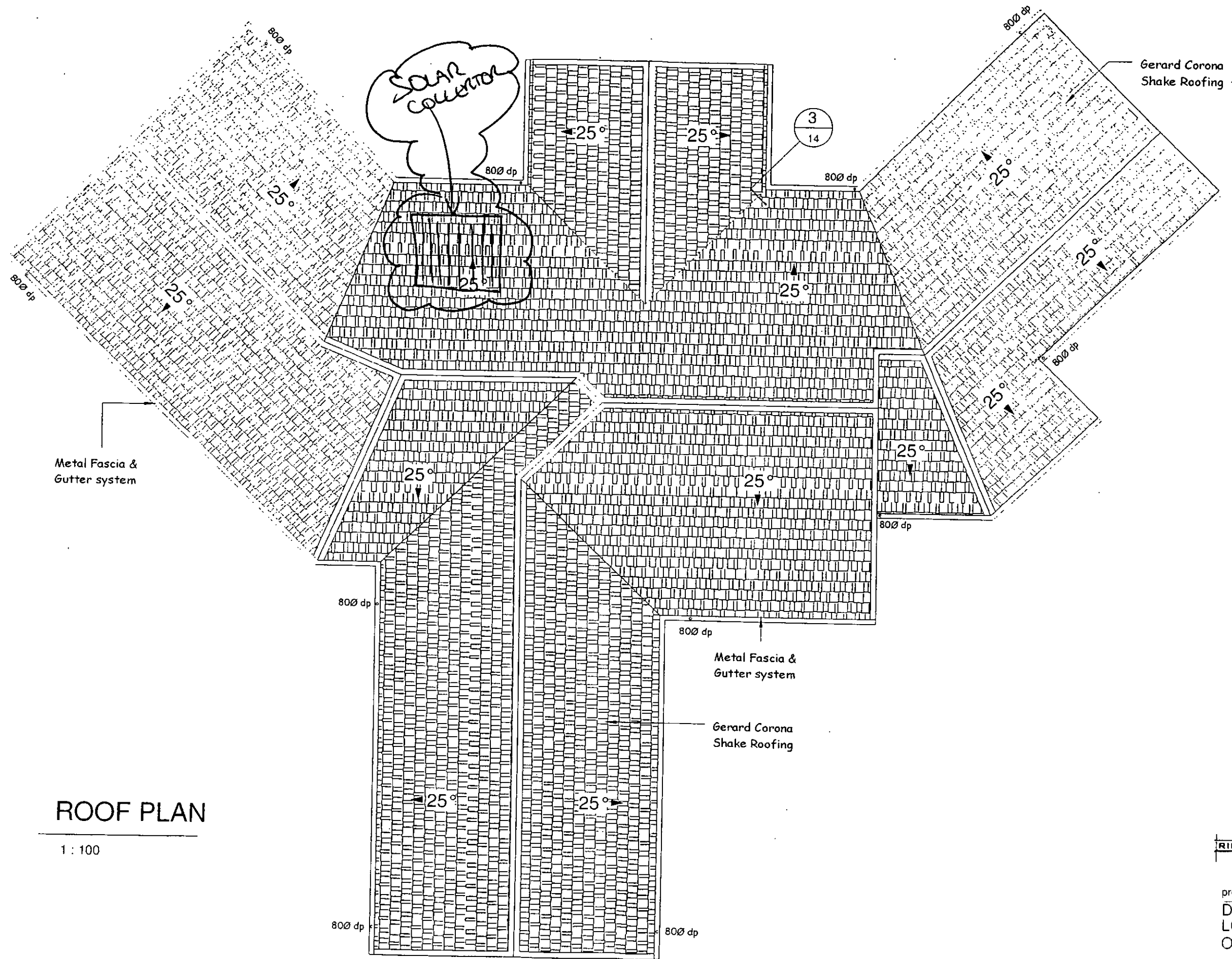
1:100 6
scale: sht: rev:

NPDC

06 JAN

RIGHT ANGLE DESIGN

CHECK ALL DIMENSIONS
DO NOT SCALE IF IN DOUBT ASK



ROOF PLAN

1 : 100

THE COPYRIGHT OF THIS
DRAWING REMAIN THE
PROPERTY OF
G.J. Gardner Homes.

G.J. Gardner.HOMES

G.J Gardner Homes.
PO BOX 8103 - NEW PLYMOUTH
PHONE (06) 769 6512

NPDC

06 JAN

RAD

RIGHT ANGLE DESIGN

project:

DOMBROSKI
LOWER PITONE ROAD
OKATO

drawings:

ROOF PLAN

1 : 100

17

scale:

sht:

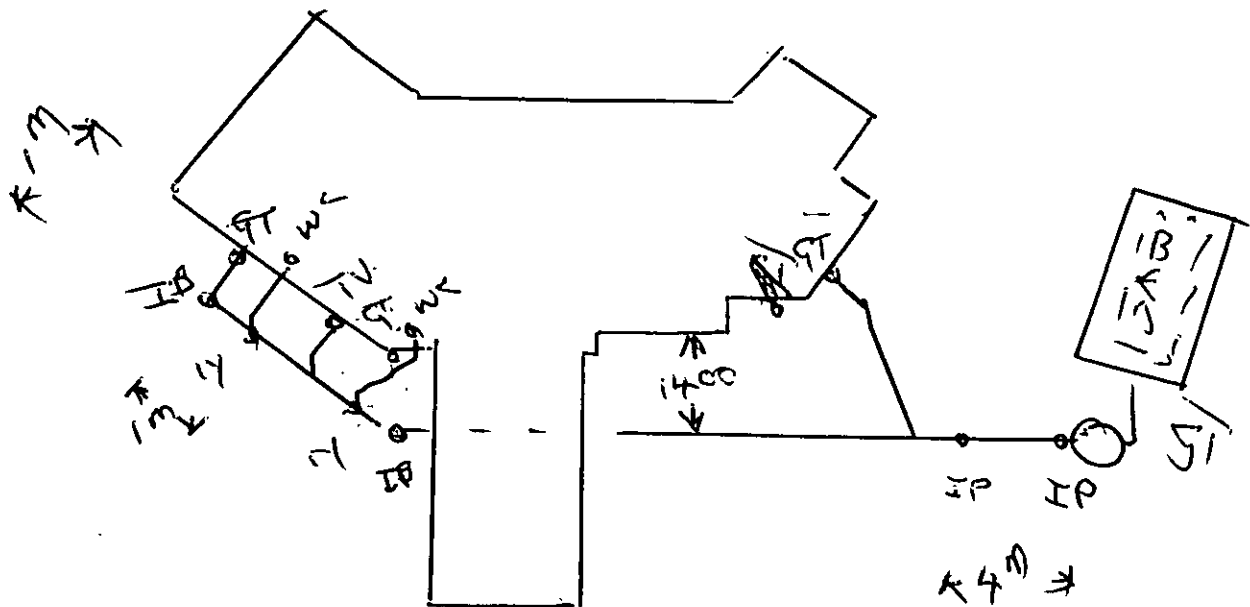
rev:

Building consent BC: 106352

Drainlayer: K. CAPSTAKE 3325

Address: 242 Lower Piton Rd OKATO

Date: 11/7/09



Specify system used:

- ☐ AS: G13
- ☐ AS/NZS: 3500

Note: Show terminal vent size, location and all relevant dimensions to inspection points

Drainage plan may be accepted on another sheet provided by drainlayer at the discretion of the inspector.



Dist to Line Top
from the South side

2445

The two water sites are on adjoining
land. I am satisfied that will be
getting them soon from the building
site.

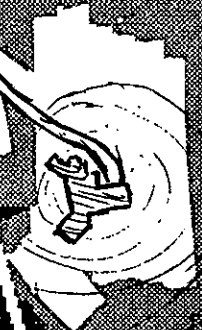
Rowan Williams. 14/11/09.

[SKI]

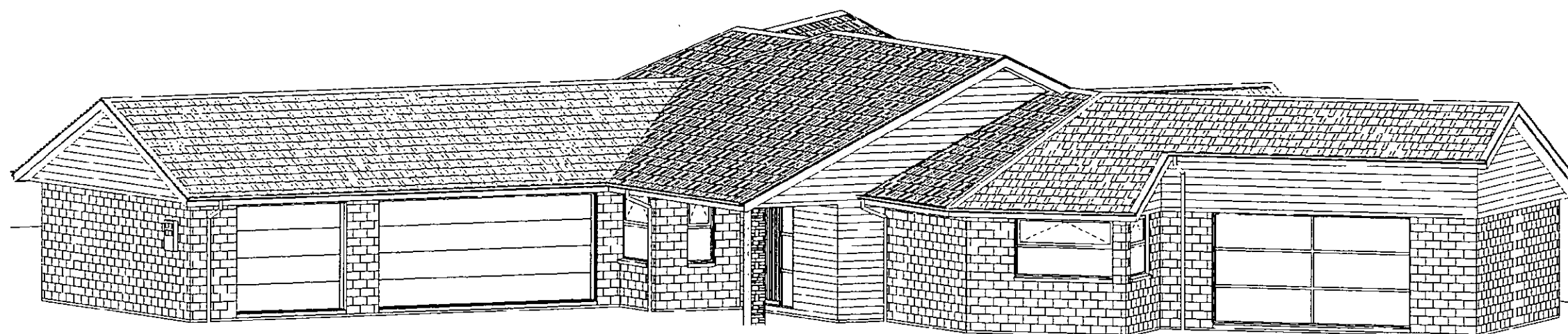
WATERLOO ROAD



PROPOSED
HOUSE
LOCATION



NPD 6 11 11
16 11 1993



SHEET	REV	CONTENTS
0	~	GENERAL NOTES
1	~	SITE PLAN
2	~	PLUMBING & DRAINAGE PLAN
3	~	FOUNDATION PLAN
4	~	FLOOR PLAN
5	~	ELEVATIONS
6	~	ELEVATIONS
7	~	SECTIONS
8	~	SECTIONS
9	~	DETAILS
10	~	DETAILS
11	~	DETAILS
12	~	DETAILS
13	~	DETAILS
14	~	DETAILS
15	~	DETAILS
16	~	BRACING PLAN
17	~	ROOF PLAN
18	~	ELECTRICAL PLAN

NEW RESIDENCE FOR : DOMBROSKI LOWER PITONE ROAD OKATO

NPDC Approved
06 JAN 2009

NPDC OFFICE COPY
This Building Consent is approved under the
Building Act and is limited to new work only as
shown on these plans and related specifications
Approved.....*3/12/08*.....Date *6.1.09*

BC08/106352
03/12/08

THE COPYRIGHT OF THIS
DRAWING REMAIN THE
PROPERTY OF
G.J. Gardner Homes.

G.J. Gardner.HOMES

G.J Gardner Homes.
PO BOX 8103 - NEW PLYMOUTH
PHONE (06) 769 6512

GENERAL

1. Contractors are required to comply with the Building act 2004 & the health & safety in employment act 1992 incl all current amendments.

2. No building is to commence until a building consent has been issued by the NPDC.

3. The builder is to work from the approved consent document only.

4. All dimensions are in millimeters.

5. Figured dimensions have preference over scaling.

6. L 150 Hy90 = Lintel Size.

REINFORCING

1. Mild steel plain & deformed to comply with AS/NZS 4671 Steel Reinforcing Materials.

2. All plain bars to be Grade 300. All Deformed to be grade 300.

3. HRC mesh to comply with AS 4671.

STRUCTURAL STEEL WORK

1. All Structural Steel Work to conform to NZS 3404 / AS 4100 / AS3990.

2. All External to be hot dipped Gavanised, or

3. Zinc spray coated to minimum Dry Film Thickness (DFT) of 75 microns.

FIXINGS & FASTENINGS

1. Materials & Protection for all Fixings Fastenings shall comply with Section 4 of NZS 3604.

2. Standard ordinary bolts to comply with As 1111. High strength bolts to comply with AS 1252.

3. Fix bottom plates to concrete with Hilti HSA M12 x 150 stud anchors or equivalent fixing c/w 50x50x3 sqr washers.

FOUNDATIONS & SLAB

1. All concrete work to conform to NZS 3109.

2. Extend foundations to a minimum of 300mm into good ground or as otherwise shown on drawings.

3. All concrete to be high grade to conform to NZS 3109.

4. Concrete to have a minimum compressive strength after 28 days of:
- 17.5 MPa for unreinforced concrete.
- 20 MPa for reinforced concrete.

5. Minimum concrete cover to steel:
- 75mm when concrete placed on or against ground.
- 50mm in all other situations where concrete is placed in formwork
- 30mm from top of slab to mesh in an enclosed area.
- 50mm from top of any exposed slab.

6. Waffle Slab Floor: 85mm thick slab (min) with 668 mesh 40mm bottom cover on 1200x1200x1200 thick polystyrene infill panels on DPM.

Refer to Engineers Structural Drawings

7. Sawcuts: To be 5mm wide x 25mm deep at 6m max crs eachway or as marked on Engineers drawings.

8. Sawcuts to be carried out with 48 hrs of placement of slab.

CARPENTRY

1. All construction to comply with NZS 3604 1999 ammendment 2 & the NZ Building Code. Very High Wind & Earthquake A.

2. All materials to comply with NZS 3602: 2002.

3. All timber treatment to comply with NZS 3602 2003.

4. All timber sized in accordance with NZS 3604 VS68 / MS68 tables.

5. All Exterior framing to be H1.2 min & Interior framing to H1.2 unless otherwise noted.

EXTERIOR WALLS

1. 90x45 framing at 450crs where noted on plans.

2. Linea Weatherboard: James Hardie Linea on cavity batten to be fixed & installed as per manufacturers specifications AUGust 2007 where shown on plans.

3. Selected 70 series clay brick as indicated on plans.

4. Building wrap to be *Thermakraft* Cover-Up.

INTERIOR

1. 90x45 H1.2 framing at 600 crs Nogs to be at 800 crs max. Double Top Pate to be 90x45 to all flat ceilings.

2. All walls to be lined with 10mm Gib-Bd unless otherwise noted. 5. All wet area linings to be:
- Walls: Gib Aqualine.
- Ceilings: Gib Aqualine

3. 55 Gib cove through out.

4. Ceilings 13mm Gib to All Bedrooms, Bathroom, Wc, Ensuite, W.i.r, Hallway & 13mm Gib Ultraline Plus to: Entry Kitchen, Dining, Family, Living all on 75x40 battens at 400 crs max.

5. 60x12 pine skirting.

6. Interior doors: P/Q owner select, 1980mm high throughout.

7. 19mm pine jambs, 40x12 architraves, Door handles owner select.

8. Smoke detectors to be installed as per NZBC F7.

9. All showers to be Tiled: Waterproof membrane to be liquid applied by Construction Chemicals Ltd.

WINDOW JOINERY

1. Aluminium Joinery: All Double Glazed. 2150 head heights unless otherwise noted. P/Q liners, condensation drainers, Obscure glass to Bath / Wc / Ensuite. (Stippolite)

2. Aluminium Joinery to comply with: NZS 4223 / NZS 3504 / NZS 4211.

3. Grey Tinted Windows to: Kitchen, Dining, Living, Family, Bedrooms 1,2 & 3.

4. Entry Door Sidelights to be clear glass.

4. Manufacturer to verify all measurements on site before fabrication.

ROOF:

1. Gangnail trusses at 900 crs max at 5° roof pitch

2. Dimond Trimdek Colorsteel Endura Roofing on *ThermOkraft* 368 Self supporting Paper laid horizontally on 75x50 H3.1 Purlins at 900crs on FTMA approved trusses.

3. Dimond Box 125 Colorsteel Spotting.

4. 80Ø uPVC Downpipes as indicated.

5. Roof Bracing to comply with NZS 3604 Table 10.1

6. Lumberlok Multi brace c/w tensioners to Roof planes as indicated on plans.

7. All Fixings to comply with NZS 3604

Very High Wind Zone:

Trusses- As per Table: 10.12.

Rafters- As per Table:10.2.

Purlins- As per Table:10.9.

Truss fixings: 2/100x3.75 skewed nails + 3 wire dogs or 2/ Lumberlok CT200's.

Purlin fixings: 2/100x3.75 skewed nails + 1 wire dog or 2/80x10 gauge Lumberlok Purlin screw (Blue).

INSULATION:

1. All insulation to comply with NZS 4214: Thermal resistances. NZS 4218: Energy Efficiency & NZBC clause H1 incl all recent amendments.

2. NZS 4218: Calculation Method Compliance
- Climate Zone 2
- Roof R-Value: 2.9min
- Wall R-Value: 1.9min
- Floor R-Value: 1.3min
- Glazing R-Value 0.26min
(All Double Glazed Units)

3. Insulation: Walls: R2.2 fibreglass min Ceiling: R3.2 fibreglass min

HEATING:

1. Ceiling mounted Fujitsu AUTA24L Heat Pump

2. Water Heating: Rheems180 Ltr Hot Water Cylinder c/w MANIFLOW Hep²O Plumbing system fitted with Safe Temp Tempering Valve.

3. Undertile Heating to Bathroom, Ensuite & Wc

PLUMBING & DRAINAGE:

1. All plumbing and Drainage shall be carried out in accordance with the NZ building Code. Plumbing and drainage indicated on these plans are schematic only and the Plumber / Drainlayer shall be responsible for all works and to be carried out to local Territorial Authorities requirements.

2. Water supplies and foul water shall comply with Approved documents G12 of the NZ Building Code.

3. Foul water shall comply with AS/NZS 3500 part 2.2

4. Conceal all pipework & combine all vents wherever possible.

5. All penetration through concrete or blockwork to be drilled by Plumber / Drainlayer as required.

6. Install a back vent or air admittance valve (aav) where the developed length of discharge pipes exceeds 2.5m from a trapped waste or the developed length of a branch drain exceeds 10m.

7. Septic tank as per Engineers Specifications.

ELECTRICAL:

1. New Zealand Electrical codes of Practice ECP50 & ECP51 are acceptable solutions for Electrical installation in Residential dwellings.

2. All fittings to be owner select & to be compliant.

3. Positions of electrical fittings to be determined upon walk through with Registered Electrician.

project:

DOMBROSKI
LOWER PITONE ROAD
OKATO

drawings:

GENERAL NOTES

1 : 100 0
scale: sht: rev:

CHECK ALL DIMENSIONS DO NOT SCALE IF IN DOUBT ASK

~ 200.0m

~ 9.0m

~ 7.7m

337.25 m

PROPOSED
RESIDENCE

DRIVEWAY



LEGAL DESCRIPTION

242 PITONE ROAD
LOT: 1
AREA: 14.9434 Ha
DP 411680

KATIKARA STREAM BDY

SITE PLAN

1 : 1000

LOWER PITONE ROAD
403.14 m

CHECK ALL DIMENSIONS DO NOT SCALE IF IN DOUBT ASK

R A D
RIGHT ANGLE DESIGN

project:
DOMBROSKI
LOWER PITONE ROAD
OKATO

drawings:
SITE PLAN

1 : 1000 1
scale: sht: rev:

THE COPYRIGHT OF THIS
DRAWING REMAIN THE
PROPERTY OF
G.J. Gardner Homes.

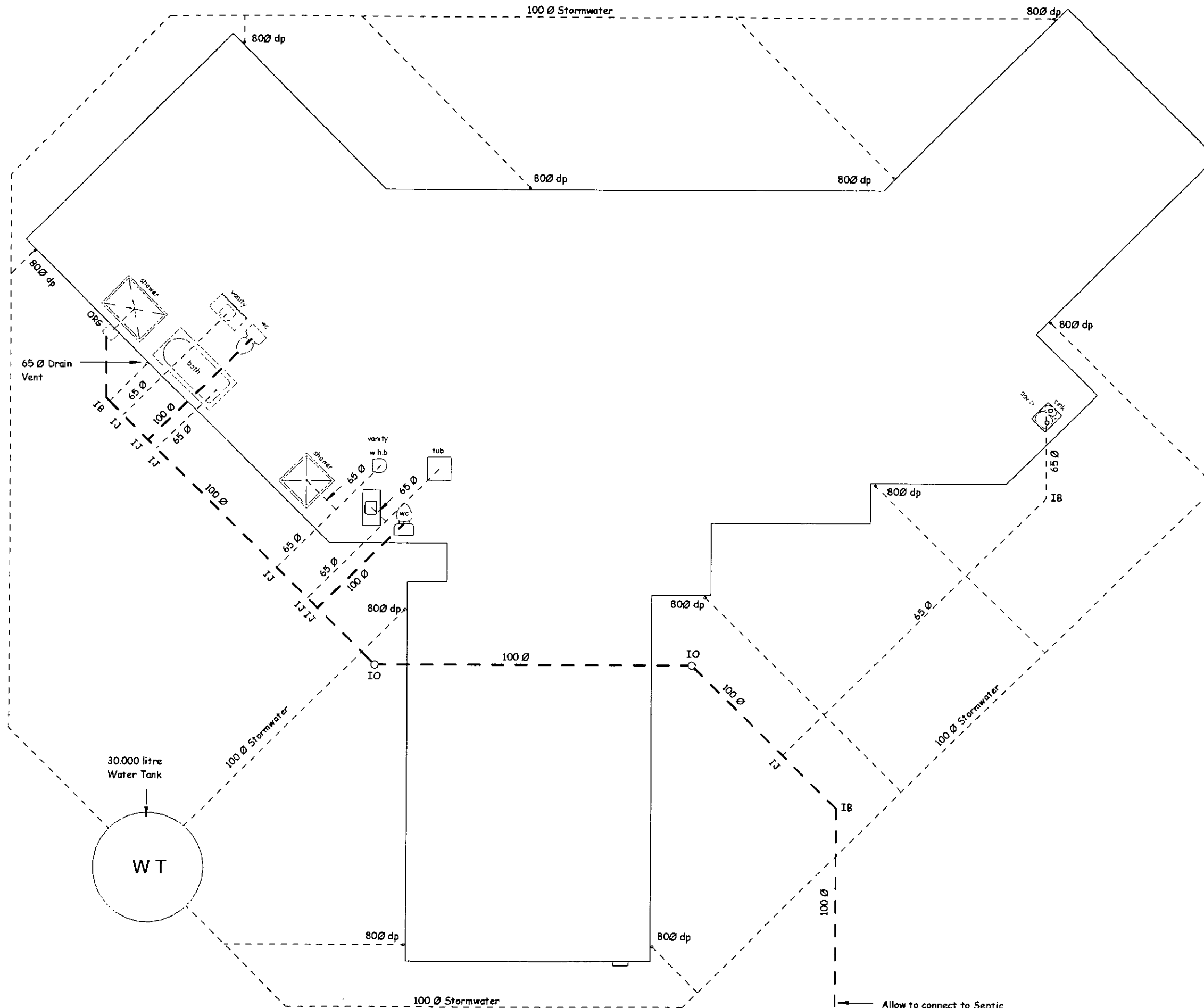
G.J. Gardner.HOMES

G.J Gardner Homes.
PO BOX 8103 - NEW PLYMOUTH
PHONE (06) 769 6512

G.J. Gardner Homes.
PO BOX 8103 - NEW PLYMOUTH
PHONE (06) 769 6512

THE COPYRIGHT OF THIS
DRAWING REMAIN THE
PROPERTY OF
G.J. Gardner Homes.

G.J. Gardner.HOMES



PLUMBING & DRAINAGE PLAN

1 : 100

NOTES

1. All plumbing and Drainage shall be carried out in accordance with the NZ building Code. Plumbing and drainage indicated on these plans are schematic only and the Plumber / Drainlayer shall be responsible for all works and to be carried out to local Territorial Authorities requirements.
2. Water supplies and foul water shall comply with Approved documents G12 of the NZ Building Code.
3. Foul water shall comply with AS/NZS 3500 part 2.2
4. Conceal all pipework & combine all vents wherever possible.
5. All penetration through concrete or blockwork to be drilled by Plumber / Drainlayer as required.
6. Install a back vent or air admittance valve (aav) where the developed length of discharge pipes exceeds 2.5m from a trapped waste or the developed length of a branch

WASTE PIPE & DISCHARGE UNITS

- 32 Ø - Hand Basin (1 DU)
- 40 Ø - Laundry Tub (5 DU)
 - Shower (2 DU)
 - Bath (4 DU)
 - Washing Machine (5 DU)
- 50 Ø - Kitchen Sink (3 DU)
- 80 - 100 Ø - WC Pan (6 DU)

WASTE PIPE MINIMUM GRADIENTS

- 32 Ø - 1:20 min gradient (1 DU)
- 40 Ø - 1:40 min gradient (4 DU)
- 50 Ø - 1:40 min gradient (8 DU)
- 65 Ø - 1:40 min gradient (21 DU)
- 80 Ø - 1:60 min gradient (16 Du)
- 100 Ø - 1:60 min gradient (115 Du)

DRAIN PIPE MINIMUM GRADIENTS

- 65 Ø - 1:40 min gradient (25 Du)
- 100 Ø - 1:60 min gradient (165 Du)

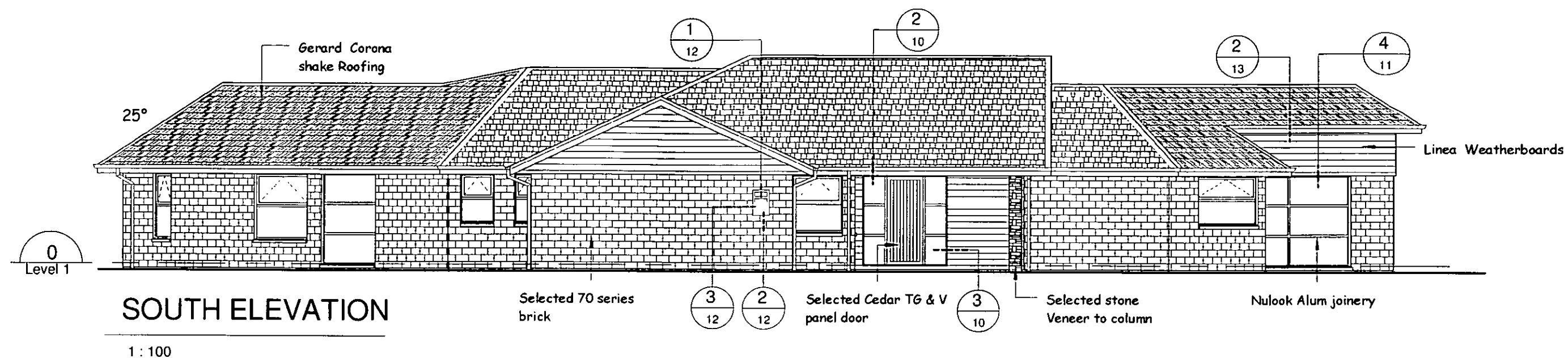
RIGHT ANGLE DESIGN

project:
DOMBROSKI
LOWER PITONE ROAD
OKATO

drawings:
PLUMBING &
DRAINAGE PLAN
1 : 100 2

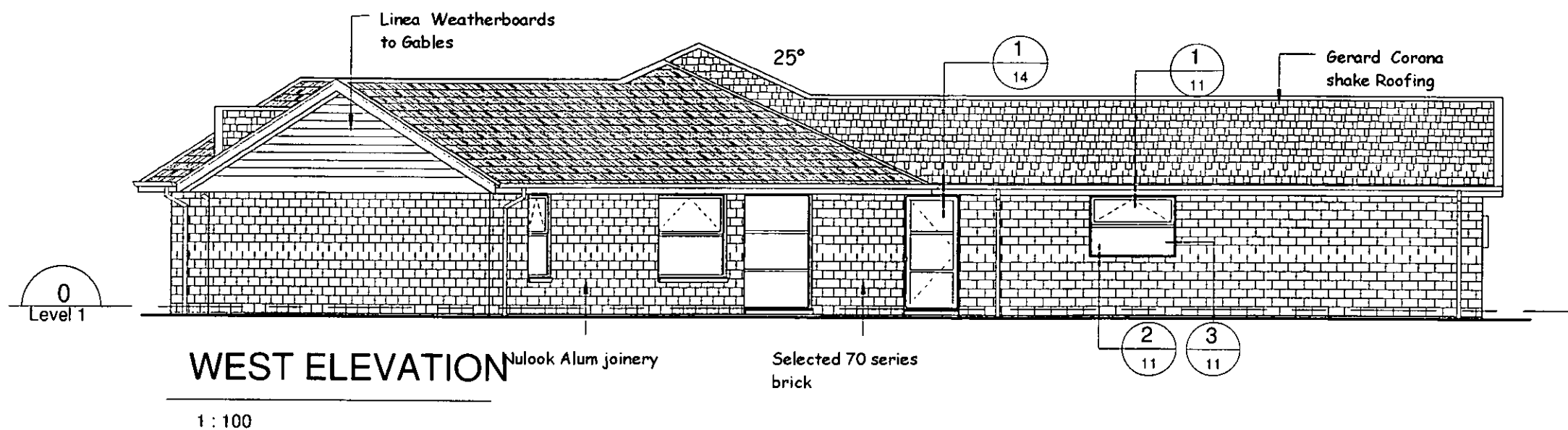
scale: sht: rev:

CHECK ALL DIMENSIONS DO NOT SCALE IF IN DOUBT ASK



RISK MATRIX

Wind Zone :	VH	2
No Stories :	Low	0
Roof Wall Intersection :	Low	0
Eave Width :	Med	1
Envelope Complexity :	Med	1
Deck design :	Low	0
All Elevations	Total	4



THE COPYRIGHT OF THIS
DRAWING REMAIN THE
PROPERTY OF
G.J. Gardner Homes.

G.J. Gardner.HOMES

G.J Gardner Homes.
PO BOX 8103 - NEW PLYMOUTH
PHONE (06) 769 6512

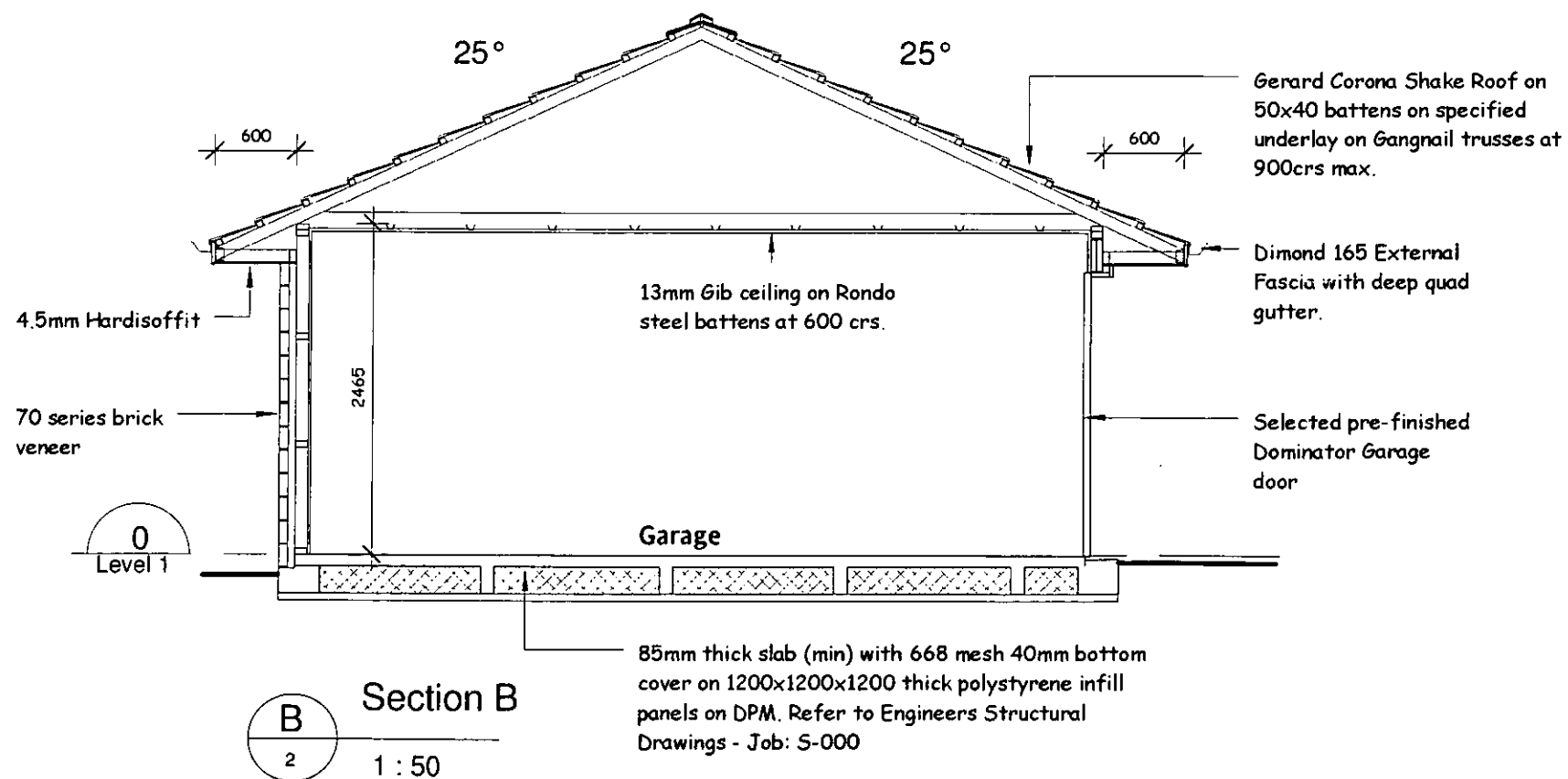
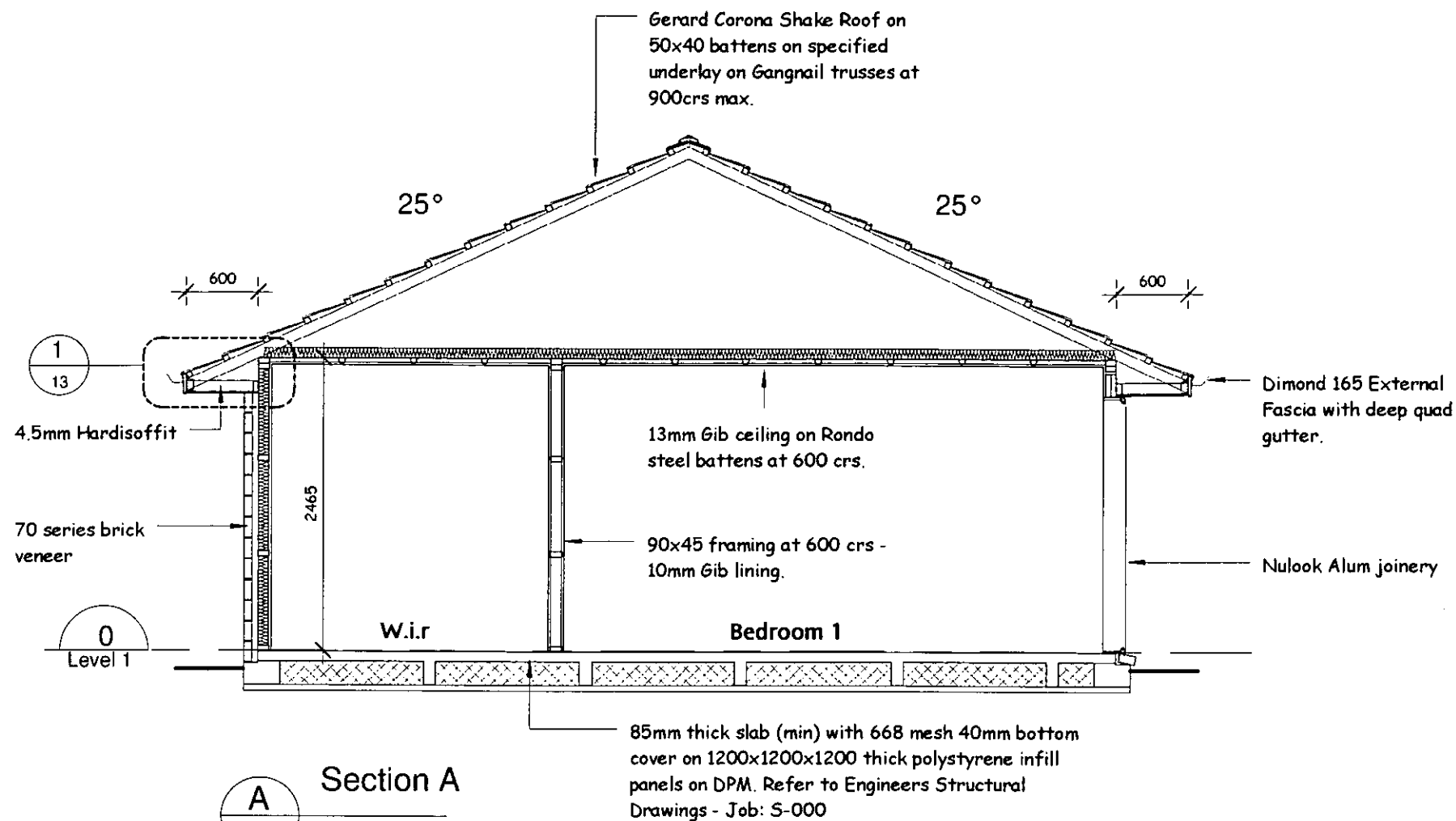
RAD
RIGHT ANGLE DESIGN

project:
DOMBROSKI
LOWER PITONE ROAD
OKATO

drawings:
ELEVATIONS

1:100 5
scale: sh: rev:

CHECK ALL DIMENSIONS DO NOT SCALE IF IN DOUBT ASK



THE COPYRIGHT OF THIS
DRAWING REMAIN THE
PROPERTY OF
G.J. Gardner Homes.

G.J. Gardner.HOMES

G.J Gardner Homes.
PO BOX 8103 - NEW PLYMOUTH
PHONE (06) 769 6512

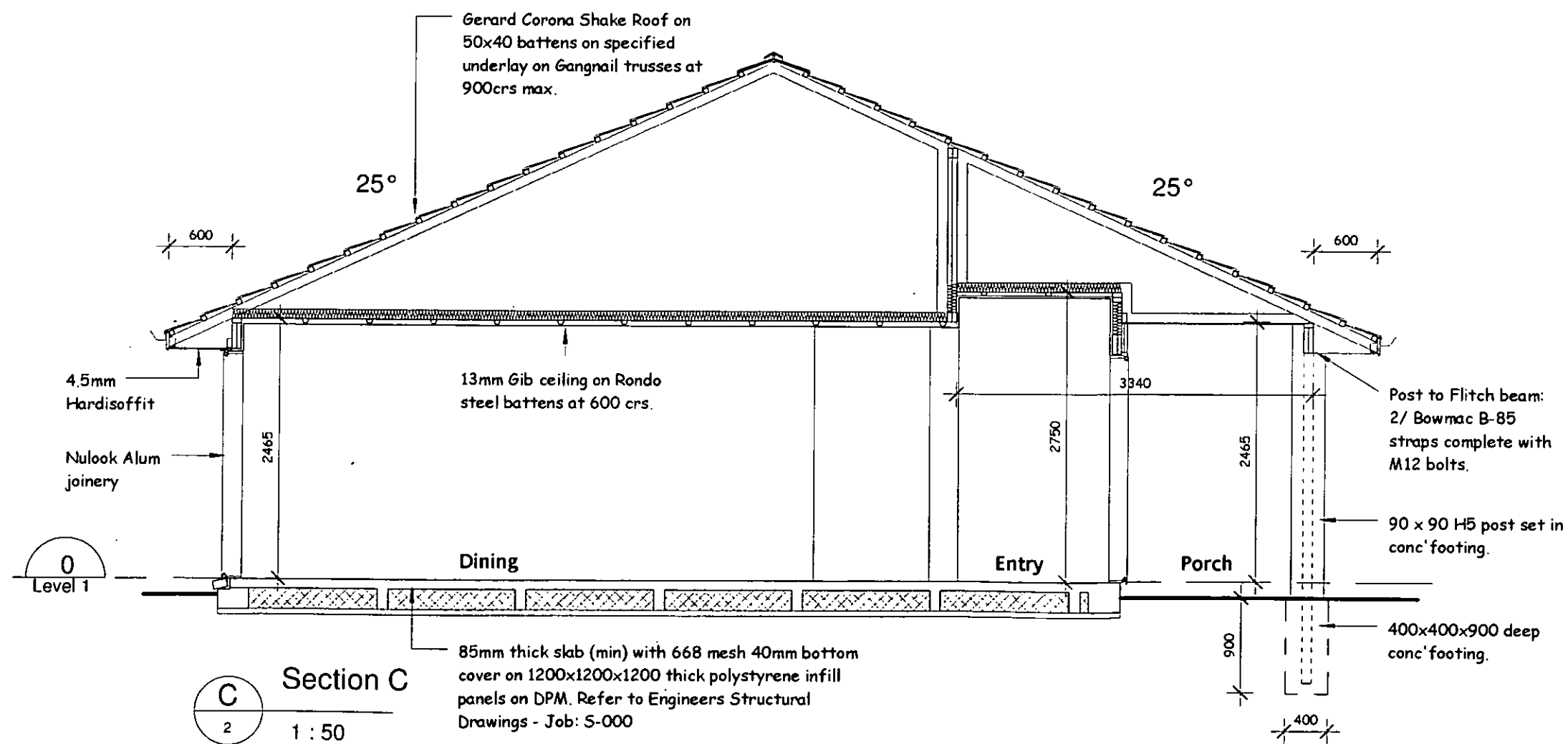
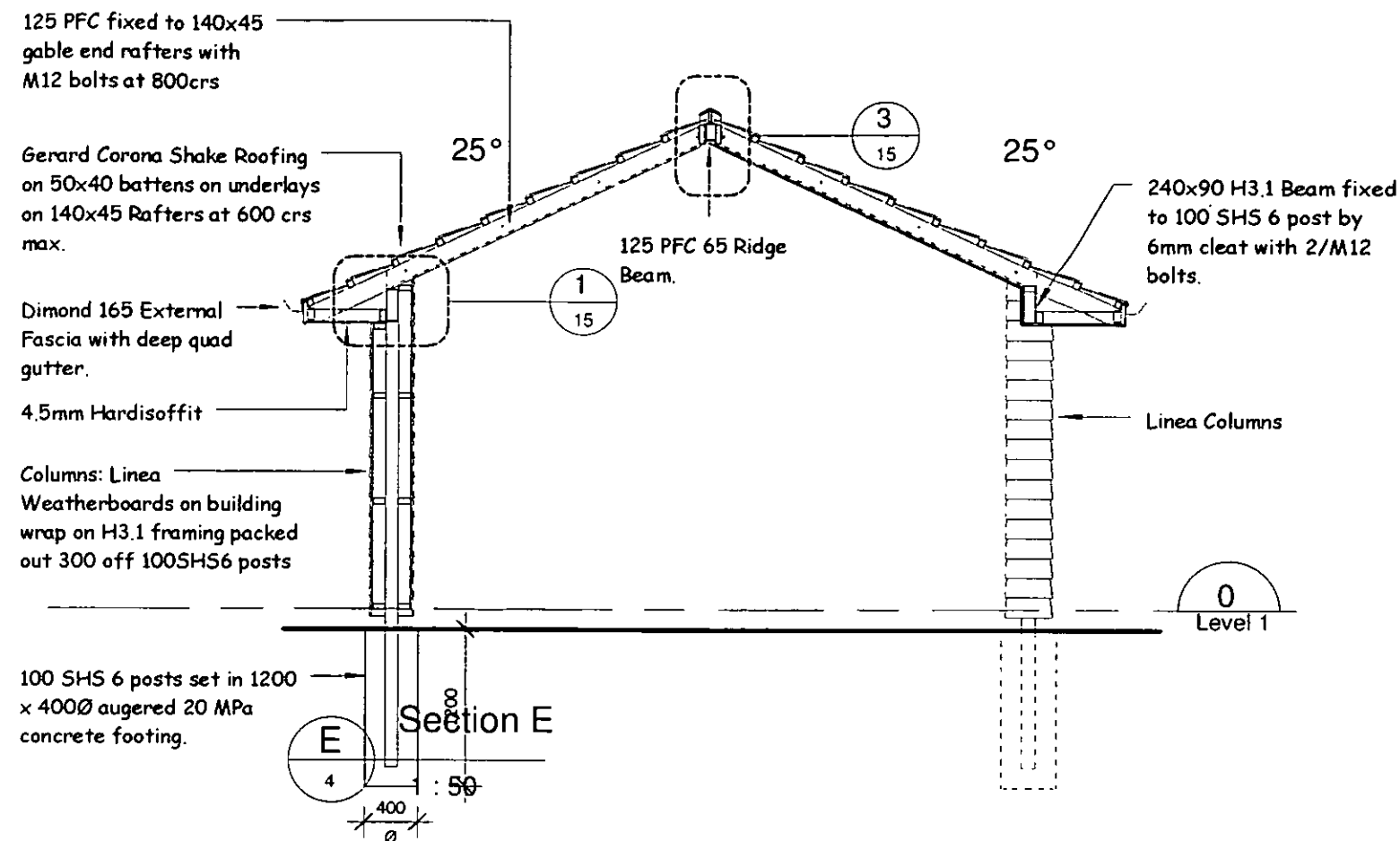
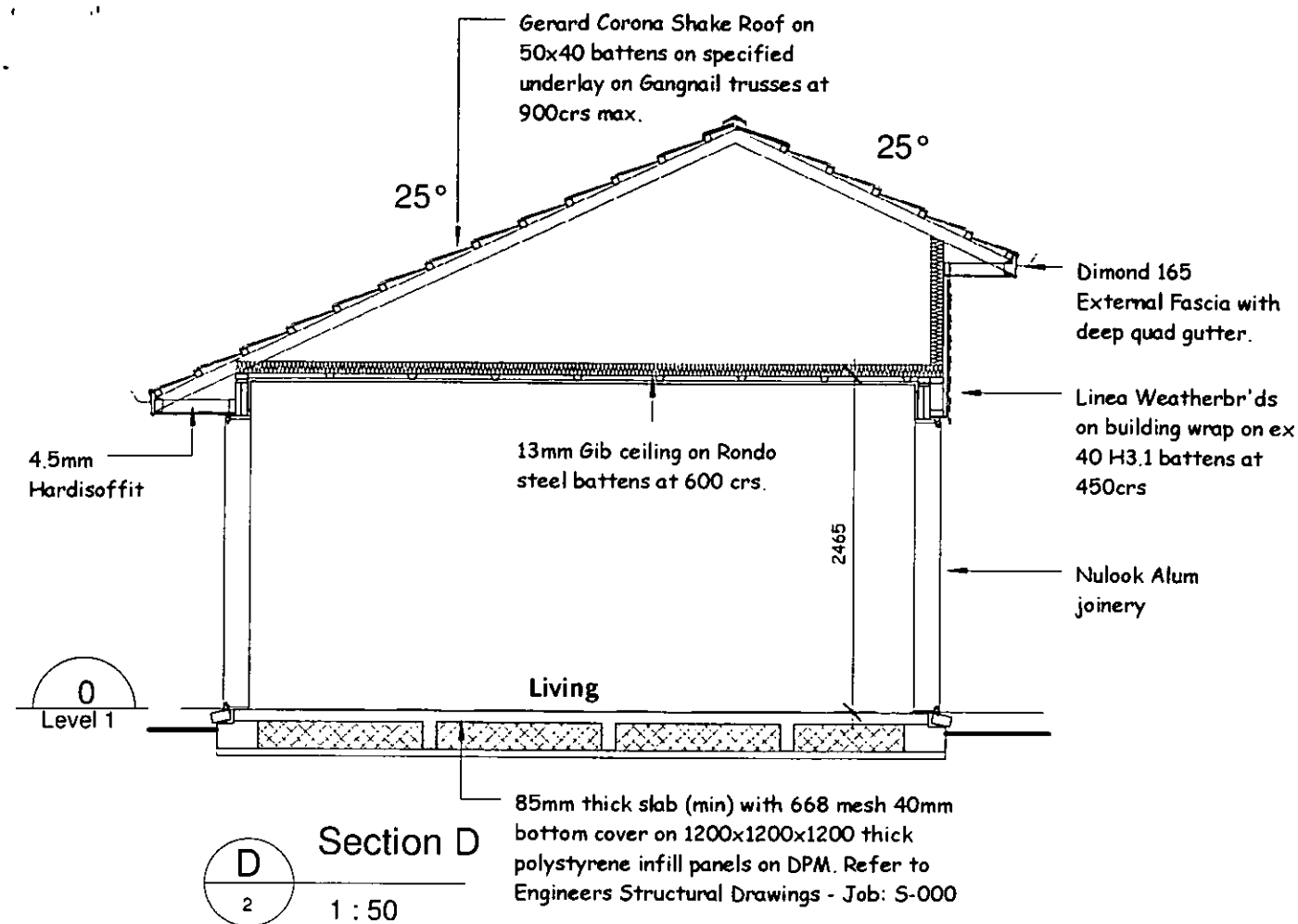
RAD
RIGHT ANGLE DESIGN

project:
DOMBROSKI
LOWER PITONE ROAD
OKATO

drawings:
SECTIONS

1 : 50 7
scale: sht: rev:

CHECK ALL DIMENSIONS DO NOT SCALE IF IN DOUBT ASK



RAD
RIGHT ANGLE DESIGN

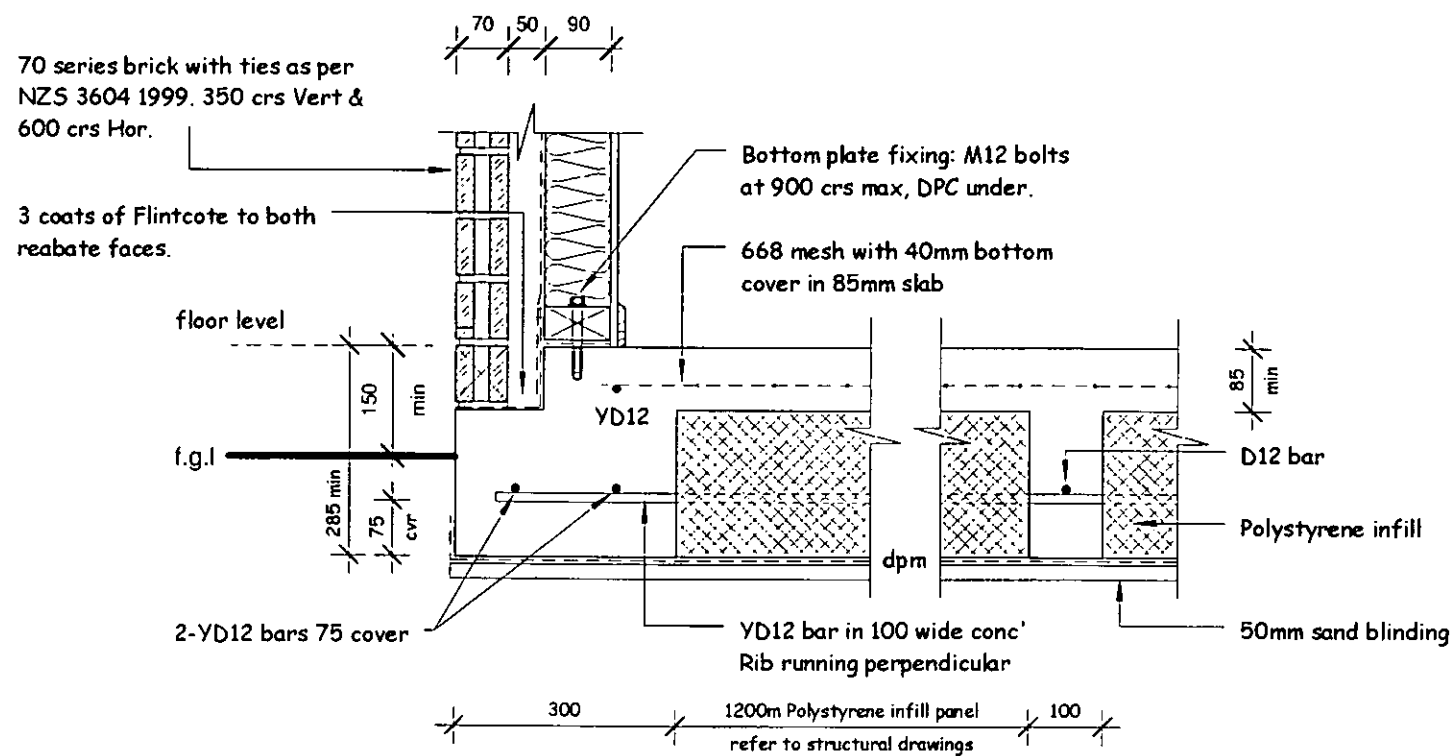
project:
DOMBROSKI
LOWER PITONE ROAD
OKATO

drawings:
SECTIONS

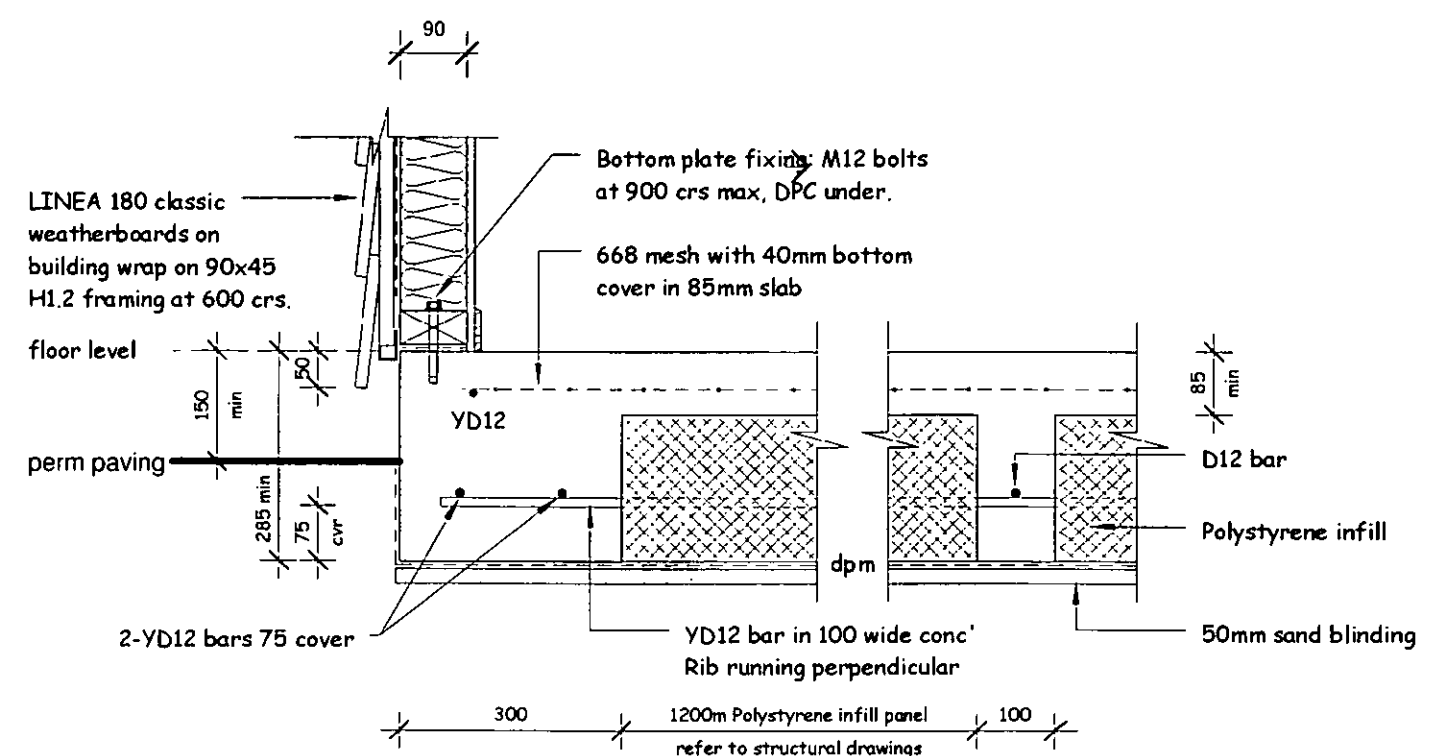
1 : 50 8

scale: sht: rev:

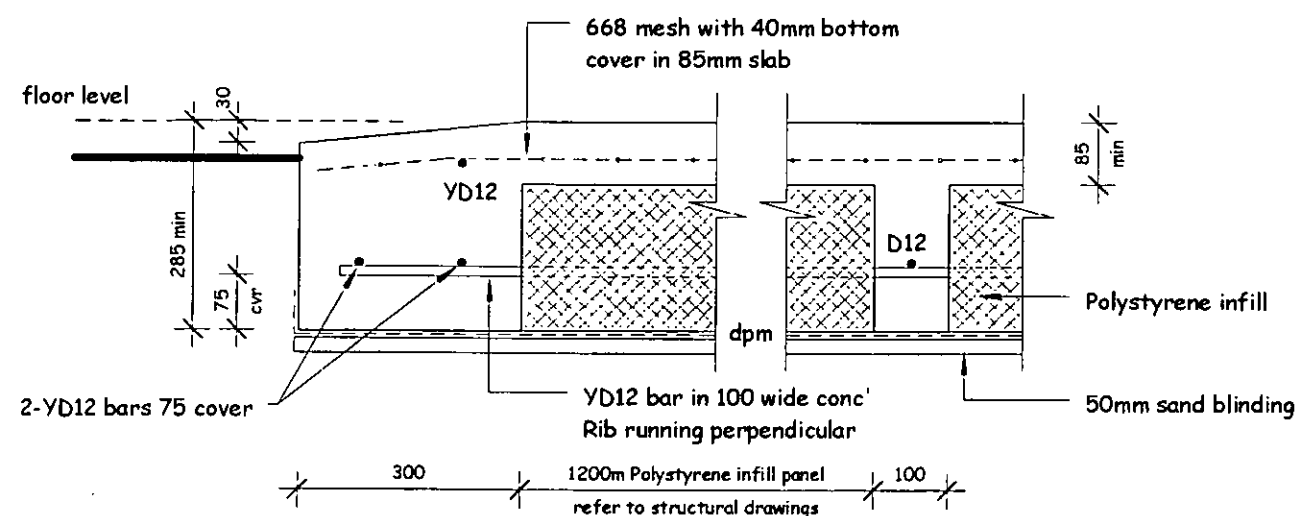
CHECK ALL DIMENSIONS DO NOT SCALE IF IN DOUBT ASK



1
3
1 : 10
Brick Footing 'Waffle Slab'



2
3
1 : 10
Linea Footing 'Waffle Slab'



3
3
1 : 10
Garage Door Rebate 'Waffle Slab'

THE COPYRIGHT OF THIS
DRAWING REMAIN THE
PROPERTY OF
G.J. Gardner Homes.

G.J. Gardner.HOMES

G.J. Gardner Homes.
PO BOX 8103 - NEW PLYMOUTH
PHONE (06) 769 6512

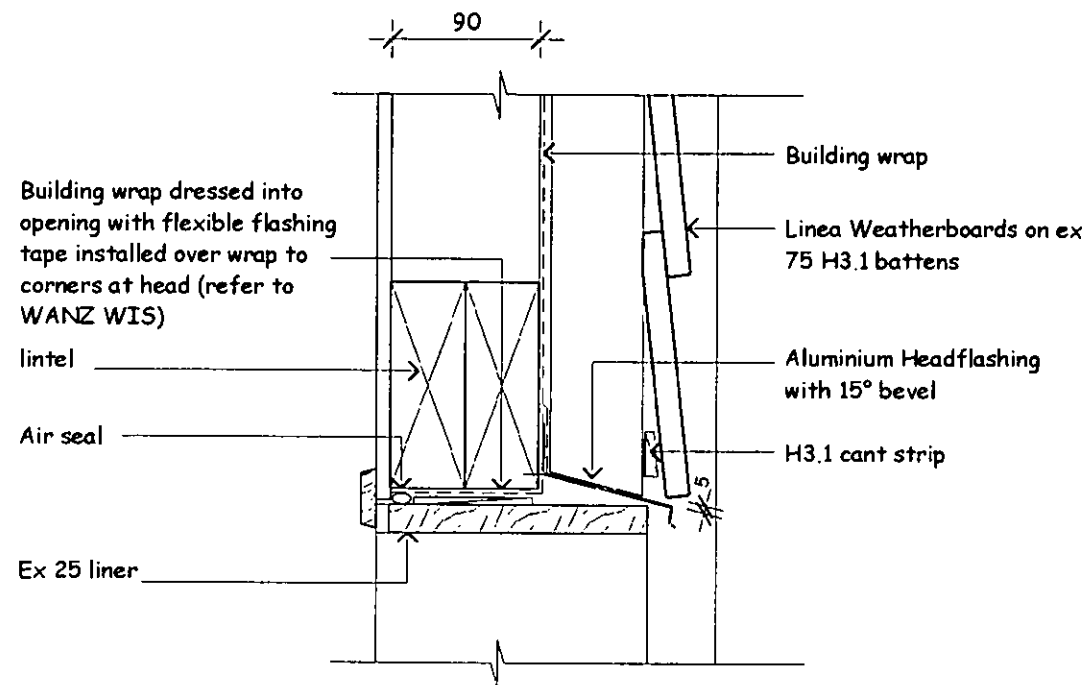
RAD
RIGHT ANGLE DESIGN

project:
DOMBROSKI
LOWER PITONE ROAD
OKATO

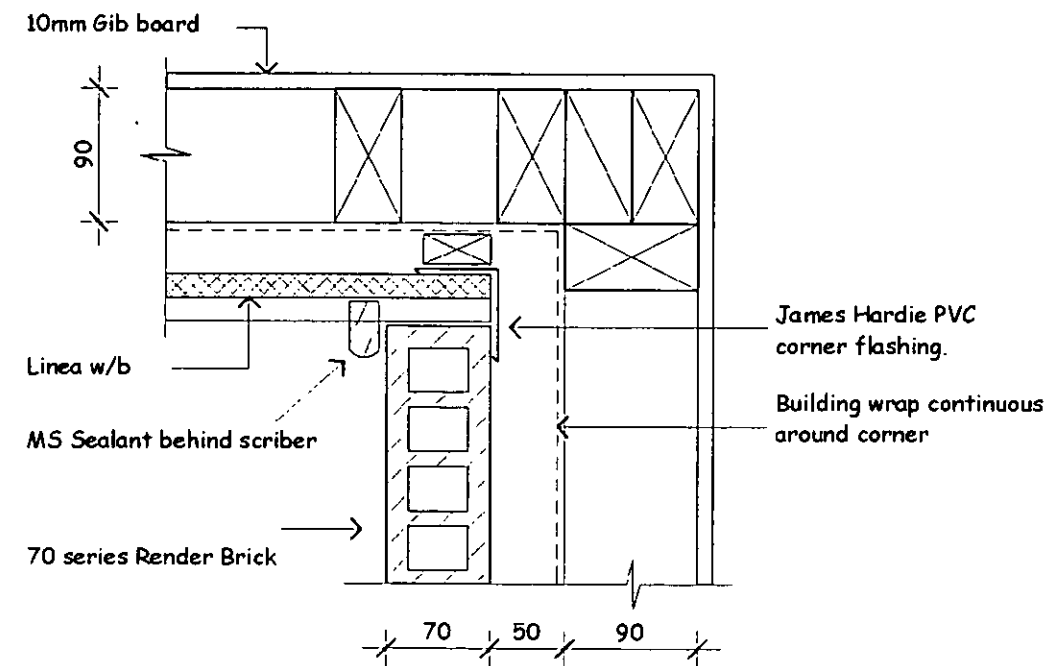
drawings:
DETAILS

1 : 10 9
scale: sht: rev:

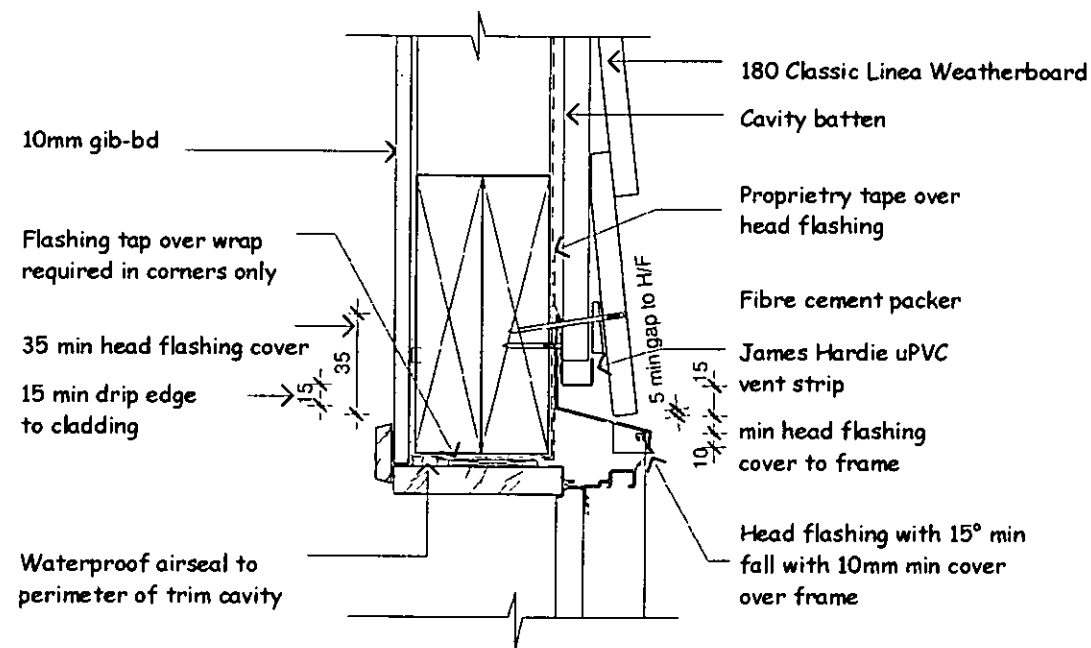
CHECK ALL DIMENSIONS DO NOT SCALE IF IN DOUBT ASK



1
6
1 : 5
Linea Head (Door)

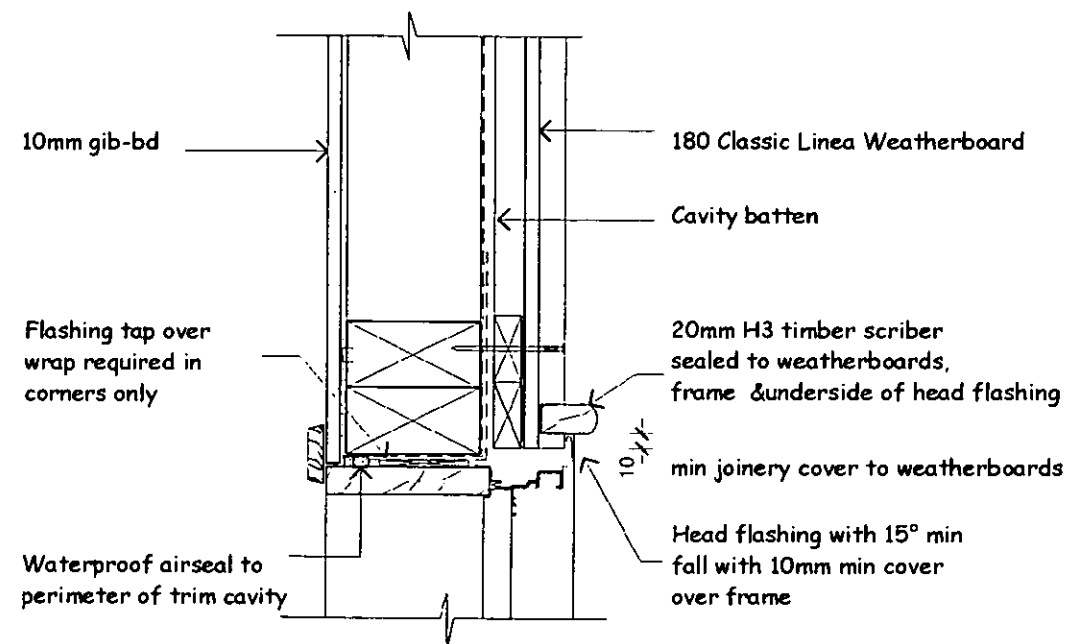


4
6
1 : 5
Linea to Brick



2
5
1 : 5
Linea Head

Also refer to Fig 91
NZBC clause E2/AS1
document for Head Details



3
5
1 : 5
Linea Jamb

Also refer to Fig 91
NZBC clause E2/AS1
document for Jamb Details

THE COPYRIGHT OF THIS
DRAWING REMAIN THE
PROPERTY OF
G.J. Gardner Homes.

G.J. Gardner.HOMES

G.J Gardner Homes.
PO BOX 8103 - NEW PLYMOUTH
PHONE (06) 769 6512

RAD
RIGHT ANGLE DESIGN

project:
DOMBROSKI
LOWER PITONE ROAD
OKATO

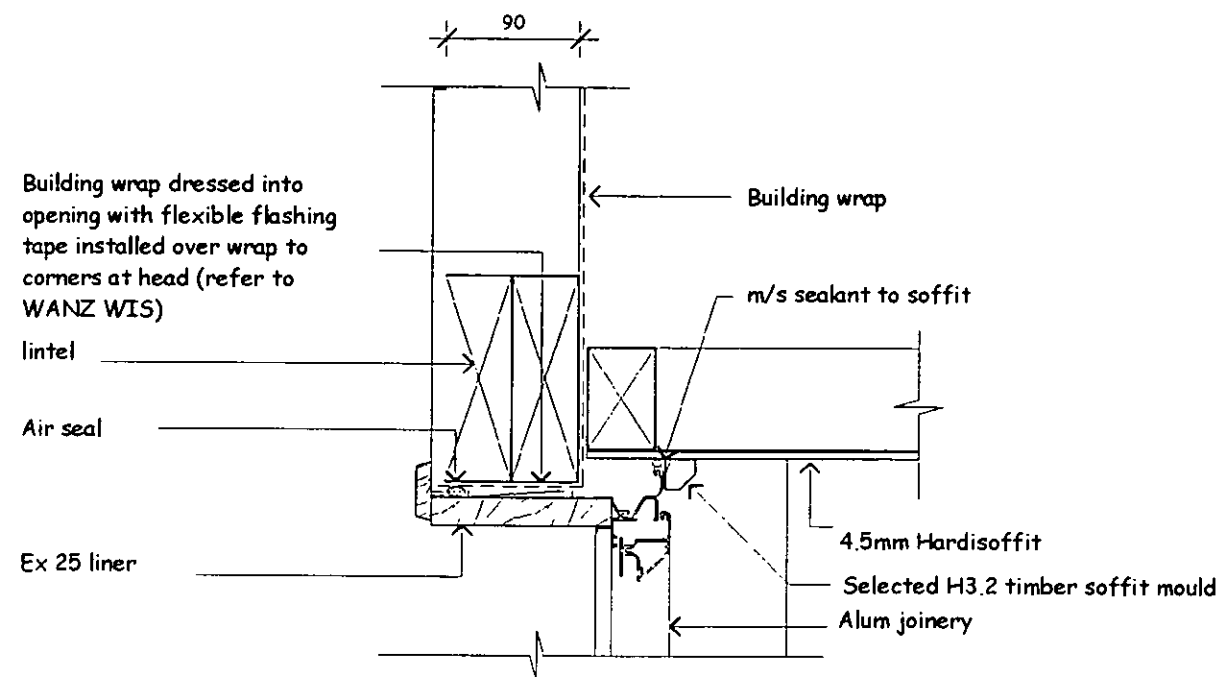
drawings:
DETAILS

1 : 5
scale:

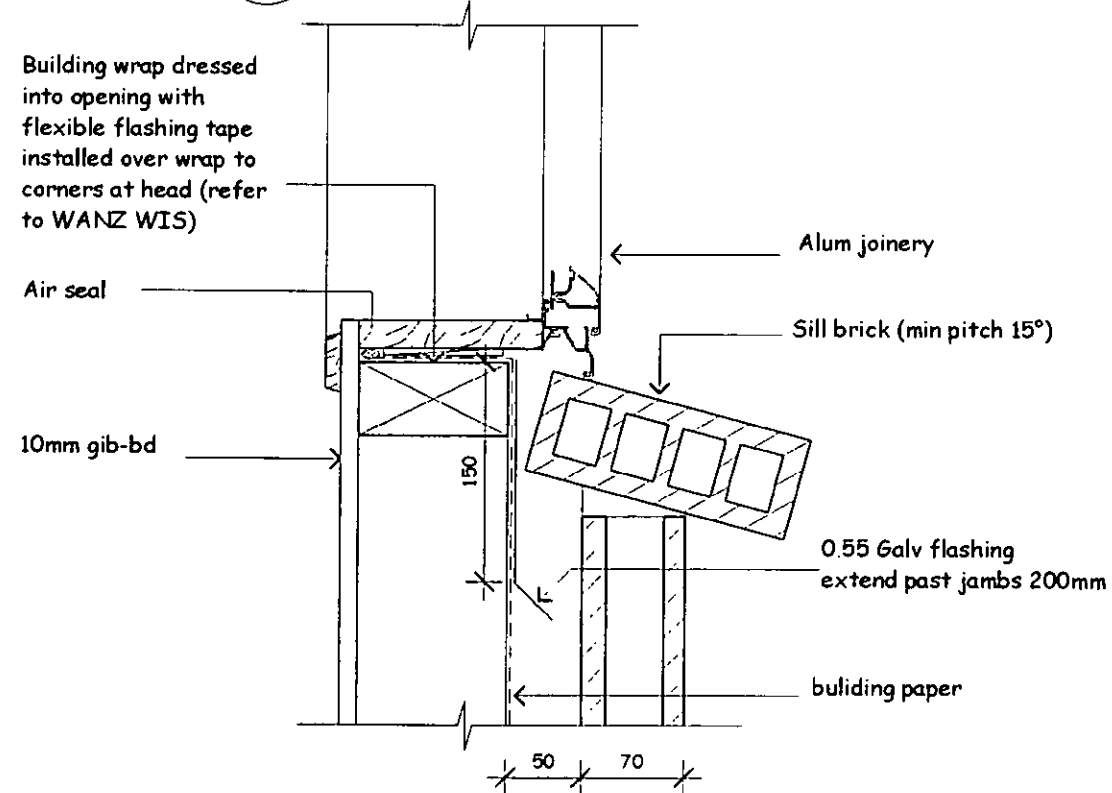
10
shd:

rev:

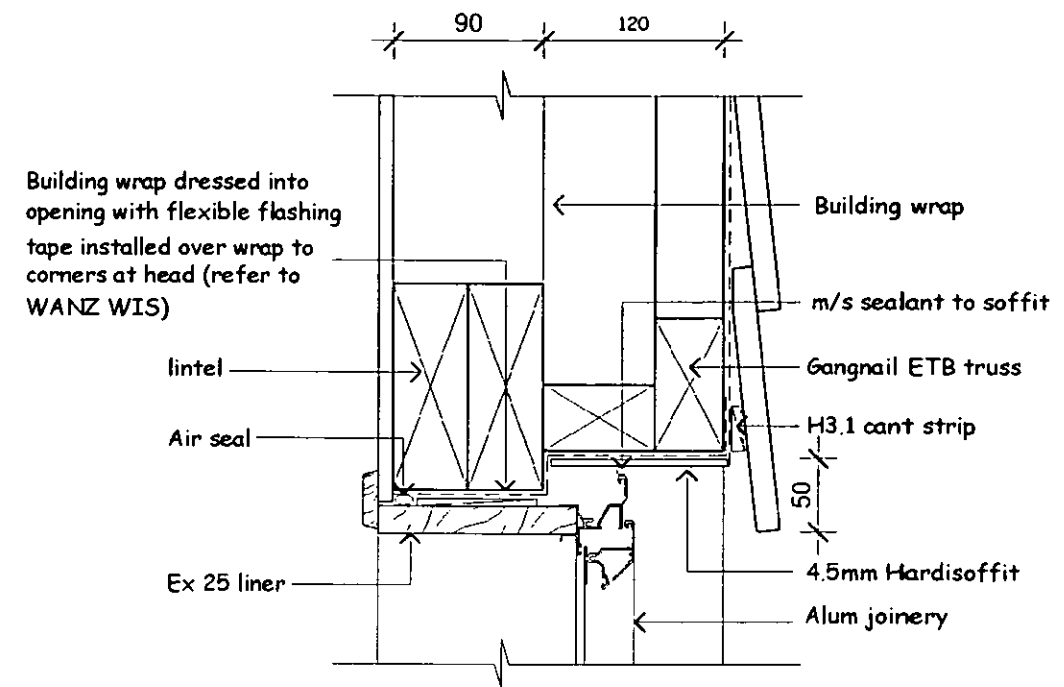
CHECK ALL DIMENSIONS DO NOT SCALE IF IN DOUBT ASK



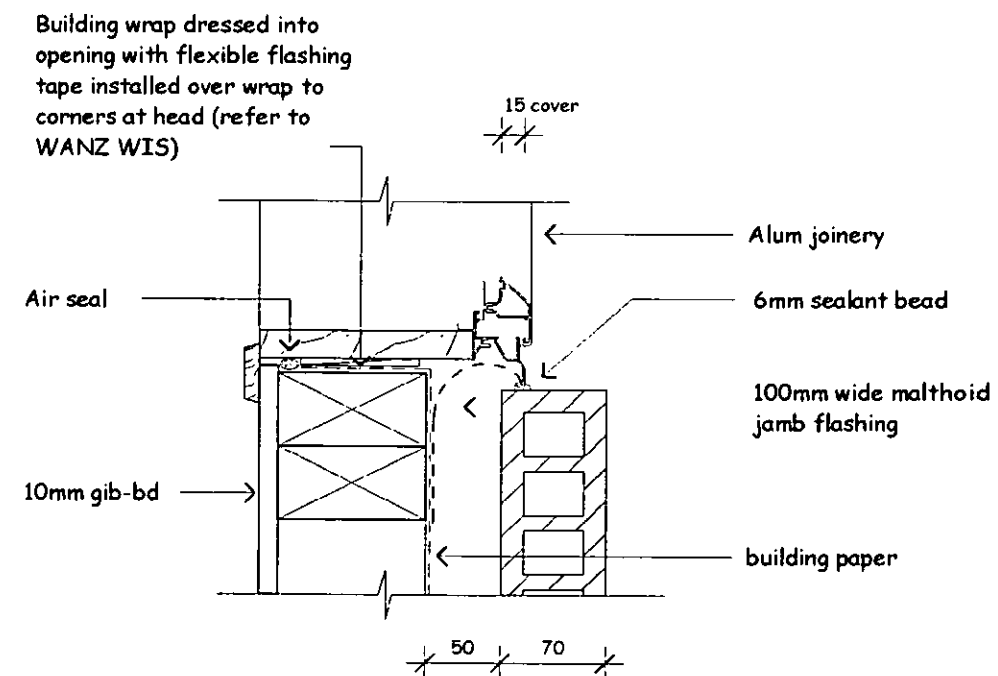
1
5
1 : 5
Brick Head



2
5
1 : 5
Brick Sill



4
5
1 : 5
Linea Head (Window)



3
5
1 : 5
Brick Jamb

THE COPYRIGHT OF THIS
DRAWING REMAIN THE
PROPERTY OF
G.J. Gardner Homes.

G.J. Gardner.HOMES

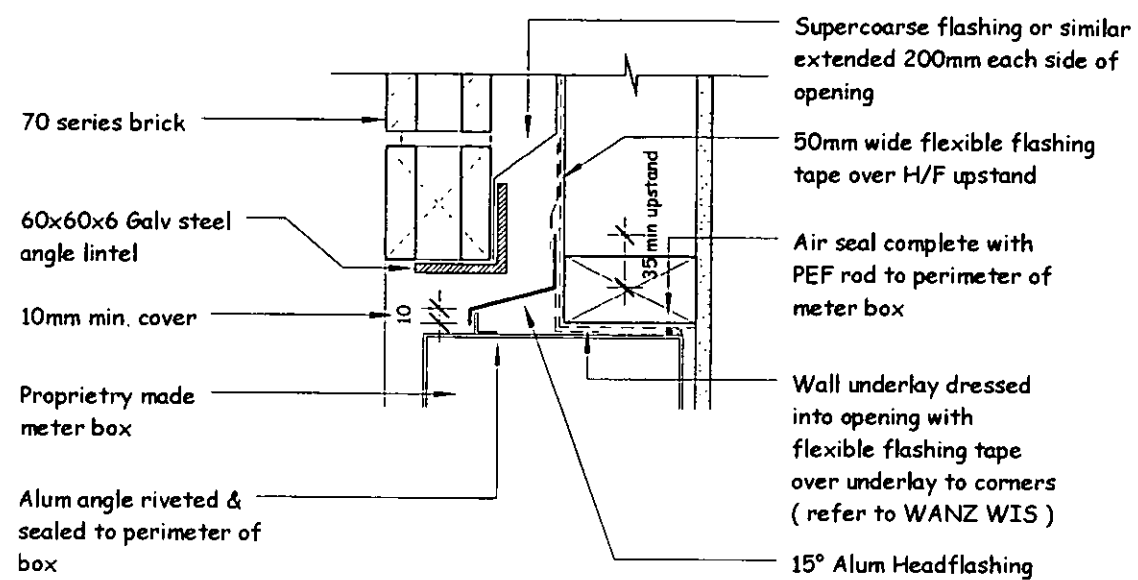
G.J Gardner Homes.
PO BOX 8103 - NEW PLYMOUTH
PHONE (06) 769 6512

RAD
RIGHT ANGLE DESIGN
project:
DOMBROSKI
LOWER PITONE ROAD
OKATO

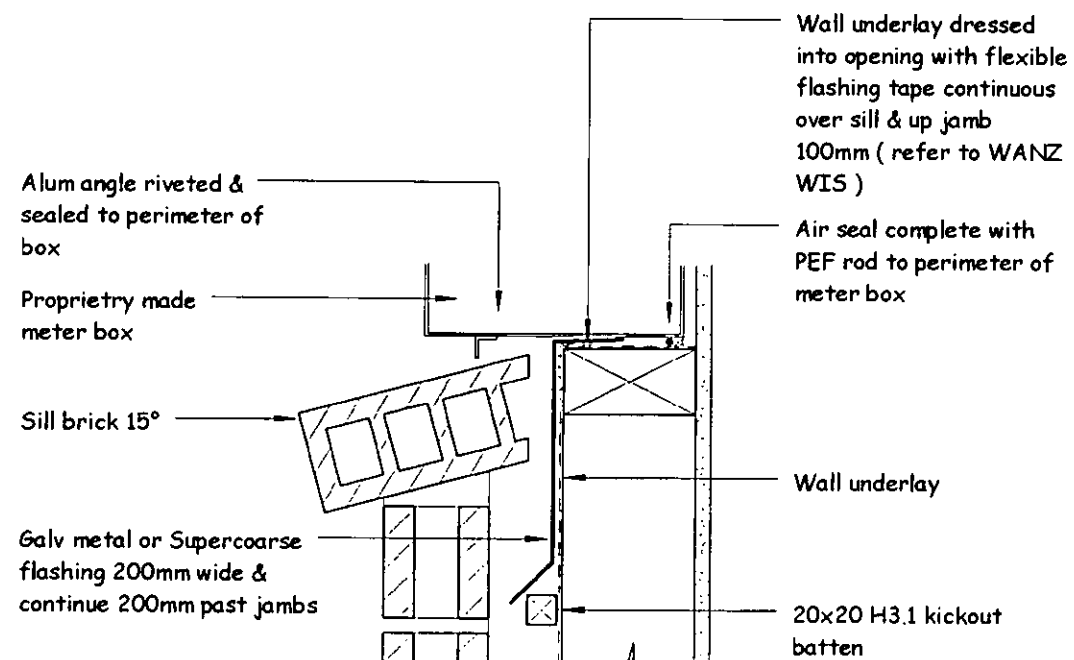
drawings:
DETAILS

1 : 5 11
scale: sht: rev:

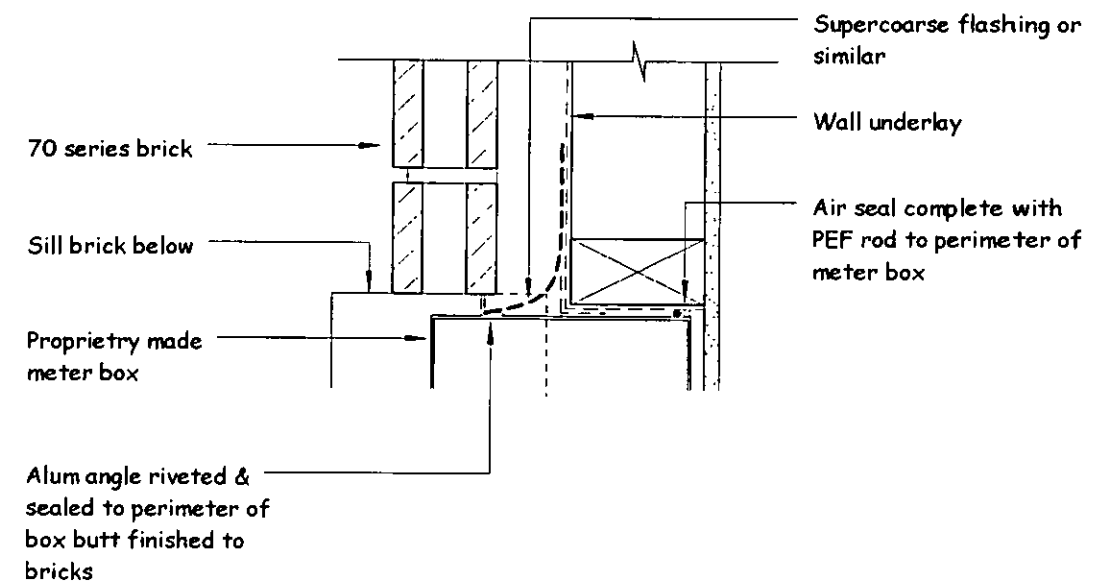
CHECK ALL DIMENSIONS DO NOT SCALE IF IN DOUBT ASK



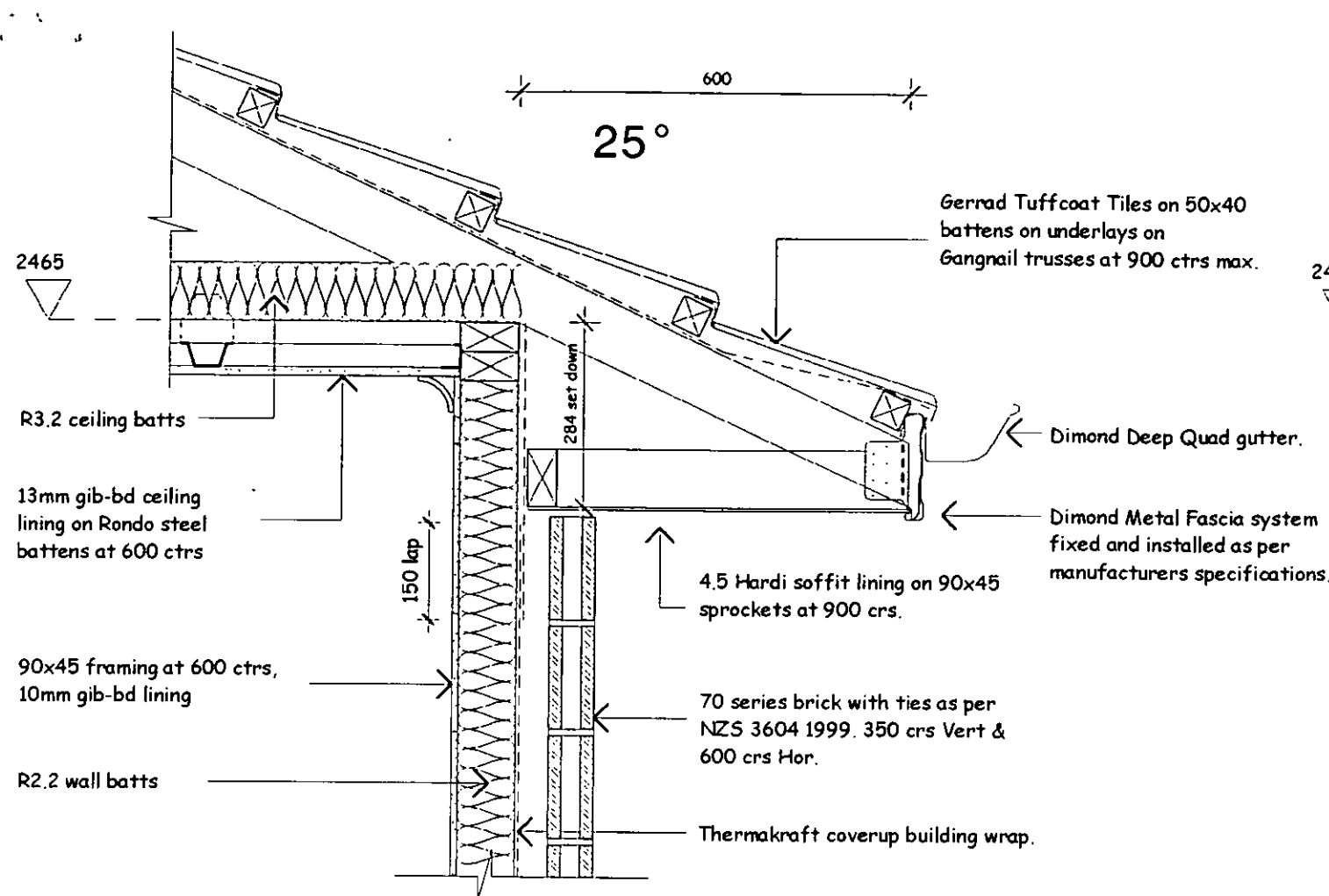
1
5
Meter Box Head
1 : 5



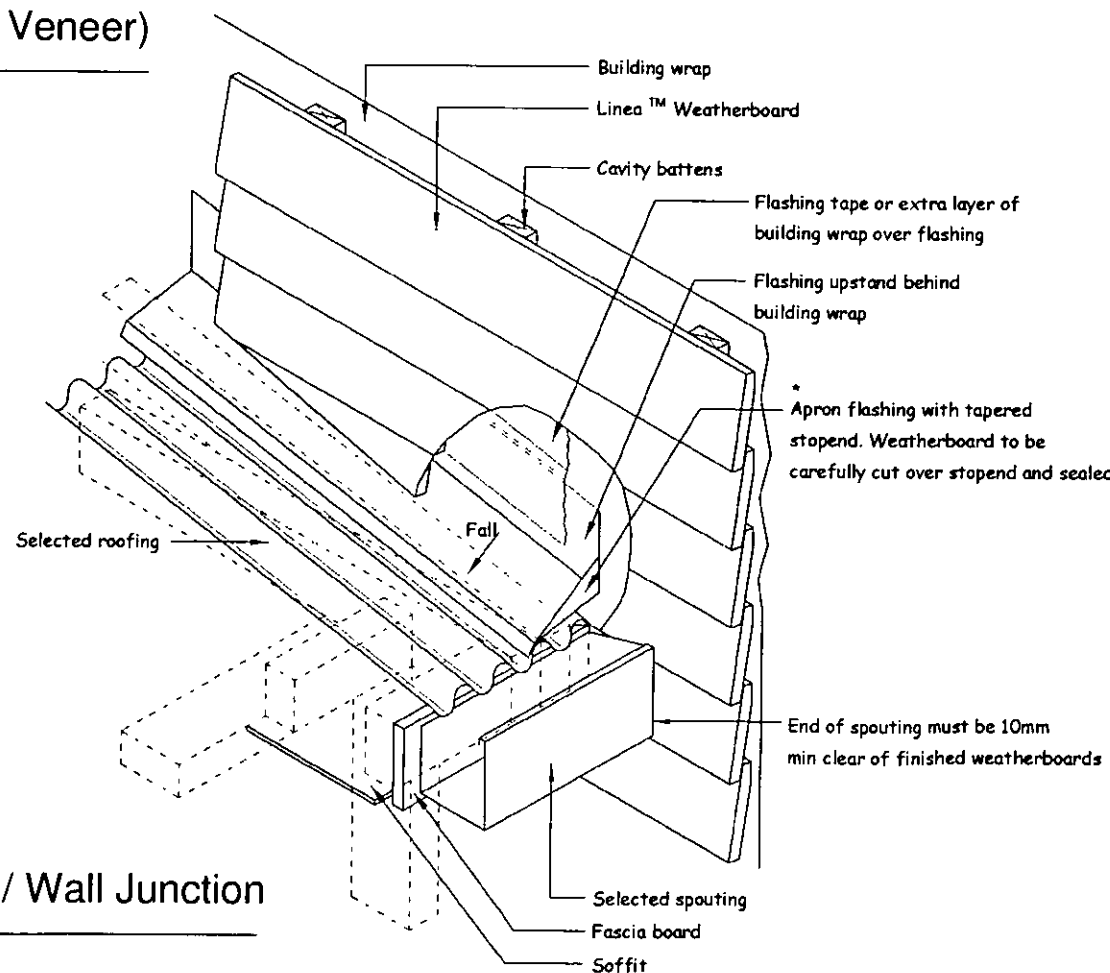
2
5
Meter Box Sill
1 : 5



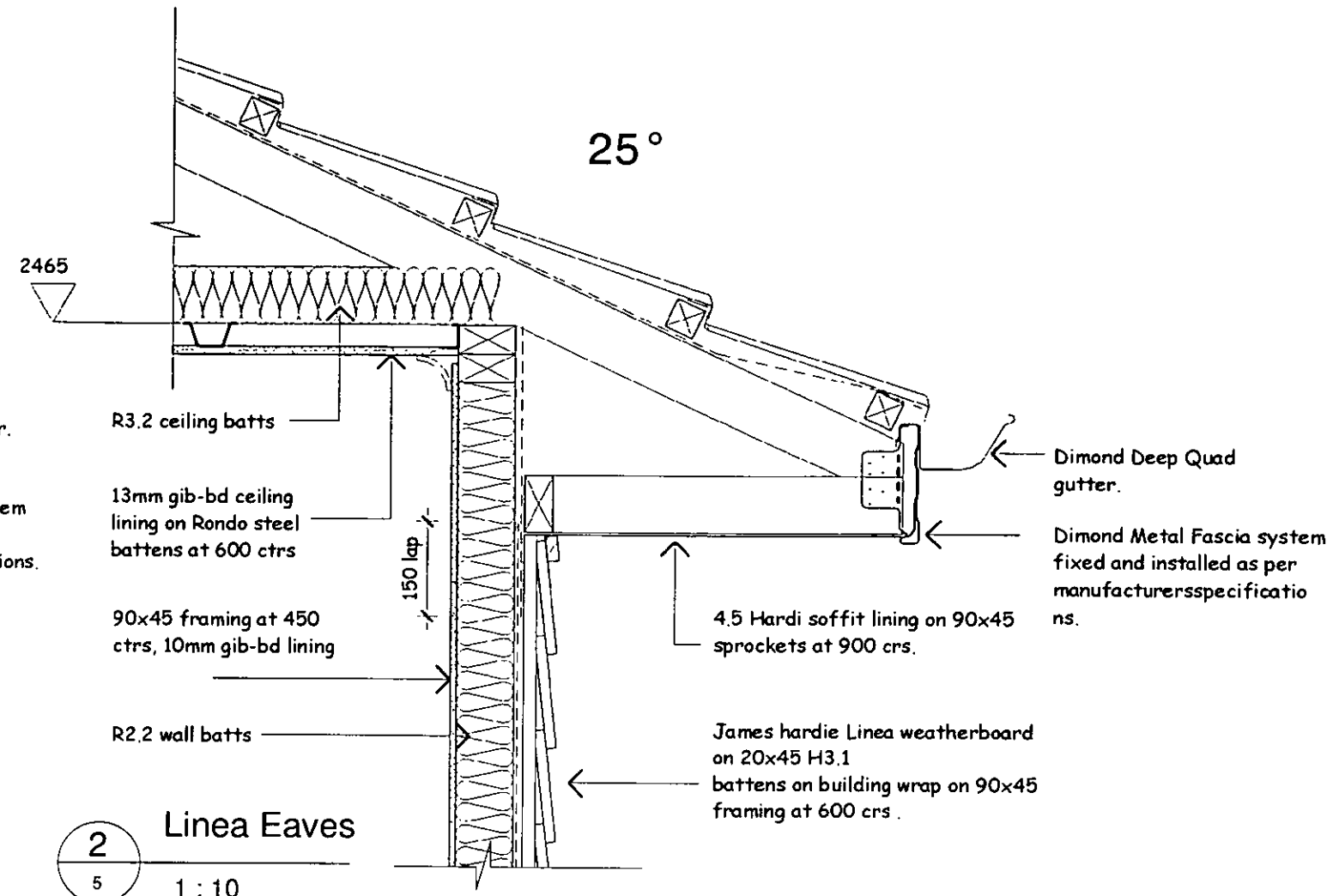
3
5
Meter Box Jamb
1 : 5



1
7
Typical Eaves (Brick Veneer)
1 : 10



3
6
Gutter / Wall Junction
1 : 10



2
5
Linea Eaves
1 : 10

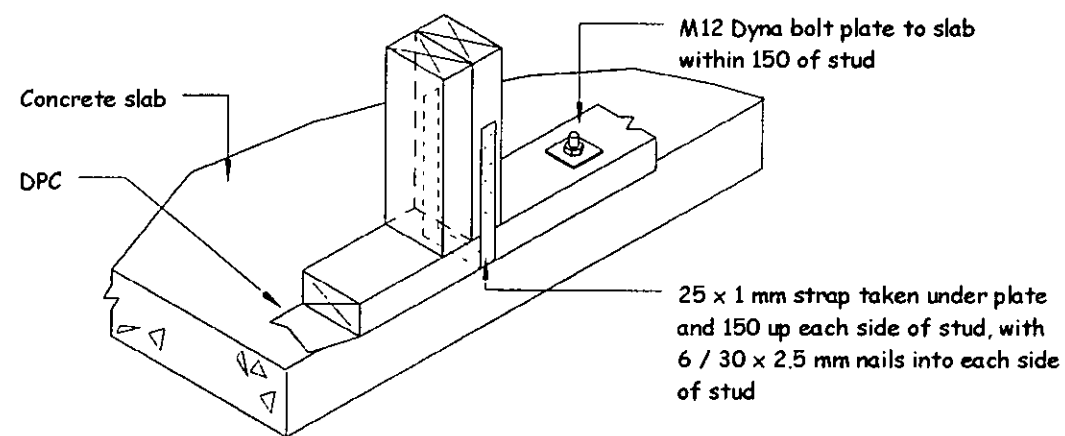
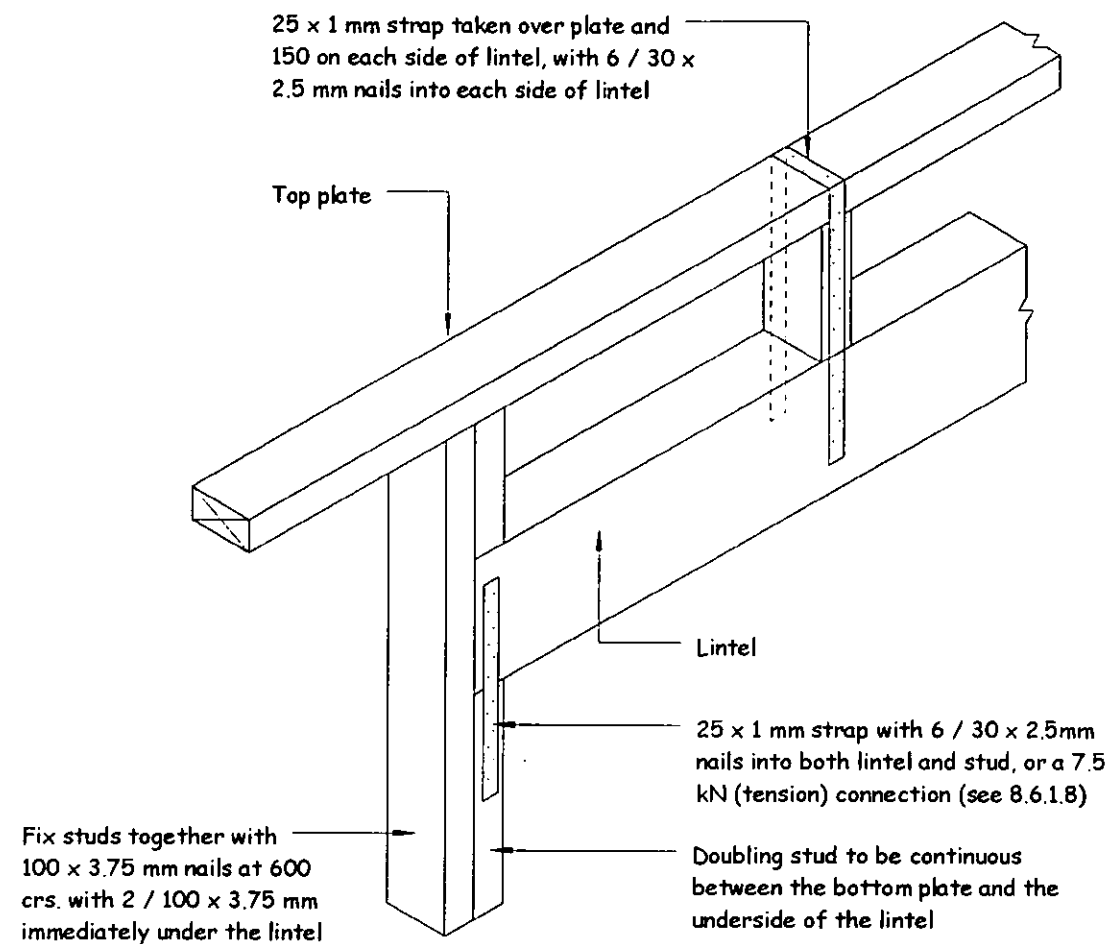
RIGHT ANGLE DESIGN

project:
DOMBROSKI
LOWER PITONE ROAD
OKATO

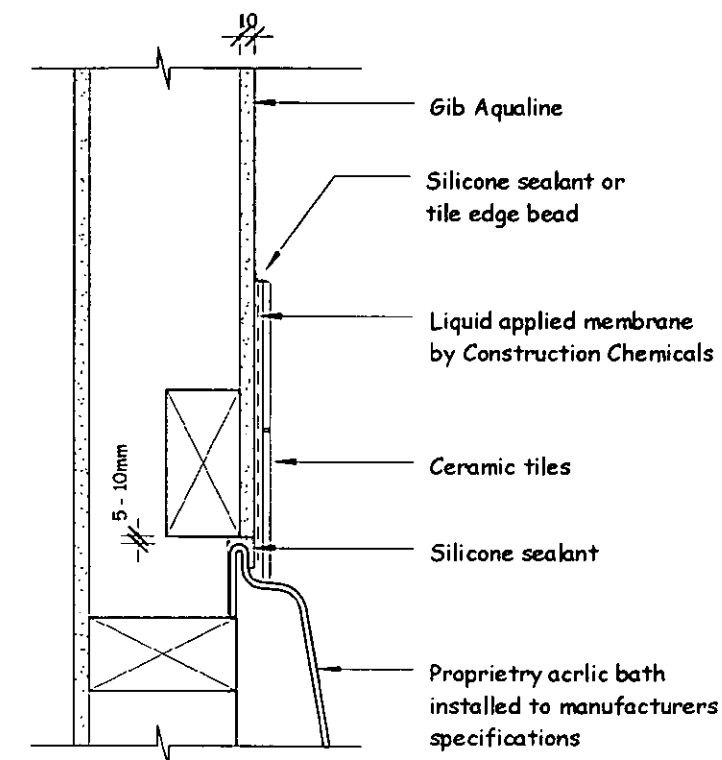
drawings:
DETAILS

1 : 10 13
scale: sht: rev:

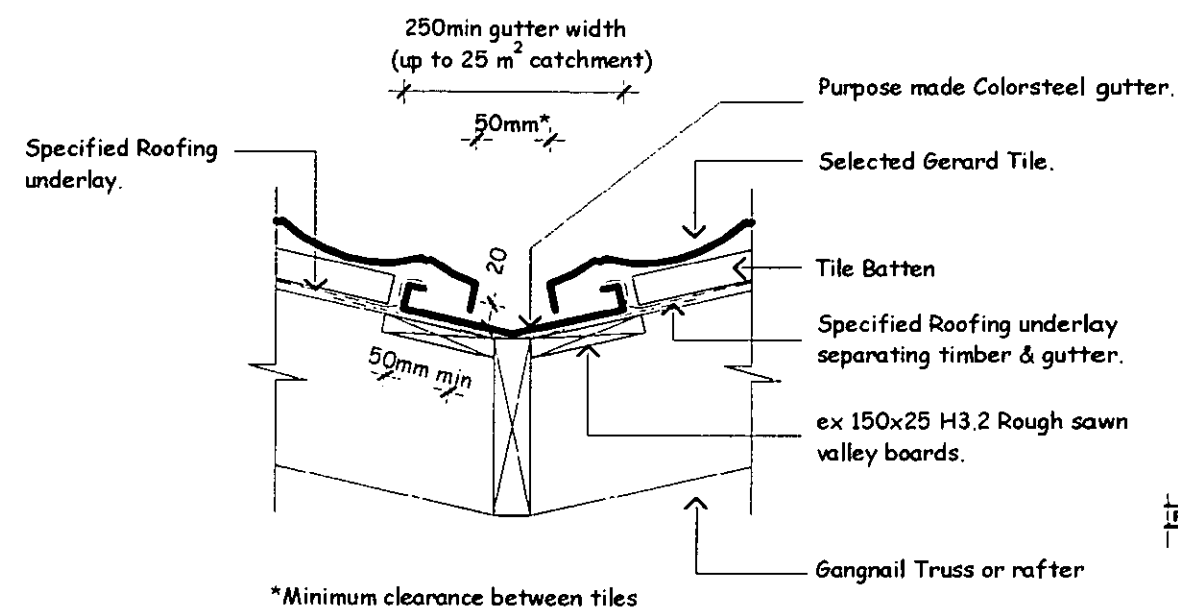
CHECK ALL DIMENSIONS DO NOT SCALE IF IN DOUBT ASK



1
5
1 : 10
Lintel Fixing Detail



2
1 : 5
Bath to wall Detail



3
17
1 : 10
Typical Valley

RAD
RIGHT ANGLE DESIGN

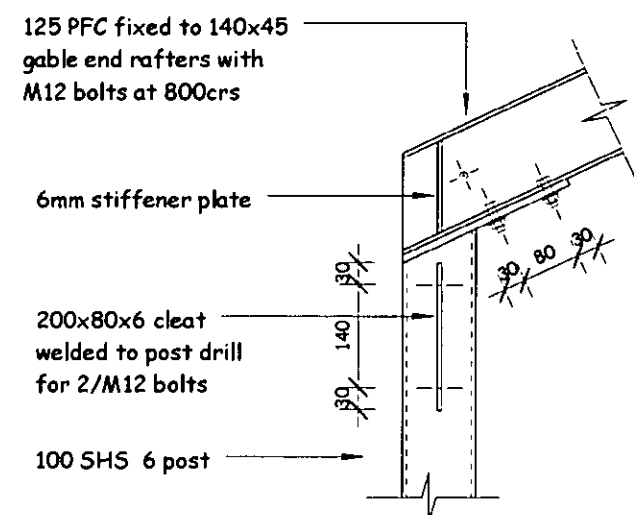
project:
DOMBROSKI
LOWER PITONE ROAD
OKATO

drawings:
DETAILS

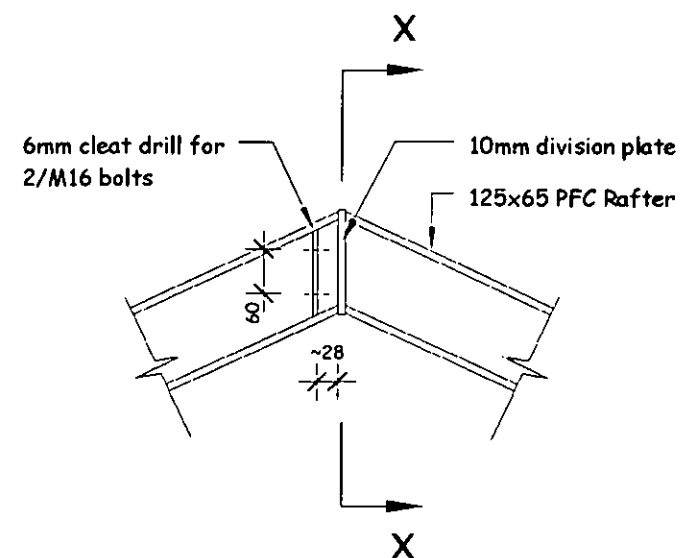
As indicated 14

scale: sht: rev:

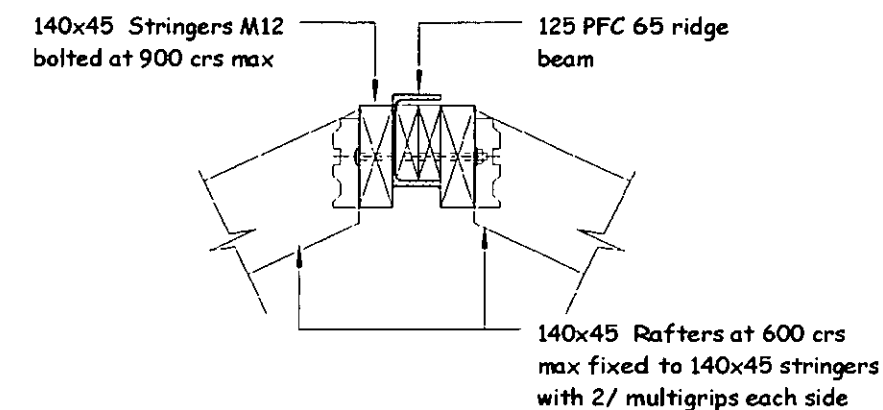
CHECK ALL DIMENSIONS DO NOT SCALE IF IN DOUBT ASK



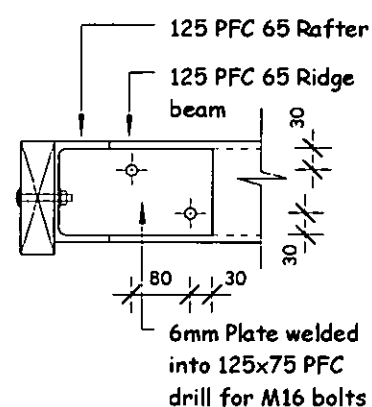
1
8
125 PFC to Post
1 : 10



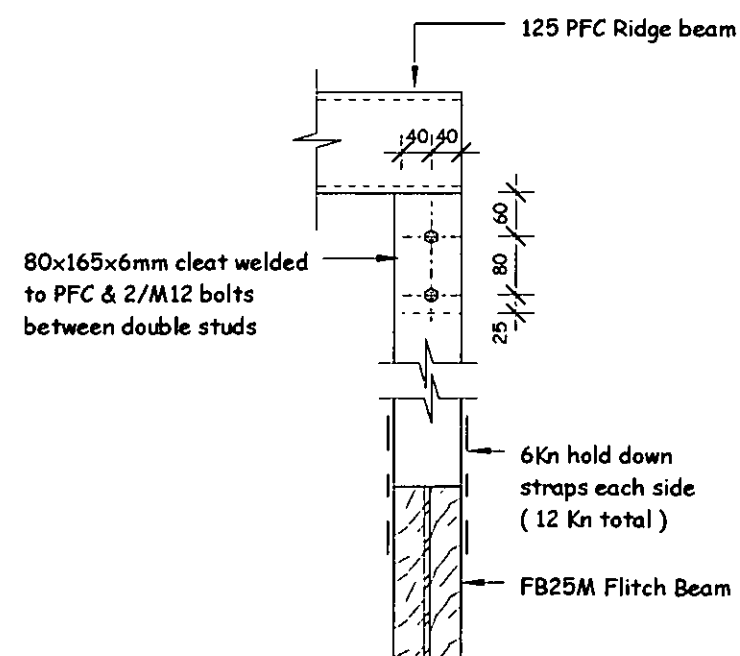
2
4
Ridge Beam to PFC Rafter
1 : 10



3
8
Rafters to PFC Ridge
1 : 10



4
1
Section X - X
1 : 10



5
4
Drop post connection
1 : 10

RAD
RIGHT ANGLE DESIGN

project:
DOMBROSKI
LOWER PITONE ROAD
OKATO

drawings:
DETAILS

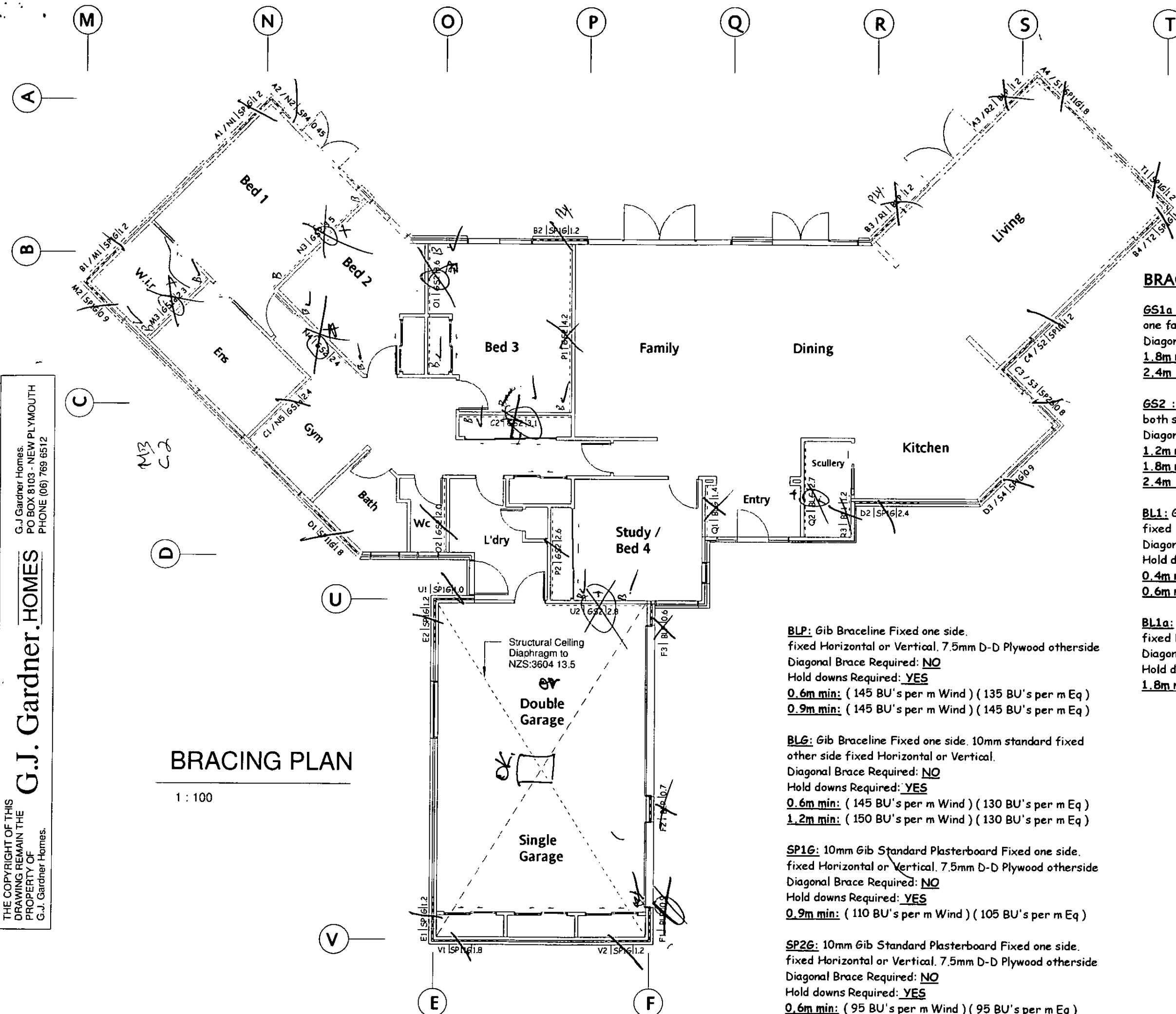
Revision: A 02-12-08 -Amended Detail: 5.

1 : 10 15 A
scale: sht: rev:

CHECK ALL DIMENSIONS DO NOT SCALE IF IN DOUBT ASK

BRACING PLAN

1 : 100



BRACING NOTES

GS1a : 10mm GIB standard Plasterboard.
one face fixed Horizontal or Vertical.
Diagonal Brace Required: **YES**
1.8m min: (65 BU's per m Wind) (55 BU's per m Eq)
2.4m min: (75 BU's per m Wind) (65 BU's per m Eq)

GS2 : 10mm GIB Standard Plasterboard.
both sides fixed Horizontal or Vertical.
Diagonal Brace Required: **NO**
1.2m min: (70 BU's per m Wind) (60 BU's per m Eq)
1.8m min: (80 BU's per m Wind) (70 BU's per m Eq)
2.4m min: (90 BU's per m Wind) (80 BU's per m Eq)

BL1: Gib Braceline Fixed one side.
fixed Horizontal or Vertical.
Diagonal Brace Required: **NO**
Hold downs Required: **YES**
0.4m min: (120 BU's per m Wind) (115 BU's per m Eq)
0.6m min: (125 BU's per m Wind) (115 BU's per m Eq)

BL1a: Gib Braceline Fixed one side.
fixed Horizontal or Vertical.
Diagonal Brace Required: **YES**
Hold downs Required: **YES**
1.8m min: (130 BU's per m Wind) (115 BU's per m Eq)

BLP: Gib Braceline Fixed one side.
fixed Horizontal or Vertical. 7.5mm D-D Plywood otherside
Diagonal Brace Required: **NO**
Hold downs Required: **YES**
0.6m min: (145 BU's per m Wind) (135 BU's per m Eq)
0.9m min: (145 BU's per m Wind) (145 BU's per m Eq)

BLG: Gib Braceline Fixed one side. 10mm standard fixed
other side fixed Horizontal or Vertical.
Diagonal Brace Required: **NO**
Hold downs Required: **YES**
0.6m min: (145 BU's per m Wind) (130 BU's per m Eq)
1.2m min: (150 BU's per m Wind) (130 BU's per m Eq)

SP1G: 10mm Gib Standard Plasterboard Fixed one side.
fixed Horizontal or Vertical. 7.5mm D-D Plywood otherside
Diagonal Brace Required: **NO**
Hold downs Required: **YES**
0.9m min: (110 BU's per m Wind) (105 BU's per m Eq)

SP2G: 10mm Gib Standard Plasterboard Fixed one side.
fixed Horizontal or Vertical. 7.5mm D-D Plywood otherside
Diagonal Brace Required: **NO**
Hold downs Required: **YES**
0.6m min: (95 BU's per m Wind) (95 BU's per m Eq)

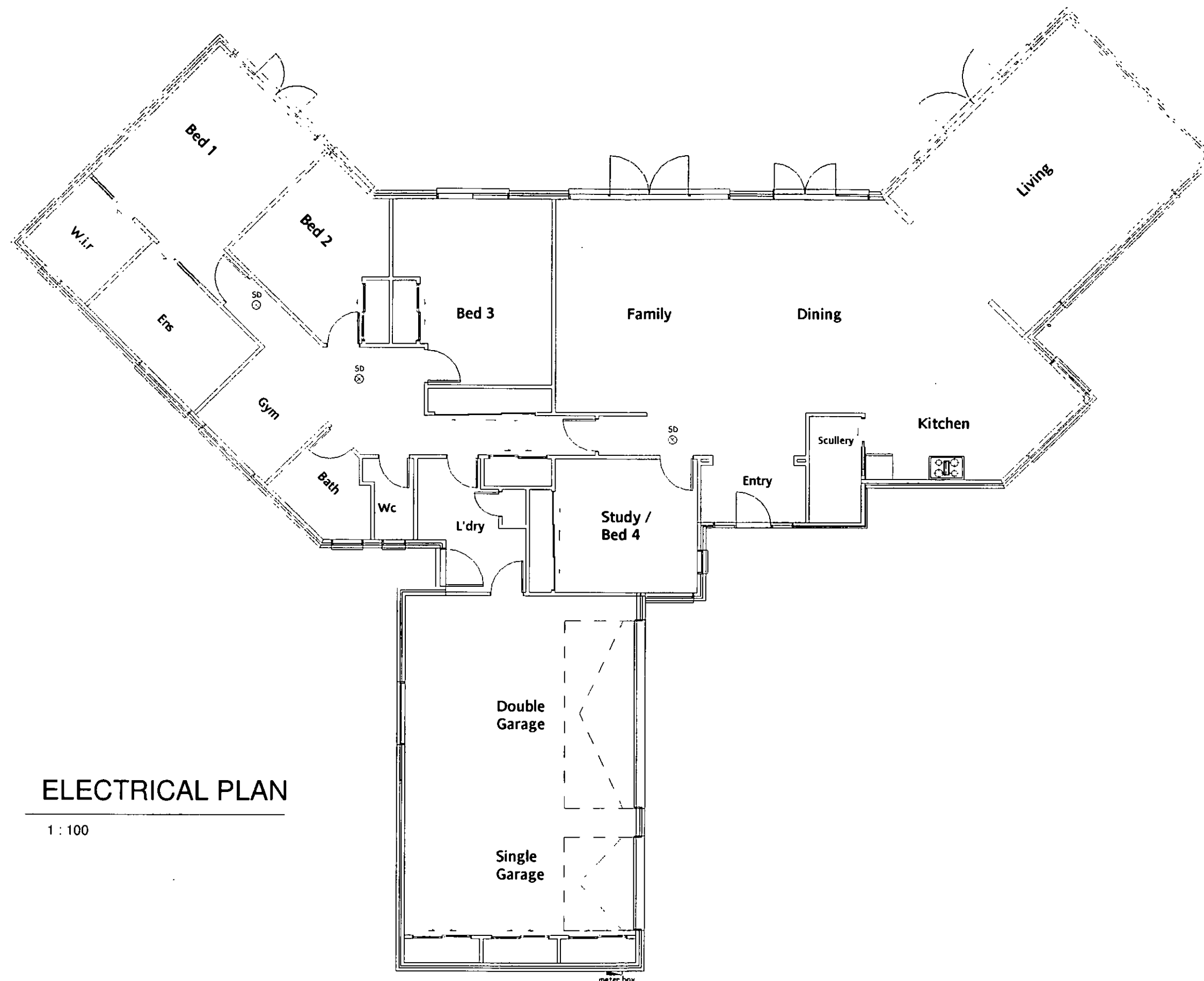
RIGHT ANGLE DESIGN
RAD

project:
DOMBROSKI
LOWER PITONE ROAD
OKATO

drawings:
BRACING

scale: 1 : 100
sht: 16
rev:

CHECK ALL DIMENSIONS DO NOT SCALE IF IN DOUBT ASK



- Fan
- Smoke Detector
- Fan/Light/Heater Switch
- Security Lights
- Recessed downlight (CA type)
- Exterior light
- Batten Lights
- Low voltage halogen (CA type)
- Phone
- Power outlet
- Double Power outlet
- Hobs
- Rangehood
- Oven
- Microwave
- TV coax
- Internal Wall mounted light
- External Wall mounted light
- Heated towel rail
- Shaver point
- Residual Current Device
- Computer
- Meter board
- Distribution board

ELECTRICAL LEGEND

ELECTRICAL PLAN

1 : 100

THE COPYRIGHT OF THIS
DRAWING REMAIN THE
PROPERTY OF
G.J. Gardner Homes.

G.J. Gardner.HOMES

G.J Gardner Homes.
PO BOX 8103 - NEW PLYMOUTH
PHONE (06) 769 6512

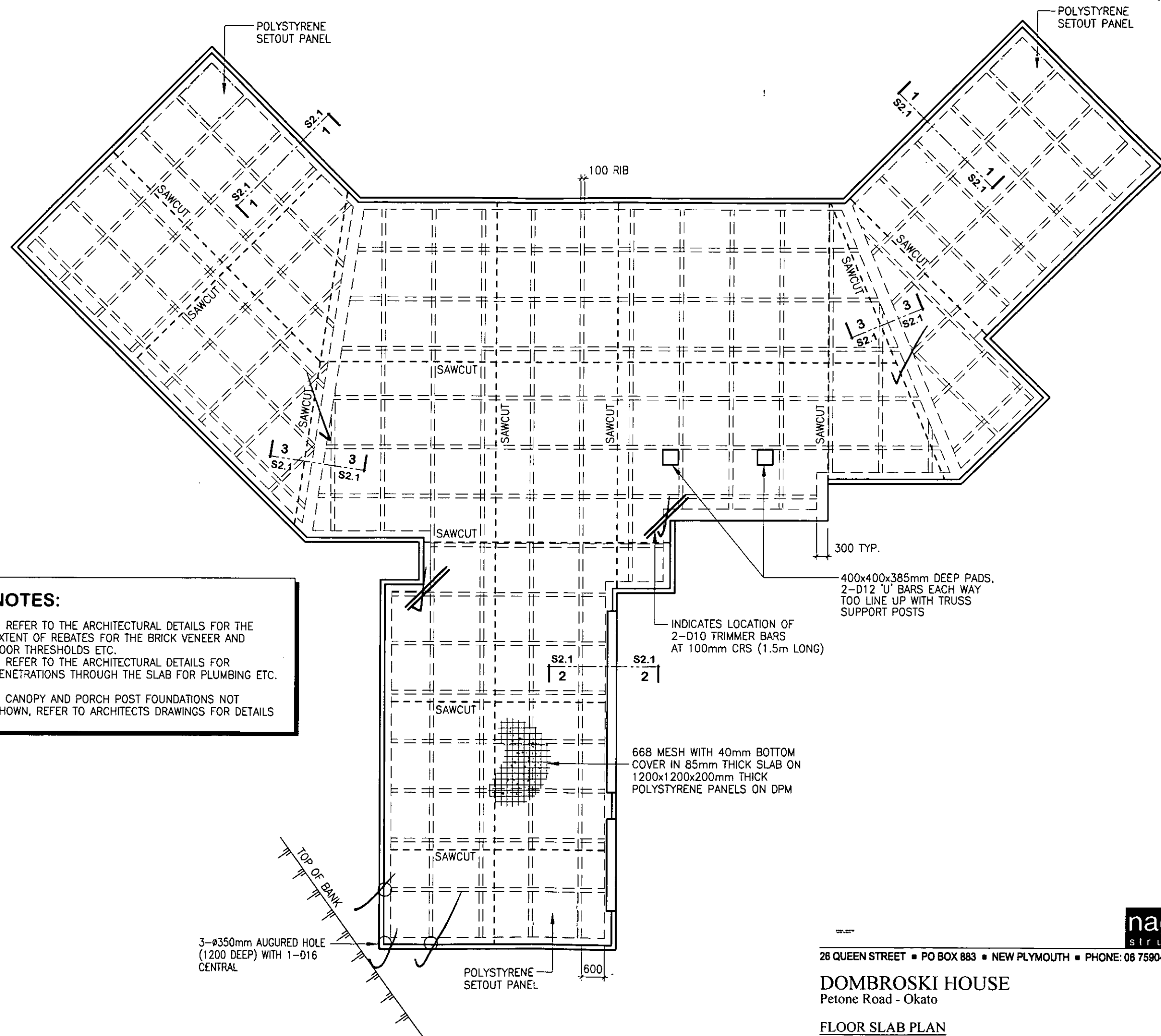
RAD
RIGHT ANGLE DESIGN

project:
DOMBROSKI
LOWER PITONE ROAD
OKATO

drawings:
ELECTRICAL

1 : 100 18
scale: sht: rev:

CHECK ALL DIMENSIONS DO NOT SCALE IF IN DOUBT ASK



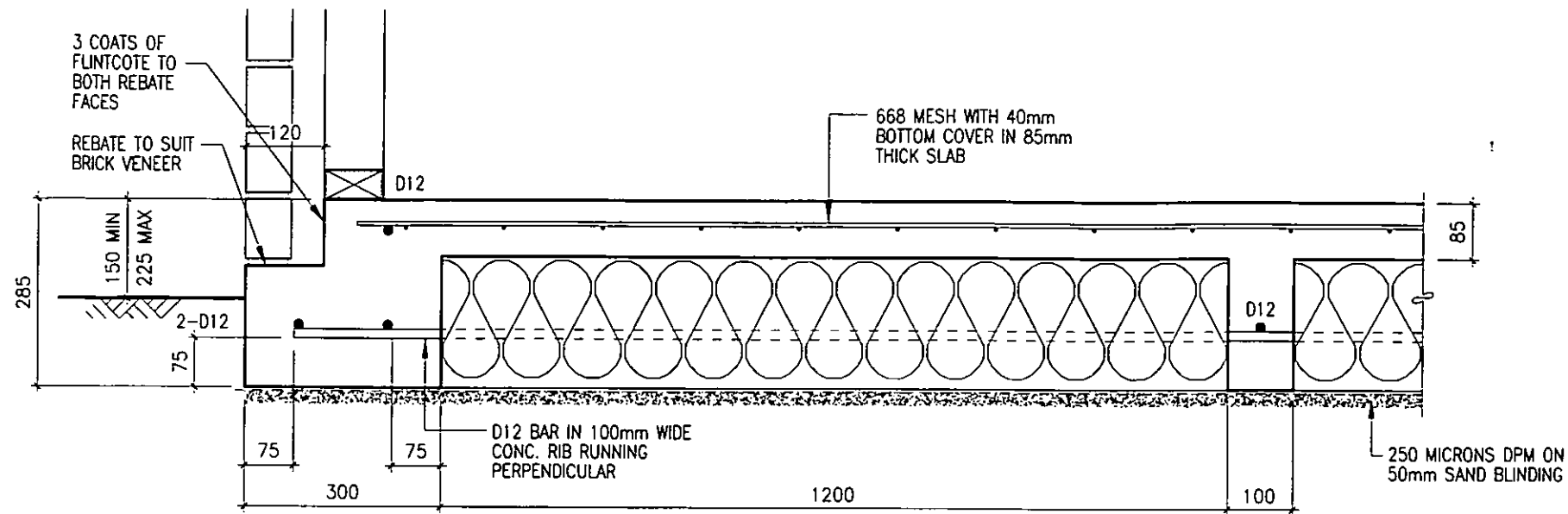
nagel consultants ltd
structural & civil engineers

26 QUEEN STREET ■ PO BOX 883 ■ NEW PLYMOUTH ■ PHONE: 06 7590477 ■ FAX: 06 759 0478 ■ MOBILE: 0274 413523

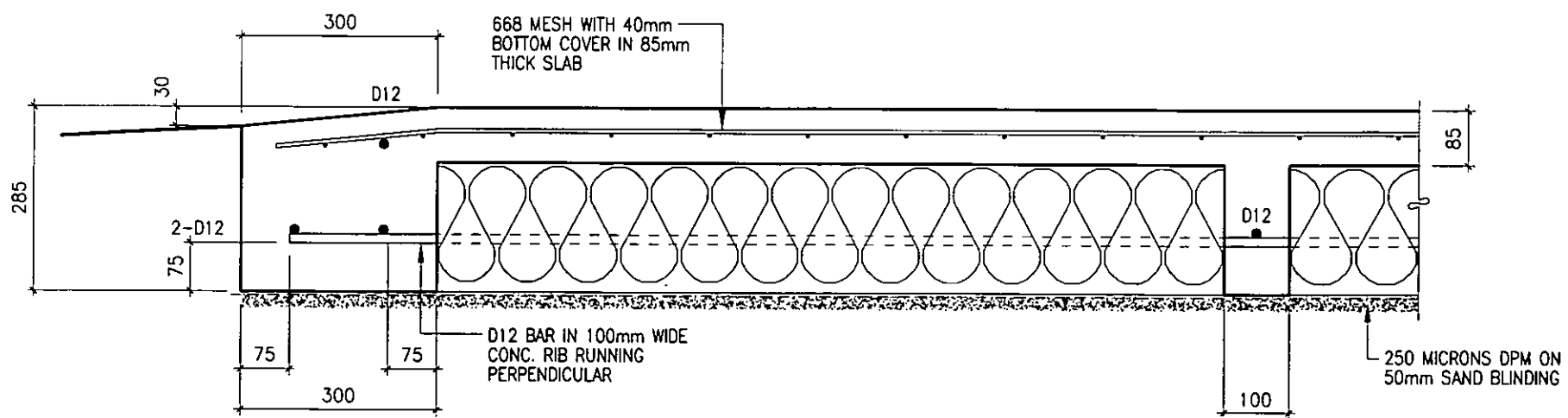
DOMBROSKI HOUSE
Petone Road - Okato

FLOOR SLAB PLAN
Issued for Building Consent

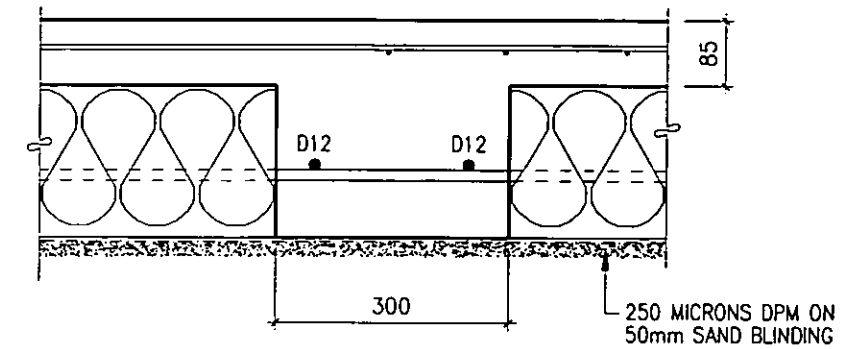
JOB 2271 ■
SCALE 1:100 ■
DATE 24/11/08 ■
SHEET S1.1 ■
REV A ■



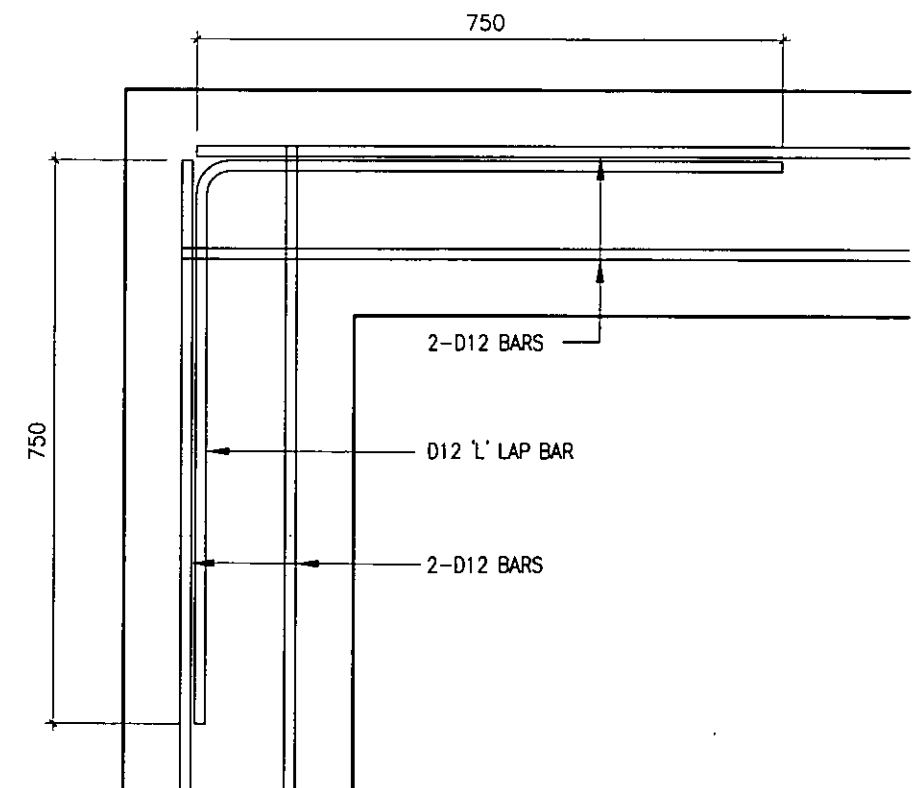
SECTION 1
SCALE 1:10
S1.1



SECTION 2
SCALE 1:10
S1.1



SECTION 3
SCALE 1:10
S1.1



PLAN OF TYPICAL BOTTOM REINFORCING TO CORNERS
SCALE 1:10

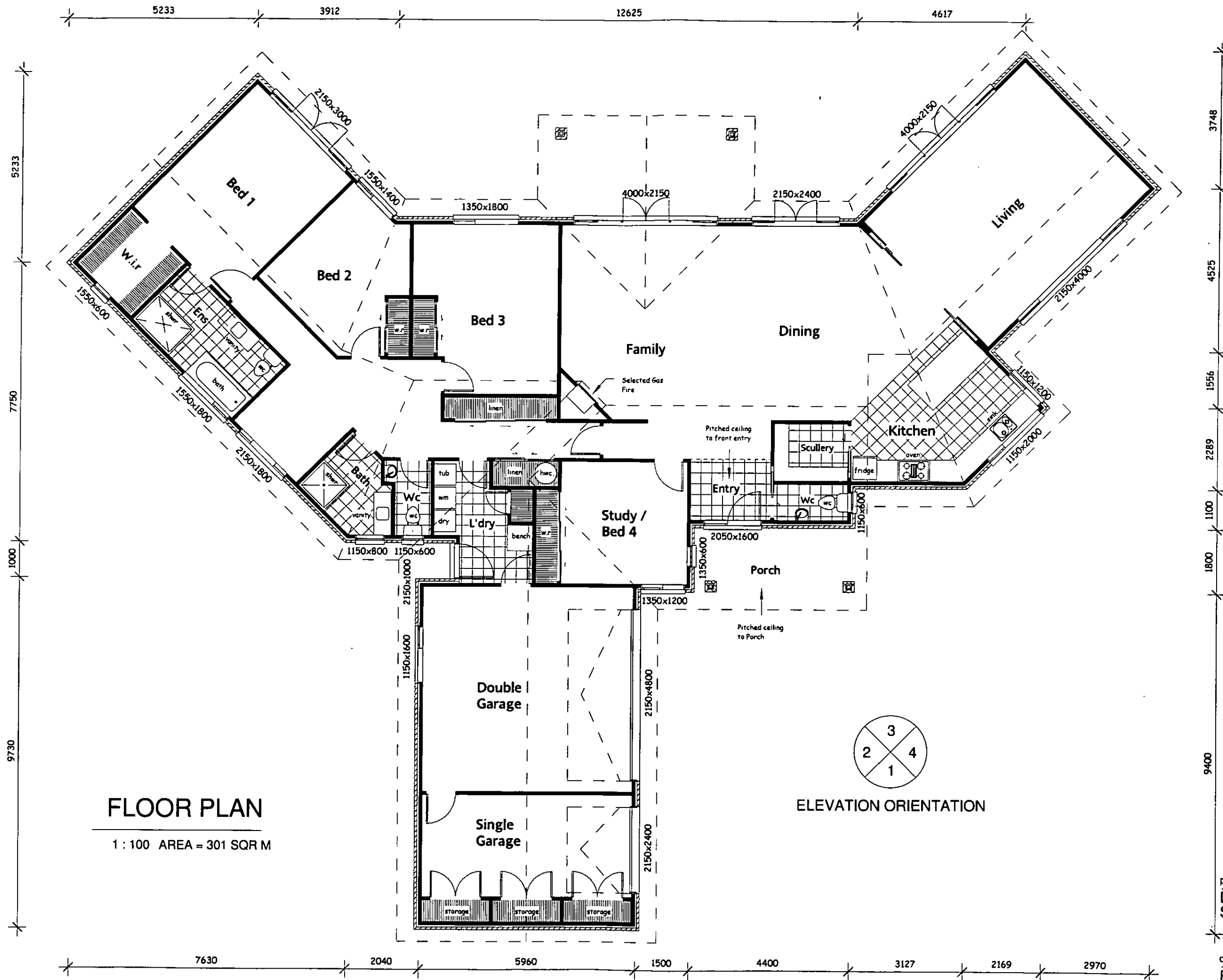
nagel consultants ltd
structural & civil engineers

26 QUEEN STREET ■ PO BOX 883 ■ NEW PLYMOUTH ■ PHONE: 06 7590477 ■ FAX: 06 759 0478 ■ MOBILE: 0274 413523

DOMBROSKI HOUSE
Petone Road - Okato

CONSTRUCTION DETAILS
Issued for Building Consent

JOB 2271 ■
SCALE 1:10 ■
DATE 24/11/08 ■
SHEET S2.1 ■
REV A ■



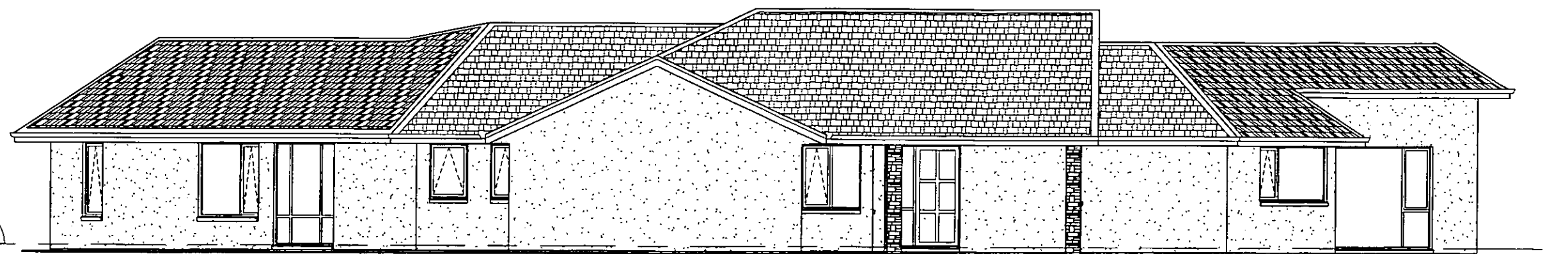
CHECK ALL DIMENSIONS DO NOT SCALE IF IN DOUBT ASK

project:
DOMBROSKI
SKETCH #4

drawings:
FLOOR PLAN

1 : 100 SK-01
scale: sht: rev:

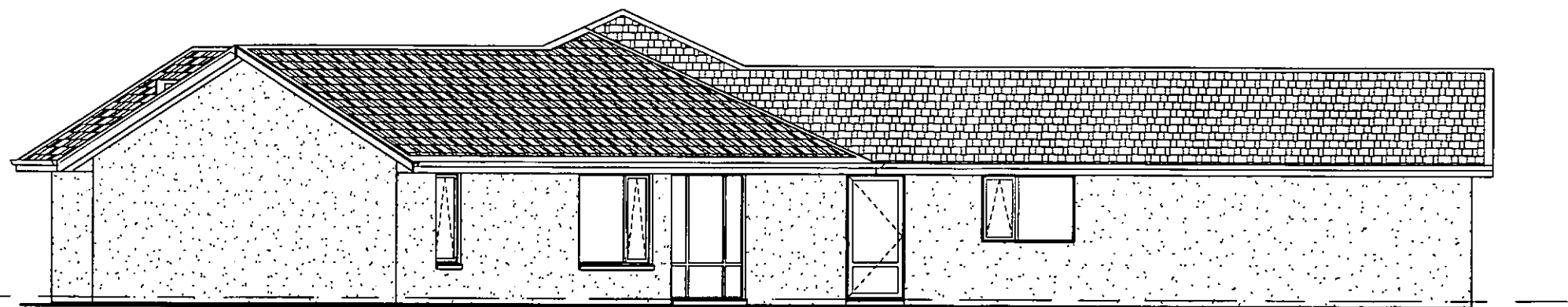
0
Level 1



ELEVATION 1

1 : 100

0
Level 1



ELEVATION 2

1 : 100

THE COPYRIGHT OF THIS
DRAWING REMAIN THE
PROPERTY OF
G.J. Gardner Homes.

G.J. Gardner.HOMES

G.J Gardner Homes.
PO BOX 8103 - NEW PLYMOUTH
PHONE (06) 769 6512

project:

DOMBROSKI
SKETCH #4

drawings:

ELEVATIONS

1 : 100

scale:

SK-02

sht:

rev:

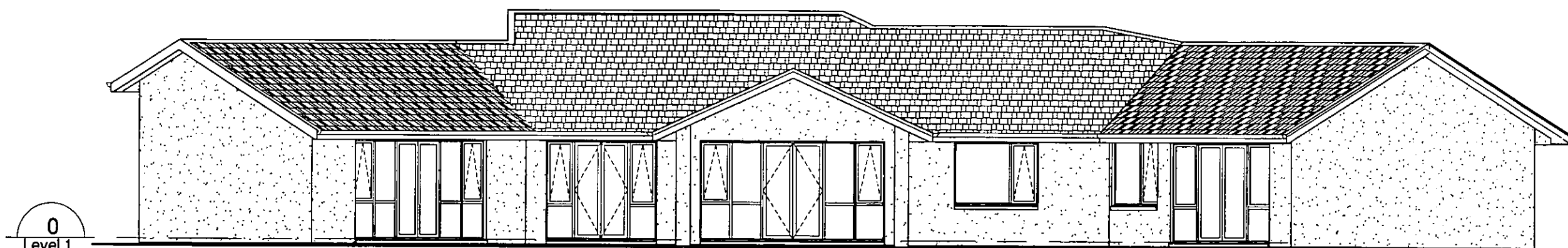
CHECK ALL DIMENSIONS DO NOT SCALE IF IN DOUBT ASK



0
Level 1

ELEVATION 4

1 : 100



0
Level 1

ELEVATION 3

1 : 100

CHECK ALL DIMENSIONS DO NOT SCALE IF IN DOUBT ASK

project:
DOMBROSKI
SKETCH #4

drawings:
ELEVATIONS

1 : 100 SK-03
scale: sht: rev:

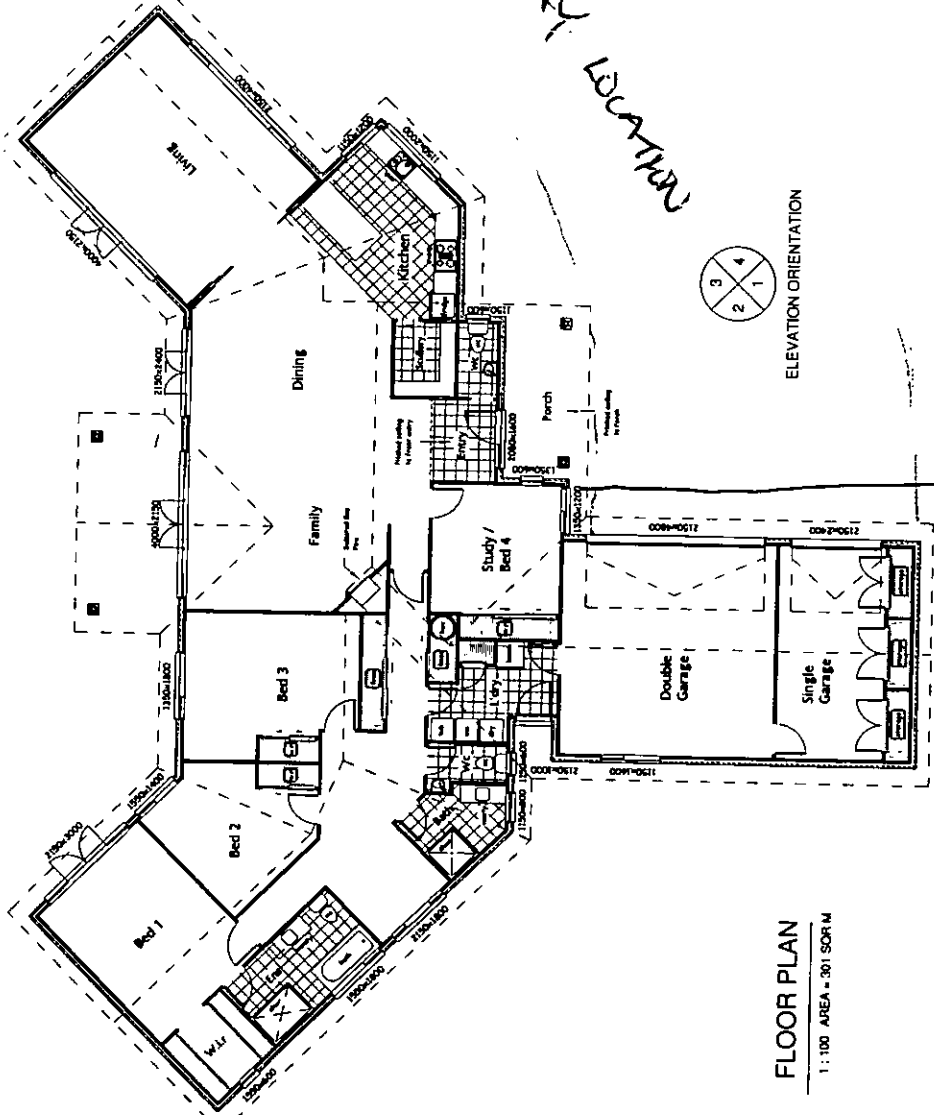
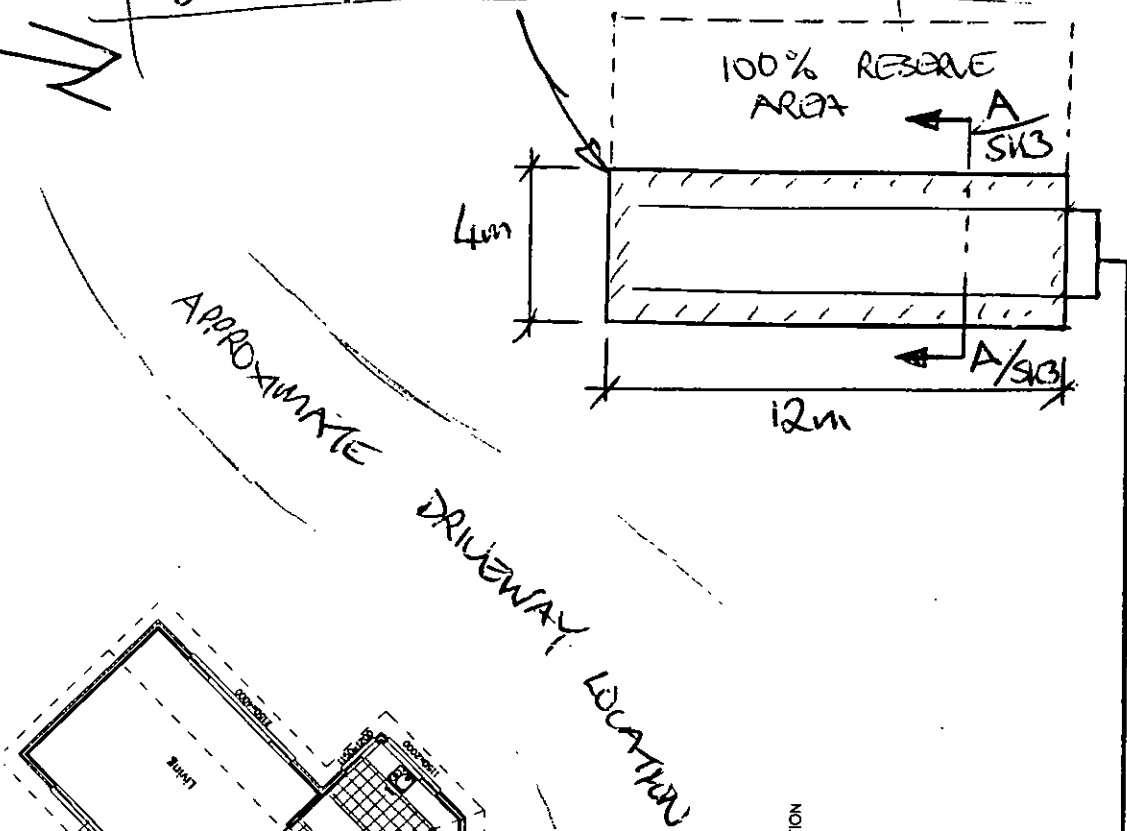
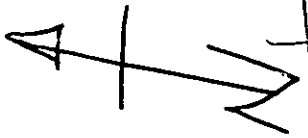
THE COPYRIGHT OF THIS
DRAWING REMAIN THE
PROPERTY OF
G.J. Gardner Homes.

G.J. Gardner.HOMES

G.J Gardner Homes.
PO BOX 8103 - NEW PLYMOUTH
PHONE (06) 769 6512

SK2

EFFLUENT BED TO BE LAID PARALLEL WITH GROUND CONTOURS. EXACT EFFLUENT BED LOCATION TO BE DETERMINED ON SITE



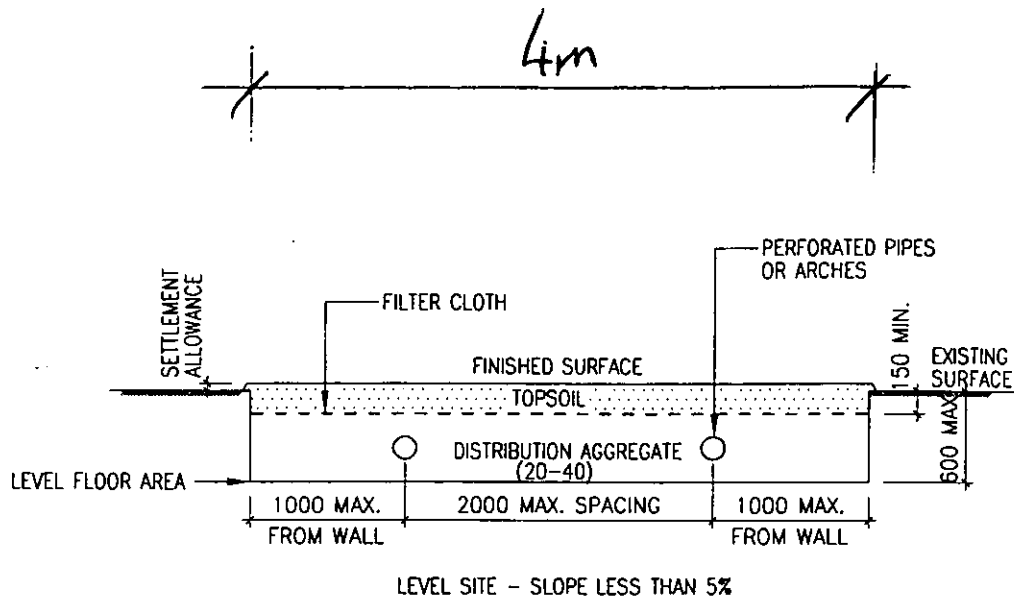
ELEVATION ORIENTATION

3300L TANK
(CONTRACTOR TO CONFIRM LOCATION ON SITE)

FLOOR PLAN
1:100 AREA - 301 SQ M

NPDC Approved
06 JAN 2009

SK3



SECTION A
SCALE 1:50

NPDC Approved
06 JAN 2009

nagel consultants ltd
structural & civil engineers

26 QUEEN STREET ■ PO BOX 883 ■ NEW PLYMOUTH ■ PHONE: 06 7590477 ■ FAX: 06 759 0478 ■ MOBILE: 0274 413523

JOB TITLE DOMBROSKI HOUSE
PITONE ROAD
OKATO

JOB 2271
DATE OCT, 2008
SHEET Effluent Bed ■