



Wall Bracing Calculation Sheet B

MARCH 2006

Along

SUBFLOOR

Please Photocopy

WALL OR BRACING LINE		BRACING ELEMENTS PROVIDED		
1	2	3	4	5
Line Label	Minimum BUs Required	Bracing Element No.	Bracing Type	Length Element (m) L
A		BP	BRACED PILES	4
B		BP	BRACED PILES	3
C		AP	ANCHOR PILES	3
D				
E				

WIND	
6 W	7 W
Rating BU/m W	BUs Achieved (BU/m x L) W
160	640
160	480
160	480

EARTHQUAKE	
6 E	7 E
Rating BU/m E	BUs Achieved (BU/m x L) E
120	480
120	360
120	360

Totals Achieved	
From Sheet A	Totals Required
Wreq/Ereq =	*

W	1600	E	1200
W	752	E	490

* If Wreq/Ereq is 1 or less complete E column only
 If Wreq/Ereq is 1.2 or more complete W column only
 Otherwise complete both W and E

Across

WALL OR BRACING LINE		BRACING ELEMENTS PROVIDED		
1	2	3	4	5
Line Label	Minimum BUs Required	Bracing Element No.	Bracing Type	Length Element (m) L
M		BP	BRACED PILES	2
N		AP	ANCHOR PILE	1
		BP	BRACED PILES	3
O		AP	ANCHOR PILE	1
P		BP	BRACED PILES	2
		AP	ANCHOR PILE	1
Q				

WIND	
6 W	7 W
Rating BU/m W	BUs Achieved (BU/m x L) W
160	320
160	160
160	480
160	160
160	320
160	160

EARTHQUAKE	
6 E	7 E
Rating BU/m E	BUs Achieved (BU/m x L) E
120	240
120	120
120	360
120	120
120	240
120	120

Totals Achieved	
From Sheet A	Totals Required
Wreq/Ereq =	*

W	1600	E	1200
W	546	E	490

00106

RECEIVED

14 FEB 2011

KAPITI COAST
DISTRICT COUNCIL

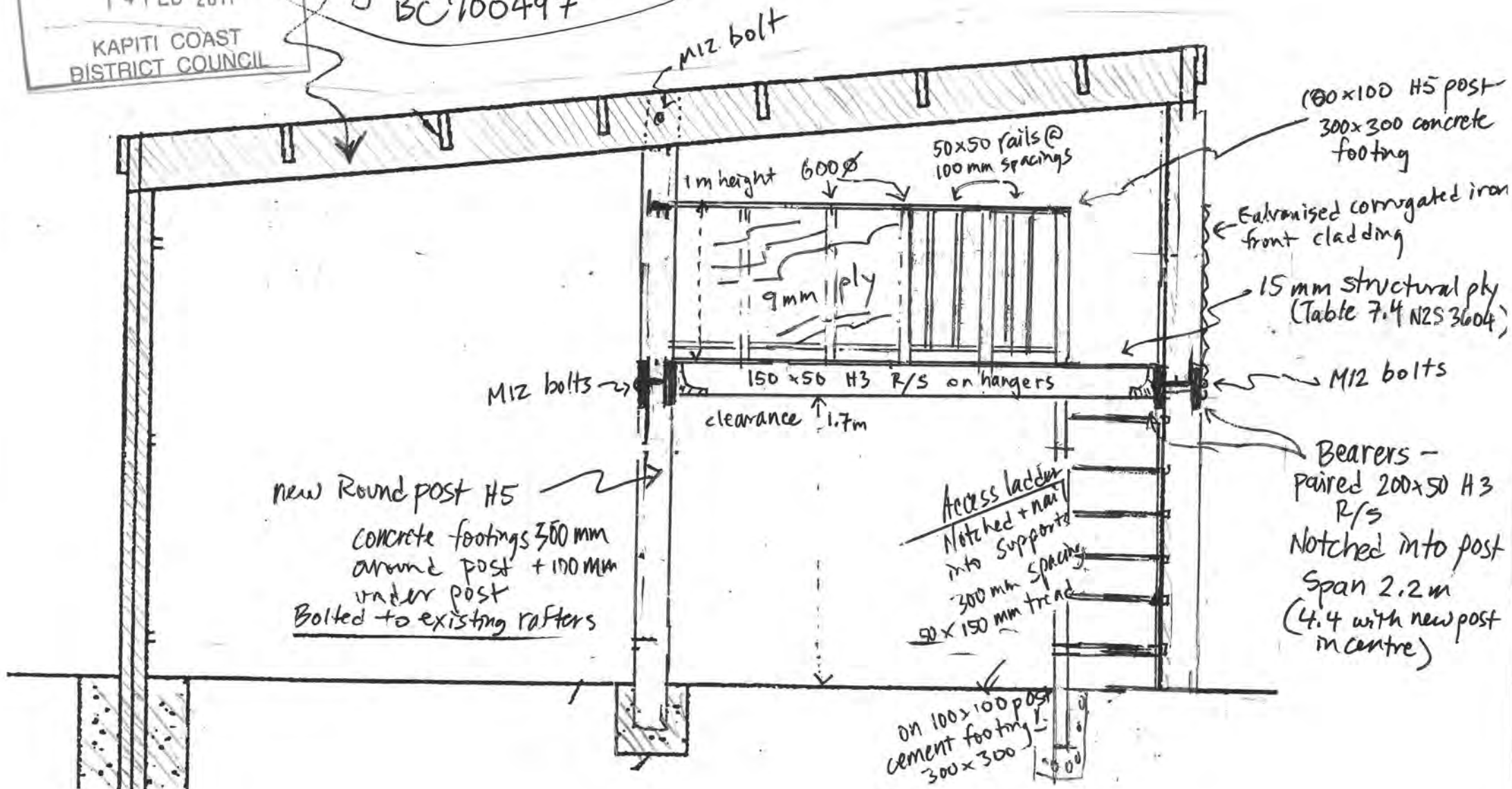
Existing 4 Bay shed - part of
BC 100497

Addition to plan: Storage loft in bay 4

BC 100497

approx 12 m²

4.4 m x 2.7 m

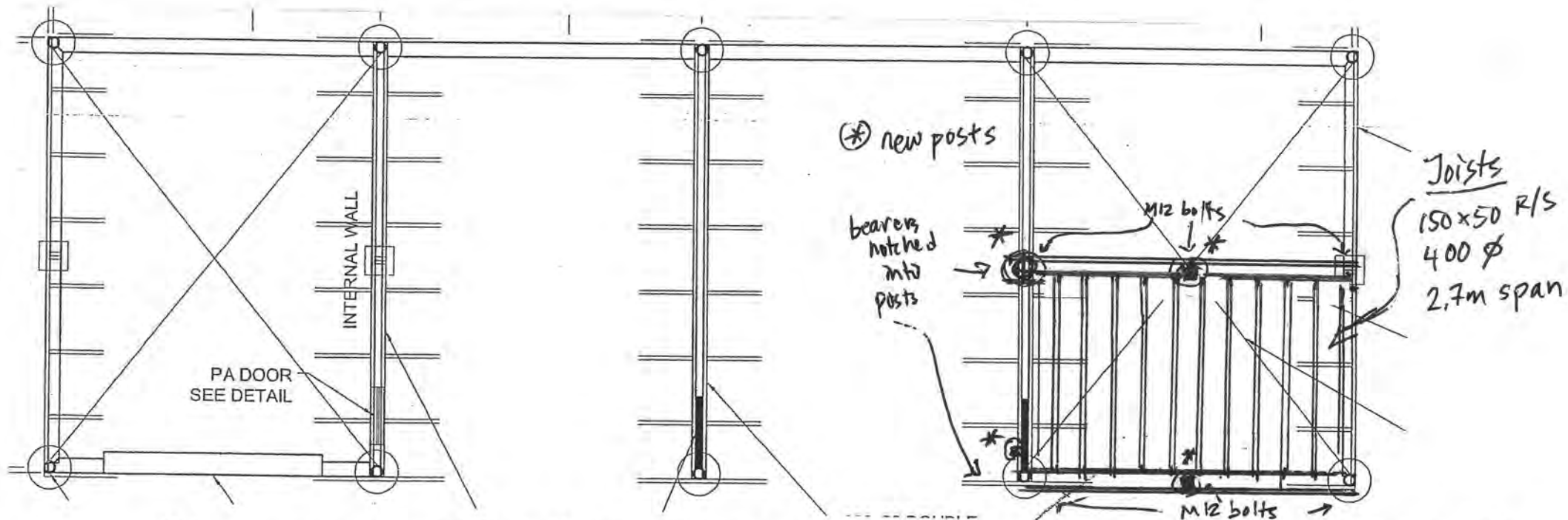




Addition to plan BC 100497

Storage loft in bay 4 of 4 Bay Shed

4.4 x 2.7 m



Piles - existing posts + 1 new post linked to rafters + 2 new 100x100mm posts @ 2.2m

Joists - 150x50mm R/S H3 on hangers + 4x 100x40 FT skew nails, 400mm spacings

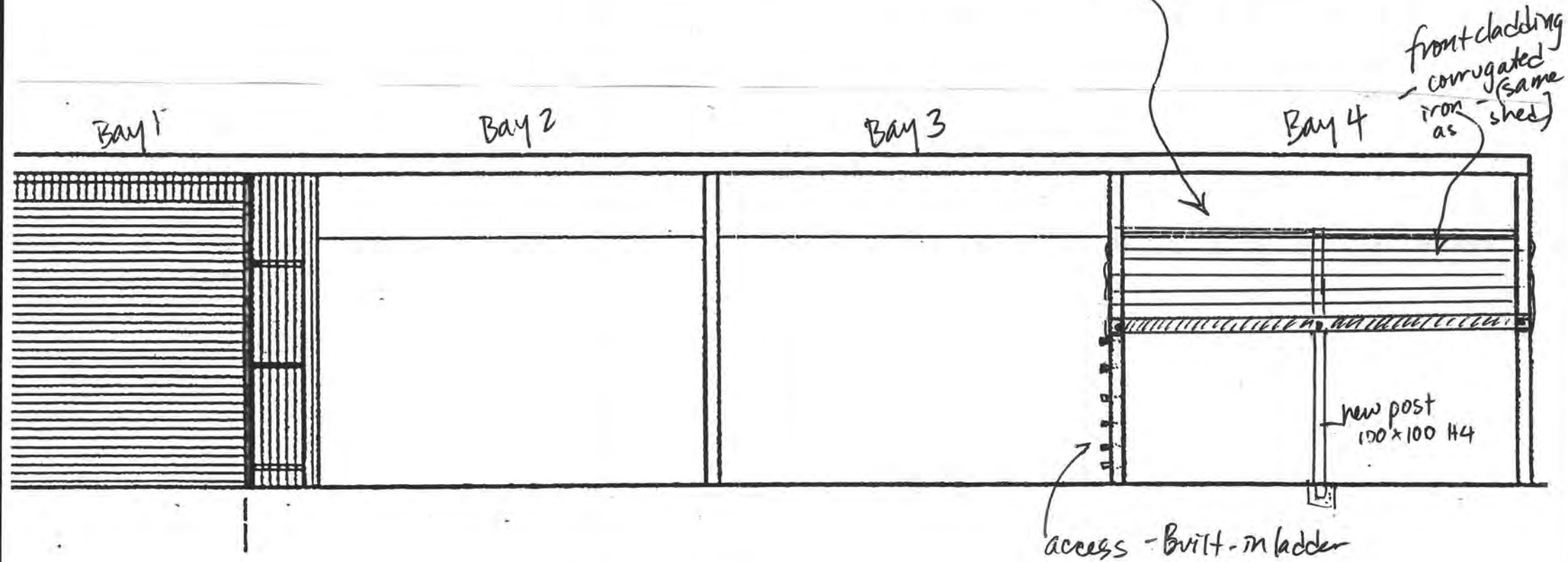
Bearers - paired 200x50mm R/S H3 notched into posts & secured through w/ M12 bolts + washers

Floor - 15mm structural ply, face grain accross joists

Access - built-in ladder, tread 150x50mm H3, notched & nailed, post on one side & new concrete footed 100x100mm post on other side, Tread spacings 300mm

Addition to plan BC 100497

Storage loft in bay 4 of 4 Bay shed



BC 100497

Addition to plan: storage loft
in Bay 4 - 4 Bay Shed

(loft storage space only
= not head height)

post notch @ top
to fit between
existing rafters
+ M12 bolt

top rail 50x100
finished
palings 50x50

Bearers

2x 200 x 50 mm
H3 R/S
span 2.2m

notched
into post
+ M12 bolts

clearance 1.7m

footed post
extended to support
rail

9mm ply

12 600mm

between
2x bearers
200x50 mm H3

100x100
H4 R/S

notched
into post
+ M12
bolts

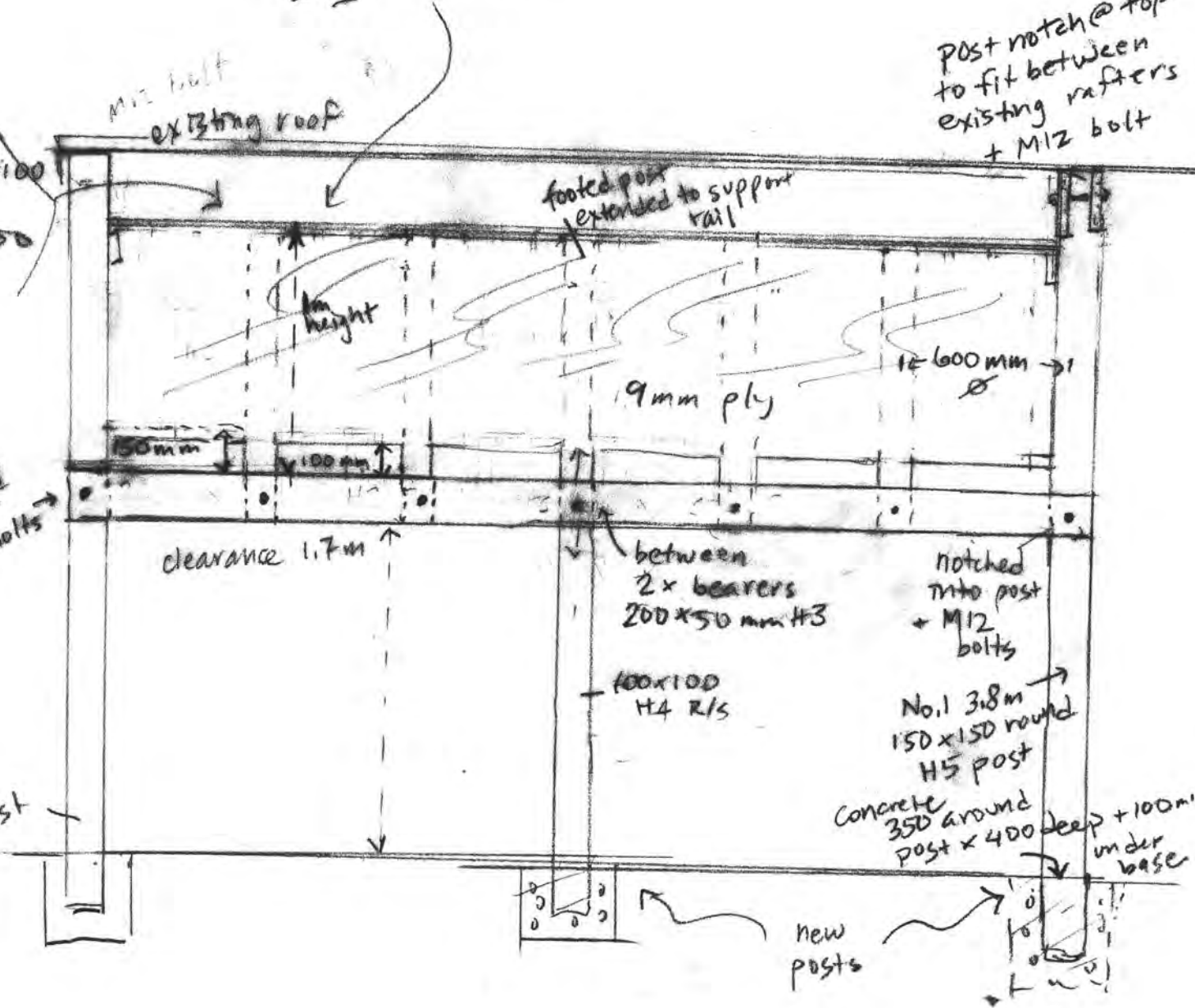
No.1 3.8m
150x150 round
H5 post

Concrete
350 around
post x 400 deep + 100mm
under base

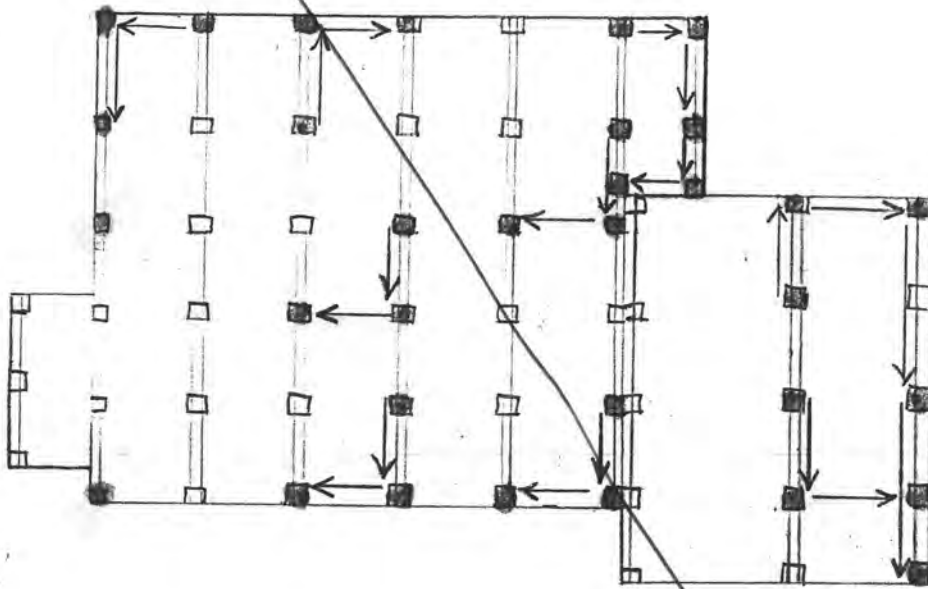
new
posts



existing
post



Council
BC 100497



23 February 2011

Dana Peterson & Jules Esther
83 Terrace Road
RD1
Reikorangi
Waikanae

Building Consent: 100497A

Dear Sir/Madam

Request for further information

Description: 1. Increased bracing for foundation of cottage & deck. 2. Building a storage loft into 1 bay of the 4 bay shed.

Location: 142 Huia Street, Waikanae

Legal Description: LOT 10 DP 22652 BLK VI KAITAWA SD

Following checking of your *Building Consent* it is apparent that further information is required.

Information Needed:

House

- 1) Please mark the bracing lines on the new subfloor bracing layout and ensure all braces match the calculations.

Loft

- 2) The existing consented plans indicate a 150x50 girt that the bearer will attach to, this is outside the scope of NZS 3604.
- 3) 100x100 piles outside the scope of NZS 3604 also.
- 4) Please clarify the notch depth for the bearer to the post attachment.
- 5) Clarify the stress grade of the joists MSG8 or higher is acceptable with the current design.
- 6) As the structure is specifically designed (by an engineer) then confirmation should be sort that notching of the structural posts is acceptable and written evidence provided. I recommend contacting the manufacturer.

We have suspended your application and will not proceed any further with its processing until the above information is received. Please send it to us by 9/03/11. If we do not receive it by this date, we may not be able to issue your *building consent*.

Please contact me if you would like to discuss this matter.

Yours faithfully

Jaime Sherlock
Direct line tel. no. (04) 296 4730

COPY

Jaime Sherlock

From: Dana Peterson [dana@fantailfarm.co.nz]
Sent: Tuesday, 3 May 2011 9:20 p.m.
To: gcbr@xtra.co.nz
Cc: Jaime Sherlock
Subject: Fwd: Amendment to building consent BC100497A
 Hi Tony & team

As discussed, here is the most recent communication from the Council, and the related documents.

1. KCDC advice about your original building consent for the roof of the cottage BC 090078 - see attached file named "KCDC BC090078"

This is the letter which you gave to us. However, this consent is issued to you @ GCBR. See Jaime's email below - please can you request an inspection, which can coincide with ours for the cottage relocation, septic field & shed, or ask for an extension?

2. KCDC advice about the revised bracing plans for the cottage, due to the increased deck & greater slope

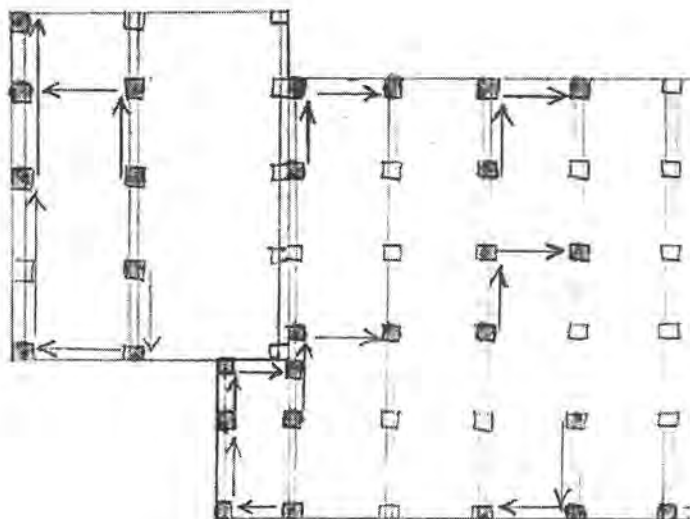
Their response to the revised plans was:

"Please mark the bracing lines on the new subfloor bracing layout and ensure all bracings match the calculations".

When I asked Jaime what he meant, he said that the new plans did not have sufficient new detail comparable to what was originally submitted, and crucial details did not match.

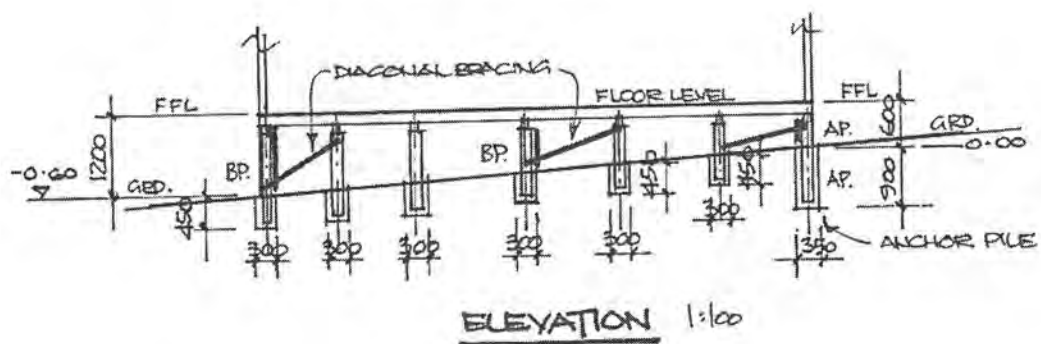
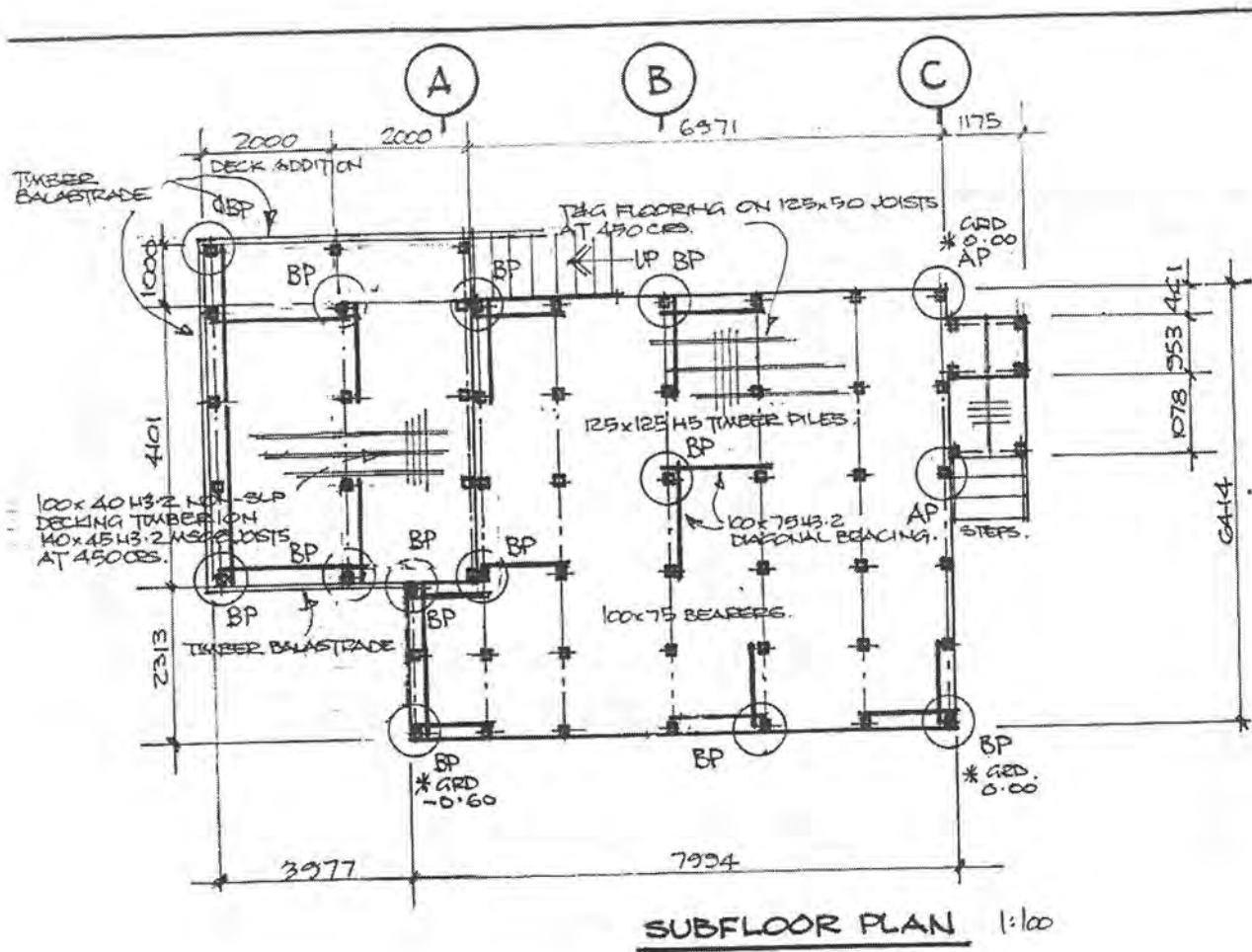
When I've looked at the plans to try & understand what he needed, I also found that the bracing directions were different, and the plan was 180 degrees out from the original plans.

So, here's the new bracing plan that Paul made, which we submitted to the Council, but rotated 180 degrees to match the original plan (so the deck is to the west):



And here is the original plan, submitted for BC 100497. Perhaps you or Paul can talk to Jaime @ KCDC to work out what extra detail he wants.

6/05/2011



Below is the

Thanks!!
Dana



Kāpiti Coast District Council

Private Bag 60 601
Paraparaumu 5254
New Zealand

Tel (04)
or 080
Fax (04)
kapiti.council@kapiticoe
www.kapiticoe

6 December 2010

Gold Coast Building Removals Ltd
Tony Greig
PO Box 186
Waikanae 5036

Building Consent: 090078

Dear Sir/Madam

Progress of work on Building Consent 090078

Description: Replacement of existing roof structure
Location: 545 State Highway 1, Paraparaumu
Legal Description: PT LOT 79 DP 14701 - BALANCE AT 15260/37 4



I am writing to advise you that the work approved on the above building consent must be complete within two years of the issue date.

Under section 92 of the Building Act 2004, the building owner must apply for a code compliance certificate (CCC) after all building work to be carried out under a building consent is completed. This must be done within a 2-year period from the granting of the building consent. I have enclosed a copy of a CCC application form.

The Council, under section 93 of the same Act, must decide whether to issue a CCC within 20 working days of the 2-year anniversary of the date the building consent was issued. Your building consent was issued on 2 March 2009.

If your building work is complete, please ring and book a final inspection. The completed CCC application form will be collected by the building inspector when he/she visits.

If your building work is nearly complete and will be completed within the 2-year time frame, please ring and book a final inspection once the work is completed, or mail your CCC application form to the Council.

Thanks!
Dana & Jules

delivering on the community's plan



6/05/2011

KCDC Building Consent Authority
Building Consent **AMENDMENTS** Documentation Filed



BC No.	100497A
Street Address.	142 Huia St Waikanae

Tick indicates document(s) included in this Building Consent

Amendment Consent Application,	✓
Costing schedule,	✓
Amended Plans and specifications,	✓
Invoice and receipt,	✓
Processing records/checksheets,	✓
Inspection page printouts	
1-4	
Amended Building consent and memorandum,	
Producer statements and supporting documentation,	
Peer review documents,	
Fire design documents,	
Requests for further information and other correspondence,	
Supplementary information,	

This form comprises part of the Building Consent documentation and indicates the contents of the Building Consent File. Refer KCDC Policy 029.

- * Mark bracing lines on the plan & all member sizes ~~and~~ ensure the plan matches the calculations.
- * Existing consented plans show a 150x50 gird support for bearer attachment - insufficient to act as a pile.
- * 114 100x100 piles outside of 3602 & 3604 -
- * Clarify ~~bearing~~ notching & depth of bearer to post.
- * Clarify stress grade of joists - MSG8 or higher is ok.
- * Existing ^{structural} posts that are notched - should be checked by an engineer/Goldpine.

KCDC Form 121a ver.1

March 2008

6/5/11 * Storage left removed from the plans - per email from Derrin.
* Met Paul Goodall at the Council - he explained that the sheet that was provided by the applicant was an as built provided to him by the builder he had reviewed it and had to add more bracing. So that pg should not have been provided to us. Calculations checked above.

CODE COMPLIANCE CERTIFICATE

Section 95 Building Act 2004

Consent No: 130379



The Building			
Street address of building:	142 Huia Street, Waikanae	Building name:	
Current, Lawfully established, use:	Vacant Land	Location of building within site/block number:	Access from Huia Street
Level/unit number:		Intended life of the building if 50 years or less:	
Legal description of land where building is located:	LOT 10 DP 22652 BLK VI KAITAWA SD		
Year first constructed:			
The Owner			
Name of owner:	Esther Jules & Peterson Dana	Street address /registered office:	
Contact person:	Rachelle	Phone numbers:	
Mailing address:	C/- David Reid Homes Ltd P.O. Box 148 Paraparaumu 5254	Landline:	
Email address:		Mobile:	
Website:		Daytime:	
		After hours:	
		Facsimile number:	
First point of contact for communications with the Kāpiti Coast District Council:			
Full Name: David Reid Homes Mailing Address: PO Box 148, Paraparaumu 5254 Phones: 021 880033; 04 9045959 Email: timothy@davidreidhomes.co.nz			
Building Work			
Building Consent No:	130379	Issued by:	Kāpiti Coast District Council
Project Description:	New single-level building.		

Code Compliance

The building consent authority named below is satisfied, on reasonable grounds, that:

- (a) the building work complies with the building consent.

Russell Brook – Team Leader – Site Inspections

On behalf of Kāpiti Coast District Council

Date: 23 September 2014

SCOPE OF INSPECTION SHEET

Date 9-9-14 BCA 130379 Inspection No. 12

Time Documents on site YES / NO

Owner Name Esther + Peterson Project Description New dwg

Site Address 142 Huna St Restricted Building Work YES / NO

☒ Building ☐ Plumbing

Circle appropriate Type & Inspection Other

Site Found Piles PreSlab Subfloor Drainage PreWrap PreClad Weathertight PreLine PostLine Block Brick Ret.Wall ☒ Final

Engineer Supervision Yes No n/a - Name

Notes * all completed as consent Diagram (if necessary)

* wood burner clearances achieved
* solar connected to HWC.
* inspections all completed.
* deck not part of consent.

Photo's Taken - Nos. saved / scanned? Y / N

Site instruction issued

Confirmation of person on site

Result: ☒ Pass ☐ Fail

Name LBP No.

Your next inspection will be
 (Guidance notes for inspection on the rear of this sheet)

Agreed, TM Summerhayes Sign

Officer Name Andrew Sign Andrew

Information entered into data base ☐ Initial Date 1.1.14

SCOPE OF INSPECTION

Inspections are made in conjunction with, and with the cooperation of, the owner/owner's agent to ensure that the building work complies with the provisions of the Building Act and NZ Building Code. The inspection is general in nature and involves an audit of the following aspects:

Engineer – Civil/Structural/Fire/Geotechnical: An engineer has been engaged to carry out inspections on behalf of the owner. Please ensure those inspections are carried out. A Certificate of Expert Opinion is required to be supplied to Council.

Site: A surveyor's report, or visible boundary markers provided, so that the set out of the project can be clearly identified.

Foundation: When all formwork has been completed, footings have been excavated and reinforcement is in place.

Piles: When all holes are excavated prior to installation.

Pre-slab plumbing (concrete slab): When all plumbing and drainage pipes have been installed, prior to backfilling.

Pre-slab building (concrete slab): When DPM has been placed with all laps and penetrations sealed, reinforcing in place and in position with chairs as appropriate.

Sub-floor (timber suspended floor): When all sub-floor connections, joists and required blocking, and any suspended plumbing pipe work have been completed, but before any flooring or base boards have been fitted. Relocated dwellings require a sub-floor inspection prior to the base boards being fitted.

Drainage: When all drainage works is completed and is under test, before backfilling occurs. As laid drainage plan is required at time of inspection.

Pre-wrap: When all roof and wall framing is complete, including any exterior sheet bracing, but before building wrap has been installed.

Pre-clad: When building wrap and window and door flexible flashing tape has been installed, cavity battens (cavity systems), cavity closers and all flashing systems are in place, but before joinery has been installed.

Weathertightness: When exterior cladding has been installed, flashings in place, air seals fitted to openings, but before any coating system have been applied.

Pre-line (plumbing): When all internal plumbing is complete and plumbing pipe work is under test pressure.

Pre-line (building): When the exterior of the building is weather tight, all structural components (including bracing) have been completed and wall insulation is in place.

Wet area membranes, decks, roofs and shower area: Pre application of wet area membrane, when all outlets and flashings have been installed, ready for membrane installation.

Post application of wet area membrane.

Post-line: When all interior linings have been installed, but before skirting, Scotia or plastering stopping. Installation details of screws check of wall bracing element.

Block: When all masonry block work including block foundations for slab floors, is completed, reinforcing in place and washout openings in place.

Brick Veneer: When veneer is at half height and all flashings are in place.

Retaining wall: Pre application of waterproof membrane system.

Post application of waterproof membrane system.

Protection installed for membrane system and installation of perforated drainage system before back filling.

Final: Final inspections are carried out at the completion of the project and may include entire project, plumbing, drainage and storm water. The Code Compliance Certificate is issued if the building work complies with the approved building consent.

Free Standing Fireplace: Final inspection required only.

In Built Fireplace: Inspection required before installation and after installation.

PRIVACY STATEMENT

1. The information contained on the Building Inspection Report Sheet is held by the Kapiti Coast District Council, whose address is Private Bag 60601, Paraparaumu, 5254.
2. The information is available for public inspection as part of the Building Record of the property concerned. It can be viewed at 175 Rimu Road, Paraparaumu, 5032.
3. You have the right under the Privacy Act 1993 to obtain access to, and to request correction of any personal information held by Council concerning you.

Council has a Privacy Officer. If you have any concerns regarding privacy issues please telephone (04) 296 4700

FINAL INSPECTION SINGLE RESIDENTIAL

Date 9.9.14 BCA 130379 Inspection No. 12

Time Documents on site YES / NO

Owner Name Esther Polarisup Project Description New dwg

Site Address 1412 Huna St Restricted Building Work YES / NO

All inspections are carried out with strict reference to the building consent granted.

P = Pass F = Fail NA = Non-Applicable

Inspection decisions are based on the extent of work inspected at the time of inspection.

Please refer to the related scope sheet for definition of the inspections extent.

Applicable to all inspections

Sighted previous inspection notes	<input checked="" type="radio"/> Y	<input type="radio"/> N	<input type="radio"/> NA	Conforms with approved drawings	<input checked="" type="radio"/> Y	<input type="radio"/> N	<input type="radio"/> NA	Confirm Additional information/amended plan	<input type="radio"/> Y	<input checked="" type="radio"/> N	<input type="radio"/> NA
-----------------------------------	------------------------------------	-------------------------	--------------------------	---------------------------------	------------------------------------	-------------------------	--------------------------	---	-------------------------	------------------------------------	--------------------------

FINAL – Exterior

Sub-floor ventilation	<input type="radio"/> P	<input type="radio"/> F	<input checked="" type="radio"/> NA	Roof fixings	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Spouting + Down-pipes	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Deck Structure	<input type="radio"/> P	<input type="radio"/> F	<input checked="" type="radio"/> NA	Flashings – Roof	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Penetrations – Flashings	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Barriers	<input type="radio"/> P	<input type="radio"/> F	<input checked="" type="radio"/> NA	Gully Dishes	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Storm-water + site drainage	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Handrails	<input type="radio"/> P	<input type="radio"/> F	<input checked="" type="radio"/> NA	Wastes to gully	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Fixings – Durability	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Steps/Stairs	<input type="radio"/> P	<input type="radio"/> F	<input checked="" type="radio"/> NA	Terminal vents/AAV's	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Cladding Painted/Sealed <u>stained</u>	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Flashings – Windows/Doors	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Cladding Ground Clearance	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA		<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA

FINAL – Interior

Service areas – floors/walls	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Food storage/preparation	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Hot water temp <u>50°</u>	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Stair design	<input type="radio"/> P	<input type="radio"/> F	<input checked="" type="radio"/> NA	Ventilation	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Solid fuel heater	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Handrails	<input type="radio"/> P	<input type="radio"/> F	<input checked="" type="radio"/> NA	Insulation + clearance	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Water supply tank	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Balustrades	<input type="radio"/> P	<input type="radio"/> F	<input checked="" type="radio"/> NA	HWC flues	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Trap seals + AAV's	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Lightings	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	HWC valves	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Cistern flushing	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Laundrying	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	HWC restraint	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	WC pan connection	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Cooking facilities	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Tempering valve	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Septic tank	<input type="radio"/> P	<input type="radio"/> F	<input checked="" type="radio"/> NA
Smoke detectors	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Glazing – Human Impact	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Window labels	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA

FINAL – Intertency/Commercial

Fire/Life systems sighted	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Guarantees/Warranties/Certificates/Expert Opinion	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Intertency STC	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
---------------------------	-------------------------	-------------------------	--------------------------	---	-------------------------	-------------------------	--------------------------	----------------	-------------------------	-------------------------	--------------------------

All Inspections

Road Crossing Complete	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Energy Certificates supplied	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Final Check Complete	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N
------------------------	------------------------------------	-------------------------	--------------------------	------------------------------	-------------------------	-------------------------	--------------------------	----------------------	------------------------------------	------------------------------------

Officer Name: Andrew Sign: [Signature] Date: 9.9.14

SCOPE OF INSPECTION SHEET

Date 24/12/13 BCA 130379 Inspection No. 11
Time 10-30 Documents on site ☒ YES ☐ NO
Owner Name Estu + Peter Project Description New Dwg
Site Address 142 Hura St Waiwaka Restricted Building Work ☒ YES ☐ NO

☒ Building ☐ Plumbing

Circle appropriate Type & Inspection

Other

Site Found Piles PreSlab Subfloor Drainage PreWrap PreClad Weathertight PreLine ☒ PostLine Block Brick Ret.Wall Final

Engineer Supervision Yes No n/a - Name

Notes: * all bracing elements
as per plan
* 13mm ceilings 10mm walls
* Aquaplan in bathrooms
* Penetrations sloped
* Ply in Garage nailed off

Diagram (if necessary)

*Reviewed under
supervision
R. Boel*

Photo's Taken - Nos. saved / scanned? Y / N

Site instruction issued

Confirmation of person on site

Result:

☒ Pass

☐ Fail

Name

LBP No.

Your next inspection will be Final
(Guidance notes for inspection on the rear of this sheet)

Agreed, Chris Moore

Sign

Officer Name Craig Watson

Sign CW

Information entered into data base ☐

Initial

Date 1/1

WEATHERTIGHTNESS / PRELINE / POSTLINE

Date 24/12/13 BCA 130379 Inspection No. 11

Time 10:30 Documents on site YES / NO

Owner Name Eric - Patis Project Description New Deck

Site Address 147 Hume St, Wainuiomata Restricted Building Work YES / NO

All inspections are carried out with strict reference to the building consent granted.

P = Pass F = Fail NA = Non-Applicable

Inspection decisions are based on the extent of work inspected at the time of inspection.

Please refer to the related scope sheet for definition of the inspections extent.

Applies to all inspections

Sighted previous inspection notes	<u>(Y)</u>	N	NA	Conforms with approved drawings	<u>(Y)</u>	N	NA	Confirm Additional information/amended plan	Y	N	<u>(NA)</u>
-----------------------------------	------------	---	----	---------------------------------	------------	---	----	---	---	---	-------------

WEATHERTIGHTNESS

Cladding selection complies with BC?	P	F	NA	Roof material complies with BC?	P	F	NA	Sheets fixed to manufacturers	P	F	NA
Roof fixing complies	P	F	NA	Fixings appropriate for durability?	P	F	NA	Sheet layout	P	F	NA
Ridge/hip flashings in place	P	F	NA	Roof/wall junctions flashed	P	F	NA	Control joints where appropriate	P	F	NA
Penetrations correctly flashed	P	F	NA	Fixings appropriate for bracing elements	P	F	NA	Flashings in place	P	F	NA
Clearance provided for fascia & spouting	P	F	NA	Ground clearances achieved	P	F	NA	Clearance off deck surface	P	F	NA
Flashings/wraps in place, parapets/barriers	P	F	NA	Glazing – human impact	P	F	NA	Truss/Rafter fixings	P	F	NA

PRELINE

Max moisture Content	P	F	NA	Insulation R Value	P	F	NA	Bracing connections	P	F	NA
Ventilation to rooms	P	F	NA	Top plate connection	P	F	NA	Air seals	P	F	NA
Timber treatment	P	F	NA	Ceiling batten spacing	P	F	NA	Bottom plate fixings	P	F	NA
Lintel/beam size & fixing	P	F	NA	Stud spacing	P	F	NA		P	F	NA
Plumber Name				TPR line	P	F	NA	Waste pipe size & test	P	F	NA
Soil pipe size and test	P	F	NA	Inbuilt S/W pipes tested	P	F	NA	Floor wastes	P	F	NA
Pipes fixed/supported	P	F	NA	Vents terminated	P	F	NA	Shut off valves	P	F	NA
System: AS3500, G13, Other	P	F	NA	Pressure Test	P	F	NA	Fire wraps and collars	P	F	NA

POSTLINE

Sheet bracing	<u>(P)</u>	F	NA	Wet area substrate system	<u>(P)</u>	F	NA	Sheet fixings	<u>(P)</u>	F	NA
Penetrations sleeved	<u>(P)</u>	F	NA		P	F	NA	Fire/Acoustic separation	P	F	<u>(NA)</u>

Officer Name: Craig Watson

Sign: CW

Date: 24/12/13

SCOPE OF INSPECTION SHEET

Date 16/12/13 BCA 130 319 Inspection No. 10
 Time 10-20 Documents on site YES / NO
 Owner Name Esther Paterson Project Description New
 Site Address 142 Huia St Waiuku Restricted Building Work YES / NO

☒ Building ☐ Plumbing

Circle appropriate Type & Inspection Other

Site Found Piles PreSlab Subfloor Drainage PreWrap PreClad Weathertight ☒ PreLine ☐ PostLine Block Brick Ret.Wall Final

Engineer Supervision Yes No n/a - Name

Notes Diagram (if necessary)

* Moisture NOW reads 16-19% throughout.

* Ribbin plate runs through top of wall in Hallway as per detail pg 18 OK for CSI element issue in Inpt 9.

Reviewed under supervision MBrook

OK to continue

Photo's Taken - Nos. saved / scanned? Y / N

Site instruction issued

Confirmation of person on site

Result: ☒ Pass ☐ Fail

Name LBP No.

Your next inspection will be Postline
(Guidance notes for inspection on the rear of this sheet)

Agreed, Chris Moore Sign [Signature]
(Print Name)

Officer Name Tracy Watson Sign [Signature]

Information entered into data base ☐ Initial Date 1/1/

WEATHERTIGHTNESS / PRELINE / POSTLINE

Date 16/12/13 BCA 130 779 Inspection No. 10
Time 10:20 Documents on site YES / NO
Owner Name Edith - Palmer Project Description New
Site Address 142 Huna St, Lyttelton Restricted Building Work YES / NO

All inspections are carried out with strict reference to the building consent granted.

P = Pass F = Fail NA = Non-Applicable

Inspection decisions are based on the extent of work inspected at the time of inspection.

Please refer to the related scope sheet for definition of the inspections extent.

Applies to all inspections

Sighted previous inspection notes	<u>Y</u>	N	NA	Conforms with approved drawings	<u>Y</u>	N	NA	Confirm Additional information/amended plan	Y	N	<u>NA</u>
-----------------------------------	----------	---	----	---------------------------------	----------	---	----	---	---	---	-----------

WEATHERTIGHTNESS

Cladding selection complies with BC?	P	F	NA	Roof material complies with BC?	P	F	NA	Sheets fixed to manufacturers	P	F	NA
Roof fixing complies	P	F	NA	Fixings appropriate for durability?	P	F	NA	Sheet layout	P	F	NA
Ridge/hip flashings in place	P	F	NA	Roof/wall junctions flashed	P	F	NA	Control joints where appropriate	P	F	NA
Penetrations correctly flashed	P	F	NA	Fixings appropriate for bracing elements	P	F	NA	Flashings in place	P	F	NA
Clearance provided for fascia & spouting	P	F	NA	Ground clearances achieved	P	F	NA	Clearance off deck surface	P	F	NA
Flashings/wraps in place, parapets/barriers	P	F	NA	Glazing - human impact	P	F	NA	Truss/Rafter fixings	P	F	NA

PRELINE

Max moisture Content <u>16-19</u> %	<u>P</u>	F	NA	Insulation R Value	P	F	NA	Bracing connections	<u>P</u>	F	NA
Ventilation to rooms	P	F	NA	Top plate connection	<u>P</u>	F	NA	Air seals	P	F	NA
Timber treatment	P	F	NA	Ceiling batten spacing	P	F	NA	Bottom plate fixings	P	F	NA
Lintel/beam size & fixing	P	F	NA	Stud spacing	P	F	NA		P	F	NA
Plumber Name				TPR line	P	F	NA	Waste pipe size & test	P	F	NA
Soil pipe size and test	P	F	NA	Inbuilt S/W pipes tested	P	F	NA	Floor wastes	P	F	NA
Pipes fixed/supported	P	F	NA	Vents terminated	P	F	NA	Shut off valves	P	F	NA
System: AS3500, G13, Other	P	F	NA	Pressure Test	P	F	NA	Fire wraps and collars	P	F	NA

POSTLINE

Sheet bracing	P	F	NA	Wet area substrate system	P	F	NA	Sheet fixings	P	F	NA
Penetrations sleeved	P	F	NA		P	F	NA	Fire/Acoustic separation	P	F	NA

Officer Name: Craig Watson Sign: [Signature] Date: 16/12/13

SCOPE OF INSPECTION SHEET

Date 13/12/13 BCA 130379 Inspection No. 9
Time 10:40 Documents on site YES / NO
Owner Name ESTHER + PATRICKSON Project Description new dig
Site Address 142 HIA ST Restricted Building Work YES / NO

Building Plumbing

Circle appropriate Type & Inspection

Other

Site Found Piles PreSlab Subfloor Drainage PreWrap PreClad Weathertight PreLine PostLine Block Brick Ret.Wall Final

Engineer Supervision Yes No n/a - Name

Notes Bulky weather tight -
Insulation being installed on
insulation ceiling 95%
ceiling battens timber and dark
noise.
Access to opening completed.
Bottom plate fixing completed to
internal wall.
Moisture content 12-22.7%.

Diagram (if necessary)

Photo's Taken - Nos. saved / scanned? Y / N

Site instruction issued OK to line ceiling's only.

- Insulation on moisture to walls +
insulation.

- Also Gaining - HANWAY PSI with ~~noise~~

Question top plate fixing discussed with CHRIS BULLER

Confirmation of person on site

Result:

Pass

Fail

Name

LBP No.

Buller

Your next inspection will be 14th Dec 2014
(Guidance notes for inspection on the rear of this sheet)

Agreed, Chris Moor

(Print Name)

Sign [Signature]

Officer Name Graham

Sign [Signature]

Information entered into data base ☐

Initial

Date 1/1/14

WEATHERTIGHTNESS / PRELINE / POSTLINE

Date 12/12/13 BCA 2-27 Inspection No. 9

Time 12:40 Documents on site YES / NO YES

Owner Name Mr. [unclear] Project Description new [unclear]

Site Address 152 [unclear] Restricted Building Work YES / NO YES

All inspections are carried out with strict reference to the building consent granted.

P = Pass F = Fail NA = Non-Applicable

Inspection decisions are based on the extent of work inspected at the time of inspection.

Please refer to the related scope sheet for definition of the inspections extent.

Applies to all inspections

Sighted previous inspection notes	Y	N	NA	Conforms with approved drawings	Y	N	NA	Confirm Additional information/amended plan	Y	N	NA
-----------------------------------	---	---	----	---------------------------------	---	---	----	---	---	---	----

WEATHERTIGHTNESS

Cladding selection complies with BC?	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Roof material complies with BC?	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Sheets fixed to manufacturers	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Roof fixing complies	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Fixings appropriate for durability?	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Sheet layout	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Ridge/hip flashings in place	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Roof/wall junctions flashed	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Control joints where appropriate	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Penetrations correctly flashed	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Fixings appropriate for bracing elements	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Flashings in place	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Clearance provided for fascia & spouting	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Ground clearances achieved	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Clearance off deck surface	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Flashings/wraps in place, parapets/barriers	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Glazing – human impact	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Truss/Rafter fixings	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA

PRELINE

Max moisture Content <u>17-22</u> %	<input type="radio"/> P	<input checked="" type="radio"/> F	<input type="radio"/> NA	Insulation R Value <u>3.6-2.6</u>	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Bracing connections	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Ventilation to rooms	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Top plate connection	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Air seals	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Timber treatment	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Ceiling batten spacing	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Bottom plate-fixings	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Lintel/beam size & fixing	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Stud spacing	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA		<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Plumber Name				TPR line	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Waste pipe size & test	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Soil pipe size and test	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Inbuilt S/W pipes tested	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Floor wastes	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Pipes fixed/supported	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Vents terminated	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Shut off valves	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
System: AS3500, G13, Other	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Pressure Test	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Fire wraps and collars	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA

POSTLINE

Sheet bracing	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Wet area substrate system	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Sheet fixings	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Penetrations sleeved	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA		<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Fire/Acoustic separation	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA

Officer Name: _____

Sign: _____

Date: 13, 12, 13

SCOPE OF INSPECTION SHEET

Date 11/12/13 SR or BCA 130379 Inspection No. 8

Time 9-45 Documents on site ☒ YES / NO

Owner Name Egghol - Paterson Project Description New Dwg

Site Address 142 Huia St, Waiwaka

☒ Building ☐ Plumbing

Circle appropriate Type & Inspection Other

Site Found Piles PreSlab Subfloor Drainage PreWrap ☒ PreClad Weathertight PreLine PostLine Block Brick Ret.Wall Final

Engineer Supervision Yes No n/a - Name

Notes Head Flashings Diagram (if necessary)

* All head flashings fitted as per consented drawings

*Reviewed under supervision
Rbrock*

Photo's Taken - Nos. saved / scanned? Y / N

Site instruction issued

Confirmation of person on site

Name LBP No. Result **Pass** Part pass Fail

Your next inspection will be Weather tight / Preline
(Guidance notes for inspection on the rear of this sheet)

Agreed, Chris Moore Sign [Signature]
(Print Name)

Officer Name Craig Nator Sign [Signature]

Information entered into data base ☐ Initial Date 1/1/14

PRE WRAP / PRE CLAD

Date 11/12/13 SR or BCA 130379 Inspection No. 8
 Time 9:45 Documents on site YES / NO
 Owner Name Estimote Palmer Project Description New Dwg
 Site Address 142 Hura St. Warkara

All inspections are carried out with strict reference to the building consent granted.

P = Pass F = Fail NA = Non-Applicable

Inspection decisions are based on the extent of work inspected at the time of inspection.

Please refer to the related scope sheet for definition of the inspections extent.

Applies to all inspections

Sighted previous inspection notes Y N NA Conforms with approved drawings Y N NA Confirm Additional information/amended plan Y N NA

PRE WRAP

Cladding type identified	P	F	NA	Exterior sheet bracing & angle brace fixing	P	F	NA	Bracing requirements	P	F	NA
Framing moisture meets cladding requirements%	P	F	NA	Bottom plate connections	P	F	NA	Purlin fixing	P	F	NA
Stud spacing appropriate for cladding	P	F	NA	Building wrap type	P	F	NA	Decking substrate	P	F	NA

PRE CLAD

Building wrap type	P	F	NA	Building wrap	P	F	NA	Head flashings	<u>P</u>	F	NA
Flexible sealing tape type	P	F	NA	Flexible sealing tape	P	F	NA	Sill flashings	P	F	NA
Deck membrane type	P	F	NA	Deck membrane fixed in accordance with Spec	P	F	NA	Back flashings	P	F	NA
Saddle flashings	P	F	NA	Internal/external corner flashings	P	F	NA	Jamb flashings	P	F	NA
Capillary clearances	P	F	NA	Flashing of penetrations	P	F	NA	Ground/deck cladding clearance	P	F	NA

CAVITY SYSTEM

Additional strapping to wrap	P	F	NA	Batten timber treatment	P	F	NA	Cavity closers	P	F	NA
Battens in place	P	F	NA	Battens structural fixing	P	F	NA	Cavity spacers	P	F	NA
Cavity spacers size & slope	P	F	NA	Reinforcing fixed in place (stucco)	P	F	NA	Proprietary self spacing mesh	P	F	NA
Mesh spacers (stucco)	P	F	NA	Proprietary control joints (stucco)	P	F	NA	Rigid backing type (stucco)	P	F	NA
Fixings (galvanized or stainless) (stucco)	P	F	NA	Waterproofing to slab-edge	P	F	NA		P	F	NA

Name: Craig Watson Officer Sign: CW Date: 11/12/13

SCOPE OF INSPECTION SHEET

Date 4/11/13 ~~BCA~~ 130379 Inspection No. 7
Time 10-40 Documents on site ☒ YES / NO
Owner Name Esther + Paterson Project Description Ngau Aug
Site Address 142 Huir ST

Building ☒ Plumbing

Circle appropriate Type & Inspection

Other

Site Found Piles PreSlab Subfloor Drainage PreWrap PreClad Weathertight ☒ PreLine PostLine Block Brick Ret.Wall Final

Engineer Supervision Yes No ☒ n/a - Name

Notes: MAIN FLOOR ROOM WITH HOT
WATER CYLINDER.
ROOM + 15mm Duct Sewer
PIPE + FITTINGS in for ALL FIXTURES
WIPERS + SINK.
UNDER TEST + HOUSING.
WASTE PIPES in Place

Diagram (if necessary)

Photo's Taken - Nos. saved / scanned? Y / N

Site instruction issued

Confirmation of person on site

Result:

☒ Pass

Part pass

Fail

Name

LBP No.

Plumber from
Paterson Jackson Plumbing

Your next inspection will be.....
(Guidance notes for inspection on the rear of this sheet)

Agreed,

Craig Thomson
(Print Name)

Sign

[Signature]

Officer Name

[Signature]

Sign

[Signature]

Information entered into data base ☒

Initial

Date

1/1/1

WEATHERTIGHTNESS / PRELINE / POSTLINE

Date 4/11/13 SR or BCA 1/2/13 Inspection No. 7

Time 12:40 Documents on site YES / NO

Owner Name Mr + Mrs [unclear] Project Description New Deck

Site Address 1/11/13

All inspections are carried out with strict reference to the building consent granted.

P = Pass F = Fail NA = Non-Applicable

Inspection decisions are based on the extent of work inspected at the time of inspection.

Please refer to the related scope sheet for definition of the inspections extent.

Applies to all inspections

Sighted previous inspection notes	Y	N	NA	Conforms with approved drawings	Y	N	NA	Confirm Additional information/amended plan	Y	N	NA
-----------------------------------	---	---	----	---------------------------------	---	---	----	---	---	---	----

WEATHERTIGHTNESS

Cladding selection complies with BC?	P	F	NA	Roof material complies with BC?	P	F	NA	Sheets fixed to manufacturers	P	F	NA
Roof fixing complies	P	F	NA	Fixings appropriate for durability?	P	F	NA	Sheet layout	P	F	NA
Ridge/hip flashings in place	P	F	NA	Roof/wall junctions flashed	P	F	NA	Control joints where appropriate	P	F	NA
Penetrations correctly flashed	P	F	NA	Fixings appropriate for bracing elements	P	F	NA	Flashings in place	P	F	NA
Clearance provided for fascia & spouting	P	F	NA	Ground clearances achieved	P	F	NA	Clearance off deck surface	P	F	NA
Flashings/wraps in place, parapets/barriers	P	F	NA	Glazing - human impact	P	F	NA	Truss/Rafter fixings	P	F	NA

PRELINE

Max moisture Content	P	F	NA	Insulation R Value	P	F	NA	Bracing connections	P	F	NA
Ventilation to rooms	P	F	NA	Top plate connection	P	F	NA	Air seals	P	F	NA
Timber treatment	P	F	NA	Ceiling batten spacing	P	F	NA	Bottom plate fixings	P	F	NA
Lintel/beam size & fixing	P	F	NA	Stud spacing	P	F	NA		P	F	NA
Plumber Name				TPR line	P	F	NA	Waste pipe size & test	P	F	NA
Soil pipe size and test	P	F	NA	Inbuilt S/W pipes tested	P	F	NA	Floor wastes	P	F	NA
Pipes fixed/supported	P	F	NA	Vents terminated	P	F	NA	Shut off valves	P	F	NA
System: AS3500, G13, Other	P	F	NA	Pressure Test <u>1500 hPa</u>	P	F	NA	Fire wraps and collars	P	F	NA

POSTLINE

Sheet bracing	P	F	NA	Wet area substrate system	P	F	NA	Sheet fixings	P	F	NA
Penetrations sleeved	P	F	NA		P	F	NA	Fire/Acoustic separation	P	F	NA

Officer Name: Officer Sign: [Signature] Date: 4/11/13

SCOPE OF INSPECTION SHEET

Date 25/10/13 SR or BCA 130379 Inspection No. 5
 Time 1.00 Documents on site YES / NO
 Owner Name ESTHER + PETERSON Project Description New Aug
 Site Address 142 HUIA ST.

Building Plumbing

Circle appropriate Type & Inspection

Other

Site Found Piles PreSlab Subfloor Drainage PreWrap PreClad Weathertight PreLine PostLine Block Brick Ret.Wall Final

Engineer Supervision Yes No n/a - Name

Notes Second inspection sewage
connected to septic tank.
inspection points in place

Diagram (if necessary)

Stormwater 100mm PVC to tanks
with overflow to water course
on site

Photo's Taken - Nos. saved / scanned? Y / N

Site instruction issued As Built Drawing Required

Confirmation of person on site

Result: Pass

Part pass

Fail

Name

LBP No.

Drummond 11449

Your next inspection will be Next Friday

(Guidance notes for inspection on the rear of this sheet)

Agreed, Lee Bowler

(Print Name)

Sign

Officer Name [Signature]

Sign

Information entered into data base ☐

Initial

Date 1/1/14

SITE / FOUNDATIONS / PILES / PRE SLAB / SUBFLOOR / DRAINAGE

Date: 25/10/13 SR or BCA: 25/10/13 Inspection No.: 3

Time: 1:20 Documents on site: YES / NO

Owner Name: Mr. [Signature] Project Description: New Deck

Site Address: 123 [Address]

All inspections are carried out with strict reference to the building consent granted.

P = Pass F = Fail NA = Non-Applicable

Inspection decisions are based on the extent of work inspected at the time of inspection.

Please refer to the related scope sheet for definition of the inspections extent.

SITE

Conforms with approved drawings	Y	N	NA	Checked driveway	Y	N	NA	Engineer supervision required	Y	N	NA
Scope of Resource consent granted?	Y	N	NA	Checked position off relevant boundaries and datum height	Y	N	NA		Y	N	NA
Expert Opinion (Producer statement) required	Y	N	NA	Name of Surveyor				Name of Engineer			
				Company				Company			

FOUNDATIONS

PILES

SUBFLOOR

Footing Depth	P	F	NA	Pile size	P	F	NA	Pile/Bearer/Joist Fixings	P	F	NA
Good bearing (NZS 3604)	P	F	NA	Pile layout is to plan	P	F	NA	Notching, Holes, etc	P	F	NA
Reinforcing	P	F	NA	Special piles - point load	P	F	NA	Solid Blocking	P	F	NA
Siting	P	F	NA	Timber Treatment	P	F	NA	Joists	P	F	NA
Sub-floor vents	P	F	NA	Hole depth	P	F	NA	Beams/Bearers	P	F	NA

PRE SLAB

Rebate for brick veneer	P	F	NA	Sand blinding	P	F	NA	Steel reinforcing	P	F	NA
Ground clearance	P	F	NA	Slab thickenings	P	F	NA	Bar chairs	P	F	NA
Concrete Cover	P	F	NA	Vapour barrier (DPC)	P	F	NA	DPC penetrations taped	P	F	NA
Driveway s/w control	P	F	NA	Bottom plate fixings	P	F	NA	Minimum Floor Level	P	F	NA
Secondary flow path	P	F	NA	TPR line	P	F	NA	Wastes and drains - size / fall	P	F	NA
Pipe material	P	F	NA	Plumbing layout	P	F	NA	Test - Water / Air	P	F	NA
Pipe protection	P	F	NA	Pipes supported	P	F	NA	Visual leak check	P	F	NA

DRAINAGE

Pipe diameter	<u>P</u>	F	NA	Connections/Angles	<u>P</u>	F	NA	Holding water	<u>P</u>	F	NA
Bedding material	<u>P</u>	F	NA	Branch length	<u>P</u>	F	NA	Terminal vent	P	F	NA
Gully trap(s)	<u>P</u>	F	NA	Direction/Fall	<u>P</u>	F	NA	LBP/Registration No:			

Officer Name: [Signature] Sign: [Signature] Date: 25/10/13

SCOPE OF INSPECTION SHEET

Date 25/10/13 SR or BCA 130379 Inspection No. 4 A

Time 8.45 Documents on site ☒ YES / NO

Owner Name Esther + Paterson Project Description New Dwg

Site Address 142 Hana St Nakarua

☒ Building ☐ Plumbing

Circle appropriate Type & Inspection Other

Site Found Piles PreSlab Subfloor Drainage PreWrap ☒ PreClad Weathertight PreLine PostLine Block Brick Ret.Wall Final

Engineer Supervision Yes No n/a - Name

Notes * Teckan House Wrap + Manksels

Diagram (if necessary)

flexi wrap

* Cavity battens + closures
fitted

* Studs @ 600 cts

* Head Flashings on Shallow ok

* Strand board Bracing in Garage ok

* Windows fitted, corner seals +

flexi tape. Wallz bars fitted

Rafter checked
from last insp -

Reviewed under
Supervision
NBreed

Photo's Taken - Nos. saved / scanned? Y / N

Site instruction issued

* check head flashings where iron cladding being
used at next inspection

Confirmation of person on site

Result: ☒ Pass ☐ Part pass ☐ Fail

Name Cris Moore LBP No. 105907

Your next inspection will be Head Flashings on Iron

Agreed, [Signature] Sign Cris Moore

Officer Name Ray Watson Sign [Signature]

Information entered into data base ☐ Initial Date 1/1/14

PRE WRAP / PRE CLAD

Date 25/10/13 SR or BCA 130379 Inspection No. 4A

Time 8:45 Documents on site YES/NO

Owner Name Esther & Paloma Project Description New Dwg

Site Address 142 Hana St Napier

All inspections are carried out with strict reference to the building consent granted.

P = Pass F = Fail NA = Non-Applicable

Inspection decisions are based on the extent of work inspected at the time of inspection.

Please refer to the related scope sheet for definition of the inspections extent.

Applies to all inspections

Sighted previous inspection notes	<u>Y</u>	N	NA	Conforms with approved drawings	<u>Y</u>	N	NA	Confirm Additional information/amended plan	Y	N	<u>NA</u>
-----------------------------------	----------	---	----	---------------------------------	----------	---	----	---	---	---	-----------

PRE WRAP

Cladding type identified	P	F	NA	Exterior sheet bracing & angle brace fixing	P	F	NA	Bracing requirements	P	F	NA
Framing moisture meets cladding requirements%	P	F	NA	Bottom plate connections	P	F	NA	Purlin fixing	P	F	NA
Stud spacing appropriate for cladding	P	F	NA	Building wrap type	P	F	NA	Decking substrate	P	F	NA

PRE CLAD

Building wrap type <u>Tecklon</u>	P	F	NA	Building wrap	<u>P</u>	F	NA	Head flashings	<u>P</u>	F	NA
Flexible sealing tape type <u>Marble</u>	P	F	NA	Flexible sealing tape	<u>P</u>	F	NA	Sill flashings	<u>P</u>	F	NA
Deck membrane type	P	F	NA	Deck membrane fixed in accordance with Spec	P	F	<u>NA</u>	Back flashings	P	F	<u>NA</u>
Saddle flashings	P	F	<u>NA</u>	Internal/external corner flashings	<u>P</u>	F	NA	Jamb flashings	<u>P</u>	F	NA
Capillary clearances	P	F	<u>NA</u>	Flashing of penetrations	<u>P</u>	F	NA	Ground/deck cladding clearance	<u>P</u>	F	NA

CAVITY SYSTEM

Additional strapping to wrap	P	F	<u>NA</u>	Batten timber treatment	<u>P</u>	F	NA	Cavity closers	<u>P</u>	F	NA
Battens in place	<u>P</u>	F	NA	Battens structural fixing	<u>P</u>	F	NA	Cavity spacers	<u>P</u>	F	NA
Cavity spacers size & slope	<u>P</u>	F	NA	Reinforcing fixed in place (stucco)	P	F	NA	Proprietary self spacing mesh	P	F	<u>NA</u>
Mesh spacers (stucco)	P	F	<u>NA</u>	Proprietary control joints (stucco)	P	F	NA	Rigid backing type (stucco)	P	F	NA
Fixings (galvanized or stainless) (stucco)	P	F	NA	Waterproofing to slab-edge	P	F	NA		P	F	NA

Name: Craig Watson Officer Sign: CW Date: 25/10/13

SCOPE OF INSPECTION SHEET

Date 23/10/13 SR or BCA 130379 Inspection No. 4
 Time 1:30 Documents on site YES / NO
 Owner Name ESTHER + PETERSON Project Description New Dig
 Site Address 142 Huia St

Building Plumbing

Circle appropriate Type & Inspection

Other

Site Found Piles PreSlab Subfloor Drainage PreWrap PreClad Weathertight PreLine PostLine Block Brick Ret.Wall Final

Engineer Supervision Yes No (n/a) - Name

Notes 100mm PVC waste + Sptic Pipe
in place connects to the drain
Good for
inspection points in place
Guys test in place
Barrel in place
Terminal vent in BUT not yet
completed

Diagram (if necessary)

Photo's Taken - Nos. saved / scanned? Y / N

Site instruction issued As Built Drawing Required

Need 2nd inspection on stormwater
+ Sptic tank connection

Confirmation of person on site

Result: Pass

Part pass

Fail

Name

LBP No.

Christine

11499

Your next inspection will be Second Drainage inspection
 (Guidance notes for inspection on the rear of this sheet)

Agreed Joe Brunton
 (Print Name)

Sign

Officer Name Christine

Sign

Information entered into data base ☐

Initial

Date

1/1/14

SITE / FOUNDATIONS / PILES / PRE SLAB / SUBFLOOR / DRAINAGE

Date SR or BCA Inspection No.

Time Documents on site YES / NO

Owner Name Project Description

Site Address

All inspections are carried out with strict reference to the building consent granted.

P = Pass F = Fail NA = Non-Applicable

Inspection decisions are based on the extent of work inspected at the time of inspection.

Please refer to the related scope sheet for definition of the inspections extent.

SITE

Conforms with approved drawings	Y	N	NA	Checked driveway	Y	N	NA	Engineer supervision required	Y	N	NA
Scope of Resource consent granted?	Y	N	NA	Checked position off relevant boundaries and datum height	Y	N	NA		Y	N	NA
Expert Opinion (Producer statement) required	Y	N	NA	Name of Surveyor				Name of Engineer			
				Company				Company			

FOUNDATIONS

PILES

SUBFLOOR

Footing Depth	P	F	NA	Pile size	P	F	NA	Pile/Bearer/Joist Fixings	P	F	NA
Good bearing (NZS 3604)	P	F	NA	Pile layout is to plan	P	F	NA	Notching, Holes, etc	P	F	NA
Reinforcing	P	F	NA	Special piles - point load	P	F	NA	Solid Blocking	P	F	NA
Siting	P	F	NA	Timber Treatment	P	F	NA	Joists	P	F	NA
Sub-floor vents	P	F	NA	Hole depth	P	F	NA	Beams/Bearers	P	F	NA

PRE SLAB

Rebate for brick veneer	P	F	NA	Sand blinding	P	F	NA	Steel reinforcing	P	F	NA
Ground clearance	P	F	NA	Slab thickenings	P	F	NA	Bar chairs	P	F	NA
Concrete Cover	P	F	NA	Vapour barrier (DPC)	P	F	NA	DPC penetrations taped	P	F	NA
Driveway s/w control	P	F	NA	Bottom plate fixings	P	F	NA	Minimum Floor Level	P	F	NA
Secondary flow path	P	F	NA	TPR line	P	F	NA	Wastes and drains - size / fall	P	F	NA
Pipe material	P	F	NA	Plumbing layout	P	F	NA	Test - Water / Air	P	F	NA
Pipe protection	P	F	NA	Pipes supported	P	F	NA	Visual leak check	P	F	NA

DRAINAGE

Pipe diameter	P	F	NA	Connections/Angles	P	F	NA	Holding water	P	F	NA
Bedding material	P	F	NA	Branch length	P	F	NA	Terminal vent	P	F	NA
Gully trap(s)	P	F	NA	Direction/Fall	P	F	NA	LBP/Registration No:			

Officer Name: Sign: Date: 23/10/13

SCOPE OF INSPECTION SHEET

Date 14-10-2013 SR or BCA 130379 Inspection No. 3
 Time Documents on site YES / NO
 Owner Name David Reid Homes Project Description New dwg
 Site Address 142 Huia St

Building Plumbing

Circle appropriate Type & Inspection

Other

Site Found Piles PreSlab Subfloor Drainage PreWrap PreClad Weathertight PreLine PostLine Block Brick Ret.Wall Final

Engineer Supervision Yes No n/a - Name

Notes: * seen note from engineer re: last inspection (made on as site plans). LBP list supplied

Diagram (if necessary)

* bracing external checked
* purvis roof straps checked
* lintel straps, stud to top plate, bottom plate connections all checked
* H3.2 bottom plates LVL rafters, remaining H1.2 timber, 540

Photo's Taken - Nos. saved / scanned? Y / N

Site instruction issued

Rafters
* 3 roof areas to be checked as marked on as built plan
* revised site plan sign by owners

Confirmation of person on site

Name

LBP No.

Result: Pass

Part pass

Fail

Your next inspection will be
 (Guidance notes for inspection on the rear of this sheet)

Agreed, Chris Moore

(Print Name)

Sign

Officer Name

Sign

Information entered into data base ☐

Initial

Date 1/1/1

PRE WRAP / PRE CLAD

Date 14-10-2013 SR or BCA 130379 Inspection No. 3

Time Documents on site YES / NO

Owner Name David Reid Homes Project Description New dwg

Site Address 142 Hura St

All inspections are carried out with strict reference to the building consent granted.

P = Pass F = Fail NA = Non-Applicable

Inspection decisions are based on the extent of work inspected at the time of inspection.

Please refer to the related scope sheet for definition of the inspections extent.

Applies to all inspections

Sighted previous inspection notes	<input checked="" type="radio"/> Y	<input type="radio"/> N	<input type="radio"/> NA	Conforms with approved drawings	<input checked="" type="radio"/> Y	<input type="radio"/> N	<input type="radio"/> NA	Confirm Additional information/amended plan	<input type="radio"/> Y	<input checked="" type="radio"/> N	<input type="radio"/> NA
-----------------------------------	------------------------------------	-------------------------	--------------------------	---------------------------------	------------------------------------	-------------------------	--------------------------	---	-------------------------	------------------------------------	--------------------------

PRE WRAP

Cladding type identified	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Exterior sheet bracing & angle brace fixing	<input type="radio"/> P	<input type="radio"/> F	<input checked="" type="radio"/> NA	Bracing requirements	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Framing moisture meets cladding requirements%	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Bottom plate connections	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Purlin fixing	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Stud spacing appropriate for cladding	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Building wrap type	<input checked="" type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Decking substrate	<input type="radio"/> P	<input type="radio"/> F	<input checked="" type="radio"/> NA

PRE CLAD

Building wrap type				Building wrap	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Head flashings	<input type="radio"/> P	<input type="radio"/> F	<input checked="" type="radio"/> NA
Flexible sealing tape type				Flexible sealing tape	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Sill flashings	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Deck membrane type				Deck membrane fixed in accordance with Spec	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Back flashings	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Saddle flashings	<input type="radio"/> P	<input type="radio"/> F	<input checked="" type="radio"/> NA	Internal/external corner flashings	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Jamb flashings	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Capillary clearances	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Flashing of penetrations	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Ground/deck cladding clearance	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA

CAVITY SYSTEM

Additional strapping to wrap	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Batten timber treatment	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Cavity closers	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Battens in place	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Battens structural fixing	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Cavity spacers	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Cavity spacers size & slope	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Reinforcing fixed in place (stucco)	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Proprietary self spacing mesh	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Mesh spacers (stucco)	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Proprietary control joints (stucco)	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Rigid backing type (stucco)	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA
Fixings (galvanized or stainless) (stucco)	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA	Waterproofing to slab-edge	<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA		<input type="radio"/> P	<input type="radio"/> F	<input type="radio"/> NA

Name: Andrew Officer Sign: [Signature] Date: 14/10/2013

SCOPE OF INSPECTION SHEET

Date 9-9-2013 SR or BCA 130379 Inspection No. 2
 Time 12:00 Documents on site YES / NO
 Owner Name David Reid Homes Project Description New dwg
 Site Address 142 Hura St

Building Plumbing

Circle appropriate Type & Inspection Other

Site Found Piles PreSlab Subfloor Drainage PreWrap PreClad Weathertight PreLine PostLine Block Brick Ret.Wall Final

Engineer Supervision Yes No n/a - Name ISP

Notes Diagram (if necessary)

- * Site has changed, dwg has moved 2 meters towards the sea, sited off cutline plan and pegs.
- * pods placed
- * ground beams placed
- * 100 mm slab, no underfloor heating.
- * 500 E mesh
- * internal bars placed
- * all steel placed as consent.
- * pipes are protected
- * anchor piles have already been inspected by engineer and passed.
- * LBP not on site.

Photo's Taken - Nos. saved / scanned? Y / N

Site instruction issued

- * engineer to inspect and provide evidence of inspection.
- * LBP list required for next inspection.
- * revised site plan

Confirmation of person on site

Result: **Pass**

Part pass

Fail

Name LBP No.

Your next inspection will be
(Guidance notes for inspection on the rear of this sheet)

Agreed Chris Fowler Sign Rebeck

Officer Name Andrew Sign Chris

Information entered into data base ☐ Initial Date 1/1/13

SITE / FOUNDATIONS / PILES / PRE SLAB / SUBFLOOR / DRAINAGE

Date 9.9.2013 SR or BCA 130379 Inspection No. 2

Time 12:00 Documents on site YES / NO

Owner Name David Reid Homes Project Description New Dwg

Site Address 142 Horia St

All inspections are carried out with strict reference to the building consent granted.

P = Pass F = Fail NA = Non-Applicable

Inspection decisions are based on the extent of work inspected at the time of inspection.

Please refer to the related scope sheet for definition of the inspections extent.

SITE

Conforms with approved drawings	Y	<u>N</u>	NA	Checked driveway	Y	N	<u>NA</u>	Engineer supervision required	<u>Y</u>	N	NA
Scope of Resource consent granted?	Y	<u>N</u>	NA	Checked position off relevant boundaries and datum height	<u>Y</u>	N	NA		Y	N	NA
Expert Opinion (Producer statement) required	<u>N</u>	N	NA	Name of Surveyor				Name of Engineer			
				Company				Company	<u>isp</u>		

FOUNDATIONS

PILES

SUBFLOOR

Footing Depth	P	F	NA	Pile size	P	F	NA	Pile/Bearer/Joist Fixings	P	F	NA
Good bearing (NZS 3604)	P	F	NA	Pile layout is to plan	P	F	NA	Notching, Holes, etc	P	F	NA
Reinforcing	P	F	NA	Special piles - point load	P	F	NA	Solid Blocking	P	F	NA
Siting	P	F	NA	Timber Treatment	P	F	NA	Joists	P	F	NA
Sub-floor vents	P	F	NA	Hole depth	P	F	NA	Beams/Bearers	P	F	NA

PRE SLAB

Rebate for brick veneer	P	F	<u>NA</u>	Sand blinding	<u>P</u>	F	NA	Steel reinforcing	<u>P</u>	F	NA
Ground clearance	<u>P</u>	F	NA	Slab thickenings	<u>P</u>	F	NA	Bar chairs	<u>P</u>	F	NA
Concrete Cover	<u>P</u>	F	NA	Vapour barrier (DPC)	<u>P</u>	F	NA	DPC penetrations taped	<u>P</u>	F	NA
Driveway s/w control	P	F	<u>NA</u>	Bottom plate fixings	P	F	<u>NA</u>	Minimum Floor Level	<u>P</u>	F	NA
Secondary flow path	P	F	NA	TPR line	P	F	NA	Wastes and drains - size / fall	P	F	NA
Pipe material	P	F	NA	Plumbing layout	P	F	NA	Test - Water / Air	P	F	NA
Pipe protection	P	F	NA	Pipes supported	P	F	NA	Visual leak check	P	F	NA

DRAINAGE

Pipe diameter	P	F	NA	Connections/Angles	P	F	NA	Holding water	P	F	NA
Bedding material	P	F	NA	Branch length	P	F	NA	Terminal vent	P	F	NA
Gully trap(s)	P	F	NA	Direction/Fall	P	F	NA	LBP/Registration No:			

Officer Name: Andrew Sign: [Signature] Date: 9.9.2013

SCOPE OF INSPECTION SHEET

Date 3-9-03 SR or BCA 130314 Inspection No. 1
 Time 1:30 Documents on site YES / NO
 Owner Name Dawn, Rob & Homer Project Description NEW DWG
 Site Address 142 HUIA ST

Building Plumbing Circle appropriate Type & Inspection Other
 Site Found Piles PreSlab Subfloor Drainage PreWrap PreClad Weathertight PreLine PostLine Block Brick Ret.Wall Final

Engineer Supervision Yes No n/a - Name

Notes Diagram (if necessary)

100m RC SLEWEE - 65m WASTES
WATER TREATMENT OK
20mm TPR

Photo's Taken - Nos. saved / scanned? Y / N

~~Site instruction issued~~
NO PLUMBING ON SITE

Confirmation of person on site

Name LBP No. Result: Pass Part pass Fail

Your next inspection will be
 (Guidance notes for inspection on the rear of this sheet)

Agreed, Sign RA
 (Print Name)

Officer Name Alan Sign

Information entered into data base ☐ Initial Date 1/1/03

SCOPE OF INSPECTION SHEET

Date 3-9-103 SR or BCA 130314 Inspection No. 1
 Time 1:30 Documents on site YES / NO
 Owner Name David Reid Home Project Description New DWG
 Site Address 142 Huia St

Building Plumbing

Circle appropriate Type & Inspection Other

Site Found Piles PreSlab Subfloor Drainage PreWrap PreClad Weathertight PreLine PostLine Block Brick Ret.Wall Final

Engineer Supervision Yes No n/a - Name

Notes..... Diagram (if necessary)

100m RC Sewer - 65km WASTES
WATER TREATED O.K.
20mm TPR

Photo's Taken - Nos. saved / scanned? Y / N

Site instruction issued

No RUBBISH ON SITE

Confirmation of person on site

Name LBP No. Result: Pass Part pass Fail

Your next inspection will be.....
 (Guidance notes for inspection on the rear of this sheet)

Agreed,..... Sign Alan
 (Print Name)
 Officer Name Alan Sign Alan

Information entered into data base ☐ Initial Date/...../.....

SITE / FOUNDATIONS / PILES / PRE SLAB / SUBFLOOR / DRAINAGE

Date 3-9-13 SR or BCA 130-34 Inspection No. 130-34

Time 1:30 Documents on site YES / NO

Owner Name Thompson, K. D. & J. P. Project Description New Shed

Site Address 127 Hupa St

All inspections are carried out with strict reference to the building consent granted.

P = Pass F = Fail NA = Non-Applicable

Inspection decisions are based on the extent of work inspected at the time of inspection.

Please refer to the related scope sheet for definition of the inspections extent.

SITE

Conforms with approved drawings	<u>Y</u>	N	NA	Checked driveway	Y	N	NA	Engineer supervision required	Y	N	NA
Scope of Resource consent granted?	Y	N	NA	Checked position off relevant boundaries and datum height	Y	N	NA		Y	N	NA
Expert Opinion (Producer statement) required	Y	N	NA	Name of Surveyor Company	Name of Engineer Company						

FOUNDATIONS

PILES

SUBFLOOR

Footing Depth	P	F	NA	Pile size	P	F	NA	Pile/Bearer/Joist Fixings	P	F	NA
Good bearing (NZS 3604)	P	F	NA	Pile layout is to plan	P	F	NA	Notching, Holes, etc	P	F	NA
Reinforcing	P	F	NA	Special piles - point load	P	F	NA	Solid Blocking	P	F	NA
Siting	P	F	NA	Timber Treatment	P	F	NA	Joists	P	F	NA
Sub-floor vents	P	F	NA	Hole depth	P	F	NA	Beams/Bearers	P	F	NA

PRE SLAB

Rebate for brick veneer	P	F	NA	Sand blinding	P	F	NA	Steel reinforcing	P	F	NA
Ground clearance	P	F	NA	Slab thickenings	P	F	NA	Bar chairs	P	F	NA
Concrete Cover	P	F	NA	Vapour barrier (DPC)	P	F	NA	DPC penetrations taped	P	F	NA
Driveway s/w control	P	F	NA	Bottom plate fixings	P	F	NA	Minimum Floor Level	P	F	NA
Secondary flow path	P	F	NA	TPR line	P	F	NA	Wastes and drains - size / fall	P	F	NA
Pipe material	P	F	NA	Plumbing layout	P	F	NA	Test - Water / Air	P	F	NA
Pipe protection	P	F	NA	Pipes supported	P	F	NA	Visual leak check	P	F	NA

DRAINAGE

Pipe diameter	<u>P</u>	F	NA	Connections/Angles	<u>P</u>	F	NA	Holding water	<u>P</u>	F	NA
Bedding material	<u>P</u>	F	NA	Branch length	<u>P</u>	F	NA	Terminal vent	<u>P</u>	<u>F</u>	NA
Gully trap(s)	P	F	<u>NA</u>	Direction/Fall	<u>P</u>	F	NA	LBP/Registration No:			

Officer Name: Alan Sign: [Signature] Date: 3-9-13

SITE INSPECTION REPORT



**ISP CONSULTING
ENGINEERS LTD**

Civil & Structural
Seismic Risk Analysis
Building Compliance

Lower Hutt Office
Tel: 04 566 8004
Fax: 04 566 8037
Level 1, 14 Laings Road
Hutt City Dental Centre
P.O. Box 30 535
Lower Hutt 5040

Paraparaumu Office
Tel: 04 902 5750
L1, Kayel Building
Margaret Road
Raumati Beach
Paraparaumu 5254

Email: email@isp.co.nz
Web: www.isp.co.nz

Date: 9 September 2013	Report No: 01	Job No: 25056
Inspected By: Geert van de Vorstenbosch		
Contractors Representative: Chris – David Reid Homes	Area Inspected: Slab prepour	
Project: 142 Hula St, Waikanae	BC Number:	

Time: 1.45pm

Weather: Beautiful

Observations:

1. All reinforcement and mesh is in place. A few pile reinforcing bars yet to be bent and tied into the footings. A small portion of the mesh yet to be chaired.
2. All ribs, slab edges and thickenings are correct dimensions.

Discussions/Instructions:

1. Complete item 1 above.

Approved to pour once the above has been carried out and provided the BCA have carried out any inspection they require.

Next Inspection:

Send to: Chris Moore (chrism@davidreidhomes.co.nz)



ISO 9001



Site Inspection Report - New BC Applications

BC Application number: 130.379..... Lot 10 DP 22652Site Address: 142 HUIA ST WAIKANA E.....Building Project: NEW DWELLING.....

Check NCS status is currently "To Site Inspection" *

Item to be checked	Decision	Record any relevant information	Action required
Contours match application?	<input checked="" type="radio"/> Yes / No	<u>Sloping Land.</u>	
Datum point identified?	Yes / <input checked="" type="radio"/> No		
Boundaries identified?	<input checked="" type="radio"/> Yes / No	<u>1 peg + fence line</u>	
Check ground conditions?	<input checked="" type="radio"/> Yes / No	<u>Rock</u>	
Check f/path, kerb & channel, grass berm, note existence/damage.	<input checked="" type="radio"/> Yes / No	<u>Shingle form Entrance</u>	
Vehicle entrance crossing installed (describe condition)	<input checked="" type="radio"/> Yes / No	<u>No concrete Entrance</u>	
Photos taken? (Save & link to NCS)	Yes / <input checked="" type="radio"/> No		
Dogs or other hazards on property?	Yes / <input checked="" type="radio"/> No		
Is there a requirement for further foundation investigation e.g Engineers design	Yes / <input checked="" type="radio"/> No		Referred to Approvals T/L Yes <input checked="" type="radio"/> No
Record all decisions in accordance with KCDC Policy 007. Circle Yes or No in each case.			

Note: if there is a requirement for further information or some areas which do not appear to comply refer file to Team Leader Consent Approvals for action.

Inspecting Officer:

Name: CRAIG WATSON..... Signature: [Signature]..... Date: 18/6/13.....

Unless further foundation information required, change NCS status to "To Plumbing & Drainage" and place file in P&D shelf area for Approvals. If further information is required, then Status change to "To Senior Building Inspector" and hand to Team Leader Consent Approvals for action.

FOR COUNCIL USE:

DEPARTMENT	TICK FOR REFERRAL	COMMENTS	APPROVING OFFICER/ DATE
Site Inspection	✓	Refer to Form 241 for completion of site inspection & sign off this form when completed.	Craig W 18/6/13
Resource Consents (refer PIM Sheet)	✓		
Plumbing and Drainage	✓	Letter sent	9/7/2013
Building	✓		3/7/13
Fire Design			
Compliance Schedule			
Environmental Health			
Other.....			
NOTES:			



RBW

Building Consent No.	BC 130379
Building Project	New Dwelling
Location (Site Address)	142 Huia St, Waikanae
Building Category	Circle appropriate category 0 1 (2) 3

Application workflow checklist

RECEIVED 17 JUN 2013 BY:	Name & Signature Note # A signature confirms that the application contains sufficient information to enable compliance with the building code to be assessed	Date
# Note: Checked, date stamped and initialled by TO/BCO. Select and circle appropriate category above & identify allocation to appropriate technical groups and if required to go to "site inspection" AP-WI-001	Palmer	17/6/13
Payment taken and receipted (details entered inside this cover sheet) by CSO CS-WI-008		
Data entered and invoiced by CSO CS-WI-008	Jo Croft	17/6/13
Pages numbered by CSO CS-WI-008	Palmer	17/6/13
BC Application and documentation scanned, checked & status update by CSO CS-WI-009	Jo Croft	17/6/13
BC Application signed over to BC CS-WI-009	Jo Croft	17/6/13
Application reviewed by Technical Officers who sign off at back of this form AP-WI-026 & AP-WI-009	Simon Copp	27/6/2013
Once Technical review complete, passed to CS for Plan Production and Invoicing AP-WI-009	Chanel Stuloch	25/7/13
CSO checks data entry input, including required inspections CS-WI-012	Chanel Stuloch	30/7/13
BC, plans and other appropriate paperwork produced by CSO CS-WI-012		
BC, Approved plans and appropriate paperwork sent to applicant or agent with receipt by CSO CS-WI-012	Barbara	2/8/13
Inspection envelope prepared by CSO with endorsed plans and other appropriate paperwork and filed to cabinet. CS-WI-012		

CONSENT DATA INPUT REQUIREMENTS

REQUIRED INSPECTIONS	32		Lapse and cancellation after 12mths of consent	23		Installation of solid fuel appliance (wood burner) comply and secured
✓ Foundation/Piles		✓			✓	
Block	2		Engineer design specific components	23A		Second hand wood burner certified
✓ Pre-Slab (Plumbing)	3		Foundations to solid bearing of 200mm	25	✓	Contractor to leave site clean and clear
✓ Pre-Slab (Building)	4		NZS3604 as acceptable solution in terms of NZ Building Code	30		To comply with Food Hygiene Regulations 1974
Sub-Floor						
✓ Drainage	6		Not approved as Habitable Room	31		As in CCZ, all fixings need to be stainless steel
✓ Pre-Wrap	9		Note and comply with all endorsements on approved plans	33		Approval only given for relocation purposes
✓ Pre-Clad	10		Names and Registration of plumber and drain-layer required	34		If cladding to have pre-finished colour coating, to be appropriate for coastal conditions
✓ Weathertightness						
✓ Pre-lining (Building)	11	✓	Concealed soil and TV pipes and gas flues only allowed in ducts or minimum framed	38		Window sashes on upper levels less than 760mm above floor to have stays fixed
✓ Pre-lining (Plumbing)						
Wet areas - membrane	12		Hot & Cold water pipes tested to 1500kPa	39		Construction of playground to comply with NZS5828
✓ Post Lining						
Brick Veneer	13		Roof stormwater to be connected to existing	40		Fencing, gates, doors directly leading to swimming pool to comply with Pool Act 1987
Retaining Wall						
✓ Final (Dwelling)	14		Copper water pipes not permitted	43		Textured systems should be applied by licensed, trained applicators – supply warranty
Final (Commercial & Multi-resd)						
	15		Owner/builder to ensure prop foundation height will allow satisfactory connection	44	✓	Exterior cladding system to be completed and inspected prior to internal lining
	21	✓	Minimum FFL to comply with NZS3604			

STANDARD CONSENT CONDITIONS		
✓	37	
	72	
	80	

NON-STANDARD ADDENDA

FOR OFFICE USE ONLY

FEES		APPLICATION FEE
Building Fee	\$3079 —	\$4982-50
Sewer Connection	\$.....	RECEIPT NO
Water Connection	\$.....	DATE.....
Vehicle Crossing	\$.....	INVOICE NO
Damage Deposit	\$508 —	DATE 17/6/13
Code Compliance Administration	\$.....	57407
Building Research Levy	\$450 —	RECEIPT NO
Development Levy	\$.....	DATE.....
DBH Levy	\$904-50	FEES PAID BY:
Compliance Schedule	\$.....	
Digital Storage Fee	\$41 —	BUILDING CONSENT NUMBER
Certificate of Title Charge	\$.....	DATE ISSUED
Photocopying	\$.....	BC 130379 17/6/13
SUBTOTAL	\$.....	AUTHORISATION FOR REFUND OF DEPOSIT
Less Fee Paid	\$.....	Deposit held = \$.....
TOTAL	\$.....	Cost to Repair Damage Caused During Construction = \$.....
GST INCLUDED	\$.....	Total Balance to be Refunded
	\$4982-50	Authority Number:
		Authorised: DATE:

Building consent 130379

Section 51, Building Act 2004

The building

Street address of building: 142 Huia Street, Waikanae

Legal description of land where building is located: LOT 10 DP 22652 BLK VI KAITAWA SD

Valuation number: 1490010400

Building name:

Location of building within site/block number: Access from Huia Street

Level/unit number:

The owner

Name of owner: Jules Esther & Dana Rachelle Peterson

Contact person:

Mailing address: C/- David Reid Homes, PO Box 148, Paraparaumu

Street address/registered office:

Phone number: Landline:

Mobile:

Daytime:

After hours:

Facsimile number:

Email address:

Website:

First point of contact for communications with the council/building consent authority:

Full Name: David Reid Homes

Mailing Address: David Reid Homes, PO Box 148, Paraparaumu 5254

Phones:: 021 880033: 04 9045959

Email: timothy@davidreidhomes.co.nz

Building work

The following building work is authorised by this building consent:

New single-level building.

Dwelling

This building consent is issued under section 51 of the Building Act 2004. This building consent does not relieve the owner of the building (or proposed building) of any duty or responsibility under any other Act relating to or affecting the building (or proposed building).

This building consent also does not permit the construction, alteration, demolition, or removal of the building (or proposed building) if that construction, alteration, demolition, or removal would be in breach of any other Act.

This building consent is issued subject to the following conditions:


1. Approval of this building consent is subject to compliance with a certificate issued pursuant to Section 37 of the Building Act 2004.

Compliance schedule

A compliance schedule is not required for the building.

Attachments

Copies of the following documents are attached to this building consent:



Signature



Position

On behalf of: KAPITI COAST DISTRICT COUNCIL

Date: 30/07/13

2 August 2013

Jules Esther & Dana Rachelle Peterson
C/- David Reid Homes
PO Box 148
Paraparaumu

Dear Sir/Madam

Approval of Building Consent: 130379

Description: New single-level building.
Location: 142 Huia Street, Waikanae
Legal Description: LOT 10 DP 22652 BLK VI KAITAWA SD

I am pleased to inform you that the above building consent application has been approved. The building consent documents have been issued and are enclosed.

Before starting any work please read ALL the building consent documents carefully and in full so that you as the owner understand the conditions under which the consent has been issued.

As the owner you are also responsible for the following:

- ensuring that building work starts within 12 months of the approval of the building consent and that work progresses at a reasonable pace.
- ensuring that all required inspections are completed and that a Code Compliance Certificate is obtained once the work has been completed – please be aware that before a Code Compliance Certificate is issued, the building work must comply with the Building Act 2004 and the Building Code as at the date of this consent.
- that no work with noisy equipment is to be carried out before 7.30 a.m. or after 6 p.m. Monday to Saturday. During the week there may be workers on site from 6.30 a.m. quietly preparing for work. Work with noisy equipment is not permitted on Sundays and public holidays.
- ensuring that no damage occurs to public property, for example footpaths or retaining structures. Should damage occur you will be required to pay for any repairs.
- ensuring that if you wish to make any changes to the approved building consent, then an amendment to the building consent will need to be lodged with us.

If you have any questions regarding your building consent or your responsibilities, please contact Kapiti Coast District Council on (04) 2964 700.

Addenda to Application

Application

David Reid Homes
David Reid Homes
PO Box 148
Paraparaumu 5254

No.

130379

Project

Description	New (& prebuilt) House, Unit, Bach, Crib, Town House etc. Being Stage 1 of an intended 1 Stages New single-level building.
Intended Life	Indefinite, but not less than 50 years
Intended Use	Dwelling
Estimated Value	\$450,000
Location	142 Huia Street, Waikanae
Legal Description	LOT 10 DP 22652 BLK VI KAITAWA SD
Valuation No.	1490010400

Builder:
Paraparaumu : 0272206312

David reid Homes - Chris Moore 111 Rimu Road,

Designer:
: 021 328471 / 04 2985662

AD Architecture Ltd - Peter Davis PO Box 1585, Paraparaumu

Drainlayer:
9046429

Peter Jackson Plumbing PO Box 542, Paraparaumu : 04

Plumber:
9046429

Peter Jackson Plumbing PO Box 542, Paraparaumu : 04

Contractor:
Hutt

ISP Consulting Engineers Hutt Dental Centre, 14 Laings Rd,Lr

General Requirements

a) The Building Inspector is to be given 24 hours' notice before carrying out the following inspections:

1. Foundations
2. Pre-slab
3. Pre-slab
4. Drainage
5. Pre Wrap
6. Pre Clad
7. Weathertightness
8. Preline
9. Preline
10. Postline
11. Final Inspection

b) To arrange for any of the above required inspections by Building Control Team, please contact the Call Centre on (04) 296 4700 between the hours of 8am and 5pm.

1. LAPSE AND CANCELLATION OF BUILDING CONSENT. A building consent shall lapse and be of no effect if the building work concerned has not been commenced within 12 calendar months after the date of issue. Or within such further period as the territorial authority allows.
2. The inspection of all specific design components of the building is the responsibility of the Design Engineer who is also required to supply a written report to Council.
3. Note and comply with endorsements on approved plans.
4. Concealed soil and TV pipes and gas flues are only permitted built into ducts or minimum 150mm framed walls or with the Phillips top plate connecting bracket.
5. Minimum heights of finished concrete slab-on-ground floors above adjoining finished ground level to comply with the current NZS3604.
6. Seismic restraint to be provided to appliance and flue as per the manufacturer's recommendations, NZBC, C.1 and Acceptable Solutions 9.1.2 and 9.2.2
7. Contractor to leave site clear of all demolition materials and in a tidy state.
8. Exterior cladding system to be previously completed and inspected by Council's Inspector prior to any subsequent prelining inspection/approval being granted for the fixing of internal linings.
9. All work to be in accordance with Resource Consent for earthworks.

I have read the foregoing addenda to application, and the Owner/Builder/Authorised Person hereby agrees to comply with them.

**OWNER/BUILDER/
AUTHORISED PERSON**

Date:

APPROVED BY
BUILDING
james
OFFICER
7/05/2014

BC 130379 A Ammended

BC 130379

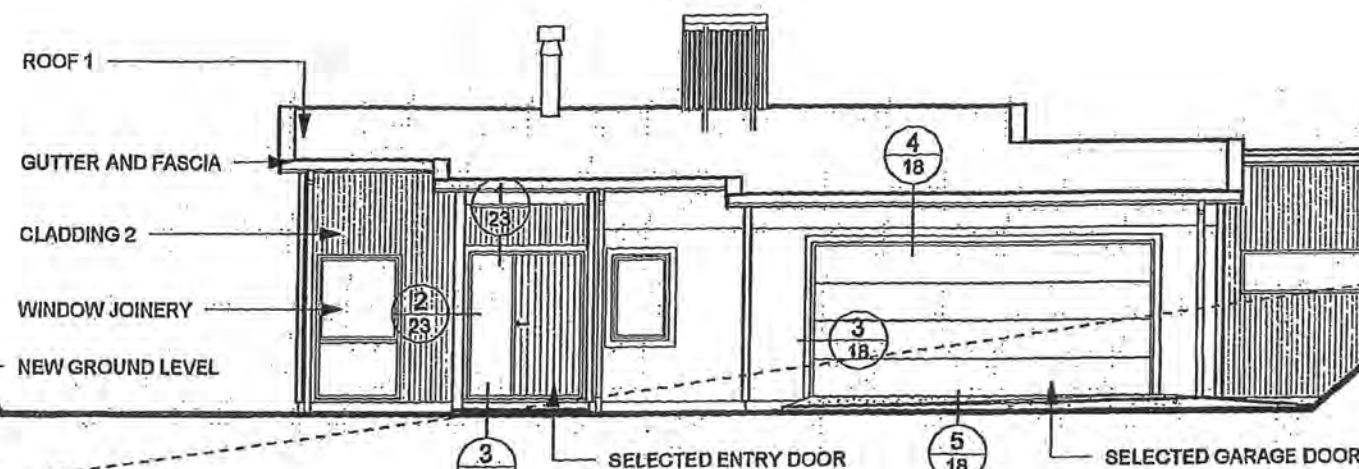
ORIGINAL BC-APPROVED

00001

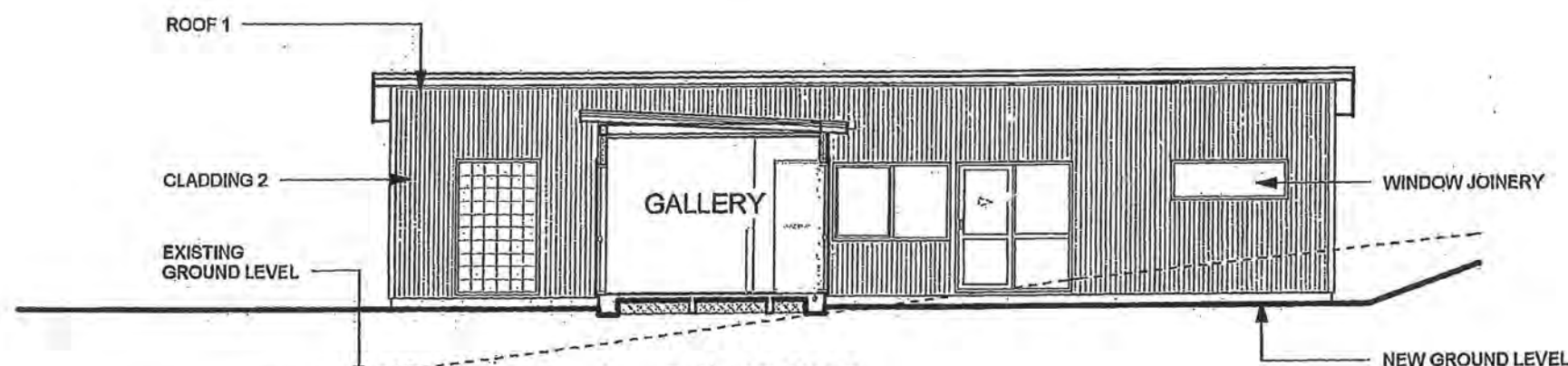
SELECTED PRODUCTS

- THIS PAGE IS TO BE READ IN CONJUNCTION WITH SHEET 02 - CONSTRUCTION NOTES FOR ADDITIONAL INFORMATION
- CLADDING 1 - 12mm SHADOWCLAD PLY SHEET CLADDING ON 50x25 H3.1 TIMBER CAVITY BATTENS ON TEKTON WALL UNDERLAY AS PART OF THE TEKTON WEATHERIZATION SYSTEM ON FRAMING
- CLADDING 2 - 0.4 GAUGE TRAPEZOIDAL PROFILED METAL CLADDING ON THERMAKRAFT 215 WALL UNDERLAY ON FRAMING
- ROOF 1 - 0.4 GAUGE LONGRUN COLORSTEEL ENDURA TRAPEZOIDAL PROFILED METAL ROOFING ON THERMAKRAFT 215 UNDERLAY ON WIRE MESH ON PURLINS ON FRAMING
- SOFFITS - 4.5mm HARDIFLEX
- FASCIA - TIMBER
- GUTTERS - COLORSTEEL BOX GUTTER 125
- DOWNPIPES - MARLEY 80Ø ROUND
- WINDOW JOINERY - POWDERCOAT ALUMINIUM RESIDENTIAL DOUBLE GLAZED WINDOWS
- WINDOW FLASHING TAPE - PROTECTO WRAP ONE PIECE SILL TAPE AS PART OF THE TEKTON WEATHERIZATION SYSTEM

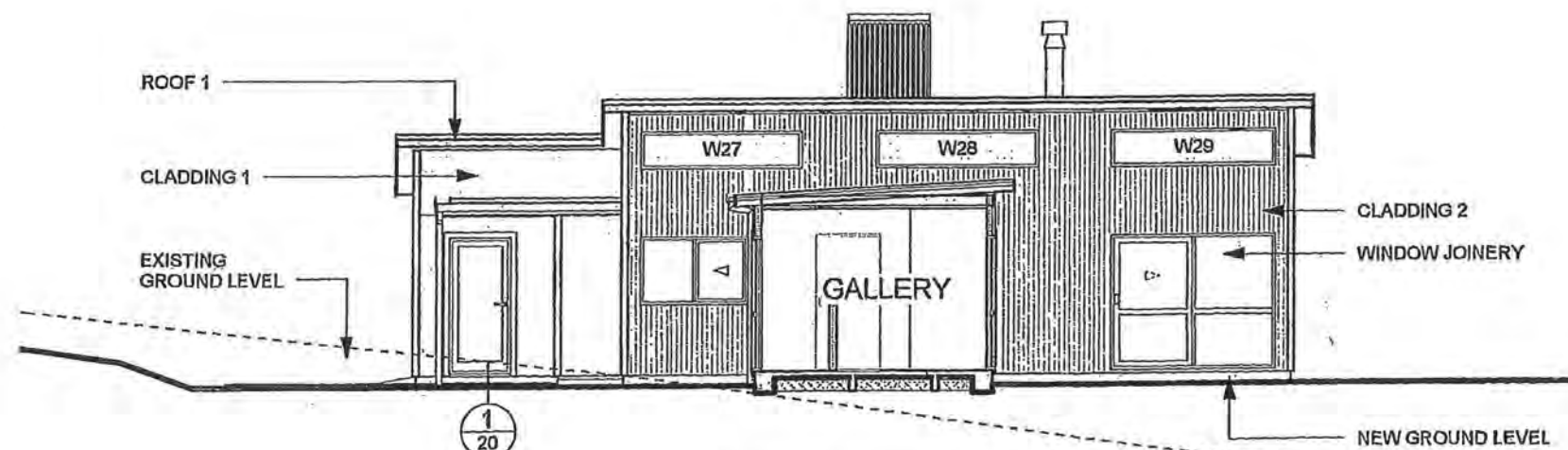
RECEIVED
18 OCT 2013
BY: 



ELEVATION 4
1:100



ELEVATION 5
1:100



ELEVATION 6
1:100

RECEIVED
17 JUN 2013
 00007



Phone: 04 904 59 59

2	30-04-13	Client Requests	
Rev	Date	Description	
Proposed House for Esther & Peterson 142 Huia St Waikanae			
Lot 10		DP 22652	
A.D architecture LTD			
Tel: 04 298 5662		PO Box 1585, Paraparaumu Beach	
Info@adarchitecture.co.nz		www.adarchitecture.co.nz	
ELEVATIONS			
BUILDING CONSENT			
DO NOT SCALE DRAWING			
Job	Date	Rev	Sheet
11090	APRIL 2013	2	(A3) 06

BC 130379

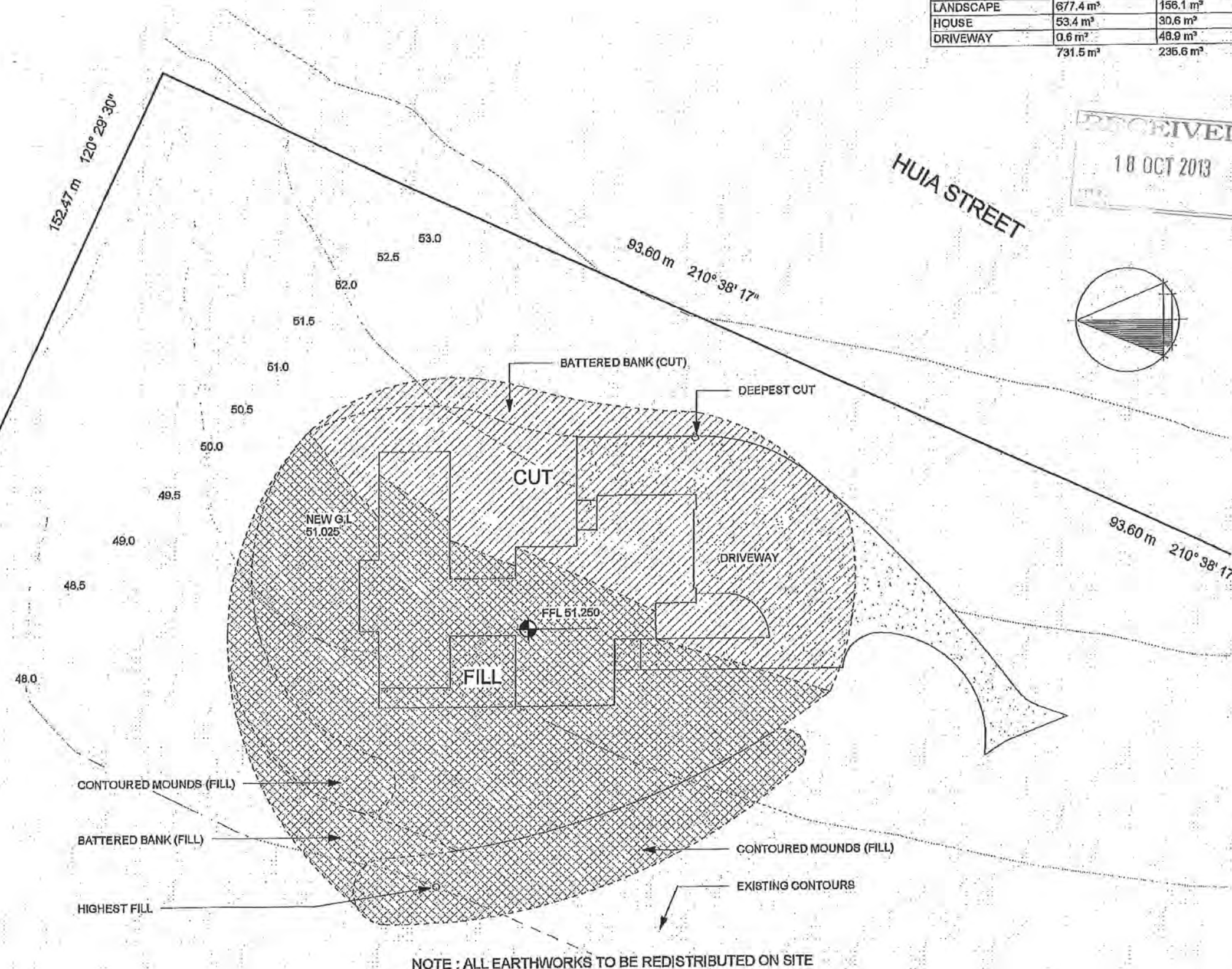
ORIGINAL - BC APPROVED

00002

TOPOGRAPHY SCHEDULE		
NAME	FILL	CUT
LANDSCAPE	677.4 m³	156.1 m³
HOUSE	53.4 m³	30.6 m³
DRIVEWAY	0.6 m³	48.9 m³
	731.5 m³	235.6 m³

EARTHWORKS NOTES

- THIS PAGE IS TO BE READ IN CONJUNCTION WITH SHEET 02 - CONSTRUCTION NOTES FOR ADDITIONAL INFORMATION
- APPROX. EXTENT OF CUT = ~350m² / 236m³
- APPROX. EXTENT OF FILL = ~629m² / 730m³
- TOTAL AREA OF EARTHWORKS = 979m²
- APPROX. DEEPEST CUT = 1.7m
- APPROX. HIGHEST FILL = 3.8m



EARTHWORKS PLAN

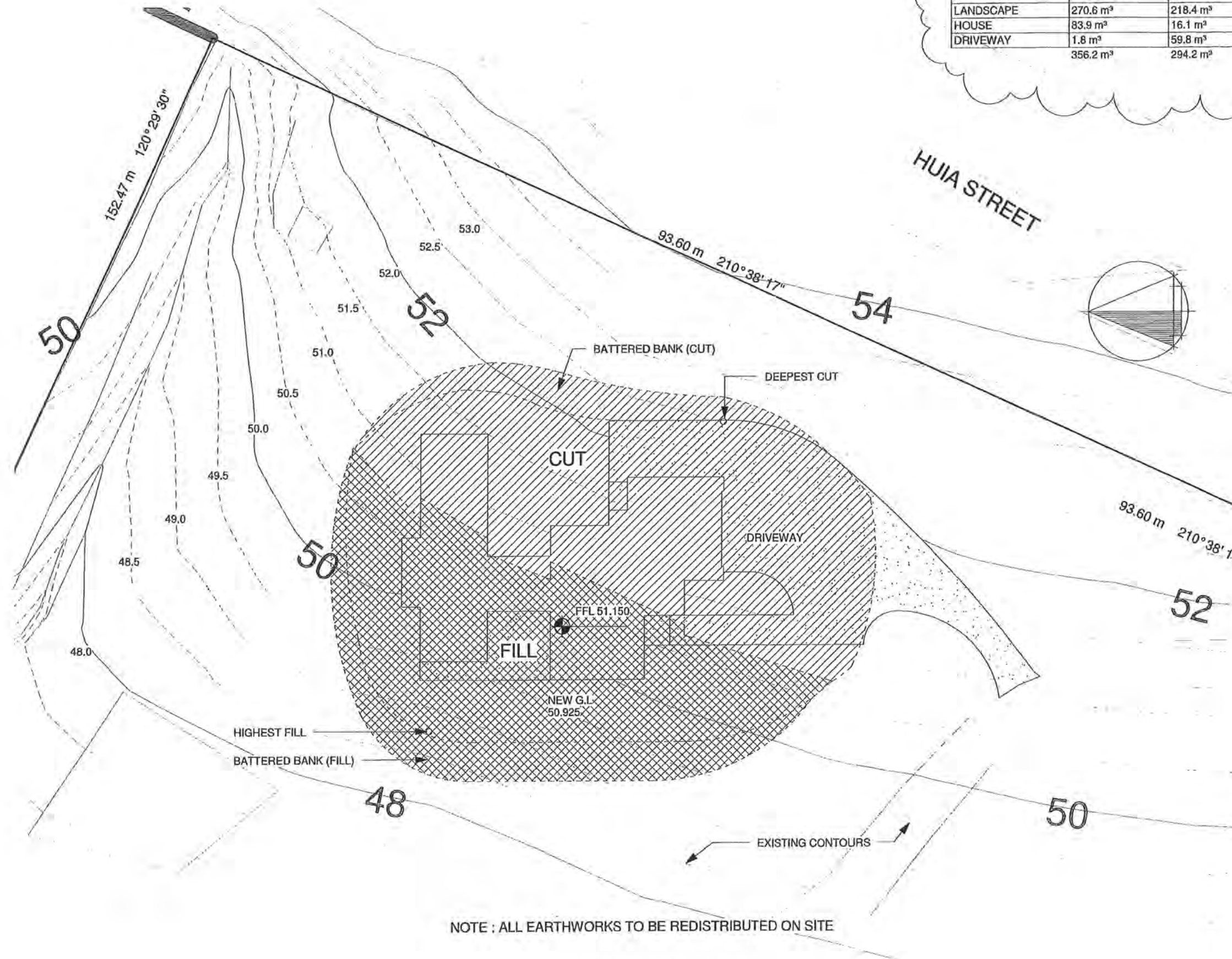
1:250

TOPOGRAPHY SCHEDULE

NAME	FILL	CUT
LANDSCAPE	270.6 m³	218.4 m³
HOUSE	83.9 m³	16.1 m³
DRIVEWAY	1.8 m³	59.8 m³
	356.2 m³	294.2 m³

EARTHWORKS NOTES

- THIS PAGE IS TO BE READ IN CONJUNCTION WITH SHEET 02 - CONSTRUCTION NOTES FOR ADDITIONAL INFORMATION
- APPROX. EXTENT OF CUT = ~401m² / 294m³
- APPROX. EXTENT OF FILL = ~367m² / 356m³
- TOTAL AREA OF EARTHWORKS = 768m²
- APPROX. DEEPEST CUT = 1.6m
- APPROX. HIGHEST FILL = 2.1m



NOTE : ALL EARTHWORKS TO BE REDISTRIBUTED ON SITE

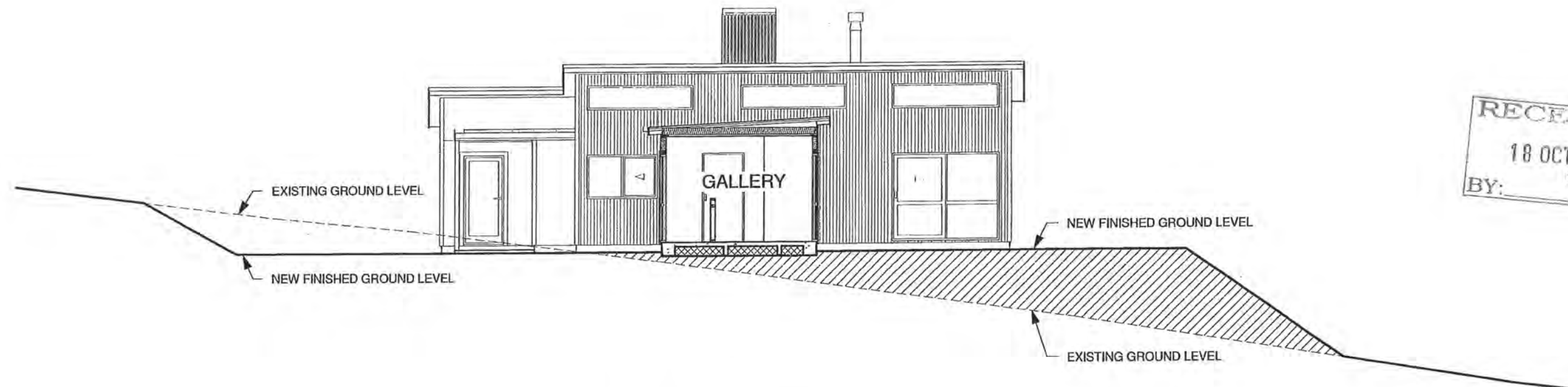
EARTHWORKS PLAN

1 : 250



Phone: 04 904 59 59

Rev	Date	Location	Description
5	26/9/13		
Proposed House for Esther & Peterson 142 Huia St Waikanae			
Lot 10 DP 22652			
A.D architecture LTD			
Tel : 04 298 5662 PO Box 1585, Paraparaumu Beach Info@adarchitecture.co.nz www.adarchitecture.co.nz			
EARTHWORKS PLAN			
BUILDING CONSENT			
DO NOT SCALE DRAWING			
Job	Date	Rev	Sheet
11090	APRIL 2013	5	(A3) 07



SECTION C - EARTHWORKS
1 : 100



Phone: 04 904 59 59

Rev	Date	Location	Description
5	26/9/13		
Proposed House for Esther & Peterson 142 Huia St Waikanae			
Lot 10 DP 22652			
A.D architecture LTD			
Tel: 04 298 5662 PO Box 1585, Paraparaumu Beach info@adarchitecture.co.nz www.adarchitecture.co.nz			
EARTHWORKS SECTION			
BUILDING CONSENT			
DO NOT SCALE DRAWING			
Job	Date	Rev	Sheet
11090	APRIL 2013	5	(A3) S30

Amendment to BC 130379

Graham Wilson

From: Yaqi Wang [WangY@isp.co.nz]
Sent: Thursday, 1 August 2013 4:47 p.m.
To: Graham.wilson@davidreidhomes.co.nz
Subject: 142 Huia St

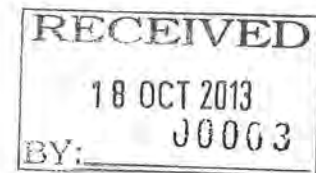
Hi Graham,

Craig has checked the bearing capacity of the fill. It is acceptable. Thanks.

Regards,

Yaqi(Chi Chi) Wang
Structural Engineer

ISP Consulting Engineers Ltd.
14 Laings Road, Lower Hutt
Tel (04) 566 8004
Fax (04) 566 8037
www.isp.co.nz



**BRIEN ELECTRICAL****ELECTRICAL CERTIFICATE OF COMPLIANCE & ELECTRICAL SAFETY CERTIFICATE**

BRIEN ELECTRICAL JOB #/ CERTIFICATE #

6194

This form has been designed to be used by licensed electrical workers to certify that installations or Part Installations under Part 1 or Part 2 of AS/NZS 3000 are safe to be connected to the specified system of electrical supply.

Location Address

142 Huiq str, Waikanae

Customer Details:
(Name and address)

Jules Esther & Dana Peterson

Name David Reid Homes

Phone:

Address As above

Name of Electrical
worker:

Rajesh

Registration/Practising
licence number:

2261452

Organisation/company:

BRIEN ELECTRICAL LTD, 16 IHAKARA ST, PARAPARAUMU

Phone & email:

04 298 7053

info@brienelectrical.co.nz

Type of work:

☐ Additions☐ Alterations☒ New work

The prescribed electrical work is:

☐ Low risk☒ General☐ High risk (Specify):

Reference Standards:

☐ Part 1 of AS/NZS 3000☒ Part 2 of AS/NZS 3000☐ Additional Standards:Description of
work:

Fit off new house

Validity authenticated

- 9 SEP 2014

Signature:

I certify that the completed prescribed electrical work to which this certificate applies has been done lawfully and safely, and the information in the certificate is correct in that the installation, or part of the installation:

- ☒ Has been installed in accordance with the specified certified design¹
- ☒ Has an earthing system that is correctly rated (where applicable)
- ☒ Contains fittings that are safe to connect to a power supply
- ☒ Relies on a supplier Declaration of Conformity¹
- ☒ Relies on a manufacturer's instructions¹
- ☒ Has been tested in accordance with the Electricity (Safety) Regulations 2010
- ☒ Is safe to connect

Test Results

Polarity (Independent earth):	Correct
Insulation resistance:	0
Earth Continuity:	0.5Ω
Bonding:	0.5Ω
Fault Loop Impedance	Test Sheet
Other (specify):	W/A

Electronic/Other reference:

¹ Attach or reference. If it is impractical to attach a copy of a particular manufacturer's instructions, or of any certified design or supplier declaration of conformity, provide a reference to where the documents can be found, in a readily accessible format, by electronic means.

Certifier's signature:

Rajesh

Date:

4/7/14

I certify that the installation, or part of the installation, to which the Electrical Safety Certificate applies is connected to a power supply and is safe to use.

Certifier's name:

Rajesh

Registration/Practising
licence number:

2261452

Certifier's signature:

Rajesh

Certificate Issue Date:

4/7/14

CUSTOMER COPY - THIS IS AN IMPORTANT DOCUMENT AND SHOULD BE RETAINED FOR A MINIMUM OF 7 YEARS
This certificate also confirms that the electrical work complies with the building code for the purposes of Section 19(1)(e) of the Building Act 2004.



Customer Name:

David Reid Homes

004412

Location of Installation:

142A Hura St

Reference / Job / ID

Waikanae

Description of work: (or see attached)

☐ CoC for metering only

ICP Number (if known)

ROI for new house including mains meter
earth and main ear boxCoC 000186 Dwight Gorton E245012 10/12/13This work has been carried out in accordance with a Certified Design ☐Certified Design Attached ☐

Name of Issuer of Certified Design: _____

Supplier Declarations of Conformity Attached: ☐

(please attach or list Certificate serial numbers or web address below)

Manufacturers Instructions used or relied on in this work: ☐

(please attach or list web address below)

All parts of the installation are safe to connect to a power supply ☐
If not, please detail which parts are safe to connect. _____

This work is:

Low Risk
(Certificate of Compliance not required) ☐General ☒High Risk
(Record of Inspection required) ☒

This work has been done in accordance with:

Part 2 of AS/NZS 3000 ☒Part 1 of AS/NZS 3000 ☐

Supply system this work is suitable for:

230/400V MEN system ☒Other (Please specify) ☐

Other Standards this work complies with: _____

Record of Inspection (If Required)

The aspects of the work which make it high risk are:

☒ Work on Mains☒ Work on Main Earthing System☐ Electromedical☐ Hazardous Area☐ Mains Parallel Generation☐ Mines☐ Photovoltaic☐ Animal Stunning☐ Work to Part 1 of AS/NZS 3000 *☐ High Voltage *

* Certified Design Required

Name of Inspector: Andrew CarrollSignature: Andrew CarrollDate on, or period in, which the work was done: 21/1/14

I confirm that I am satisfied that the work detailed in this Certificate of Compliance has been done lawfully and safely, and that the information contained in this certificate is correct and accurate.

This certificate is issued by: Andrew CarrollSignature: Andrew CarrollRegistration No: 1258075Date: 21/1/14Name and Registration Numbers of Workers Under Supervision Attached ☐**Electrical Safety Certificate** To be completed once all work on the CoC above is completed.

Date the connection was done: _____

I am satisfied that the work detailed in this Electrical Safety Certificate and the installation or part installation to which it relates is connected to a power supply and is safe to use.

The work described above was connected by: _____

Registration No: _____

Signature: _____

Date: _____



000186

Customer Name:

DAVID BEN HENES (KAPITI) LTD

Reference / Job / ID

Location of installation:

142 HUIA ST
WHANGARE

6194

ICP Number (if known)

Description of work: (or see attached ☐)

Install mains, meter board, submains
and distribution board in new installation. Lives one
power subcircuit in garage.

This work has been carried out in accordance with a Certified Design ☒

Certified Design Attached

☐ Name of Issuer of Certified Design: _____

Supplier Declarations of Conformity Attached: ☐ (please attach or list web address below)

Manufacturers Instructions used or relied on in this work: ☐ (please attach or list web address below)

Validity authenticated

All parts of the installation are safe to connect to a power supply ☒
If not, please detail which parts are safe to connect.

9 SEP 2014

Signature: 

This work is:

This work has been done in accordance with:

Supply system this work is suitable for:

Low Risk

Part 2 of AS/NZS 3000

230/400V MEN system ☐

(Certificate of Compliance not required)

General

High Risk

Part 1 of AS/NZS 3000

Other (Please specify) ☐

(Record of Inspection required)

Other Standards this work complies with: _____

Date on, or period in, which the work was done: _____

10/12/13

I confirm that I am satisfied that the work detailed in this Certificate of Compliance has been done lawfully and safely, and that the information contained in this certificate is correct and accurate.

This certificate is issued by: _____

Dwight Carlson

Registration No:

245012

Signature: 

Date:

10/12/13

Name and Registration Numbers of Workers Under Supervision Attached ☐



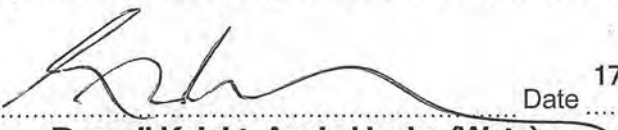
Home Insulation Installation Guarantee

This is to certify that

this home has been insulated with Pink® Batts® Insulation
by a Tasman Insulation preferred Pink® Batts® installer.

The Pinkfit® Licensee guarantees that, at the time of installation, the
Pink® Batts® have been properly installed in accordance with
New Zealand Standard Energy Efficiency -
Installing Insulation in Residential Buildings NZS 4246 A1:2006
Proper installation is essential for insulation to meet the
durability requirements of NZBC B2.31(a) not less than 50 years

This guarantee is transferred to subsequent owners of the home.

Signed  Date **17/Dec/2013**
Pinkfit® Licensee **Russell Knight Annie Unuka (Wgtn)**
Placemakers - Placemakers Paraparaumu Limited

Registration Details:

Compliance Number: 132043

Builder Details:

David Reid Homes

Site Details:

David Reid Homes

Esther & Peterson

142 Huia Street, Waikanae 5036,
New Build

Date Printed:

17/Dec/2013

Install Date:

13/Dec/2013

Completion:

13/Dec/2013

Product Details

PinkFit® GHB L2 Ceiling R4.0 , PinkFit® New Skillion Roof R3.6, PinkFit® GHB L2 Wall R2.6

Pinkfit® 0800 746 534

Pinkfit® is a network of independent installers licensed by Pinkfit® Limited. Pinkfit®, Pink® Batts® and the colour PINK are registered trade marks of Owens Corning used under licence.

PRODUCER STATEMENT/WARRANTY

OUR WINDOWS COMPLY WITH THE BUILDING CODE

We hereby certify that all products supplied by our company meet or exceed the requirements of the New Zealand Building Code Means of Compliance, NZS 4211:2008 Performance of Windows and NZS 4223, Glazing in Buildings Parts 1, 2 and 3.

This means that our windows have been designed and tested to perform under the most diverse New Zealand weather conditions, and:

- have been successfully tested for strength under a range of wind pressures appropriate for the various wind zones in New Zealand.
- meet the requirements for deflection under simulated loads.
- meet stringent requirements for waterproofing and air leakage.
- have glass of the correct thickness and toughness to cope with expected wind loads and accidental human impact.

In accordance with our TERMS AND CONDITIONS OF SALE a guarantee for all VANTAGE products is provided under normal conditions of use against failure of materials and workmanship for 5 years from date of practical completion.

DURABILITY: VANTAGE ALUMINIUM JOINERY products can be expected to have a trouble-free serviceable life of not less than 15 years as required by section B2 of the New Zealand Building Code. This pertains specifically to the structural elements of the joinery.

In the course of normal use decorative elements and non-structural fittings such as window fasteners, door rollers, weatherpile and the like may need to be replaced as they wear out. This process does not contravene the B2 Durability requirements of the New Zealand Building Code or the warranty given by the manufacturer.

The decorative coating on the joinery is covered by a separate warranty.

A window and door hardware warranty covers manufacturing defects, functionality and surface finish for 5 years, assuming that the care and maintenance guidelines are followed. Plated (soft) finishes are excluded from this warranty as deterioration is possible under some environmental conditions.

Please Note: This warranty is subject to correct installation as outlined in the Building Code Acceptable Solution Clause E2/AS1 External Moisture.


PURCHASER David Reid Homes

ADDRESS P.O. Box 148 Paraparaumu 5254

SITE ADDRESS Esther + Petersen - 142 Horia St, Waikeane

MANUFACTURER Pitchard Joinery Ltd **WARRANTY NO.** 5167

ADDRESS P.O. Box 67, 19 Watson St, Bulls

DATE INSTALLATION COMPLETED Oct 2013 **SIGNATURE** 

Supply

This Producer Statement covers product supplied as per our quotation and is based on window schedules, floor plans and elevations as supplied.

QUOTE NO. 5167 **DATE** _____ **REVISION DATE** _____

Supplied Only ☒ Supplied & Installed ☐ Unglazed ☐ Glazed ☒



To validate this Performance Warranty

Please complete this portion (your name as the actual owner may not yet be on our records) and return to:

Owner _____

Site address _____

Manufacturer _____

Date installation completed _____

Warranty No. _____

UltraGlass **SuperSpacer^{xt}**

Double Glaze Unit 10 year Warranty

Ultra Glass Company Ltd warrant that all Insulated Glass Units manufactured by Ultra Glass Company Ltd will comply with the requirements of the consumer Guarantees act 1993 in particular that

1. The units are fit for purpose for which goods of the type in question are commonly supplied and
2. Are acceptable in appearance and finish (AS/NZS4666)
3. Are free from minor defects (AS/NZS4667)
4. Are safe and durable (NZS4223: Part 3).

These guarantees are given in terms of the Consumer Guarantees Act 1993 and are qualified by the appropriate qualifications and restrictions in the Act. In addition to the statutory guarantees Ultra Glass Company Ltd. Guarantees that for a period of ten (10) years from the date of manufacture, units will not develop material obstruction of vision as a result of dust or film formation on the internal glass surface caused by any failure of the hermetic seal. In the event that the units develop an obstruction of vision due to internal failure of the hermetic seal, Ultra Glass Company Ltd will re supply as supply only replacements, the defective units, and the warranty period will extend to the re-supplied units for a further period of ten (10) years from delivery.

Ultra Glass Company Ltd advises that in terms of the Consumers Guarantees Act 1993, all of its products carry a guarantee of acceptable quality and a guarantee that the goods correspond with Ultra Glass's description of them but in terms of the Act Ultra Glass will not be liable under the guarantee of acceptable quality because of:

1. An act or default or omission of, or representation made by, any person other than Ultra Glass or the servants or agents of Ultra Glass
 2. A cause independent of human control, occurring after the goods have left the control of Ultra Glass
- Ultra Glass will seek to limit any statutory guarantee in terms of the Consumer Guarantees Act 1993 where any one or more of the following circumstances apply:

1. Failure of the hermetic seal caused in whole or in part by the breakage or fracture of any portion of the glass structure.
2. The units are installed contrary to written instructions.
3. The units are damaged by improper handling or installation.
4. The units are altered in any way
5. The units are subject to abnormal stresses from the

load application of heat, excessive vibration, building or foundation movement or the failure to provide adequate expansion or contraction provisions in the framing members.

6. The units are treated/glazed with materials which do not remain resilient for the warranty period.
7. The units are installed in circumstances, which do not provide total water repellency for the warranty period.
8. The units are installed in watercraft, land vehicles, trailers, swimming pools, or commercial refrigeration products.

Ultra Glass Company Ltd reserves the right to inspect in the field any units which are alleged to be defective and which are the subject of a claim under this warranty or under the Consumers Guarantees Act 1993.

Ultra Glass Company Ltd's membership of the IGUMA requires product testing as set in EN1279 by BRANZ Ltd as an independent body.

Customer: Pritchard Joinery

Address: Watson Street

Application: Supply

Number of units: 28

Invoice Number: 289043

Job Reference: Esther

Cust. Order No.: 10530

Warranty Number: 7848

Signed: 

Date: 15.10.2013

Phone: 06-356 7649
Fax: 06-355 3193
Email: quins.pn@xtra.co.nz
Hawkes Bay
Phone: 06-870 0599
Fax: 06-870 0190
Email: quins.hb@xtra.co.nz

QUIN

ROOFING LTD & BUILDINGS

We're Strong on Construction. Selection & Customer Care.

Levin Head Office and
Manufacturing Plant
20-30 Coventry Street,
PO Box 1087, LEVIN
Phone: 06-366 0183
Fax: 06-367 0795
Email: quins.levin@xtra.co.nz
www.quinbuildings.co.nz

Dear Allroof Solutions

WARRANTY 142 Huia Street, Waikanae on Invoice 73267 - CLADDING

Date of Supply: 30.10.2013

Warranty Terms:

Colorcote ZR8 pre-painted metal products used for Residential Buildings will perform as follows.

1. Resistance to flaking, peeling and excessive fade. ZR8 10 years.

2. Will not perforate as a result of corrosion ZR8 15 years.

Colourcote products will inevitably weather, chalk and fade over time as a result of normal wear and tear.

If the product fails to perform as warranted we will, at our sole option, repair or replace the affected material.

Please note this warranty is subject to the following terms and conditions:

- This warranty will not apply to weathering, chalking or fading over time as a result of normal wear and tear.
- If inappropriate fastenings are used this warranty will not apply.
- Defects caused by faulty design, or method of manufacture of Residential Buildings are not covered by the warranty.
- We must be given the opportunity for inspection on site prior to any remedial action being offered or taken.
- Damage or corrosion resulting from the following are not covered by this warranty:
 - 1) Damage sustained during storage, handling, or installation.
 - 2) Damage sustained after installation.
 - 3) Causes after the product has left our control.
 - 4) Failure to remove debris leading to the accumulation of moisture retaining matter in gutters and downpipes.

Our liability under this warranty shall in all cases be limited to replacing or repairing the defective product as specified above excluding labour. Any repaired or replaced product will be covered by this warranty up to the unexpired portion of the warranty of the original product. Quin Roofing Ltd will not be liable for consequential loss or damage. All claims must be made promptly in writing and accompanied by the original warranty document. This warranty does not in any way affect the rights of a consumer under the Consumer Guarantees Act.

MINIMUM MAINTENANCE REQUIREMENTS - www.colorcote.co.nz

1. Washing of Naturally Unwashed Areas every 6 months - e.g. - Wall Cladding.
2. Removal of Debris from gutters every 6 months.
3. Any noticeable buildup of salt deposits and/or other contaminants are removed when identified.
4. When considering overpainting, please consult with your local distributor to ensure correct procedures are undertaken.
5. Inspection of the roof, including fasteners, repair any damage every 6 months.

Regular Washing of Colorcote®ZR8™ products increases the durability by reducing attack from airborne salts and pollutants. Colorcote®ZR8™ products should be washed manually with water and a sponge or a soft nylon-bristled brush. For large areas it may be appropriate to use water blasting at pressures up to 20mpa.

This roof was installed by: Gary Westerman

Signature of Installer:

Dave Lucas
pp allROOF Solutions Ltd

And carries a workmanship warranty for : 5 years

Signature of property owner or agent:

Date:

PLEASE RETURN A SIGNED COPY OF THE WARRANTY TO THE ROOFING MANUFACTURER
This warranty is issued by (the roofing manufacturer):

Yours faithfully

PP *Bruce Love*

Bruce Love
Roofing Manager
Quin Roofing Ltd

For all roofing enquiries and sales contact our Levin factory on 0800 QUINS LEVIN - 0800 784 675

Manufacturers and suppliers in Zincolume and Coloursteel of:

Corrugate
Trimline
6 Rib

Mini Corrugate
Weatherboard
Custom Flashings to 6.5m

Clearlite
Ridge
Barge
Nails

Screws
Building Papers
Netting
Sealfoam

Sectional Doors
Roller Doors
Tilta Doors
Automatic Openers

For all garage enquiries and sales contact our agent in your area on 0800 GARAGE - 0800 427 243

Palmerston North
Phone: 06-356 7649
Fax: 06-355 3193
Email: quins.pn@xtra.co.nz
Hawkes Bay
Phone: 06-870 0599
Fax: 06-870 0190
Email: quins.hb@xtra.co.nz

QUIN

ROOFING LTD & BUILDINGS

We're Strong on Construction, Selection & Customer Care

Levin Head Office and
Manufacturing Plant
20-30 Coventry Street,
PO Box 1087, LEVIN
Phone: 06-367 9480
Fax: 06-367 0795
Email: quins.levin@xtra.co.nz
www.quinbuildings.co.nz

Dear Allroof Solutions

WARRANTY 142 Huia Street, Waikanae on Invoice 72921

Date of Supply: 09.10.2013

Warranty Terms;

Colorcote ZR8 pre-painted metal products used for Residential Buildings will perform as follows.

1. Resistance to flaking, peeling and excessive fade. ZR8 10 years.

2. Will not perforate as a result of corrosion ZR8 15 years.

Colourcote products will inevitably weather, chalk and fade over time as a result of normal wear and tear.

If the product fails to perform as warranted we will, at our sole option, repair or replace the affected material.

Please note this warranty is subject to the following terms and conditions:

- This warranty will not apply to weathering, chalking or fading over time as a result of normal wear and tear.
- If inappropriate fastenings are used this warranty will not apply.
- Defects caused by faulty design, or method of manufacture of Residential Buildings are not covered by the warranty.
- We must be given the opportunity for inspection on site prior to any remedial action being offered or taken.
- Damage or corrosion resulting from the following are not covered by this warranty:

- 1) Damage sustained during storage, handling, or installation.
- 2) Damage sustained after installation.
- 3) Causes after the product has left our control.
- 4) Failure to remove debris leading to the accumulation of moisture retaining matter in gutters and downpipes.

Our liability under this warranty shall in all cases be limited to replacing or repairing the defective product as specified above excluding labour. Any repaired or replaced product will be covered by this warranty up to the unexpired portion of the warranty of the original product. Quin Roofing Ltd will not be liable for consequential loss or damage. All claims must be made promptly in writing and accompanied by the original warranty document. This warranty does not in any way affect the rights of a consumer under the Consumer Guarantees Act.

MINIMUM MAINTENANCE REQUIREMENTS - www.colorcote.co.nz

1. Washing of Naturally Unwashed Areas every 6 months -e.g - Wall Cladding.
2. Removal of Debris from gutters every 6 months.
3. Any noticeable buildup of salt deposits and/or other contaminants are removed when identified.
4. When considering overpainting, please consult with your local distributor to ensure correct procedures are undertaken.
5. Inspection of the roof, including fasteners, repair any damage every 6 months

Regular Washing of Colorcote®ZR8™ products increases the durability by reducing attack from airborne salts and pollutants. Colorcote®ZR8™ products should be washed manually with water and a sponge or a soft nylon-bristled brush. For large areas it may be appropriate to use water blasting at pressures up to 20mpa.

This roof was installed by:

G. Westerman

Signature of Installer.

And carries a workmanship warranty for : 5 years

Signature of property owner or agent:

Date:

PLEASE RETURN A SIGNED COPY OF THE WARRANTY TO THE ROOFING MANUFACTURER
This warranty is issued by (the roofing manufacturer):

Yours faithfully

pp 1sthal

Bruce Love
Roofing Manager
Quin Roofing Ltd

For all roofing enquiries and sales contact our Levin factory on 0800 QUINS LEVIN - 0800 784 675

Manufacturers and suppliers in Zincalume and Coloursteel of:

Corrugate
Trimline
6 Rib

Mini Corrugate
Weatherboard
Custom Flashings to 6.5m

Clearlite
Ridge
Barge
Nails

Screws
Building Papers
Netting
Sealfoam

Sectional Doors
Roller Doors
Tilta Doors
Automatic Openers

For all garage enquiries and sales contact our agent in your area on 0800 GARAGE - 0800 427 243

Producer Statement PS3

Installation of Solar Water Heating System

Council:	Napier Coast District Council		
Building Consent No:	BC 130379		
Producer Statement Issued by: <small>(Suitably qualified solar water heating system installer)</small>	Peter Jackson Plumbing		
Address of Installer:			
Telephone Number for Installer:	9046429		
Product and Model No. Installed:	Greenflo 300D 530523		
Supplier of Product:	Solar Group Ltd		
Registered Plumber:		Registration No:	11499
Registered Electrician:		Registration No:	
Address of Property on which installed:	142 Huia St Wairoa		
Location of installation:			
Owner of Property on which installed:	Esther / Peterson		
Property Description:	LOT DP		

The system has been installed such that the requirements of the New Zealand Building Code have been met. Plumbing work has been installed to meet the requirements of standard AS/NZS3500.4.

Registered Plumber Signature: P. Jackson Date: 12/6/14

The solar water heating system described above has been installed on a dwelling on the named property according to the Code of Practice for Manufacture and Installation of Solar Water Heating Systems in New Zealand and the requirements of the Building Consent.

The system has been located as shown on the drawings provided with the Building Consent Application. A check has been made by a suitably qualified person to ensure that the system is located over suitably sound load bearing walls and strengthening of roof framing has been undertaken according to the guidelines provided by the system supplier and meets the requirements of Approved Document B1 of the New Zealand Building Code.

The installation has been undertaken in terms of manuals and instructions for the Product Supplier who is a Solar Industries Association Accredited Supplier.

I certify that I have been appropriately trained in the installation of the named Product by the Product Supplier and operate under that Supplier's accreditation. As an independent solar water heating system installer I am covered by a current Public Liability Insurance Policy to a current value of \$ 1,000,000.

Installer Signature: P. Jackson Date: 12/6/14

Producer Statement

Piped Services & Sanitary Plumbing Stacks

Construction Review

Peter Jackson Plumbing
Issued by..... Registration Number...11499.....

To Kapiti Coast District Council

In respect to the following

Piped Services installed in accordance with G12/AS1 as shown on the approved plans or as per the attached amended plan and Sanitary Plumbing Stacks installed in accordance with G13/AS1 or AS/NZS 3500.2.2

Installed at...142 Huro St Waikanae.....

Building Consent No...BC 130379.....

As a Craftsman plumber, currently holding an annual practicing license, certify that I, or personnel under my control, have carried out the installation of the above system and I believe on reasonable grounds that the installation complies with the New Zealand Building Code. Both hot and cold systems have been pressure tested for a period of 15 minutes at a pressure of 1500 kPa.

Name...*P. Jackson*..... Signed...*[Signature]*..... Date...12-6-14.....

KCDC Office use only

Producer Statement author authenticated and current registration verified

Verification & Registration checked: <https://www2.pgdb.co.nz/PGDB/PublicRegister>

Date.....

Name.....

Signature.....

- 9 SEP 2014

Producer Statement

Private Sewer Drains

Construction Review

Issued by Peter Jackson Registration Number 11499
To Kapiti Coast District Council

In respect to the following

Private Sewer Drains installed in accordance with G13 AS2 or AS/NZS 3500 .2.2 as shown on the approved plans or as per the attached amended plan

Installed at 142 Huia St Waikanae

Building Consent No BC 130379

As a registered drainlayer, currently holding an annual practicing license, certify that I, or personnel under my control, have carried out the installation of the above system and I believe on reasonable grounds that the installation complies with the New Zealand Building Code.

Signed Peter Jackson Date 12.6.14

Note: Fully dimensioned as built drain plan to be supplied. (scale 1:100)

Drains may be laid and backfilled without inspection provided that the drain is left under test with a min of 1.0 m head and the inspection at the lateral left exposed.

Validity authenticated

- 9 SEP 2014

Signature:

CAH

Producer Statement

Stormwater Drains

Construction Review

PETER JACKSON PLUMBING
Issued by..... *Box 542 Paraparaumu* Registration Number..... *11499*
Phone (04) 904 6429
To Kapiti Coast District Council *Mobile 0274 789 880*

In respect to the following

Stormwater Drains installed in accordance with E1 AS1 as shown on the approved plans or as per the attached amended plan

Installed at..... *142 Huia St Wairarapa*

Building Consent No..... *BC 130379*

As a registered drainlayer, currently holding an annual practicing license, certify that I, or personnel under my control, have carried out the installation of the above system and I believe on reasonable grounds that the installation complies with the New Zealand Building Code.

Signed..... *Peter Jackson* Date..... *12.6.14*

Note: Fully dimensioned as built drain plan to be supplied. (scale 1:100)

Validly authenticated

- 9 SEP 2014

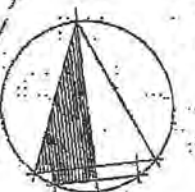
Signature: *C. H.*

Check the potability of the water supply on a regular basis.

WATER STORAGE TANK NEED TO BE CLEANED OUT ON A REGULAR BASIS

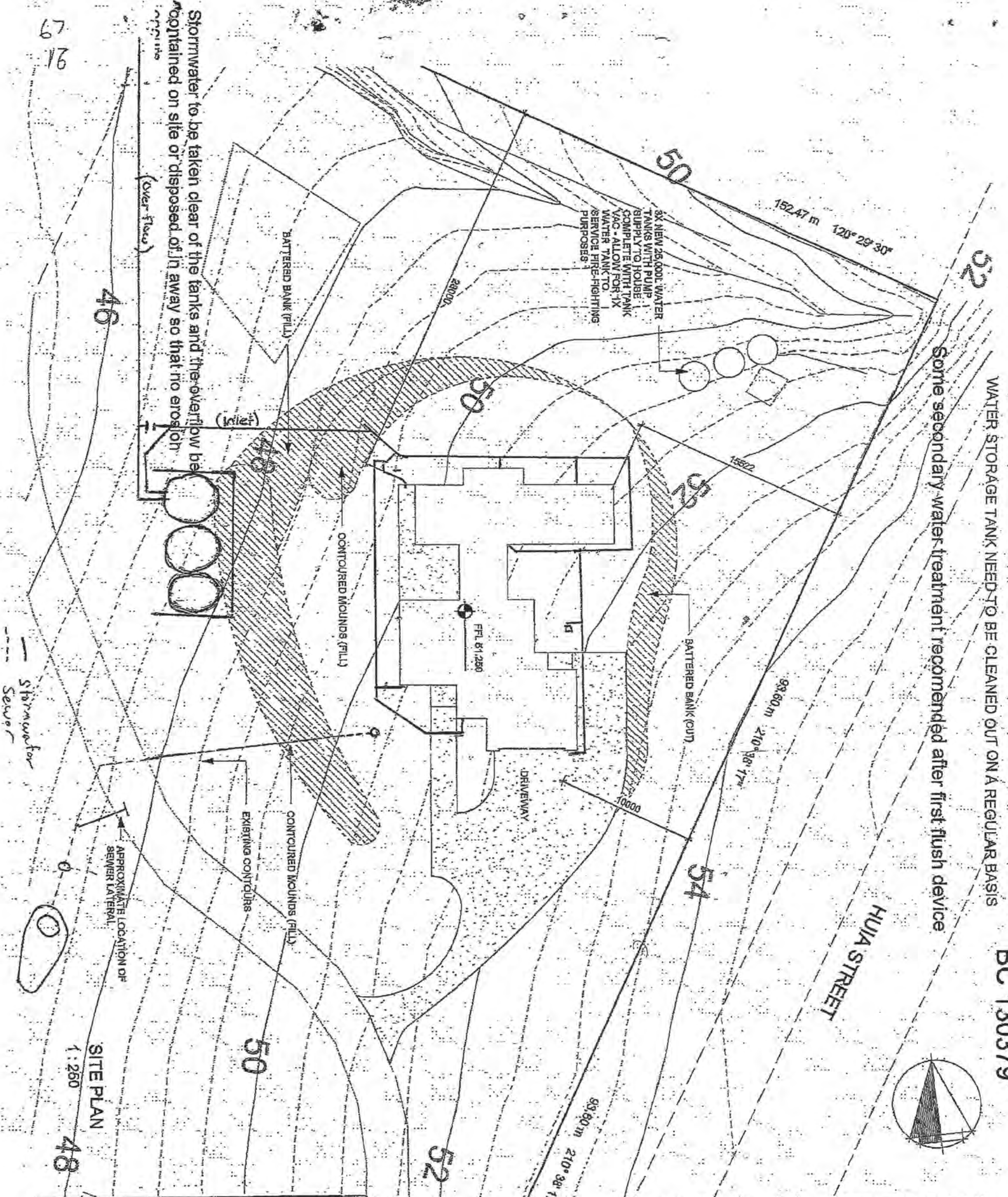
BC 130379

Some secondary water treatment recommended after first flush device



SITE NOTES
THIS PAGE IS TO BE READ IN CONJUNCTION WITH SHEET 02 - CONSTRUCTION NOTES FOR ADDITIONAL INFORMATION
SITE AREA = 38483m²
SITE COVERAGE (MEASURED OVER GLADDING AND INCLUDING VERANDAHS) = 193.5m² = 0.50%
WIND ZONE = VERY HIGH
EXPOSURE ZONE = ZONE C
PLANNING ZONE = RURAL

RECEIVED
17 JUN 2013
BY: 00004



Phone: 04 904 59 56

Rev	Date	Client Requests	Description
1	30-04-13	Proposed House	for Esther & Peterson
2	14-02-13	142 Hula St Waikeane	
3	10-02-13	Lot 10 DP 22662	

A.D. Architecture

Tel: 04 238 5602
PO Box 1555, Palmerston North
info@adarchitect.co.nz
www.adarchitect.co.nz

SIT PLAN			
BUILDING CONSENT			
Job	Date	Rev	Sheet
11080	APRIL 2013	2	1 of 03



4	20/7/13	KODD P115
Rev	Date	Description
<p>Proposed House for Esther & Peterson 142 Hilda St Walkerville</p>		
Lot 10	DP/228652	

A.D. architecture

PO Box 1585, Paragonum Bldg
Tel: 04 298 5662
www.barrchitecture.co.nz
info@barrchitecture.co.nz

BUL·DING·CONSENT

DO NOT SCALE DRAWING

Job	Date	Rev	Sheet
11090	APRIL 2013	4	(A3) Q5

PRODUCER STATEMENT – PS4 – CONSTRUCTION REVIEW

(Guidance notes on the use of this form are printed on page 2)

ISSUED BY: ISP Consulting Engineers Ltd
TO: **Esther & Peterson**
(Owner/Developer)
TO BE SUPPLIED TO: **Kapiti Coast District Council**
(Building Consent Authority)
IN RESPECT OF: **New Residence**
(Description of Building Work)
AT: **142 Huia Street, Waikanae**
Lot: 10 DP: 22652
(Address)

ISP Consulting Engineers Ltd has been engaged by **Esther & Peterson**

to provide ☐ CM1 ☒ CM2 ☐ CM3 ☐ CM4 ☐ CM5 observation services
(Engineering Categories)

in respect of clause(s) B1, VM1 of the Building Code for the building work described in documents relating to Building Consent No # **130379**. We have sighted these Building Consents and the conditions of attached to them.

Authorised instructions / Site Inspection Report **Numbered 1** (copy attached) has been issued during the course of the works.

On the basis of ☒ this ☐ these review(s) and information supplied by the contractor during the course of the works,

I believe on reasonable grounds that ☐ All ☒ **Part only as specified of building work outside the scope of NZS3604:2011-**

- *Foundation*

Of the building works have been completed in accordance with the relevant requirements of the Building Consents and Building Consent Amendments identified above, with respect to Clause(s) B1, VM1 of the Building Regulations.

I, John O'Hagan am CPEng Registered No. 179947

I am a Member of IPENZ and hold the following qualifications: **NZCE(Civil), BE (Hons), IPENZ, CPEng**

The Construction Review Firm issuing this statement holds a current policy of Professional Indemnity Insurance no less than \$200,000*.

The Construction Review Firm is a member of ACENZ

SIGNED BY John O'Hagan **ON BEHALF OF** ISP Consulting Engineers Ltd

Signature: _____

Date: 9th September 2013

Signature:.....

Note: This statement shall only be relied upon by the Building Consent Authority named above. Liability under this statement accrues to the Construction Review Firm only. The total maximum amount of damages payable arising from this statement and all other statements provided to the Building Consent Authority in relation to this building work, whether in contract, tort or otherwise (including negligence), is limited to the sum of \$200,000*.

This form to accompany **Forms 6 or 8 of the Building (Form) Regulations 2004** for the issue of a Code Compliance Certificate.

GUIDANCE ON USE OF PRODUCER STATEMENTS

Producer statements were first introduced with the Building Act 1992. The producer statements were developed by a combined task committee consisting of members of the New Zealand Institute of Architects, Institution of Professional Engineers New Zealand, Association of Consulting Engineers New Zealand in consultation with the Building Officials Institute of New Zealand. The original suite of producer statements has been revised as at the date of this form as a result of enactment of the Building Act (2004) by these organisations to ensure standard use within the industry.

The producer statement system is intended to provide Building Consent Authorities (BCAs) with reasonable grounds for the issue of a Building Consent or a Code Compliance Certificate, without having to duplicate design or construction checking undertaken by others.

PS1 Design

Intended for the use by a suitably qualified independent design professional in circumstances where the BCA accepts a producer statement for establishing reasonable grounds to issue a Building Consent;

PS2 Design Review

Intended for use by a suitably qualified independent design professional where the BCA accepts an independent design professional's review as the basis for establishing reasonable grounds to issue a Building Consent;

PS3 Construction

Forms commonly used as a certificate of completion of building work are Schedule 6 of NZS 3910:20031 ; or Schedules E1/E2 of NZIA's SCC 2007 2

PS 4 Construction Review

Intended for use by a suitably qualified independent design professional who undertakes construction monitoring of the building works where the BCA requests a producer statement prior to issuing a Code Compliance Certificate.
This must be accompanied by a statement of completion of building work (Schedule 6).

The following guidelines are provided by ACENZ, IPENZ and NZIA to interpret the Producer Statement.

Competence of Design Professional

This statement is made by a Design Firm that has undertaken a contract of services for the services named, and is signed by a person authorised by that firm to verify the processes within the firm and competence of its designers.

A competent design professional will have a professional qualification and proven current competence through registration on a national competence-based register, either as a Chartered Professional Engineer (CPEng) or a Registered Architect.

Membership of a professional body, such as the Institution of Professional Engineers New Zealand (IPENZ) or the New Zealand Institute of Architects (NZIA) provides additional assurance of the designer's standing within the profession. If the design firm is a member of the Association of Consulting Engineers New Zealand (ACENZ), this provides additional assurance about the standing of the firm.

Persons or firms meeting these criteria satisfy the term "suitably qualified independent design professional".

Professional Indemnity Insurance

As part of membership requirements, ACENZ requires all member firms to hold Professional Indemnity Insurance to a minimum level.

The PI insurance minimum stated on the front of this form reflects standard, small projects. If the parties deem this inappropriate for large projects the minimum may be up to \$500,000.

Professional Services during Construction Phase

There are several levels of service which a Design Firm may provide during the construction phase of a project (CM1-5)3 (OL1-OL4)2. The Building Consent Authority is encouraged to require that the service to be provided by the Design Firm is appropriate for the project concerned.

Requirement to provide Producer Statement PS4

Building Consent Authorities should ensure that the applicant is aware of any requirement for producer statements for the construction phase of building work at the time the building consent is issued as no design professional should be expected to provide a producer statement unless such a requirement forms part of the Design Firm's engagement.

Attached Particulars

Attached particulars referred to in this producer statement refer to supplementary information appended to the producer statement.

Refer Also:

1 Conditions of Contract for Building & Civil Engineering Construction NZS 3910: 2003

2 NZIA Standard Conditions of Contract SCC 2007 (1st edition)

3 Guideline on the Briefing & Engagement for Consulting Engineering Services (ACENZ/IPENZ 2004)

www.acenz.org.nz

www.ipenz.org.nz

www.nzia.co.nz



MiTek New Zealand Limited

Correspondence from : AUCKLAND
40 Neales Road, East Tamaki 2013
PO Box 58-014, Botany 2163
Phone: 09 274 7109
Fax: 09 274 7100

CHRISTCHURCH
14 Pilkington Way, Wigram 8042
PO Box 8387, Riccarton 8440
Phone: 03 348 8691
Fax: 03 348 0314

MiTek 20/20 Engineering 4.6.6.148

www.mitek.nz.co.nz

Printed: 11:55:28 17 Apr 2014

PRODUCER STATEMENT for MiTek 20/20® TRUSS DESIGN - Version 4.6

ISSUED BY: MiTek New Zealand Limited

TO: PLACEMAKERS - W.F.T.

IN RESPECT OF: MiTek® Truss Designs

This producer statement covers the MiTek 20/20® truss design and the structural performance of the GANG-NAIL® connector plate for the job reference **13-117** and may be used by a Building Consent Authority to assist in determining compliance with the New Zealand Building Code.

The MiTek 20/20® truss design program has been developed by MiTek New Zealand Limited for the design of MiTek® timber roof, floor and attic trusses in New Zealand. The truss designs computed by MiTek 20/20® are prepared using sound and widely accepted engineering principles, and in accordance with compliance documents of the New Zealand Building Code and Verification Method B1/VM1; and internationally accepted standard ANSI/TPI 1 - 2002 as an alternative solution to satisfy the requirements of Clause B1 of the New Zealand Building Code.

On behalf of MiTek New Zealand Limited, and subject to:

- i) All proprietary products meeting their performance specification requirements
- ii) The provision of adequate roof bracing and overall building stability
- iii) Correct selection and placement of GANG-NAIL connector plates
- iv) Correct input of Truss Design Data as shown in the Fabricator Design Statement for this job
- v) The design being undertaken by the accredited fabricator under the terms of the software licence

I believe on reasonable grounds that the trusses, if constructed in accordance with the MiTek 20/20® truss design and shop drawings, will comply with the relevant provisions of the New Zealand Building Code.

MiTek New Zealand Limited holds a current policy of Professional Indemnity Insurance no less than \$500,000.

On behalf of MiTek New Zealand Limited,

Date: Thursday, 17 April 2014

In Ling Ng, BE (Hons), CPEng, IntPE, MIPENZ (ID: 146585)
TECHNICAL SERVICES MANAGER, MiTek New Zealand Limited

PLACEMAKERS - W.F.T.

Fabricator Design Statement : Page 1

Job: 13-117

Client: Wellington Frame & Truss
Phone:

Site: D.R.H (Esther/Peterson)
142 Hula St
Waikanae

Description:
Building Consent No.:
MiTek 20/20 Engineering 4.6.6.148

MiTek New Zealand Limited

Phone:

Printed: 11:55:28 17 Apr 2014

MITEK FABRICATOR DESIGN STATEMENT

This statement is issued by MiTek accredited fabricator PLACEMAKERS - W.F.T., being licensed to use the MiTek 20/20[®] software, to the client listed above and may be used by the Building Consent Authority to assist in determining compliance with the New Zealand Building Code.

MiTek 20/20[®] TRUSS DESIGN DATA

The MiTek 20/20[®] computer design for this job is based on the following design parameters entered into the program. The Fabricator shall ensure that these job details are current and relevant to the project for the design of the MiTek[®] trusses.

Job Details

Roof Truss

Timber Group: MSGx45 H1.2

Roof
Material: Light
Dead Load: 0.250 kPa
Restraints: 900 mm centres
Live Load: Q_{ur} = 0.250 kPa
Q_c = 1.100 kN

Importance Level: 2

Pitch: 6.000 deg

Ceiling
Material: Standard
Dead Load: 0.200 kPa
Restraints: 600 mm centres
Live Load: Q_c = 1.400 kN

Design Working Life: 50 years

Nominal Overhang: 450 mm

Wind

Area: Very High (50.0 m/s)
Pressure Coeff: C_{pe} = varies; C_{pi} = -0.30, 0.20

The timber for these MiTek[®] trusses shall be treated to the requirements of NZS 3602:2003 and shall be graded to the requirements of NZS 3603:1993. Unless otherwise noted, this design assumes that the steel fixings and timber connectors proposed are located in a "closed environment", as defined by NZS3604:2011 Section 4.

MiTek[®] Truss List

Legend: * = detail only, ? = input only, Txx = failed design, Ø = non certified, Unmarked trusses = designed successfully, LB = lateral bracing required
GB = gable brace required, CF = Chemical Free Treatment

Roof Truss

Treatment: Top Chords - H1.2				Bottom Chords - H1.2				Webs - H1.2			
Truss	Qty	Span (mm)	Pitch (deg)	Spacing (mm)	Truss	Qty	Span (mm)	Pitch (deg)	Spacing (mm)	Truss	Qty
EN1	2	4210	6.000	825	T1	12	4210	6.000	825		
EN2	2	1200	6.000	900	T2	9	5410	6.000	436		
EN3	1	5960	6.000	876	T3	3	5960	6.000	876		
EN4	1	2450	6.000	900	T3A	4	5960	6.000	876		
*R1	4	5200	6.000	255	T4	2	3510	6.000	876		
*R2	4	900	6.000	255							
*R3	2	6600	6.000	255							
*R4	2	2150	6.000	255							

Roof Truss quantity : 48

Total quantity : 48

The computer design input has been carried out by:

Signed: 

Name of Detailer: Tamara Knight

On behalf of: PLACEMAKERS - W.F.T.

Date: ...Thursday, 17 April 2014....

Qualifications and Title:



Job: 13-117

Client: Wellington Frame & Truss
Phone:Site: D.R.H (Esther/Peterson)
142 Hula St
WaikanaeDescription:
Building Consent No.:
MiTek 20/20 Engineering 4.8.0.143

MiTek New Zealand Limited

Phone:

Printed: 11:55:34 17 Apr 2014

MANUFACTURER STATEMENT

This statement is issued by PLACEMAKERS - W.F.T. to the client listed above, and may be used by the Building Consent Authority to assist in determining compliance with the New Zealand Building Code.

The MiTek® trusses for the job reference 13-117 have been fabricated in accordance with the MiTek 20/20® truss design, truss layout and shop drawing output and the specifications for timber defined therein, and are covered by the Producer Statement issued by MiTek New Zealand Limited and the MiTek Fabricator Design Statement.

Summary of fabricated MiTek® trusses in accordance with MiTek 20/20® output

These MiTek® trusses must be erected in accordance with the Truss Layout. Proper erection bracing must be installed to hold the trusses true and plumb and in a safe condition until permanent bracing is fixed. All permanent bracing and fixing must be installed before any loads are applied.

Job Details

Importance Level : 2

Design Working Life : 50 years

Roof

Material: Light
Dead Load: 0.250 kPa
Restraints: 900 mm centres
Live Load: Q_{ur} = 0.250 kPa
Q_c = 1.100 kN

Ceiling

Material: Standard
Dead Load: 0.200 kPa
Restraints: 600 mm centres
Live Load: Q_c = 1.400 kN

Wind

Area: Very High (50.0 m/s)
Pressure Coeff: C_{pe} = varies; C_{pi} = -0.30, 0.20

MiTek® Truss List

Legend: * = detail only, ? = input only, Txx = failed design, Ø = non certified, Unmarked trusses = designed successfully, LB = lateral bracing required
GB = gable brace required, CF = Chemical Free Treatment

Roof Truss

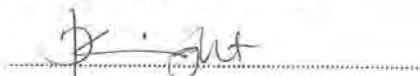
Treatment: Top Chords - H1.2					Bottom Chords - H1.2					Webs - H1.2				
Truss	Qty	Span (mm)	Pitch (deg)	Spacing (mm)	Truss	Qty	Span (mm)	Pitch (deg)	Spacing (mm)	Truss	Qty	Span (mm)	Pitch (deg)	Spacing (mm)
EN1	2	4210	6.000	825						T1	12	4210	6.000	825
EN2	2	1200	6.000	900						T2	9	5410	6.000	436
EN3	1	5960	6.000	876						T3	3	5960	6.000	876
EN4	1	2450	6.000	900						T3A	4	5960	6.000	876
*R1	4	5200	6.000	255						T4	2	3510	6.000	876
*R2	4	900	6.000	255										
*R3	2	6800	6.000	255										
*R4	2	2150	6.000	255										

Roof Truss quantity : 48

Total quantity : 48

The MiTek® trusses are fabricated under the supervision of:

Signed:



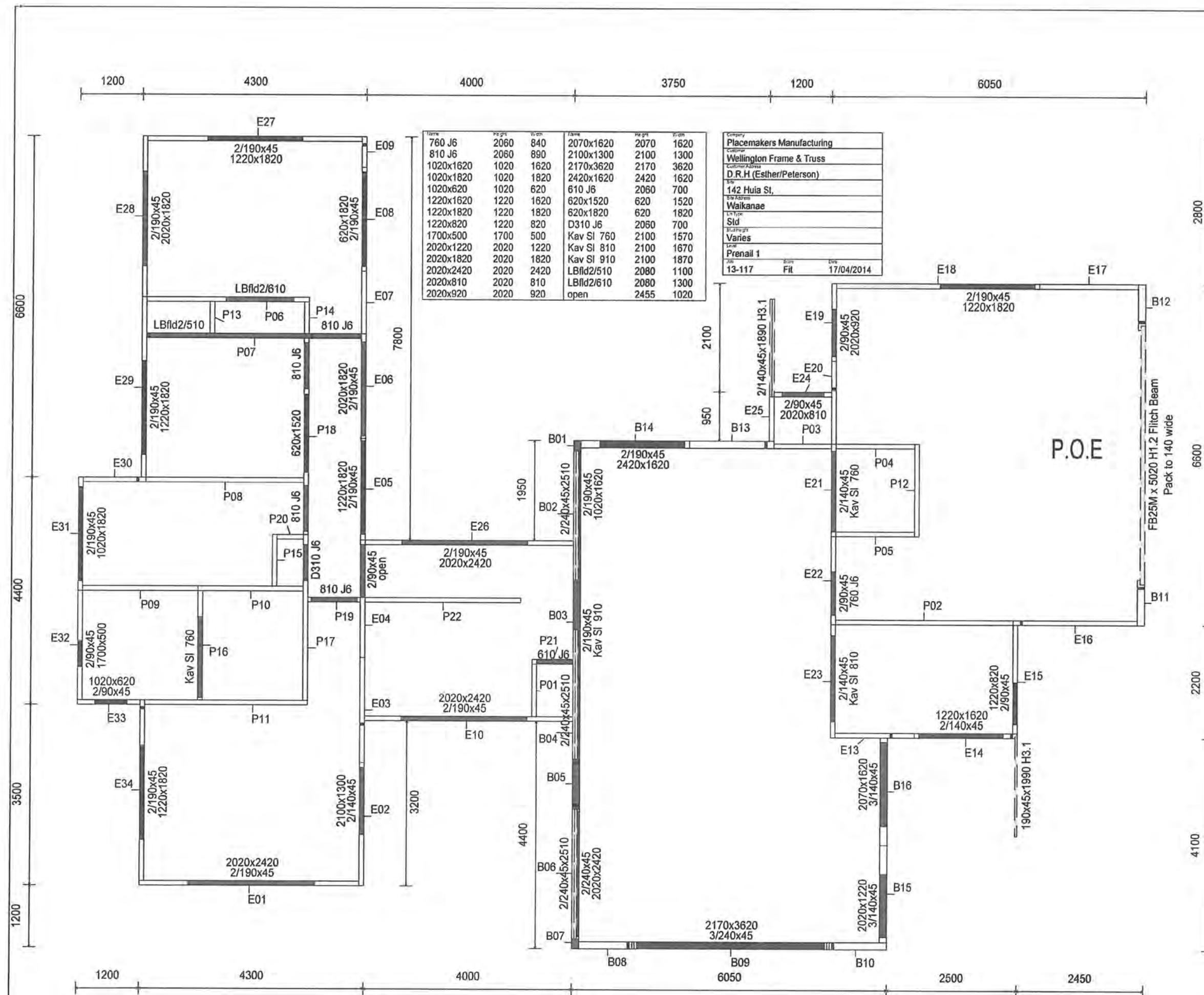
Date:

17 April 2014

Name of Supervisor:

On behalf of: PLACEMAKERS - W.F.T.

PlaceMakers
Know how. Can do.
Manufacturing



Factory Notes : Mitek Version: 4.6

- Treatment :
Ext Walls - H1.2
Int Walls - H1.2
Walls with 'H' in the label to be H3.2

Please Note :

These plans are provided solely to enable the builder to erect the pre-nail on site. They are not intended for any other purpose and PlaceMakers will not accept any liability arising from any other use of these plans.

Builder to read pre-cut plans in conjunction with architectural plans.

Builder should ensure that ALL OSH approved safety practices are carried out when erecting framing.

Builder to check all opening trim / lintel sizes and braces on site before enclosing.

PlaceMakers will not accept any charges for remedial work unless a written order is issued before any work is commenced. A copy of the order is to accompany any invoice to PlaceMakers Frame & Truss.

All internal door trims 2035 unless otherwise listed

If Experiencing Problems, Contact :

Trevor Strang

Phone (04) 296 6062 email : tstrang@placemakers.co.nz

PlaceMakers
Know how. Can do.

Wellington Frame & Truss

Kapiti Rd Ph 04 296 1086
Paraparaumu Fax 04 298 2561

Customer : **DAVID REID HOMES**
Esther & Peterson
Address : 142 Huia St
Waikanae

Job No.: **13-117**

18/07/2013

Level : Prenail 1 Draw n By : Tamara Knight
FILE SITE FACTORY



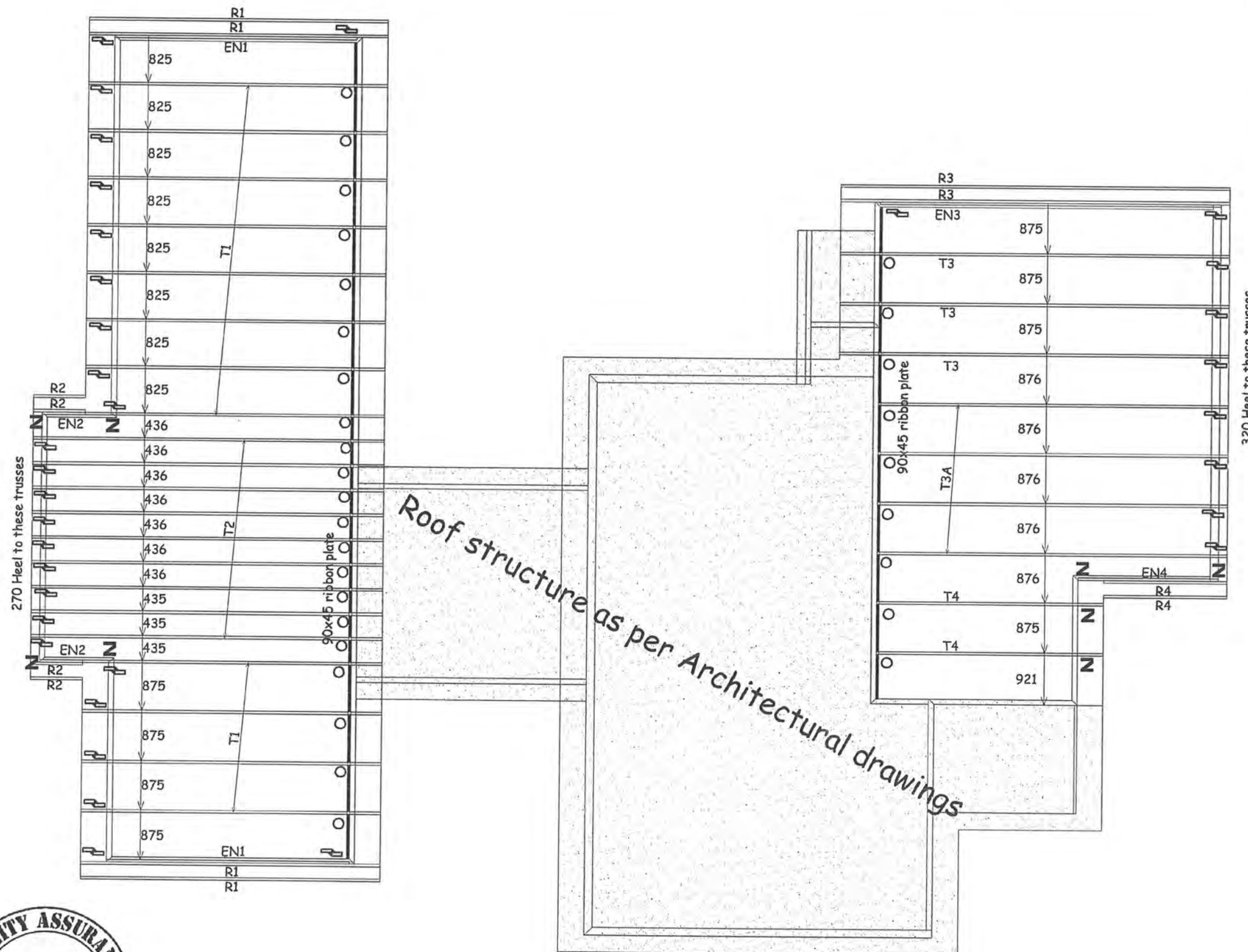
TRUSS LAYOUT FOR : D.R.H. (Esther/Peterson) 142 Huia St, Waikanae

JOB # 13-117

Placemakers Wellington Frame & Truss

Drawn by : Tamara Knight
PHONE (04) 298 8567 - FAX (04) 298 5488
E-MAIL tknight@placemakers.co.nz

Issue Date
19 July 2013



NOTE : Where no fixings have been indicated
use 2 / 90 x 3.33mm (driven) skew nails.

Design wind speed category:	Very High
Pressure Coeff : Cpe = varies ; Cpi = -30.0, 020	
Timber size and grades :	90x45 MSG8 & MSG10 (H1.2)
Roof Weight & Type :	Light (Longrun Iron)
Roof Pitch :	6 degrees
Roof Dead Load :	0.210 kPa
Roof Restraints :	900mm centres
Roof Live Load : Q _{ur} = 0.250 kPa ; Q _e = 1.100 kN	
Ceiling Material :	Standard
Ceiling Dead Load :	0.200 kPa
Ceiling Restraints :	600mm centres
Ceiling Live Load : Q _c = 1.400kN	
Earthquake Zone :	A / Snow Zone : 1

If Rondo battens on clips are used then the bottom chords
of the trusses must be restrained @ 1800 c/s max.

No. off	Fixing description
1 pairs	"Z" nails (1 pair)
1	JH47 x 90
1	JH47 x 120
1	JH47 x 190
1	JH70 x 180
1	JH95 x 165
1 pairs	CPC 40 (75mm Hex screws)
1 pairs	CPC 80 (75mm Hex screws)
1	200x110x1mm Nail on plate.
1	320x110x1mm Nail on plate.
1 pairs	Multi-Grips (pair)
1 pairs	CT200 (pair)
1	CT400 (cyclone ties)

Truss to Truss Fixings.

(In all other situations use 2 / 100mm skew nails)

Truss to Top Plate Fixings.

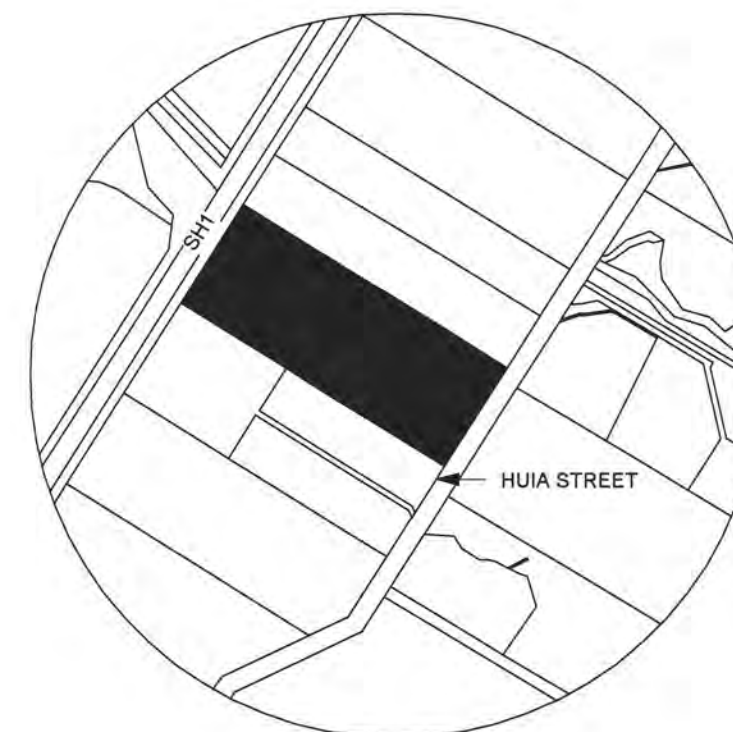
Fixing	Product	Notes
JH47 x 90	Fill all holes with Product nails 30x3.15mm	
JH47 x 120	4 x Product nails 30x3.15mm / 2 x Type 17, 75mm screws	
JH47 x 190	8 x Product nails 30x3.15mm / 4 x Type 17, 75mm screws	
JH70 x 180	200x110x1mm Nail on plate. (fill all holes to within 10mm of the timber edge)	
JH95 x 165	320x110x1mm Nail on plate. (fill all holes to within 10mm of the timber edge)	
JH170 x 180	Fill all holes with Product nails 30x3.15mm	
CPC 80	Fill all holes with Product nails 30x3.15mm	
CT200 (pair)	Fill all holes with Product nails 30x3.15mm	
CT400 (cyclone ties)	8 x Product nails 30x3.15mm / 4 x Type 17, 35mm screws	
"Z" nails (pair)		
Multi-Grip (pair)	Fill all holes with Product nails 30x3.15mm	

Drawing List		
Number	Sheet Name	Revn
01	BUILDING 3D	
02	CONSTRUCTION NOTES	
03	SITE PLAN	2
04	FLOOR PLAN	2
05	ELEVATIONS	2
06	ELEVATIONS	2
07	EARTHWORKS PLAN	2
08	DRAINAGE PLAN	2
09	FOUNDATION PLAN	2
10	FRAMING PLAN	3
11	BRACING PLAN	
12	LIGHTING PLAN	
13	ELECTRICAL PLAN	3
14	ROOF PLAN	
15	BUILDING SECTION	
16	BUILDING SECTION	3
17	BUILDING SECTION	
18	DETAILS	
19	DETAILS	
20	DETAILS	
21	DETAILS	
22	DETAILS	
23	DETAILS	3
24	DETAILS	
25	EXTERIOR JOINERY SCHEDULE	1
26	EXTERIOR JOINERY SCHEDULE	2
27	INTERIOR OPENING SCHEDULE	2
28	INTERIOR ELEVATIONS	2
29	INTERIOR ELEVATIONS & DETAILS	



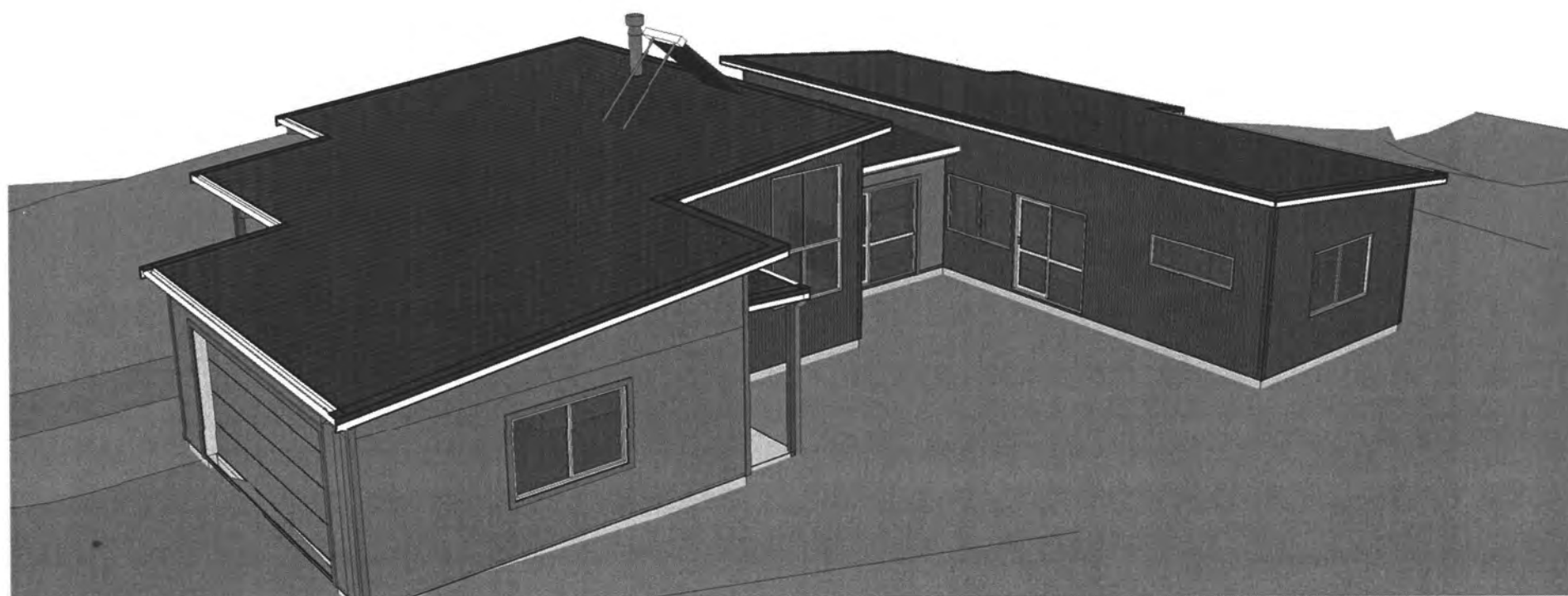
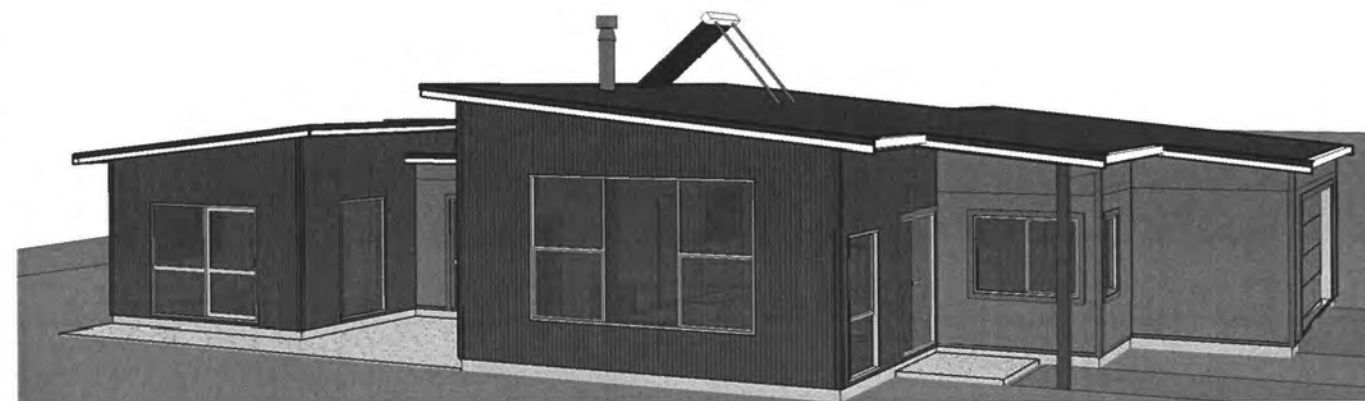
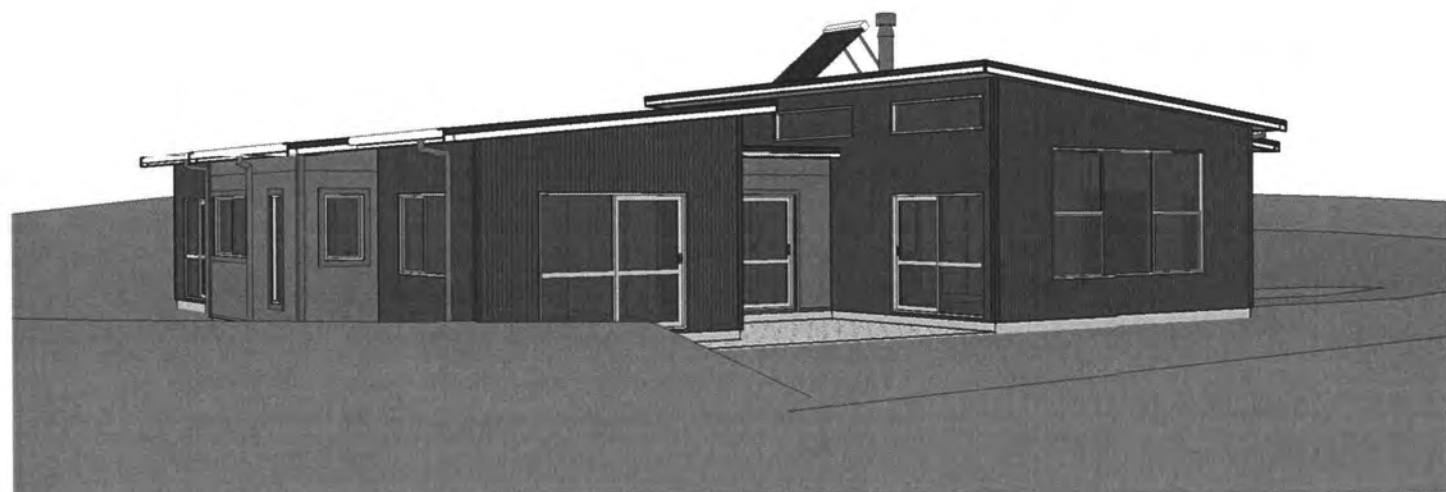
RBW

Proposed House
FOR
Esther & Peterson
AT
142 Huia St Waikanae



A D N Z ...
ARCHITECTURAL DESIGNERS NZ
PROFESSIONAL MEMBER

A.D
architecture
LTD
Ph: 04 298 5662 Fax: 04 298 5663
info@adarchitecture.co.nz
www.adarchitecture.co.nz
PO Box 1585, Paraparaumu Beach



Phone: 04 904 59 59

Rev	Date	Description
Proposed House for Esther & Peterson 142 Huia St Waikanae Lot 10 DP 22652		
A.D architecture <small>LTD</small>		
<small>Tel : 04 298 5662 PO Box 1585, Paraparaumu Beach info@adarchitecture.co.nz www.adarchitecture.co.nz</small>		
BUILDING 3D		
BUILDING CONSENT		
DO NOT SCALE DRAWING		
Job	Date	Rev
11090	APRIL 2013	
Sheet		
(A3) 01		

GENERAL CONSTRUCTION NOTES

- ALL WORK IS TO COMPLY WITH THE NEW ZEALAND BUILDING CODE, TERRITORIAL AUTHORITY REQUIREMENTS, NZ STANDARDS (IN PARTICULAR NZS 3604), MANUFACTURERS LITERATURE AND ENDORSED BUILDING CONSENT PLANS
- ALL REFERENCES TO CODES AND STANDARDS SHALL BE TAKEN TO MEAN THE LATEST VERSION INCLUDING AMENDMENTS
- DOCUMENTS MAY HAVE BEEN SCANNED AND DIGITALLY REPRODUCED AND MAY NOT BE TO SCALE
- CONTRACTOR TO PROVIDE BARRIERS, SIGNAGE AND SCAFFOLDING TO COMPLY WITH NZBC F5 AND OSH REQUIREMENTS
- INSTALL ALL MATERIALS IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS AND INSTRUCTIONS
- SLIP RESISTANCE RATING OF TRAFFICABLE SURFACES TO COMPLY WITH NZBC D1
- THIS PROJECT CONTAINS ELEMENTS DESIGNED BY A STRUCTURAL ENGINEER. THE CONTRACTOR IS REQUIRED TO ENSURE THE ENGINEER INSPECTS THE WORK THEY HAVE DESIGNED AND PROVIDE THE TERRITORIAL AUTHORITY WITH WRITTEN EVIDENCE OF THE INSPECTION
- CONTRACTOR MUST OBTAIN TERRITORIAL AUTHORITY ACCEPTANCE FOR ANY VARIATIONS TO PLANS AND CONSTRUCTION DETAILS

BUILDING ENVIRONMENT NOTES

- THIS CONSTRUCTION SITE SHALL ADHERE TO THE REBRI (RESOURCE EFFICIENCY IN THE BUILDING AND RELATED INDUSTRIES) GUIDELINES FOR CONSTRUCTION - WASTE REDUCTION
- THIS SITE IS IN A VERY HIGH WIND ZONE. ENSURE CORRECT FIXINGS, TIE DOWNS, CONNECTORS, GLAZING ETC ARE USED
- THIS SITE IS IN EXPOSURE ZONE C :
 - ALL STRUCTURAL FIXINGS IN SHELTERED LOCATIONS TO BE HOT DIP GALVANISED, AND IN EXPOSED SITUATIONS TO BE TYPE 304 S.S.
 - ALL FIXINGS IN CONTACT WITH TIMBER TREATED WITH A COPPER BASED PRESERVATIVE ARE TO BE TYPE 304 S.S. IN EXPOSED OR SHELTERED LOCATIONS, AND HOT DIPPED GALVANISED IN CLOSED SITUATIONS

SITE NOTES

- THE CONTRACTOR IS RESPONSIBLE FOR CLEARLY DEFINING THE SITE BOUNDARIES. IN ORDER TO CORRECTLY SET THE BUILDING OUT, A REGISTERED SURVEYOR MAY BE REQUIRED. ESTABLISHED FENCES ARE NOT NECESSARILY ON THE SITE BOUNDARY
- THE MINIMUM CLEARANCE FROM FLOOR SLAB TO FINISHED GROUND LEVEL TO BE:
 - 150mm TO PAVED AREAS AND 225mm TO NON-PAVED AREAS

FOUNDATION NOTES

- GROUND BEARING MUST BE RECONFIRMED ON SITE FOLLOWING THE EXCAVATION OF FOUNDATION TRENCHES AND PRIOR TO POURING ANY CONCRETE. SOFT GROUND MAY BE ENCOUNTERED, REQUIRING SPECIFIC DESIGN BY A CONSULTING STRUCTURAL ENGINEER
- ALL FOUNDATIONS ARE TO SPECIFIC DESIGN BY A CONSULTING STRUCTURAL ENGINEER
- CONTRACTOR TO ENSURE THAT THE FOUNDATION HEIGHT WILL ALLOW FOR REQUIRED DRAINAGE FALLS TO THE SEWER MAIN
- PROVIDE PROTECTION TO ALL WASTE PIPES AND DRAINS THAT RUN UNDER OR THROUGH FOUNDATION GROUND BEAMS

ALUMINIUM JOINERY & GLAZING NOTES

- ALL HABITABLE AND SERVICE ROOMS ARE REQUIRED TO HAVE OPENING WINDOWS EQUIVALENT TO A MINIMUM OF 5% OF THEIR FLOOR AREA, OR AN APPROVED ALTERNATIVE VENTILATION SYSTEM
- OPENING WINDOWS PROJECTING OVER ACCESS ROUTES AND DECKS TO BE PROTECTED TO COMPLY WITH NZBC D1, CLAUSE 1.5.4
- PROVIDE SILL SUPPORT BRACKETS TO EXTERNAL WINDOWS AND DOORS
- ALUMINIUM JOINERY TO BE IN ACCORDANCE WITH NZS 4211
- ALL GLAZING IS TO COMPLY WITH NZS 4223 PARTS 1,2,3
- WINDOW MANUFACTURER IS TO CONFIRM ALL WINDOWS REQUIRED TO HAVE SAFETY GLASS
- WINDOW MANUFACTURER TO SUPPLY ALL FLASHINGS AND WAZ WIS COMPONENTS
- FIT RESTRICTOR STAYS TO WINDOW OPENING SASHES TO LIMIT THE OPENING TO A MAXIMUM OF 100mm WHEREVER THE SILL HEIGHT IS LESS THAN 760mm AND THE DIFFERENCE IN LEVELS IS 1.0m OR GREATER. REFER TO NZBC F4

WALL AND ROOF FRAMING NOTES

- TIMBER TREATMENT TO COMPLY WITH NZS 3602
- TRUSSES AND PREFABRICATED WALLS MUST BE DESIGNED AND SUPPLIED BY A LICENSED PRE-NAIL MANUFACTURER. PROVIDE A COPY OF THE DESIGN AND PRODUCER STATEMENT TO THE TERRITORIAL AUTHORITY
- BOTTOM PLATES TO BE FIXED WITH APPROVED BOTTOM PLATE ANCHORS INSTALLED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS AND NZS 3604
- STUD / TOP PLATE FIXINGS TO BE IN ACCORDANCE WITH LUMBERLOK STUR TO TOP PLATE FIXING SCHEDULE
- LINTEL HOLD DOWNS TO BE IN ACCORDANCE WITH LUMBERLOK LINTEL FIXING SCHEDULE UNLESS SPECIFIED BY PRENAIL MANUFACTURER
- ALL FIXINGS TO BE GALVANISED TO PREVENT DETERIORATION DUE TO TEMPORARY EXPOSURE
- WHERE BOLTED CONNECTIONS ARE USED, FIT WITH 50x50x3mm SQUARE OR 55x3mm ROUND WASHERS TO BOTH SIDES
- ROOF FRAMING AND FIXING REQUIREMENTS TO COMPLY WITH NZS 3604 SECTION 10
- DO NOT SUPPORT BOTTOM CHORDS OF TRUSSES AT POINTS OTHER THAN THOSE DESIGNATED BY THE TRUSS MANUFACTURER

CLADDING NOTES

- WHERE WALLS ARE NOT LINED (E.G. GABLE ENDS AND FRAMED CHIMNEYS), A RIGID SHEATHING OR AN AIR BARRIER WRAP IS TO BE INSTALLED TO COMPLY WITH NZBC E2/AS1 CLAUSE 9.1.4 PRIOR TO FIXING CAVITY BATTENS AND CLADDING
- RETURN WALL UNDERLAY INTO ALL FRAMING OPENINGS AND FIT APPROVED FLEXIBLE FLASHING TAPE TO MANUFACTURERS SPECIFICATION.
- FIT FLASHINGS TO COMPLY WITH THE WINDOW AND CLADDING MANUFACTURERS SPECIFICATIONS AND DETAILS. FIT AIR SEALS TO THE INNER EDGE OF JOINERY REVEALS
- A HEAVY DUTY WIND BARRIER IS REQUIRED BEHIND BEVEL BACK WEATHERBOARDS IN WIND ZONES VERY HIGH AND ABOVE

ROOFING NOTES

- ROOF FRAMING AND FIXING REQUIREMENTS TO COMPLY WITH NZS 3604 SECTION 10
- ROOF CLADDING TO BE INSTALLED TO THE MANUFACTURERS SPECIFICATION AND THE REQUIREMENTS OF NZBC E2, SECTION 8. STEEL COATING TO BE SUITABLE FOR THE CORROSION ZONE. SITE AND PROJECT SPECIFIC CONFIRMATION OF THE SPECIFIED ROOFING IS REQUIRED. PROVIDE A COPY OF THE MANUFACTURERS WARRANTY TO THE TERRITORIAL AUTHORITY
- ENSURE ADEQUATE CROSS FLOW VENTILATION IS PROVIDED TO ROOF SPACE ABOVE THE THERMAL INSULATION TO PREVENT CONDENSATION
- CONTRACTOR TO PROVIDE OWNER WITH SUITABLE WRITTEN DETAILS OF A REGULAR INSPECTION AND MAINTENANCE REGIME FOR ALL ROOF AND DECK MEMBRANES AND ASSOCIATED FLASHING

PLUMBING NOTES

- ALL PLUMBING AND DRAINAGE TO BE IN ACCORDANCE WITH AS / NZS 3500 PART 2
- CONTRACTOR TO CONFIRM LOCATIONS OF EXISTING LATERALS ON SITE
- PROVIDE PROTECTION TO ALL WASTE PIPES AND DRAINS THAT RUN UNDER OR THROUGH FOUNDATION GROUND BEAMS
- PROVIDE DRAINAGE PRODUCER STATEMENT AND AS-BUILT DRAINAGE PLAN TO THE TERRITORIAL AUTHORITY PRIOR TO CCC BEING ISSUED
- FIT A TEMPERING VALVE TO THE HOT WATER SERVICE
- WATER PIPES TO BE TESTED TO 1500 KPa
- ENSURE THAT PLUMBING CAN RUN TO THE EXTERIOR WITHOUT DAMAGING STRUCTURAL MEMBERS
- DRAINAGE PIPES TO BE TESTED AND INSPECTED PRIOR TO BACKFILLING
- PROVIDE SEISMIC RESTRAINTS TO HOT WATER CYLINDERS

ELECTRICAL NOTES

- INSTALL SMOKE ALARMS TO COMPLY WITH NZBC F7
- RECESSED DOWN LIGHTS (IF USED) ARE TO BE IC-F RATED AND INSTALLED TO PREVENT TRANSFER OF MOISTURE INTO CEILING SPACE TO COMPLY WITH NZECP 54
- PROVIDE ELECTRICAL CERTIFICATION AFTER COMPLETION TO THE TERRITORIAL AUTHORITY PRIOR TO CCC BEING ISSUED

FIRE NOTES

- SOLID FUEL BURNING APPLIANCES TO BE INSTALLED TO THE REQUIREMENTS OF NZS 7421 AND NZS 2918, SUBJECT TO TERRITORIAL AUTHORITY APPROVAL. THE APPLIANCE MUST COMPLY WITH THE MINISTRY OF ENVIRONMENT CURRENT EMISSION STANDARDS. PROVIDE PERMANENT EXTERNAL SUPPLY OF COMBUSTION AIR AND SEISMIC RESTRAINTS TO THE APPLIANCE AND FLUE TO COMPLY WITH NZBC C/AS1 PART 9.

TIMBER TREATMENT SCHEDULE

COMPONENT	TREAT
EXTERIOR TIMBER - COATED	H3.1
EXTERIOR TIMBER - EXPOSED	H3.2
WALL FRAMING GENERALLY	H1.2
BOTTOM PLATES	H3.2
ALL ROOF FRAMING & PURLINS	H1.2
CAVITY BATTENS	H3.1
PLYWOOD CLADDING	H3.1
CLADDING BATTENS AND TRIM	H3.1
• ALL TIMBER TO COMPLY WITH NZS 3602	
• TREAT CUT ENDS AND BORE HOLES AS REQUIRED BY NZS3602, NZS3460 AND TIMBER MANUFACTURERS SPECIFICATIONS	
• TIMBER SPECIES TO BE RADIATA PINE UNLESS NOTED OTHERWISE	
• ALL FIXINGS IN CONTACT WITH TIMBER TREATED WITH A COPPER BASED PRESERVATIVE ARE TO BE TYPE 304 S.S. IN EXPOSED OR SHELTERED LOCATIONS, AND HOT DIPPED GALVANISED IN CLOSED SITUATIONS	



Phone: 04 904 59 59

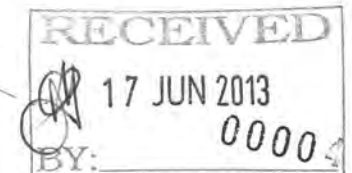
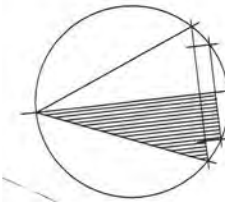
Rev	Date	Description
Proposed House for Esther & Peterson 142 Huia St Waikanae Lot 10 DP 22652		
A.D architecture LTD Tel : 04 298 5662 PO Box 1585, Paraparaumu Beach info@adarchitecture.co.nz www.adarchitecture.co.nz		
CONSTRUCTION NOTES		
BUILDING CONSENT		
DO NOT SCALE DRAWING		
Job	Date	Rev
11090	APRIL 2013	
Sheet		
(A3)	02	

SITE NOTES
THIS PAGE IS TO BE READ IN CONJUNCTION
WITH SHEET 02 - CONSTRUCTION NOTES FOR
ADDITIONAL INFORMATION

SITE AREA = 38483m²

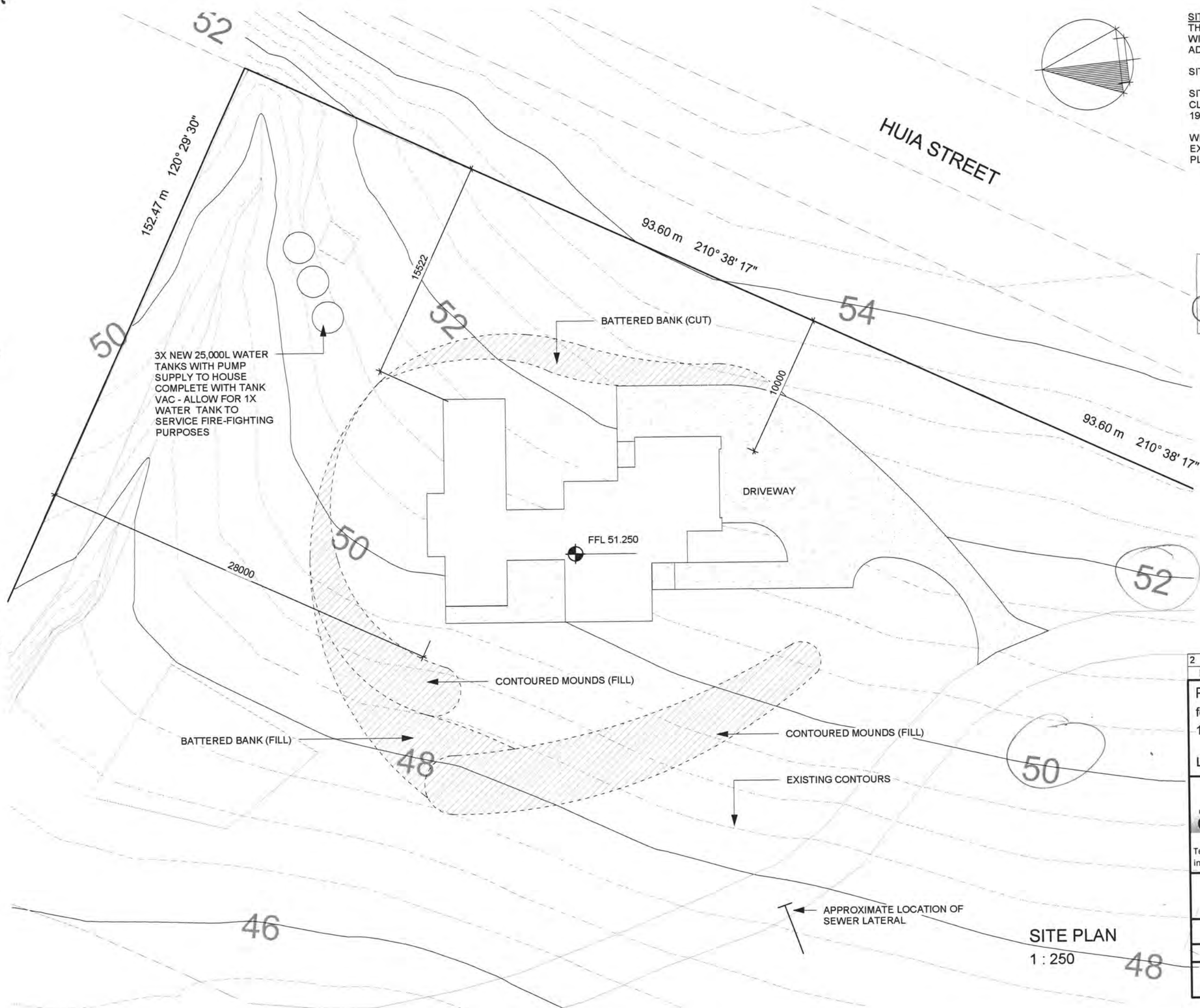
SITE COVERAGE (MEASURED OVER
CLADDING AND INCLUDING VERANDAHS) =
193.5m² = 0.50%

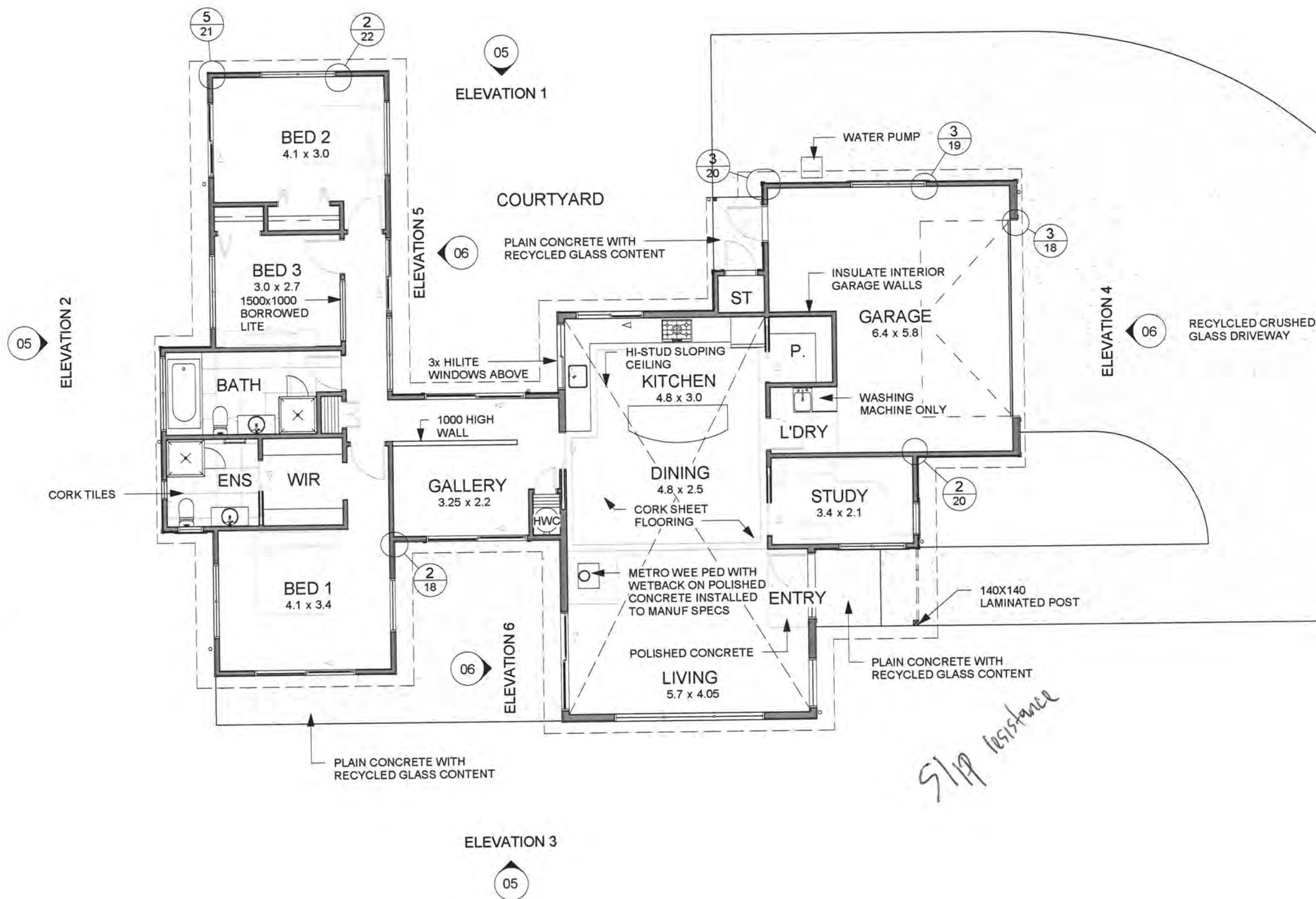
WIND ZONE = VERY HIGH
EXPOSURE ZONE = ZONE C
PLANNING ZONE = RURAL



Phone: 04 904 59 59

Rev	Date	Description
2	30-04-13	Client Requests
Proposed House for Esther & Peterson 142 Huia St Waikanae		
Lot 10 DP 22652		
A.D architecture LTD		
Tel : 04 298 5662 PO Box 1585, Paraparaumu Beach info@adarchitecture.co.nz www.adarchitecture.co.nz		
SITE PLAN		
BUILDING CONSENT		
DO NOT SCALE DRAWING		
Job	Date	Rev
11090	APRIL 2013	2
Sheet	(A3)	03





- CONSTRUCTION NOTES**
- THIS PAGE IS TO BE READ IN CONJUNCTION WITH SHEET 02 - CONSTRUCTION NOTES FOR ADDITIONAL INFORMATION
 - 13mm GIB STANDARD CEILINGS ON 70x35 TIMBER BATTENS (13mm AQUALINE TO BATHROOMS, ENSUITE AND LAUNDRY)
 - 10mm GIB WALL LININGS (10mm AQUALINE TO BATHROOMS, ENSUITE AND LAUNDRY)
 - 9mm STRANDBOARD WALL LININGS TO GARAGE
 - SQUARE STOP SCOTIA DETAIL THROUGHOUT
 - 60mm BEVEL EDGE MDF SKIRTINGS THROUGHOUT
 - SLIMLINE REVEALS TO WINDOWS AND DOORS REBATED FOR WALL LININGS
 - INSTALL SOLAR WATER HEATING SYSTEM INSTALLED TO MANUF SPEC
 - INSTALL SOLAR CAPABLE ELECTRIC HWC TO MANUF SPEC WITH SEISMIC RESTRAINTS
 - ALL FLOOR FINISHES TO COMPLY WITH NZBC D1 FOR SLIP RESISTANCE



Phone: 04 904 59 59

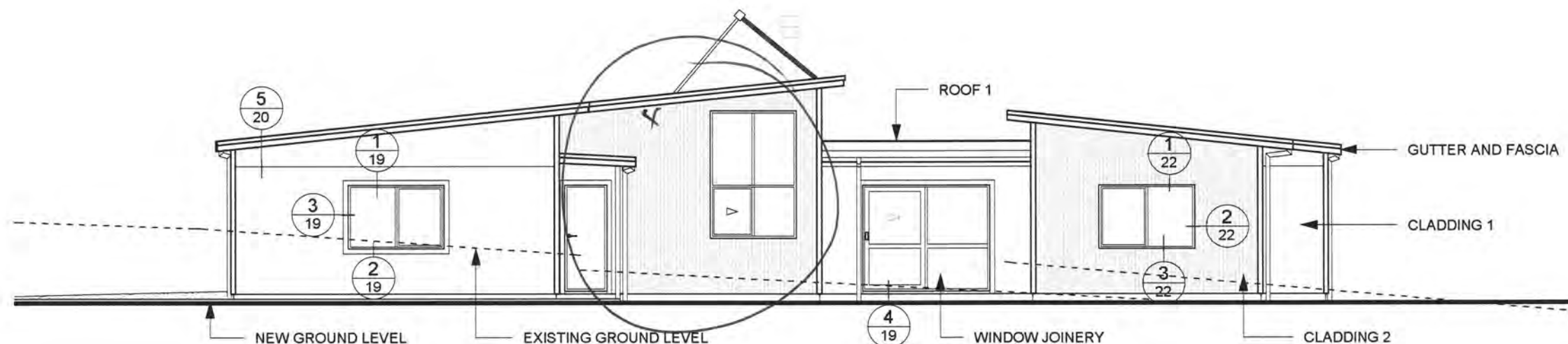
Rev	Date	Description
2	30-04-13	Client Requests
Proposed House for Esther & Peterson 142 Huia St Waikanae Lot 10 DP 22652		
A.D architecture LTD		
Tel : 04 298 5662 PO Box 1585, Paraparaumu Beach info@adarchitecture.co.nz www.adarchitecture.co.nz		
FLOOR PLAN		
BUILDING CONSENT		
DO NOT SCALE DRAWING		
Job	Date	Rev
11090	APRIL 2013	2
Sheet	(A3)	04

- SELECTED PRODUCTS**
- THIS PAGE IS TO BE READ IN CONJUNCTION WITH SHEET 02 - CONSTRUCTION NOTES FOR ADDITIONAL INFORMATION
 - CLADDING 1 - 12mm SHADOWCLAD PLY SHEET CLADDING ON 50x25 H3.1 TIMBER CAVITY BATTENS ON TEKTON WALL UNDERLAY AS PART OF THE TEKTON WEATHERIZATION SYSTEM ON FRAMING
 - CLADDING 2 - 0.4 GAUGE TRAPEZOIDAL PROFILED METAL CLADDING ON THERMAKRAFT 215 WALL UNDERLAY ON FRAMING
 - ROOF 1 - 0.4 GAUGE LONGRUN COLORSTEEL ENDURA TRAPEZOIDAL PROFILED METAL ROOFING ON THERMAKRAFT 215 UNDERLAY ON WIRE MESH ON PURLINS ON FRAMING
 - SOFFITS - 4.5mm HARDIFLEX
 - FASCIA - TIMBER
 - GUTTERS - COLORSTEEL BOX GUTTER 125
 - DOWNPIPES - MARLEY 80Ø ROUND
 - WINDOW JOINERY - POWDERCOAT ALUMINIUM RESIDENTIAL DOUBLE GLAZED WINDOWS
 - WINDOW FLASHING TAPE - PROTECTO WRAP ONE PIECE SILL TAPE AS PART OF THE TEKTON WEATHERIZATION SYSTEM

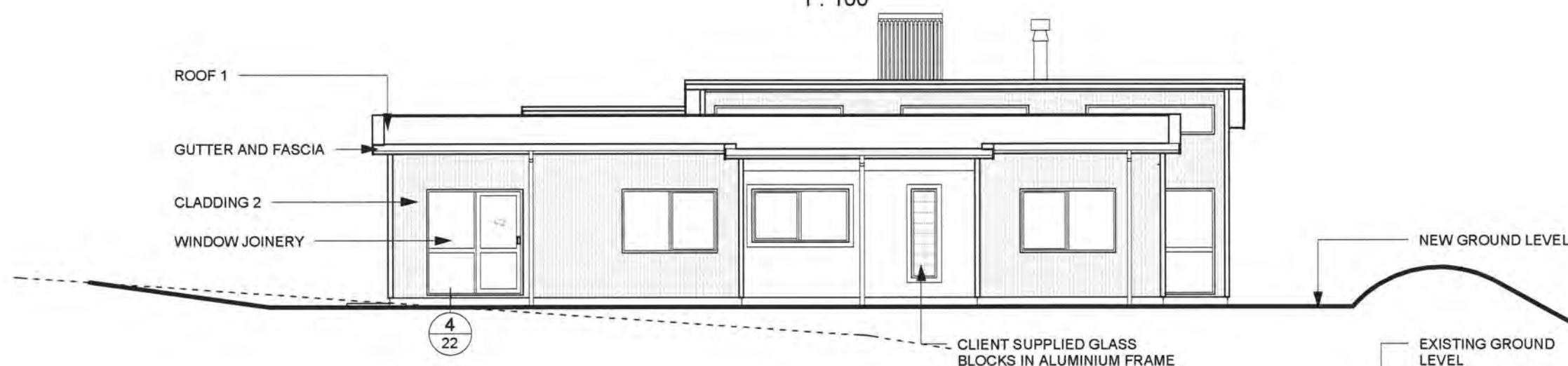


Phone: 04 904 59 59

2	30-04-13	Client Requests	
Rev	Date	Description	
Proposed House for Esther & Peterson 142 Huia St Waikanae Lot 10 DP 22652			
A.D architecture LTD			
Tel : 04 298 5662 info@adarchitecture.co.nz		PO Box 1585, Paraparaumu Beach www.adarchitecture.co.nz	
ELEVATIONS			
BUILDING CONSENT			
DO NOT SCALE DRAWING			
Job	Date	Rev	Sheet
11090	APRIL 2013	2	(A3) 05



ELEVATION 1
1 : 100

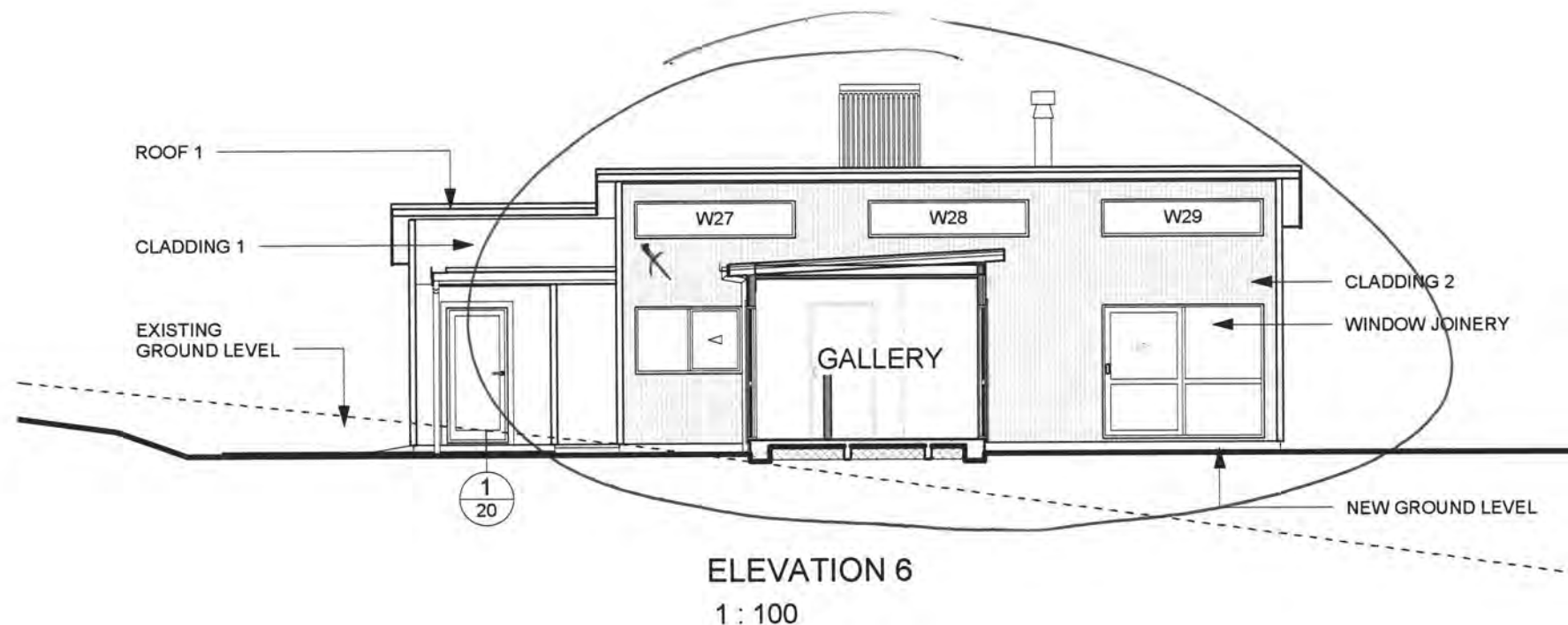
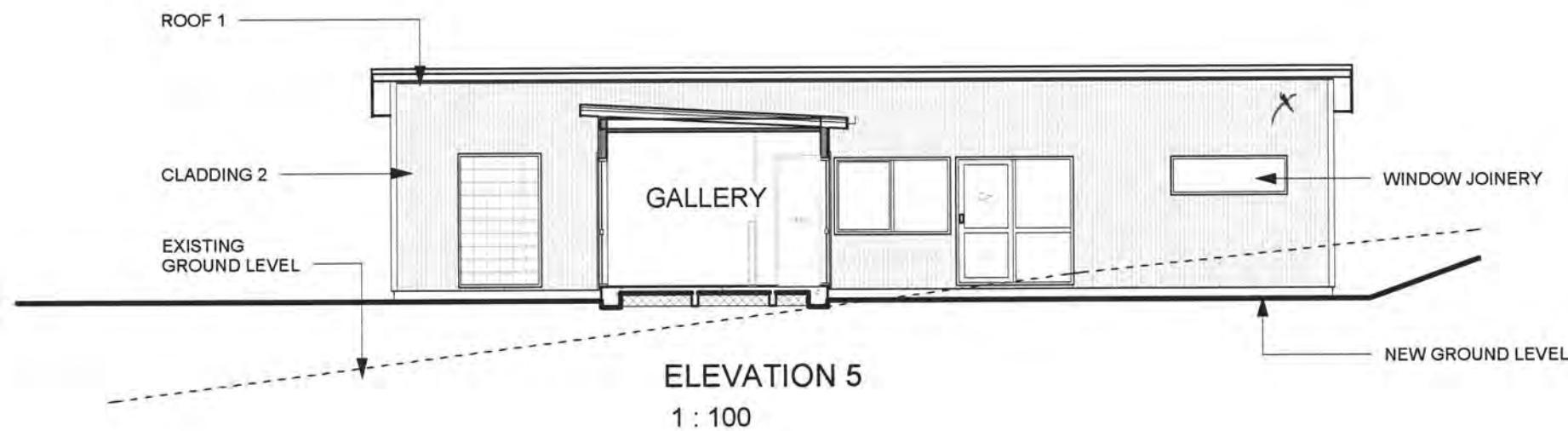
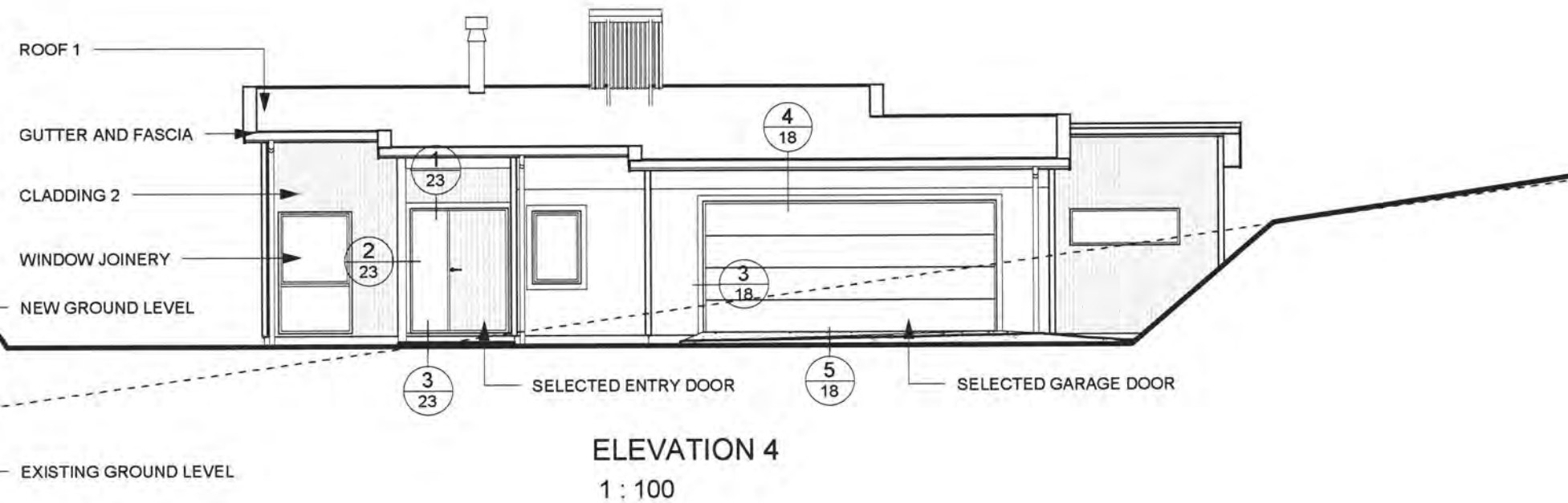


ELEVATION 2
1 : 100



ELEVATION 3
1 : 100

- SELECTED PRODUCTS**
- THIS PAGE IS TO BE READ IN CONJUNCTION WITH SHEET 02 - CONSTRUCTION NOTES FOR ADDITIONAL INFORMATION
 - CLADDING 1 - 12mm SHADOWCLAD PLY SHEET CLADDING ON 50x25 H3.1 TIMBER CAVITY BATTENS ON TEKTON WALL UNDERLAY AS PART OF THE TEKTON WEATHERIZATION SYSTEM ON FRAMING
 - CLADDING 2 - 0.4 GAUGE TRAPEZOIDAL PROFILED METAL CLADDING ON THERMAKRAFT 215 WALL UNDERLAY ON FRAMING
 - ROOF 1 - 0.4 GAUGE LONGRUN COLORSTEEL ENDURA TRAPEZOIDAL PROFILED METAL ROOFING ON THERMAKRAFT 215 UNDERLAY ON WIRE MESH ON PURLINS ON FRAMING
 - SOFFITS - 4.5mm HARDIFLEX
 - FASCIA - TIMBER
 - GUTTERS - COLORSTEEL BOX GUTTER 125
 - DOWNPIPES - MARLEY 80Ø ROUND
 - WINDOW JOINERY - POWDERCOAT ALUMINIUM RESIDENTIAL DOUBLE GLAZED WINDOWS
 - WINDOW FLASHING TAPE - PROTECTO WRAP ONE PIECE SILL TAPE AS PART OF THE TEKTON WEATHERIZATION SYSTEM



Phone: 04 904 59 59

2	30-04-13	Client Requests	
Rev	Date	Description	
Proposed House for Esther & Peterson 142 Huia St Waikanae			
Lot 10		DP 22652	
A.D architecture			
Tel : 04 298 5662		PO Box 1585, Paraparaumu Beach	
info@adarchitecture.co.nz		www.adarchitecture.co.nz	
ELEVATIONS			
BUILDING CONSENT			
DO NOT SCALE DRAWING			
Job	Date	Rev	Sheet
11090	APRIL 2013	2	(A3) 06

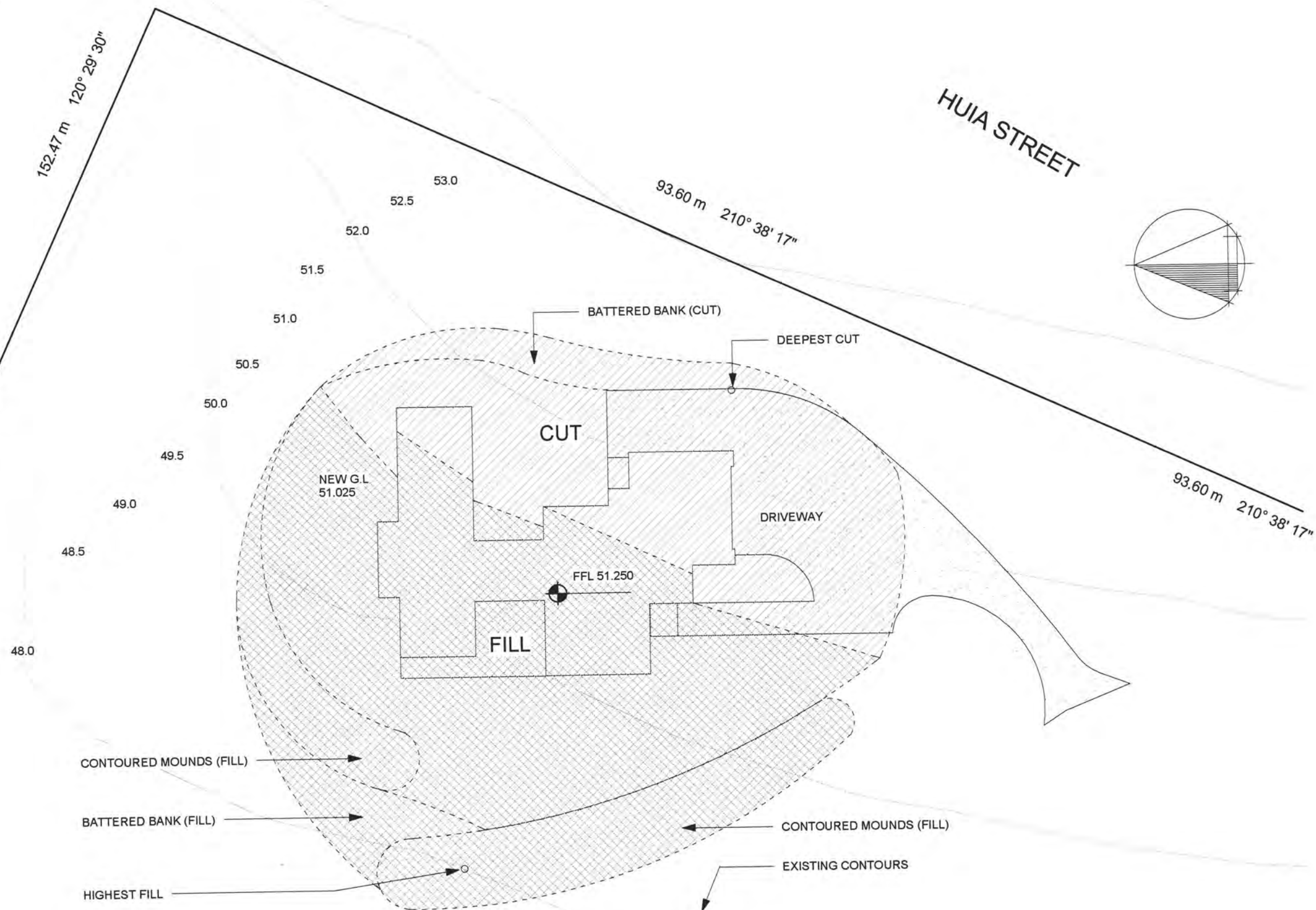
TOPOGRAPHY SCHEDULE		
NAME	FILL	CUT
LANDSCAPE	677.4 m ³	156.1 m ³
HOUSE	53.4 m ³	30.6 m ³
DRIVEWAY	0.6 m ³	48.9 m ³
	731.5 m ³	235.6 m ³

EARTHWORKS NOTES
 • THIS PAGE IS TO BE READ IN CONJUNCTION WITH SHEET 02 - CONSTRUCTION NOTES FOR ADDITIONAL INFORMATION
 • APPROX. EXTENT OF CUT = ~350m² / 236m³
 • APPROX. EXTENT OF FILL = ~629m² / 730m³
 • TOTAL AREA OF EARTHWORKS = 979m²
 • APPROX. DEEPEST CUT = 1.7m
 • APPROX. HIGHEST FILL = 3.8m



Phone: 04 904 59 59

2	30-04-13	Client Requests	
Rev	Date	Description	
Proposed House for Esther & Peterson 142 Huia St Waikanae			
Lot 10		DP 22652	
A.D architecture LTD			
Tel : 04 298 5662		PO Box 1585, Paraparaumu Beach	
info@adarchitecture.co.nz		www.adarchitecture.co.nz	
EARTHWORKS PLAN			
BUILDING CONSENT			
DO NOT SCALE DRAWING			
Job	Date	Rev	Sheet
11090	APRIL 2013	2	(A3) 07



NOTE : ALL EARTHWORKS TO BE REDISTRIBUTED ON SITE

EARTHWORKS PLAN
 1 : 250

PLUMBING KEY

BATH = BATH = 4FU
 DW = DISHWASHER = 3FU
 SHW = SHOWER = 2FU
 SINK = SINK = 3FU
 TUB = LAUNDRY TUB = 5FU
 WC = TOILET = 4FU
 WHB = WASH HAND BASIN = 1FU

DP = DOWNPIPE
 DV = DRAIN VENT
 HT = HOSE TAP
 IP = INSPECTION POINT
 HWC = HOT WATER CYLINDER
 ORG = OVERFLOW RELIEF GULLY

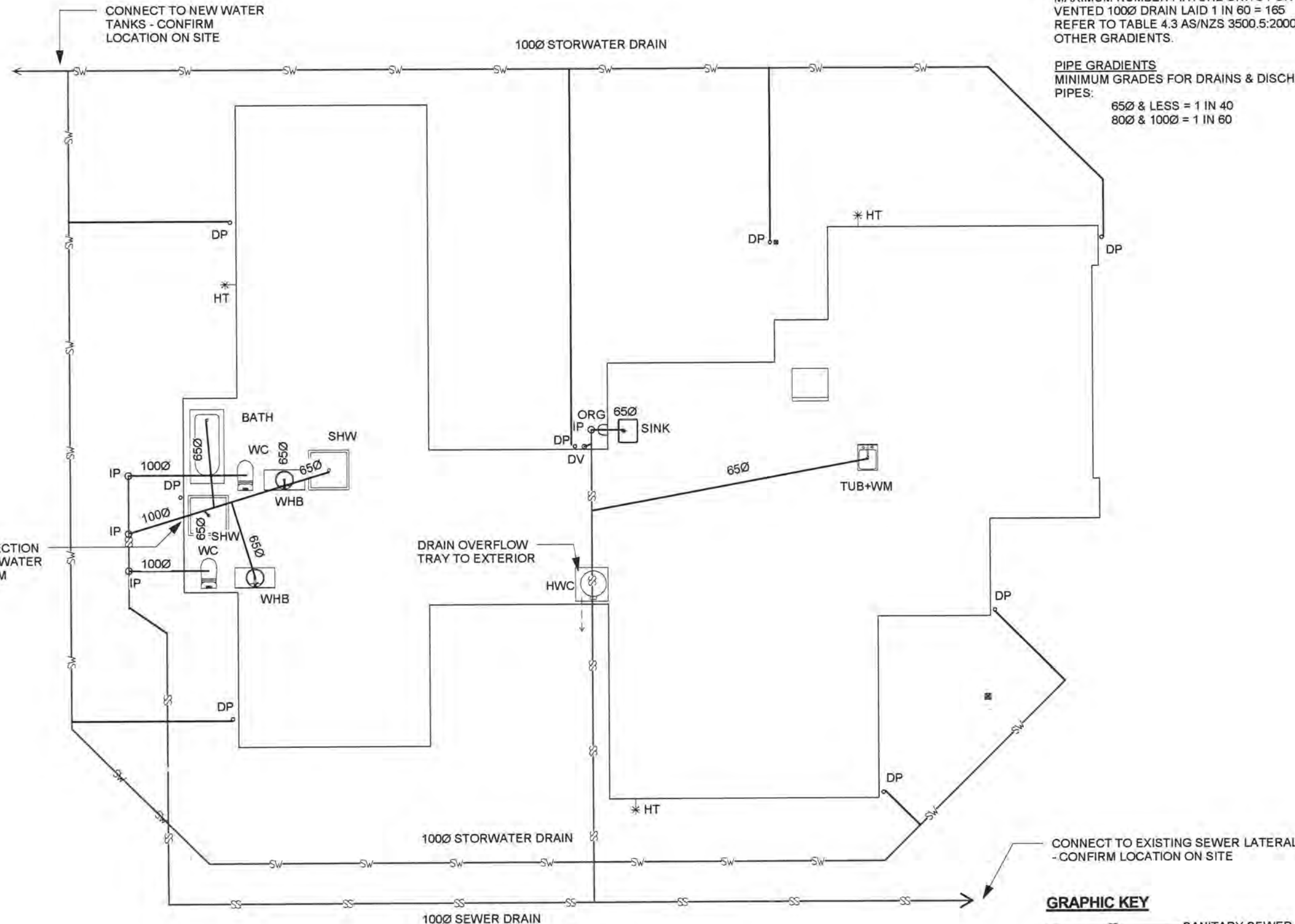
MAXIMUM NUMBER FIXTURE UNITS FOR
 VENTED 100Ø DRAIN LAID 1 IN 60 = 165
 REFER TO TABLE 4.3 AS/NZS 3500.5:2000 FOR
 OTHER GRADIENTS.

PIPE GRADIENTS

MINIMUM GRADES FOR DRAINS & DISCHARGE
 PIPES:

65Ø & LESS = 1 IN 40
 80Ø & 100Ø = 1 IN 60

PLUMBING & DRAINAGE NOTES:
 • THIS PAGE IS TO BE READ IN CONJUNCTION
 WITH SHEET 02 - CONSTRUCTION NOTES FOR
 ADDITIONAL INFORMATION
 • THIS PLAN HAS BEEN DESIGNED IN
 ACCORDANCE WITH BRANZ PLUMBING AND
 DRAINAGE GUIDE SECTION D AS/NZS 3500
 PART 2 FOR GROUND FLOOR SYSTEMS,
 SINGLE STACK RESIDENTIAL SYSTEMS AND
 SECTION F DRAINAGE REQUIREMENTS
 • CONFIRM POSITION OF LATERALS AND
 MAINS ON SITE
 • PROVIDE 3X 25,000 L WATER STORAGE
 TANK WITH PUMP SUPPLY TO HOUSE
 COMPLETE WITH TANK VAC - LOCATION TO BE
 CONFIRMED BY CLIENT - ALLOW FOR 1X
 WATER TANK TO SERVICE FIRE-FIGHTING
 PURPOSES - ALLOW FOR 1x GRAVITY FED TAP
 AT TANK FOR EMERGENCY WATER SUPPLY
 • PROVIDE SEISMIC RESTRAINTS TO HOT
 WATER CYLINDERS



DRAINAGE PLAN

1 : 100

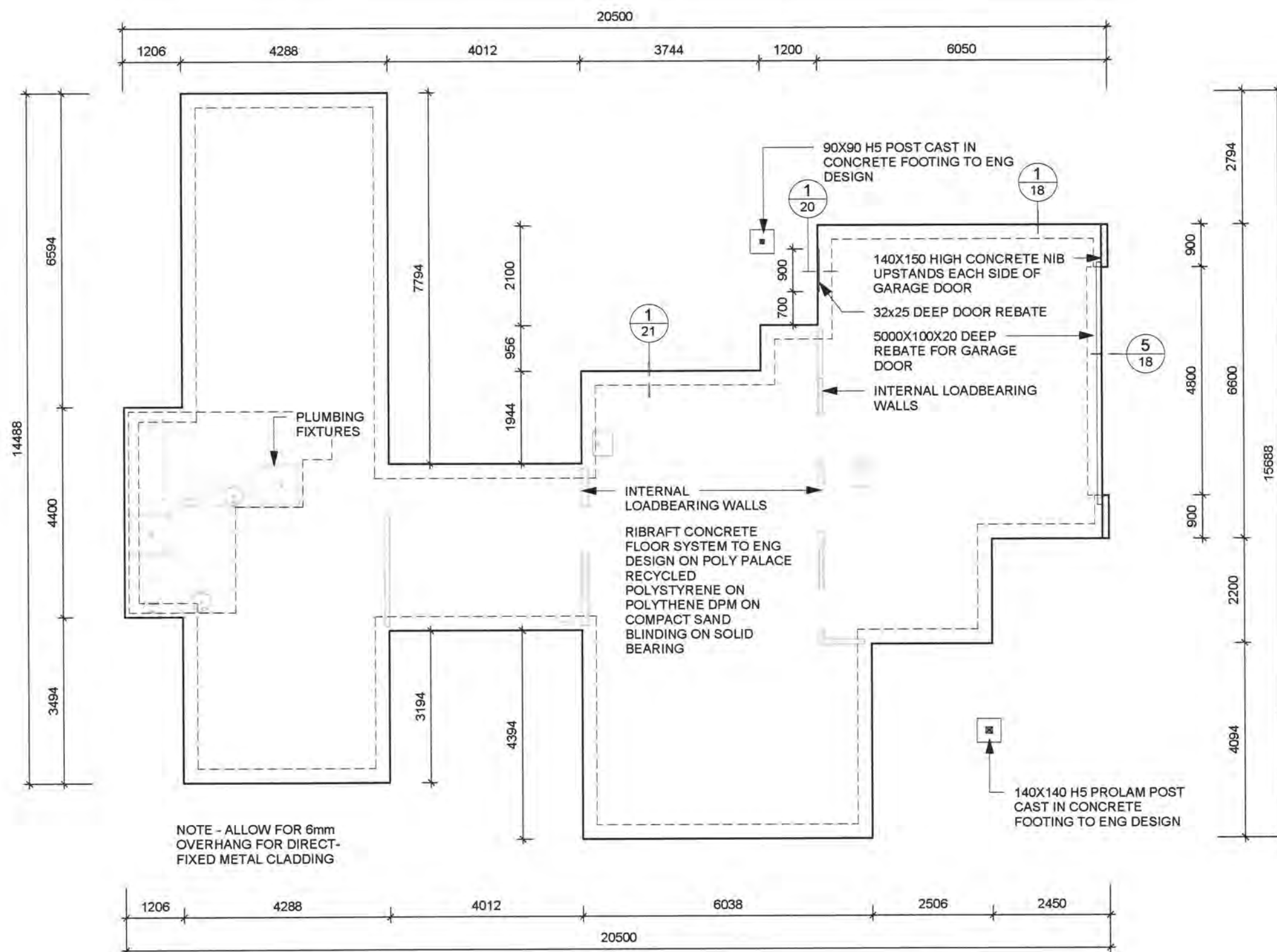
GRAPHIC KEY

— SS — SANITARY SEWER
 - - - STORMWATER
 . . . GREYWATER



Phone: 04 904 59 59

2	30-04-13	Client Requests	
Rev	Date	Description	
Proposed House for Esther & Peterson 142 Huia St Waikanae Lot 10 DP 22652			
A.D architecture LTD			
Tel : 04 298 5662		PO Box 1585, Paraparaumu Beach	
info@adarchitecture.co.nz		www.adarchitecture.co.nz	
DRAINAGE PLAN			
BUILDING CONSENT			
DO NOT SCALE DRAWING			
Job	Date	Rev	Sheet
11090	APRIL 2013	2	(A3) 08



- FOUNDATION NOTES**
- THIS PAGE IS TO BE READ IN CONJUNCTION WITH SHEET 02 - CONSTRUCTION NOTES FOR ADDITIONAL INFORMATION
 - ALL CONCRETE TO BE 20MPa UNLESS SPECIFIED OTHERWISE BY ENGINEER - ALL CONCRETE TO CONTAIN RECYCLED GLASS AGGREGATE TO MAX % ALLOWABLE
 - ALL REINFORCING MESH TO BE GRADE 500E
 - RIBRAFT CONCRETE FLOOR SYSTEM TO ENGINEERS DESIGN
 - FOUNDATION DETAILS TO ENGINEERS DESIGN
 - REFER TO ENGINEERS DWGS FOR SAWCUT LOCATIONS
 - THIS SITE IS IN EXPOSURE ZONE C :
- ALL STRUCTURAL FIXINGS IN SHELTERED LOCATIONS TO BE HOT DIP GALVANISED, AND IN EXPOSED SITUATIONS TO BE TYPE 304 S.S.
 - ALL FIXINGS IN CONTACT WITH TIMBER TREATED WITH A COPPER BASED PRESERVATIVE ARE TO BE TYPE 304 S.S. IN EXPOSED OR SHELTERED LOCATIONS, AND HOT DIPPED GALVANISED IN CLOSED SITUATIONS



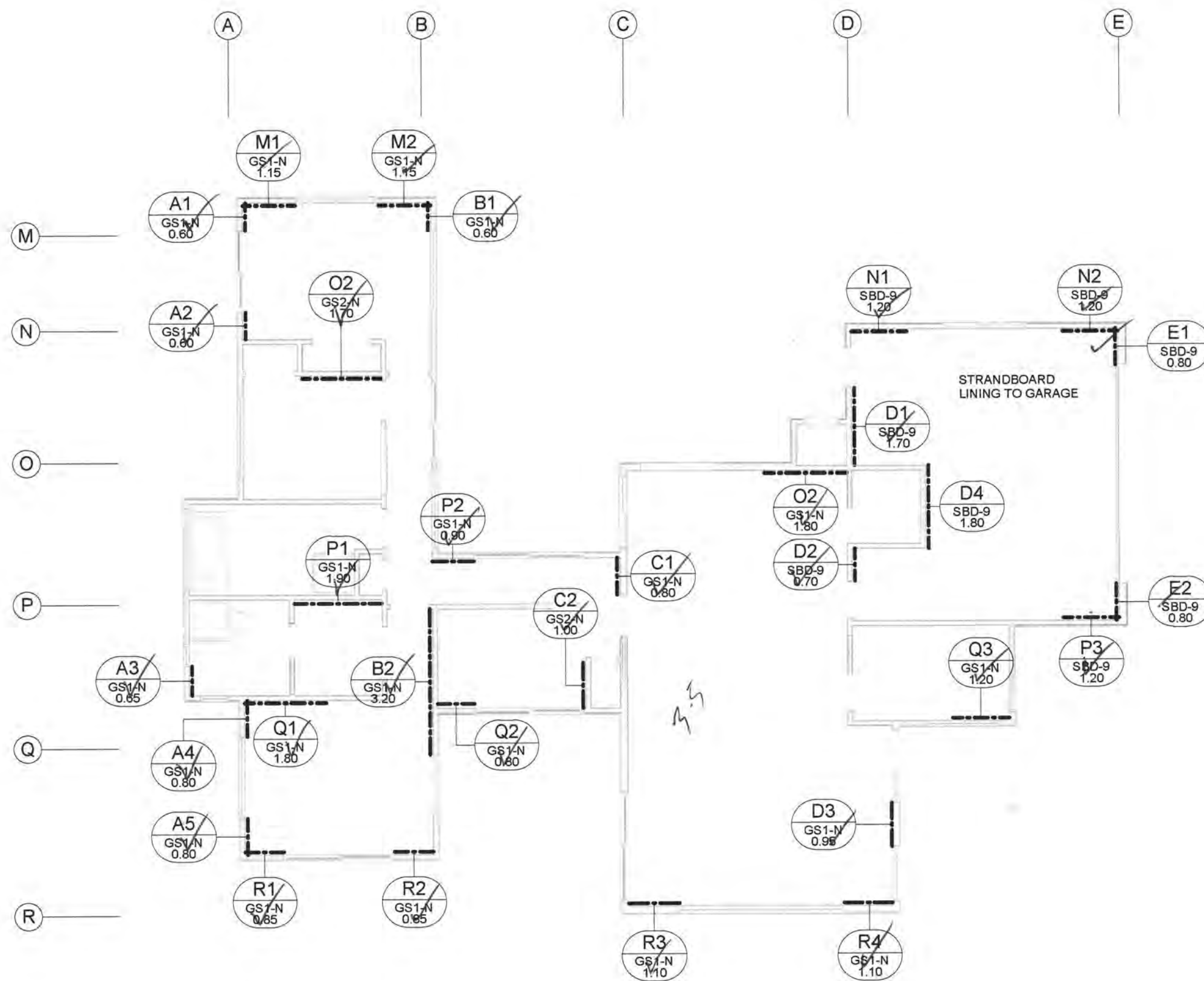
Phone: 04 904 59 59

Rev	Date	Description
2	30-04-13	Client Requests
Proposed House for Esther & Peterson 142 Huia St Waikanae Lot 10 DP 22652		
A.D architecture		
Tel : 04 298 5662 PO Box 1585, Paraparaumu Beach info@adarchitecture.co.nz www.adarchitecture.co.nz		
FOUNDATION PLAN		
BUILDING CONSENT		
DO NOT SCALE DRAWING		
Job	Date	Rev
11090	APRIL 2013	2
Sheet	(A3)	09

BRACING NOTES

- THIS PAGE IS TO BE READ IN CONJUNCTION WITH SHEET 02 - CONSTRUCTION NOTES FOR ADDITIONAL INFORMATION
- ALL BRACING TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS FOR WINSTONES GIB EZYBRACE SYSTEMS : JUNE 2011
- ALL BRACING ELEMENTS IN EXTERIOR AND INTERIOR WALLS THAT REQUIRE HOLD DOWN FIXINGS TO A CONCRETE SLAB FLOOR ARE TO HAVE GIB HANDIBRAC BRACKETS WITH BOWMAC SCREW BOLTS INSTALLED TO MANUFACTURERS SPECIFICATION

RECEIVED
17 JUN 2013
BY: 0001

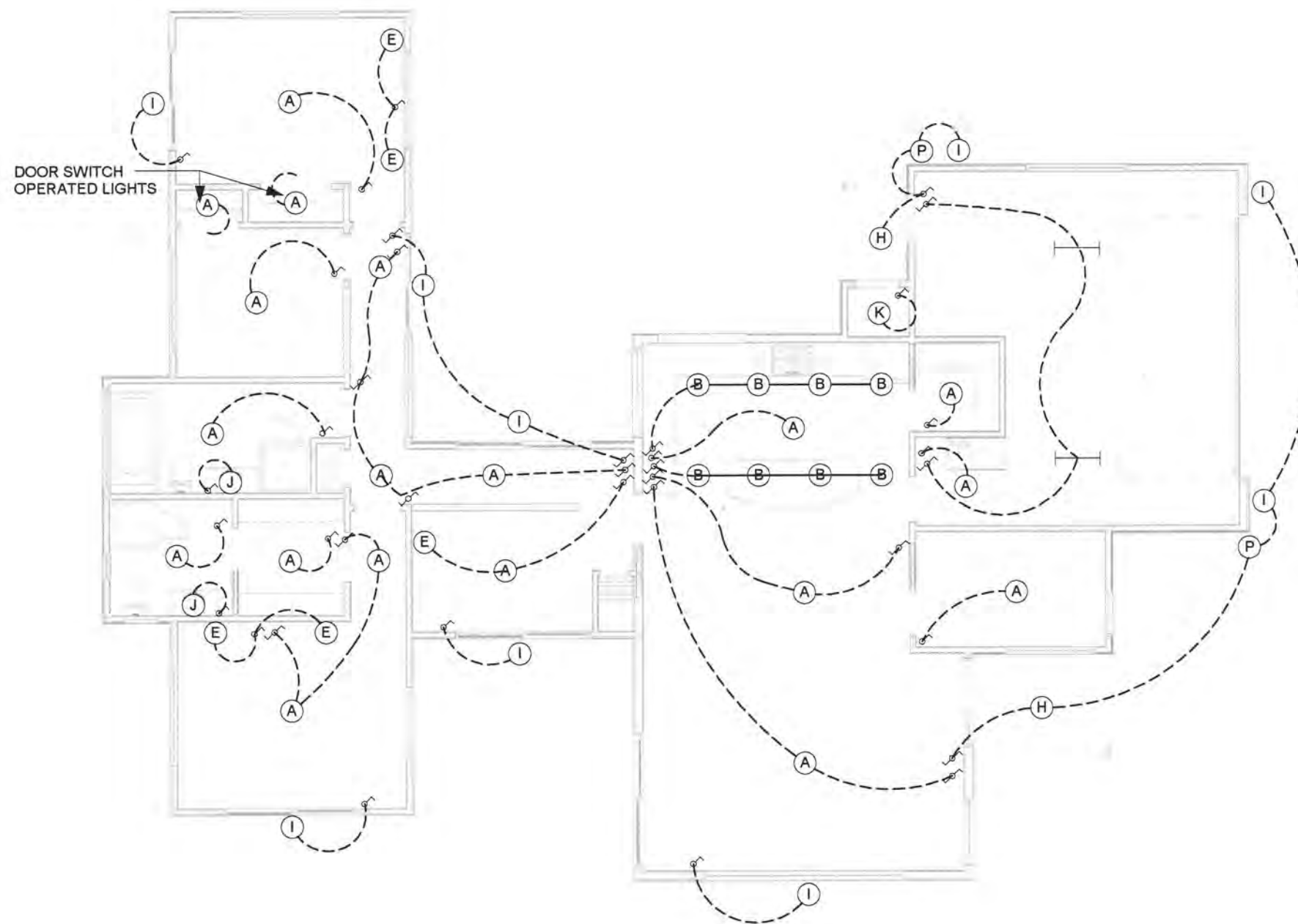


BRACING PLAN
1 : 100



Phone: 04 904 59 59

Rev	Date	Description
Proposed House for Esther & Peterson 142 Huia St Waikanae Lot 10 DP 22652		
A.D architecture LTD		
Tel : 04 298 5662 PO Box 1585, Paraparaumu Beach Info@adarchitecture.co.nz www.adarchitecture.co.nz		
BRACING PLAN		
BUILDING CONSENT		
DO NOT SCALE DRAWING		
Job	Date	Rev
11090	APRIL 2013	
Sheet	(A3)	11



LIGHTING LEGEND

- (A) SURFACE MOUNTED CEILING LIGHT
- (B) HALOGEN LIGHTS ON SUSPENDED RAIL
- (E) INTERIOR WALL MOUNTED LIGHT
- (H) EXTERIOR SOFFIT MOUNTED LIGHT
- (I) EXTERIOR WALL MOUNTED LIGHT
- (J) OVER MIRROR LIGHT
- (K) BATTEN HOLDER
- (P) PIR SENSOR
- FLUORESCENT LIGHT
- ↗ ONE WAY LIGHT SWITCH
- ↘ MULTIPLE LIGHT SWITCH
- D DIMMER SWITCH



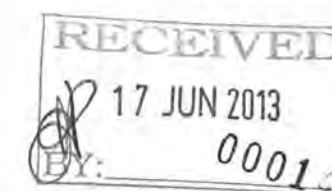
Phone: 04 904 59 59

Rev	Date	Description
Proposed House for Esther & Peterson 142 Huia St Waikanae Lot 10 DP 22652		
A.D architecture LTD		
Tel : 04 298 5662 PO Box 1585, Paraparaumu Beach info@adarchitecture.co.nz www.adarchitecture.co.nz		
LIGHTING PLAN		
BUILDING CONSENT		
DO NOT SCALE DRAWING		
Job	Date	Rev
11090	APRIL 2013	
Sheet		
(A3) 12		

LIGHTING PLAN

1 : 100

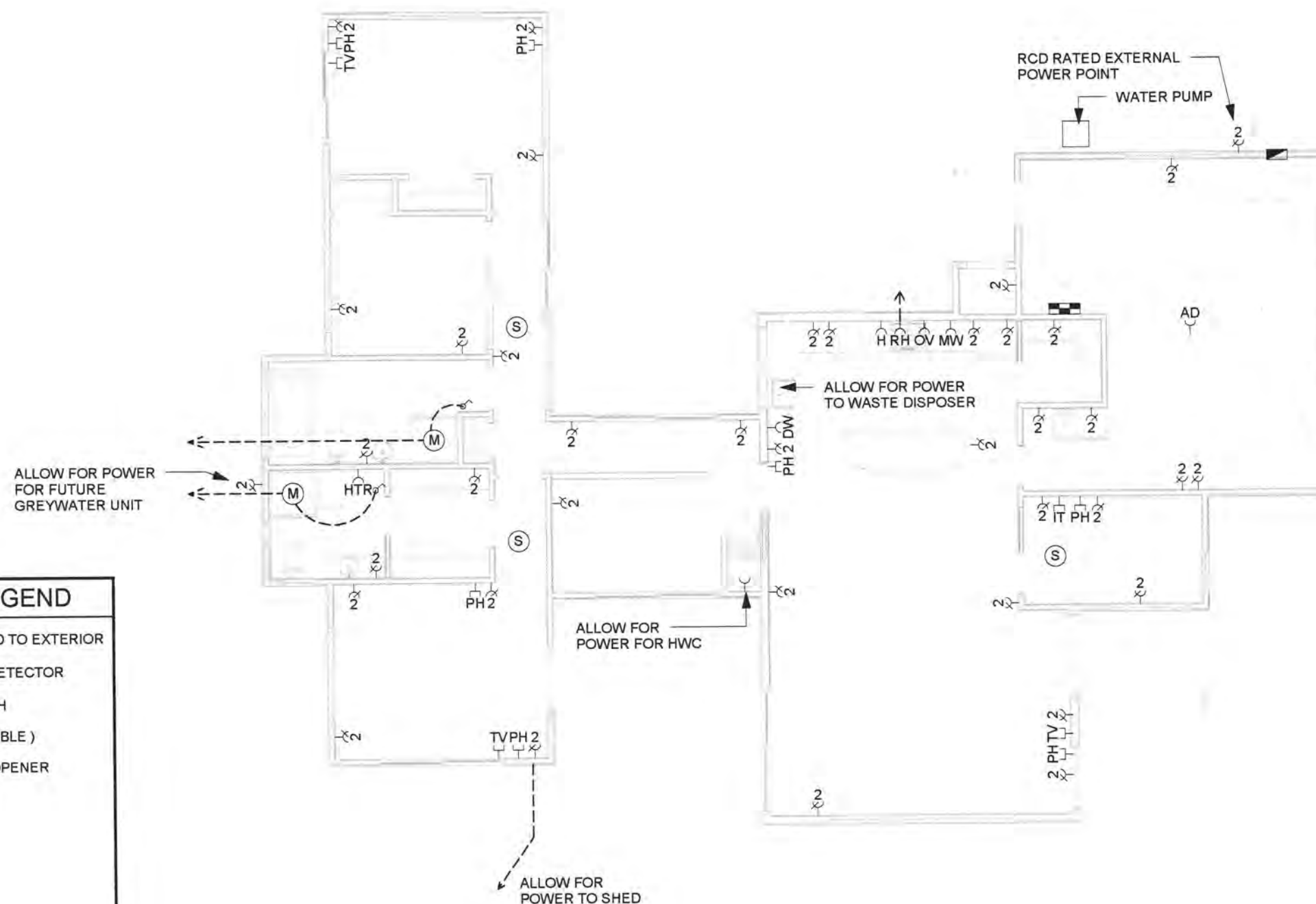
- ELECTRICAL NOTES:**
- THIS PAGE IS TO BE READ IN CONJUNCTION WITH SHEET 02 - CONSTRUCTION NOTES FOR ADDITIONAL INFORMATION
 - ALL SOCKET AND SWITCH GEAR TO BE AS SELECTED
 - TV WIRING TO BE SUITABLE FOR SKY DIGITAL, TELSTRA CLEAR CABLE TV AND FREEVIEW HD
 - PHONE LINE WIRING TO BE SUITABLE FOR INTERNET AND HIGH SPEED CONNECTIONS
 - ALL POWER CIRCUITS TO HAVE RCD AT SWITCHBOARD
 - ALL LIGHT FITTINGS TO BE FITTED WITH LONG LIFE BULBS
 - ALLOW FOR ELECTRICAL REQUIREMENTS FOR SOLAR WATER HEATING SYSTEM. REFER TO MANUFACTURER'S SPECIFICATIONS.
 - ALLOW FOR ELECTRICAL REQUIREMENTS TO PUMP BY GARAGE, FROM WATER STORAGE TANKS



Phone: 04 904 59 59

3	23-05-13	For Consent	
Rev	Date	Description	
Proposed House for Esther & Peterson 142 Huia St Waikanae Lot 10 DP 22652			
A.D architecture LTD			
Tel : 04 298 5662 info@adarchitecture.co.nz		PO Box 1585, Paraparaumu Beach www.adarchitecture.co.nz	
ELECTRICAL PLAN			
BUILDING CONSENT			
DO NOT SCALE DRAWING			
Job	Date	Rev	Sheet
11090	APRIL 2013	3	(A3) 13

ELECTRICAL LEGEND	
(M)	EXTRACT FAN - VENTED TO EXTERIOR
(S)	HARD WIRED SMOKE DETECTOR
↗	ONE WAY LIGHT SWITCH
2	POWER POINT (2 = DOUBLE)
AD	AUTO GARAGE DOOR OPENER
HTR	HEATED TOWEL RAIL
DW	DISHWASHER
RH	RANGEHOOD
OV	OVEN
MW	MICROWAVE
H	HOB
PH	PHONE OUTLET
TV	TV OUTLET (F, COAX)
IT	DATA OUTLET ON SEP. LINE
■	MAIN SWITCHBOARD
■	METER PANEL



ELECTRICAL PLAN
1 : 100

BEAM Schedule					
MARK	SIZE/TYPE	GRADE	TREATMENT	DESIGN	NOTES
BM1	190X45	SG8	H3.1	per 3604	
BM2	140x90	SG8	H3.1	per 3604	
BM3	90x90	SG8	H1.2	per 3604	
BM4	90x90	SG8	H1.2	per 3604	
BM5	90x90	SG8	H1.2	per 3604	
BM6	140x90	SG8	H1.2	per 3604	

ROOF NOTES

- THIS PAGE IS TO BE READ IN CONJUNCTION WITH SHEET 02 - CONSTRUCTION NOTES FOR TIMBER TREATMENT AND ADDITIONAL INFORMATION
- INSTALL EAVES FLASHING TO ALL EAVE DETAILS
- REFER ALSO TO DETAILS FOR FLASHING DIMENSIONS
- ALL SOFFIT DIMENSIONS ARE FOR SLOPING SOFFITS
- ALL ROOF FRAMING TO BE GRADE SG8 MINIMUM UNLESS NOTED OTHERWISE
- ROOF PURLINS TO BE GRADE SG8 70x45 AT 900 CRS ON THEIR FLAT
- ROOF PURLIN HOLD DOWN FIXINGS TO BE 1 No. 12g SELF DRILLING 80mm SCREW OR OTHER APPROVED 2.4kN CONNECTION
- RAFTER / TOP PLATE CONNECTION TO BE 2 No. 90x3.15mm SKEW NAILS + 2 No. WIRE DOGS OR OTHER APPROVED 4.7kN CONNECTION
- TRUSS / TOP PLATE CONNECTION AS SPECIFIED BY TRUSS MANUFACTURER

SELECTED PRODUCTS

- THIS PAGE IS TO BE READ IN CONJUNCTION WITH SHEET 02 - CONSTRUCTION NOTES FOR ADDITIONAL INFORMATION
- CLADDING 1 - 12mm SHADOWCLAD PLY SHEET CLADDING ON 50x25 H3.1 TIMBER CAVITY BATTENS ON TEKTON WALL UNDERLAY AS PART OF THE TEKTON WEATHERIZATION SYSTEM ON FRAMING
- CLADDING 2 - 0.4 GAUGE TRAPEZOIDAL PROFILED METAL CLADDING ON THERMAKRAFT 215 WALL UNDERLAY ON FRAMING
- ROOF 1 - 0.4 GAUGE LONGRUN COLORSTEEL ENDURA TRAPEZOIDAL PROFILED METAL ROOFING ON THERMAKRAFT 215 UNDERLAY ON WIRE MESH ON PURLINS ON FRAMING
- SOFFITS - 4.5mm HARDIFLEX
- FASCIA - TIMBER
- GUTTERS - COLORSTEEL BOX GUTTER 125
- DOWNPipes - MARLEY 80Ø ROUND
- WINDOW JOINERY - POWDERCOAT ALUMINIUM RESIDENTIAL DOUBLE GLAZED WINDOWS
- WINDOW FLASHING TAPE - PROTECTO WRAP ONE PIECE SILL TAPE AS PART OF THE TEKTON WEATHERIZATION SYSTEM

DOWNPipe AND GUTTER CALCULATIONS

ALL DOWNPIPES 80 mmØ
FROM NZBC E1/AS1 TABLE 5:
80Ø DOWNPIPE SERVES 85m² ROOF AREA

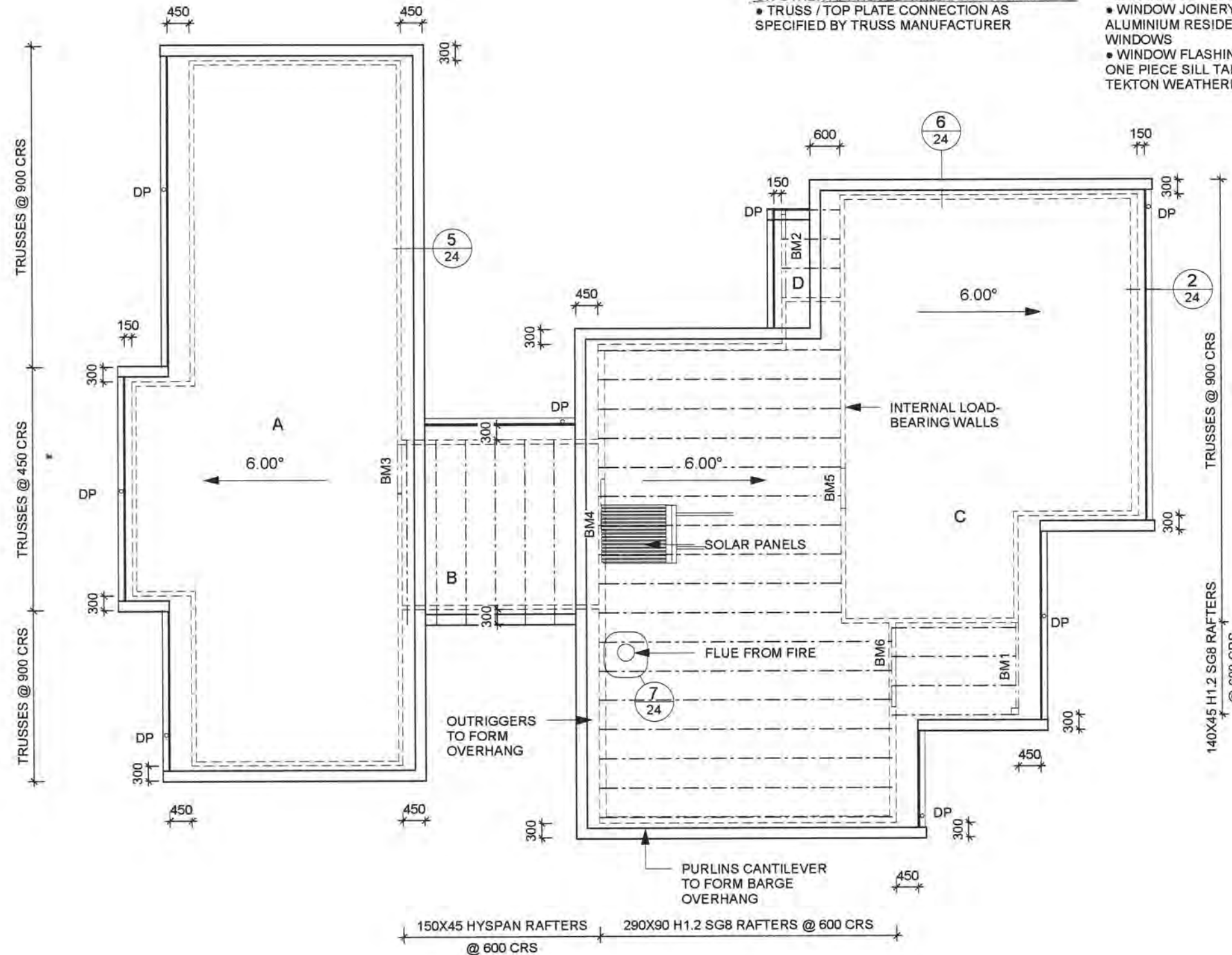
125 BOX GUTTER CROSS SECTIONAL AREA = 8435 mm²
FROM NZBC E1, FIGURE 15:
EXT. GUTTER WITH CROSS SECTIONAL AREA OF 8435 mm² CAN SERVE ROOF AREA OF 75 m² WHERE ROOF PITCH IS BETWEEN 0 & 25°

ROOF A CATCHMENT AREA = 85 m²
ROOF PITCH = 6°
No. OF DOWNPIPES REQUIRED = 2
No. OF DOWNPIPES PROVIDED = 3

ROOF B CATCHMENT AREA = 17 m²
ROOF PITCH = 3°
No. OF DOWNPIPES REQUIRED = 1
No. OF DOWNPIPES PROVIDED = 1

ROOF C CATCHMENT AREA = 127 m²
ROOF PITCH = 6°
No. OF DOWNPIPES REQUIRED = 2
No. OF DOWNPIPES PROVIDED = 3

ROOF D CATCHMENT AREA = 4 m²
ROOF PITCH = 3°
No. OF DOWNPIPES REQUIRED = 1
No. OF DOWNPIPES PROVIDED = 1



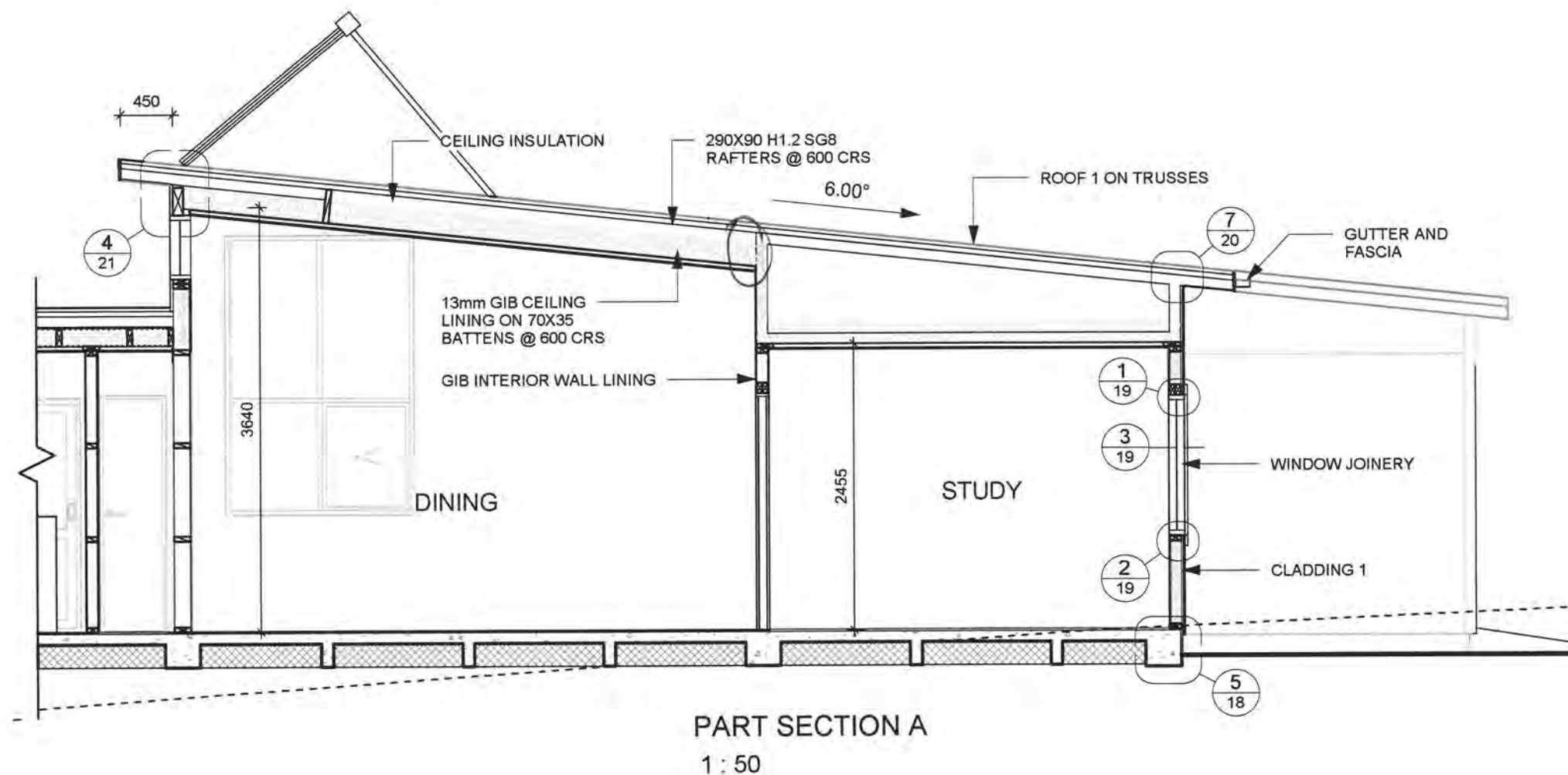
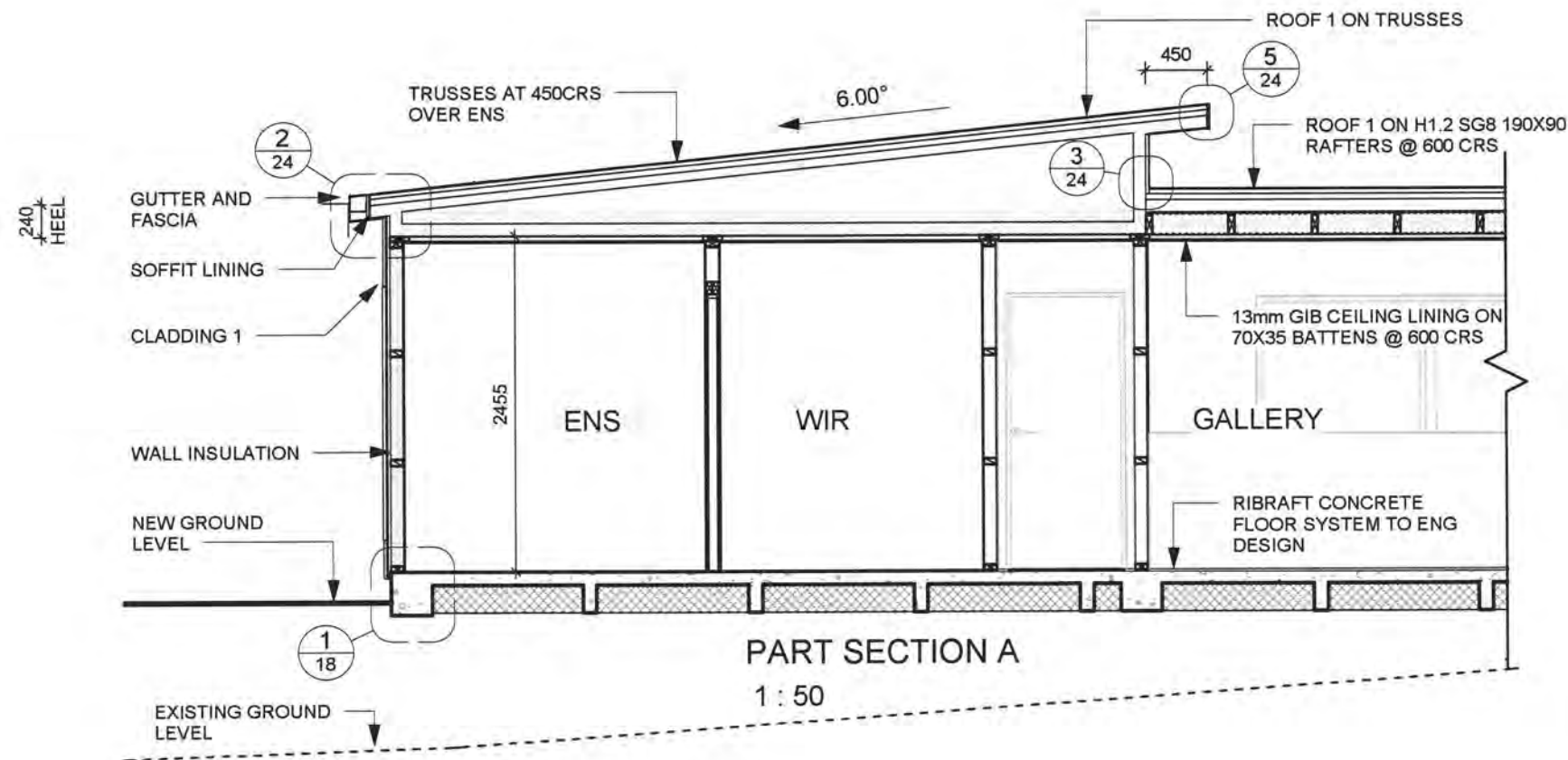
ROOF PLAN

1 : 100



Phone: 04 904 59 59

Rev	Date	Description
Proposed House for Esther & Peterson 142 Huia St Waikanae Lot 10 DP 22652		
A.D architecture		
Tel : 04 298 5662 PO Box 1585, Paraparaumu Beach info@adarchitecture.co.nz www.adarchitecture.co.nz		
ROOF PLAN		
BUILDING CONSENT		
DO NOT SCALE DRAWING		
Job	Date	Rev
11090	APRIL 2013	
Sheet		
(A3) 14		

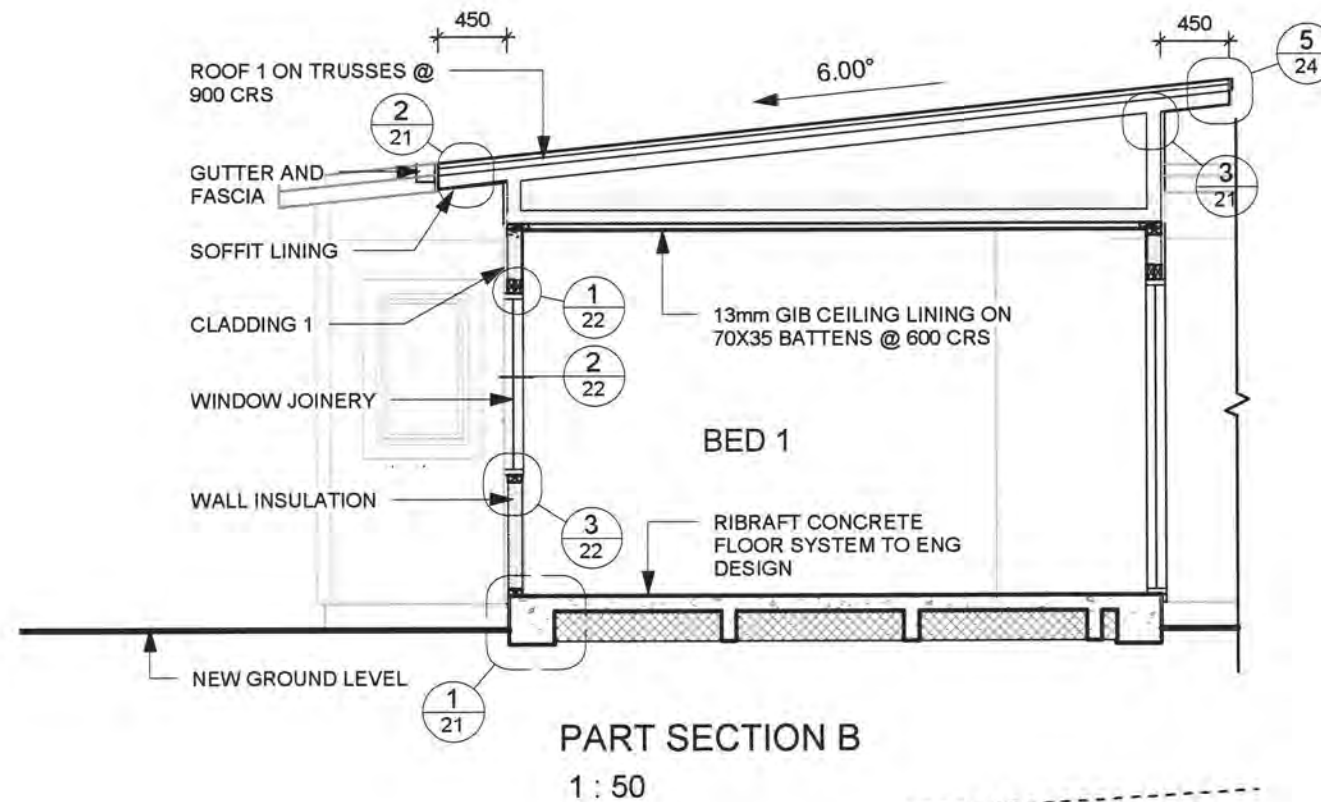


- INSULATION "R" VALUES**
- COMPLY WITH NZBC H1 AS1 & NZS 4218
 - REFER TO SPEC FOR INSULATION TYPES
 - REFER TO H1 CALCULATION SHEET
- EXTERIOR WALLS = R2.6 BATTS
GARAGE INTERIOR WALLS = R2.6 BATTS
CEILINGS GENERALLY = R4.0 BATTS (R2.6 TO 150 RAFTERS)
- SELECTED PRODUCTS**
- THIS PAGE IS TO BE READ IN CONJUNCTION WITH SHEET 02 - CONSTRUCTION NOTES FOR ADDITIONAL INFORMATION
 - CLADDING 1 - 12mm SHADOWCLAD PLY SHEET CLADDING ON 50x25 H3.1 TIMBER CAVITY BATTENS ON TEKTON WALL UNDERLAY AS PART OF THE TEKTON WEATHERIZATION SYSTEM ON FRAMING
 - CLADDING 2 - 0.4 GAUGE TRAPEZOIDAL PROFILED METAL CLADDING ON THERMAKRAFT 215 WALL UNDERLAY ON FRAMING
 - ROOF 1 - 0.4 GAUGE LONGRUN COLORSTEEL ENDURA TRAPEZOIDAL PROFILED METAL ROOFING ON THERMAKRAFT 215 UNDERLAY ON WIRE MESH ON PURLINS ON FRAMING
 - SOFFITS - 4.5mm HARDIFLEX
 - FASCIA - TIMBER
 - GUTTERS - COLORSTEEL BOX GUTTER 125
 - DOWNPIPES - MARLEY 800 ROUND
 - WINDOW JOINERY - POWDERCOAT ALUMINIUM RESIDENTIAL DOUBLE GLAZED WINDOWS
 - WINDOW FLASHING TAPE - PROTECTO WRAP ONE PIECE SILL TAPE AS PART OF THE TEKTON WEATHERIZATION SYSTEM



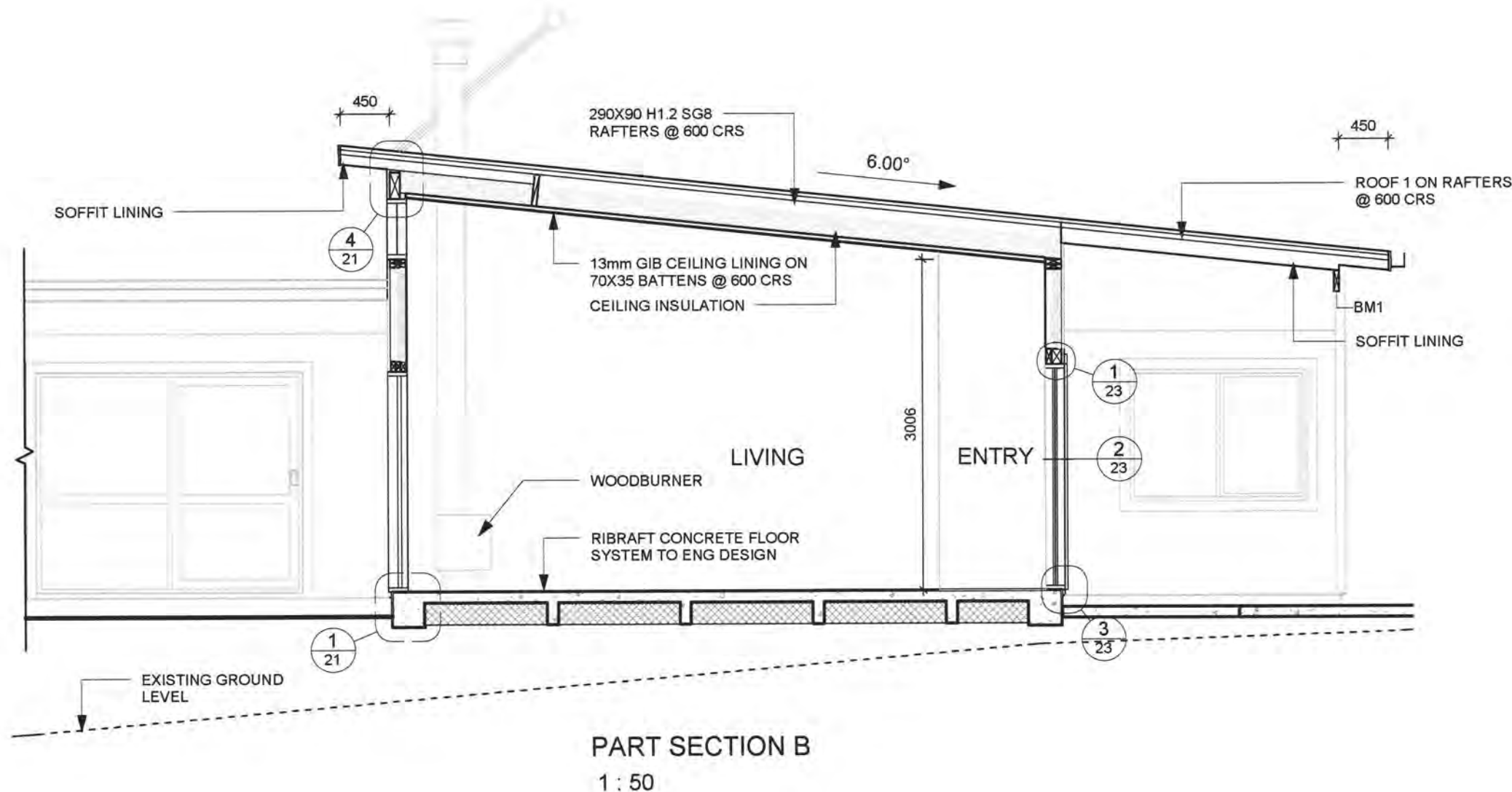
Phone: 04 904 59 59

Rev	Date	Description
Proposed House for Esther & Peterson 142 Huia St Waikanae Lot 10 DP 22652		
A.D architecture LTD		
Tel : 04 298 5662 PO Box 1585, Paraparaumu Beach info@adarchitecture.co.nz www.adarchitecture.co.nz		
BUILDING SECTION		
BUILDING CONSENT		
DO NOT SCALE DRAWING		
Job	Date	Rev
11090	APRIL 2013	
Sheet		
(A3) 15		



- INSULATION "R" VALUES**
- COMPLY WITH NZBC H1 AS1 & NZS 4218
 - REFER TO SPEC FOR INSULATION TYPES
 - REFER TO H1 CALCULATION SHEET
- EXTERIOR WALLS = R2.6 BATTS
GARAGE INTERIOR WALLS = R2.6 BATTS
CEILINGS GENERALLY = R4.0 BATTS (R2.6 TO 150 RAFTERS)

- SELECTED PRODUCTS**
- THIS PAGE IS TO BE READ IN CONJUNCTION WITH SHEET 02 - CONSTRUCTION NOTES FOR ADDITIONAL INFORMATION
 - CLADDING 1 - 12mm SHADOWCLAD PLY SHEET CLADDING ON 50x25 H3.1 TIMBER CAVITY BATTENS ON TEKTON WALL UNDERLAY AS PART OF THE TEKTON WEATHERIZATION SYSTEM ON FRAMING
 - CLADDING 2 - 0.4 GAUGE TRAPEZOIDAL PROFILED METAL CLADDING ON THERMAKRAFT 215 WALL UNDERLAY ON FRAMING
 - ROOF 1 - 0.4 GAUGE LONGRUN COLORSTEEL ENDURA TRAPEZOIDAL PROFILED METAL ROOFING ON THERMAKRAFT 215 UNDERLAY ON WIRE MESH ON PURLINS ON FRAMING
 - SOFFITS - 4.5mm HARDIFLEX
 - FASCIA - TIMBER
 - GUTTERS - COLORSTEEL BOX GUTTER 125
 - DOWNPIPES - MARLEY 80Ø ROUND
 - WINDOW JOINERY - POWDERCOAT ALUMINIUM RESIDENTIAL DOUBLE GLAZED WINDOWS
 - WINDOW FLASHING TAPE - PROTECTO WRAP ONE PIECE SILL TAPE AS PART OF THE TEKTON WEATHERIZATION SYSTEM



Phone: 04 904 59 59

Rev	Date	For Consent	Description
3	23-05-13	For Consent	Proposed House for Esther & Peterson 142 Huia St Waikanae Lot 10 DP 22652
A.D architecture LTD			
Tel : 04 298 5662 PO Box 1585, Paraparaumu Beach info@adarchitecture.co.nz www.adarchitecture.co.nz			
BUILDING SECTION			
BUILDING CONSENT			
DO NOT SCALE DRAWING			
Job	Date	Rev	Sheet
11090	APRIL 2013	3	(A3) 16



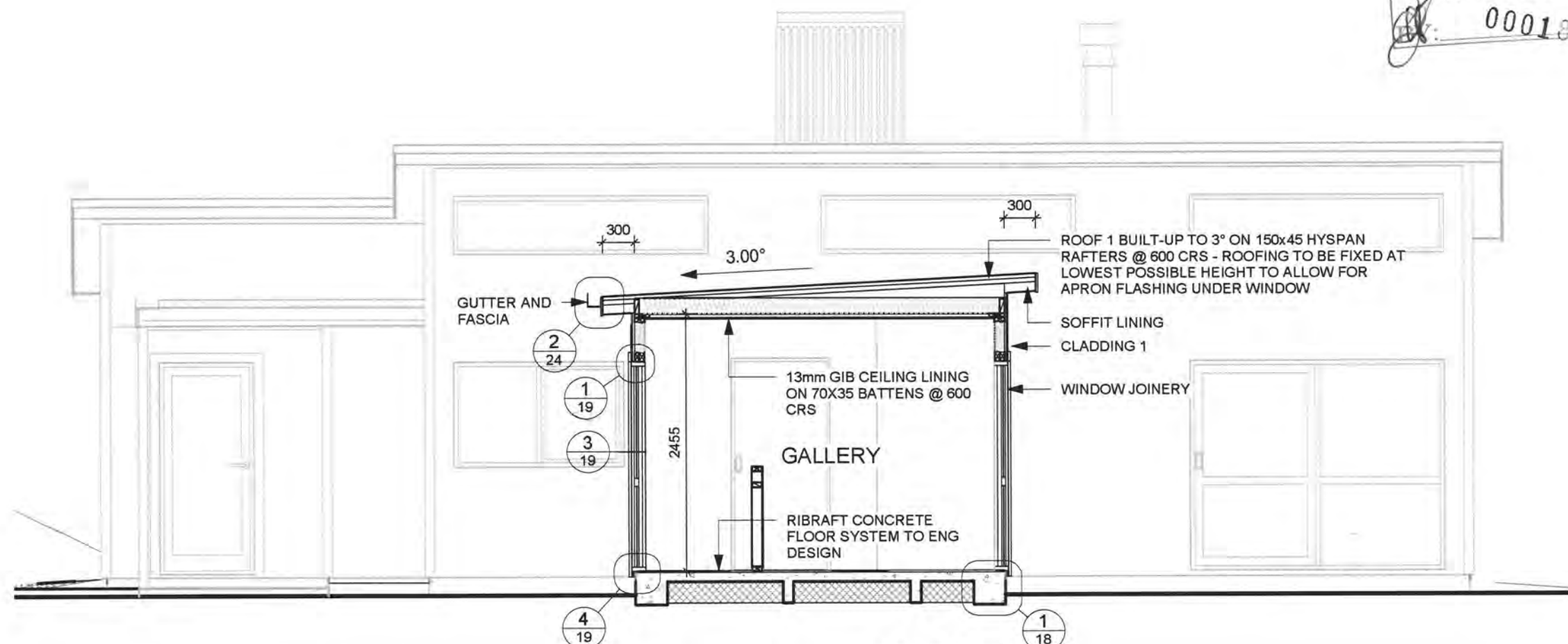
INSULATION "R" VALUES

- COMPLY WITH NZBC H1 AS1 & NZS 4218
- REFER TO SPEC FOR INSULATION TYPES
- REFER TO H1 CALCULATION SHEET

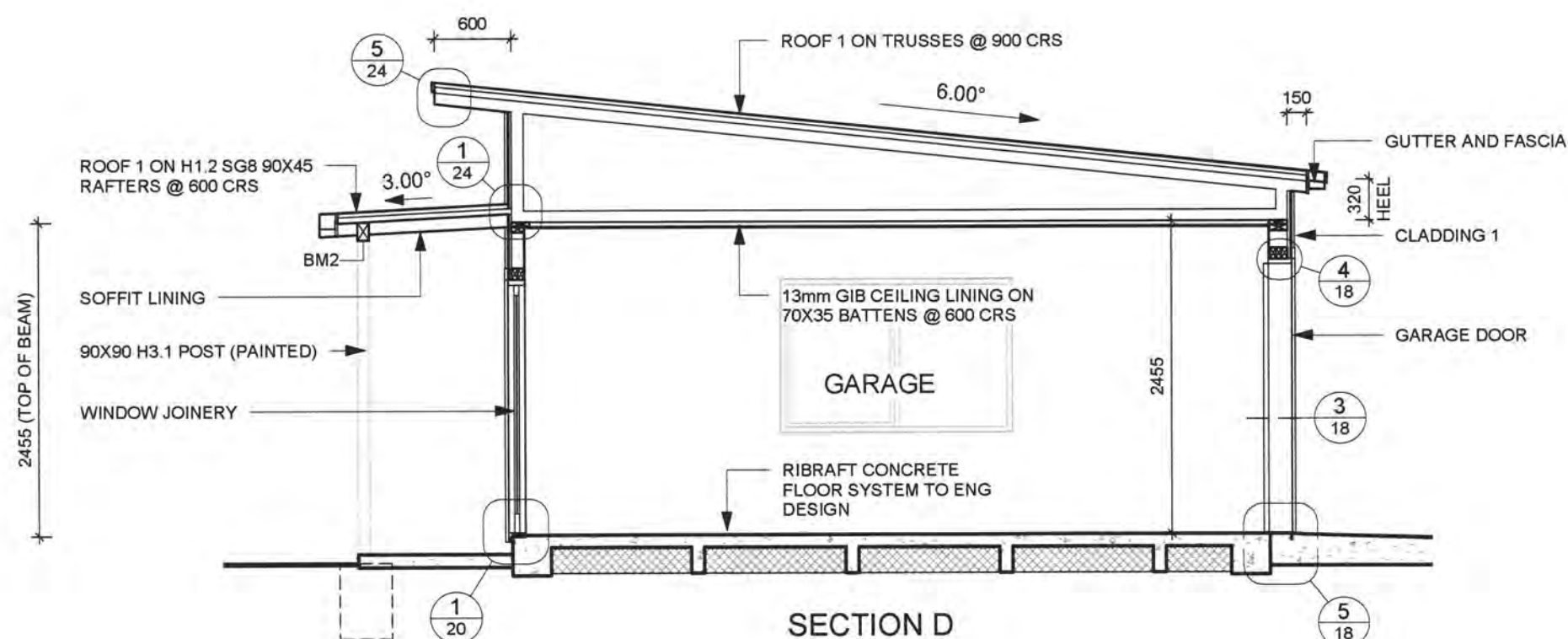
EXTERIOR WALLS = R2.6 BATTS
GARAGE INTERIOR WALLS = R2.6 BATTS
CEILINGS GENERALLY = R4.0 BATTS (R2.6 TO 150 RAFTERS)

SELECTED PRODUCTS

- THIS PAGE IS TO BE READ IN CONJUNCTION WITH SHEET 02 - CONSTRUCTION NOTES FOR ADDITIONAL INFORMATION
- CLADDING 1 - 12mm SHADOWCLAD PLY SHEET CLADDING ON 50x25 H3.1 TIMBER CAVITY BATTENS ON TEKTON WALL UNDERLAY AS PART OF THE TEKTON WEATHERIZATION SYSTEM ON FRAMING
- CLADDING 2 - 0.4 GAUGE TRAPEZOIDAL PROFILED METAL CLADDING ON THERMAKRAFT 215 WALL UNDERLAY ON FRAMING
- ROOF 1 - 0.4 GAUGE LONGRUN COLORSTEEL ENDURA TRAPEZOIDAL PROFILED METAL ROOFING ON THERMAKRAFT 215 UNDERLAY ON WIRE MESH ON PURLINS ON FRAMING
- SOFFITS - 4.5mm HARDIFLEX
- FASCIA - TIMBER
- GUTTERS - COLORSTEEL BOX GUTTER 125
- DOWNPIPES - MARLEY 80Ø ROUND
- WINDOW JOINERY - POWDERCOAT ALUMINIUM RESIDENTIAL DOUBLE GLAZED WINDOWS
- WINDOW FLASHING TAPE - PROTECTO WRAP ONE PIECE SILL TAPE AS PART OF THE TEKTON WEATHERIZATION SYSTEM



SECTION C
1 : 50

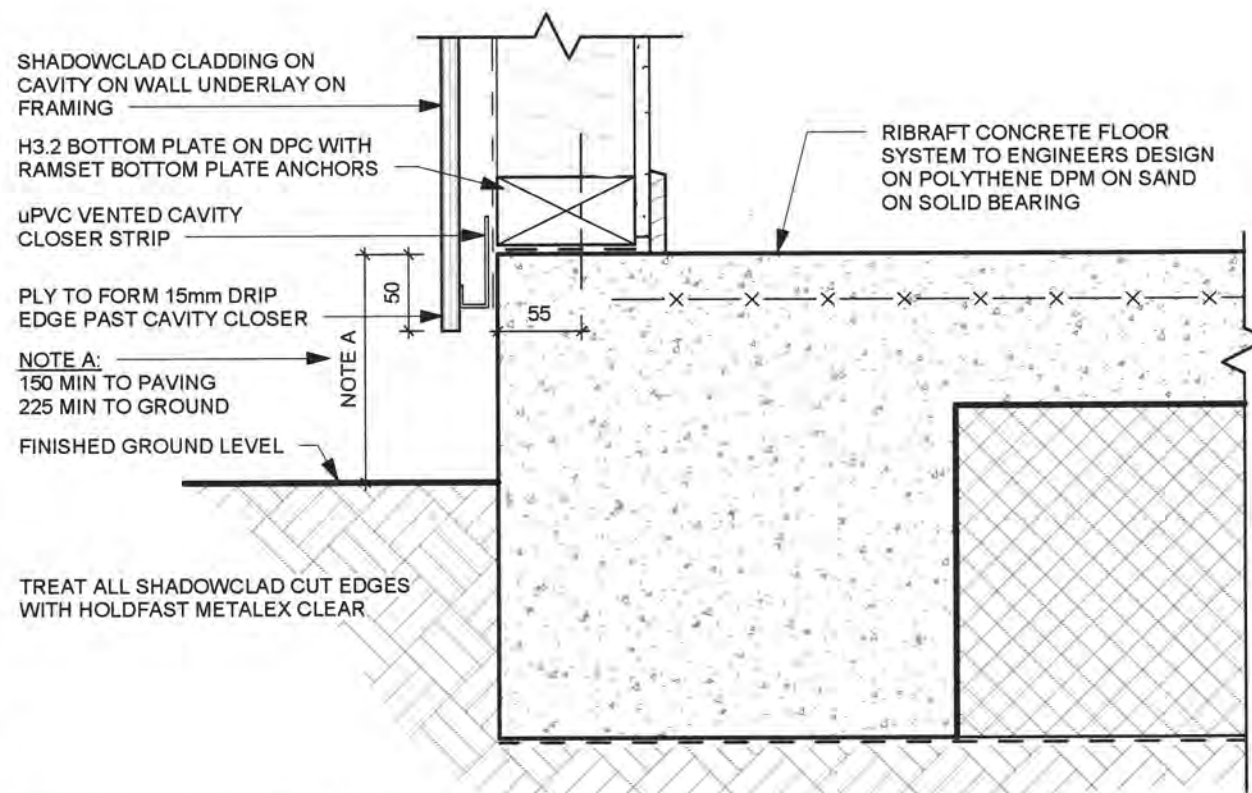


SECTION D
1 : 50



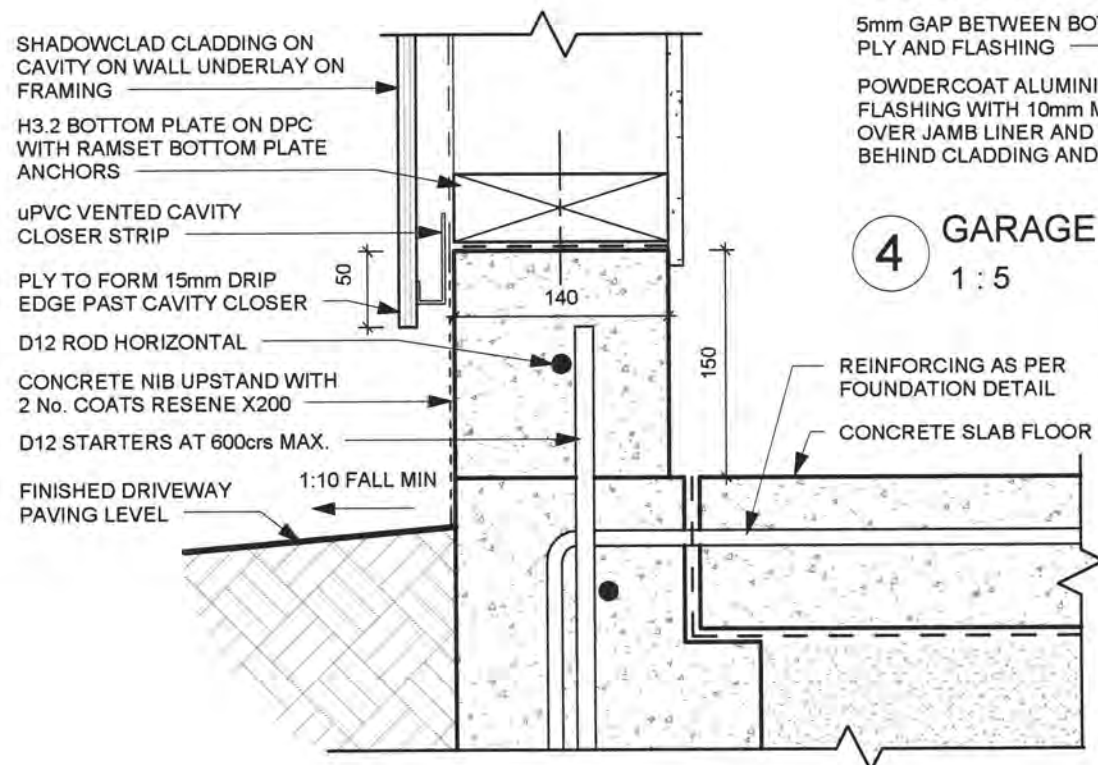
Phone: 04 904 59 59

Rev	Date	Description
Proposed House for Esther & Peterson 142 Huia St Waikanae Lot 10 DP 22652		
A.D architecture LTD		
Tel : 04 298 5662 PO Box 1585, Paraparaumu Beach info@adarchitecture.co.nz www.adarchitecture.co.nz		
BUILDING SECTION		
BUILDING CONSENT		
DO NOT SCALE DRAWING		
Job	Date	Rev
11090	APRIL 2013	
Sheet		
(A3) 17		



- BOTTOM PLATE ANCHORS FOR CONCRETE FOUNDATIONS TO BE AS12150H ANKASCREWS AT 900c/s
- REFER ALSO TO BRACING PLAN NOTES FOR BRACING PANEL HOLD DOWN REQUIREMENTS

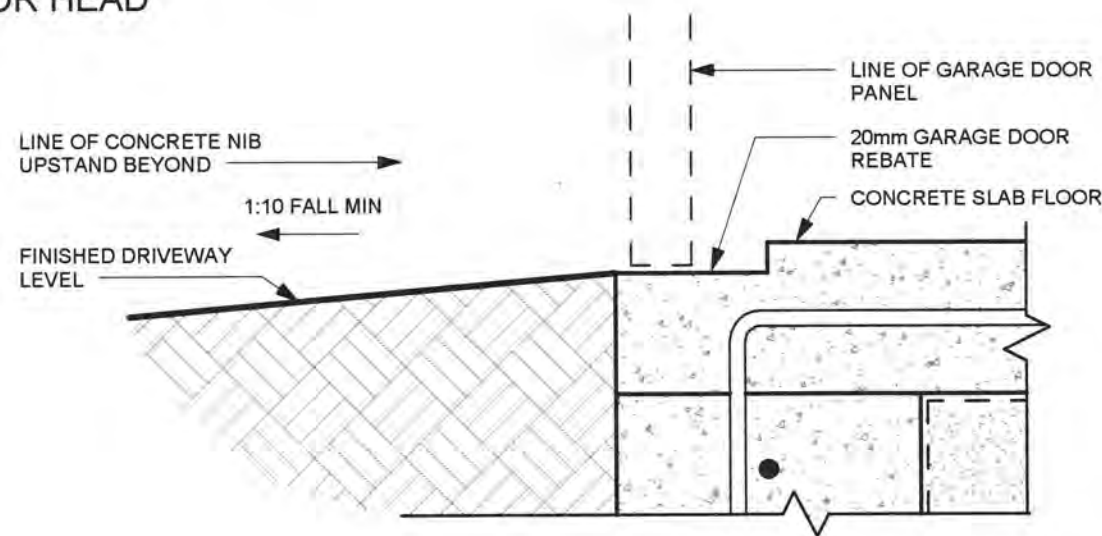
1 PLY FOUNDATION
1:5



4 GARAGE DOOR HEAD
1:5

CONCRETE NIB UPSTAND

5 GARAGE DOOR REBATE
1:5



GARAGE DOOR REBATE

DETAIL NOTES
• THIS PAGE IS TO BE READ IN CONJUNCTION WITH SHEET 02 - CONSTRUCTION NOTES FOR ADDITIONAL INFORMATION
• CONTRACTOR MUST OBTAIN TERRITORIAL AUTHORITY ACCEPTANCE FOR VARIATION TO DETAILS



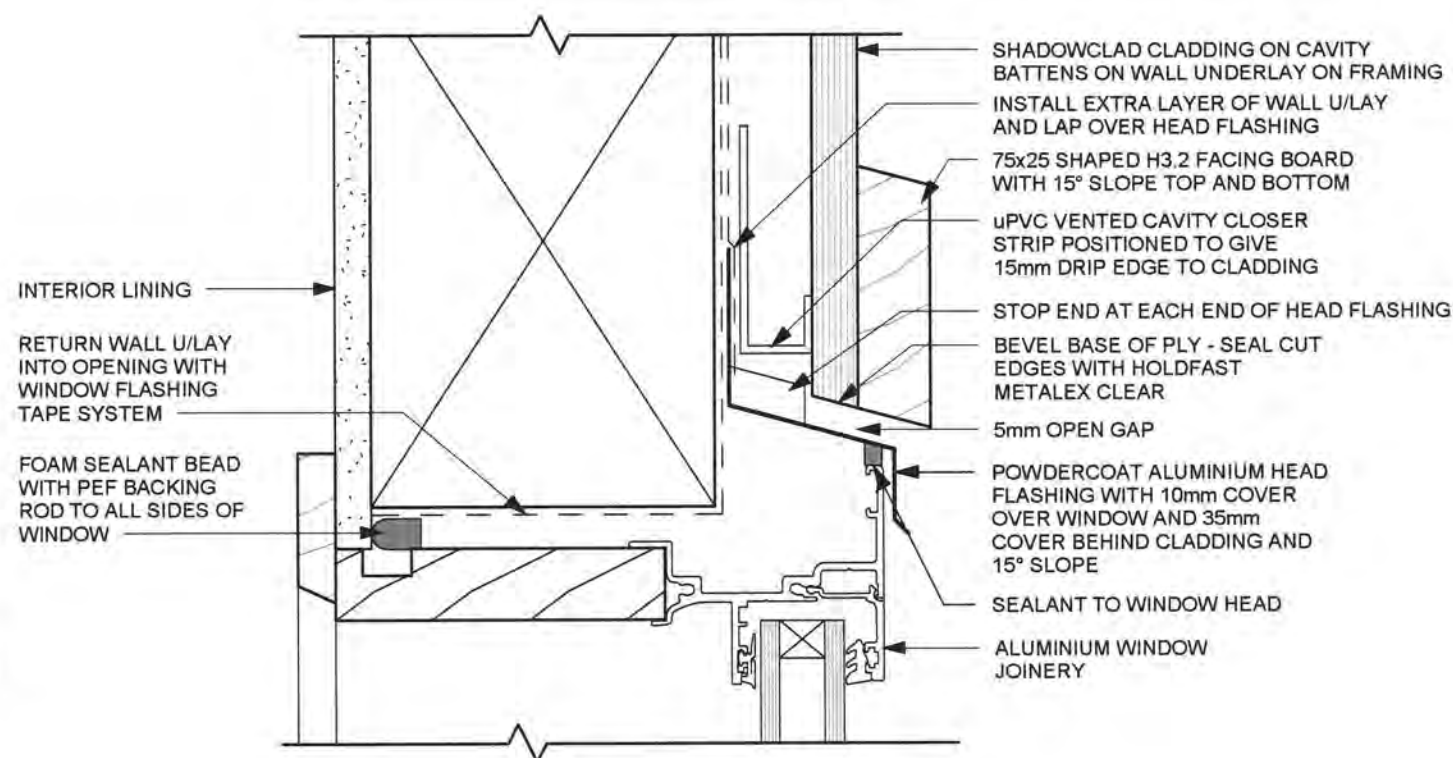
Phone: 04 904 59 59

Rev	Date	Description
Proposed House for Esther & Peterson 142 Huia St Waikanae Lot 10 DP 22652		
A.D architecture LTD		
Tel: 04 298 5662 PO Box 1585, Paraparaumu Beach info@adarchitecture.co.nz www.adarchitecture.co.nz		
DETAILS		
BUILDING CONSENT		
DO NOT SCALE DRAWING		
Job	Date	Rev
11090	APRIL 2013	
Sheet		
(A3) 18		

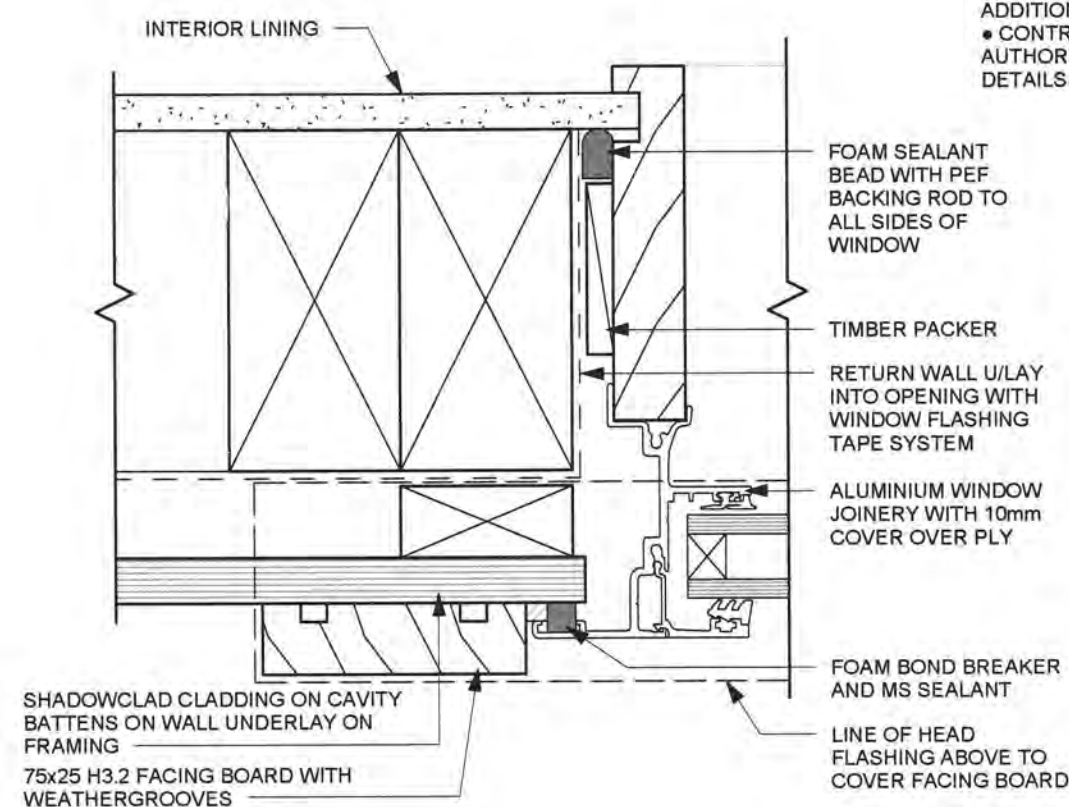
DETAIL NOTES

- THIS PAGE IS TO BE READ IN CONJUNCTION WITH SHEET 02 - CONSTRUCTION NOTES FOR ADDITIONAL INFORMATION
- CONTRACTOR MUST OBTAIN TERRITORIAL AUTHORITY ACCEPTANCE FOR VARIATION TO DETAILS

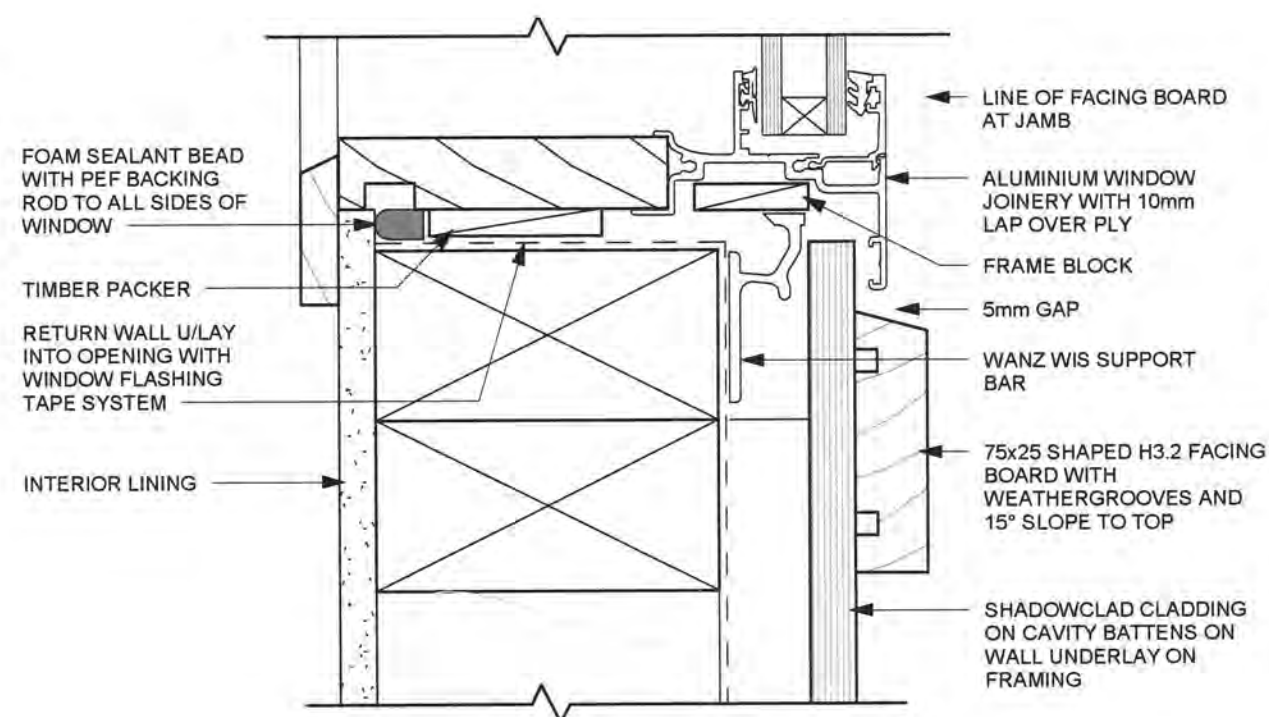
RECEIVED
17 JUN 2013
BY: 00020



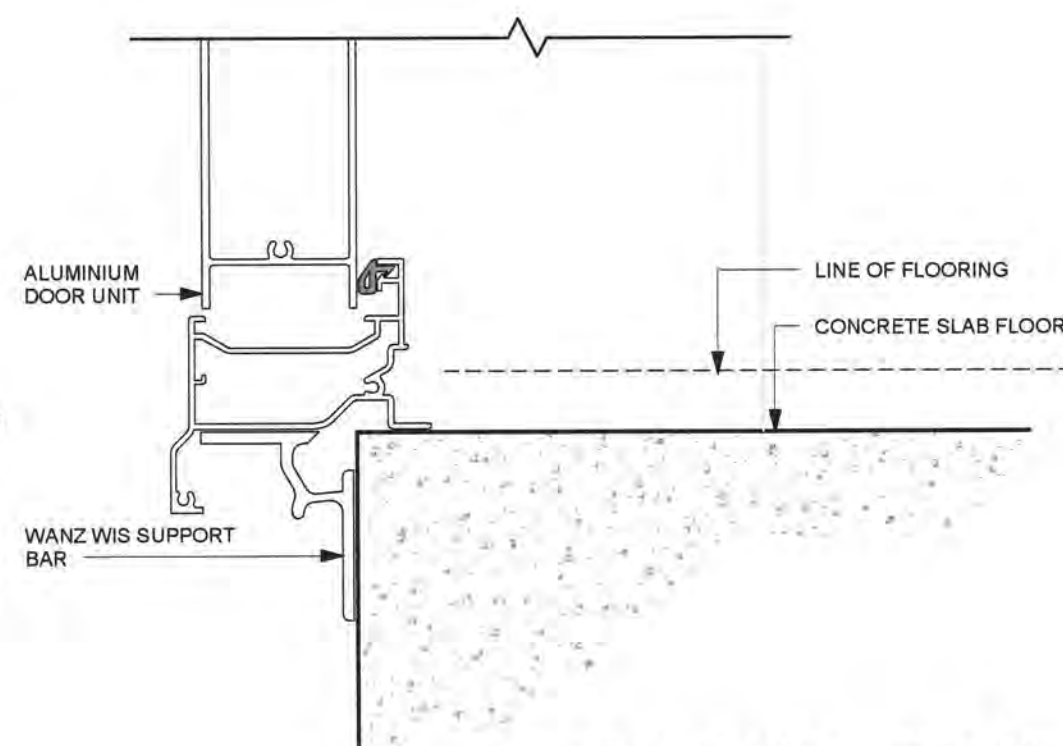
1 PLY WINDOW HEAD
1:2



3 PLY WINDOW JAMB
1:2



2 PLY WINDOW SILL
1:2

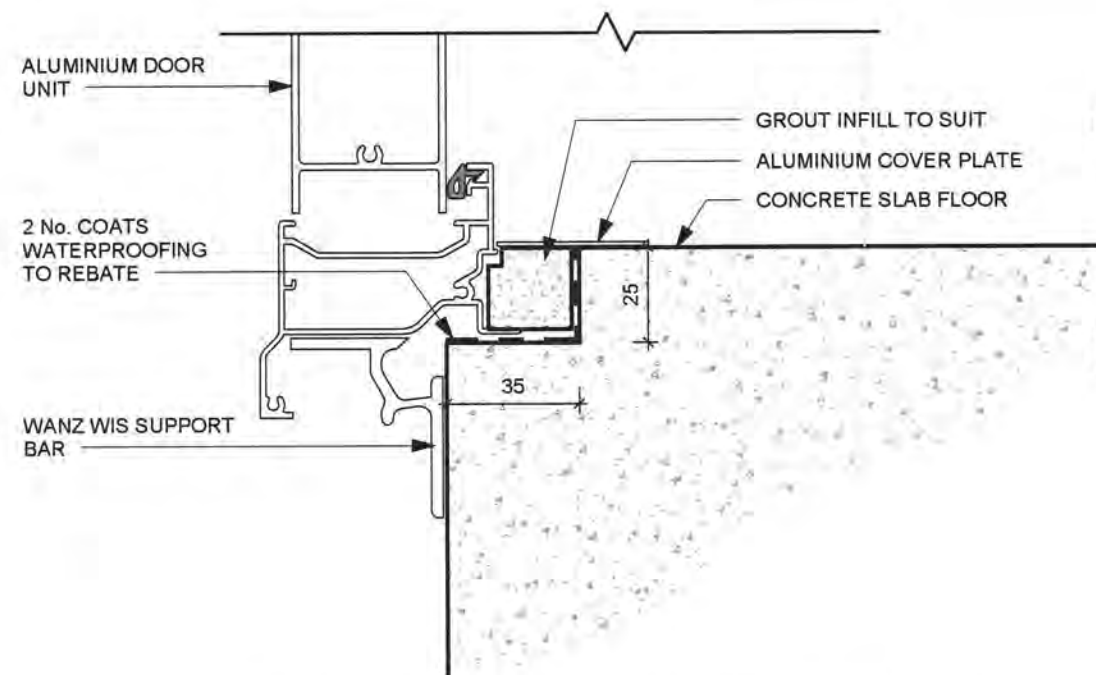


4 SHADOWCLAD DOOR SILL
1:2

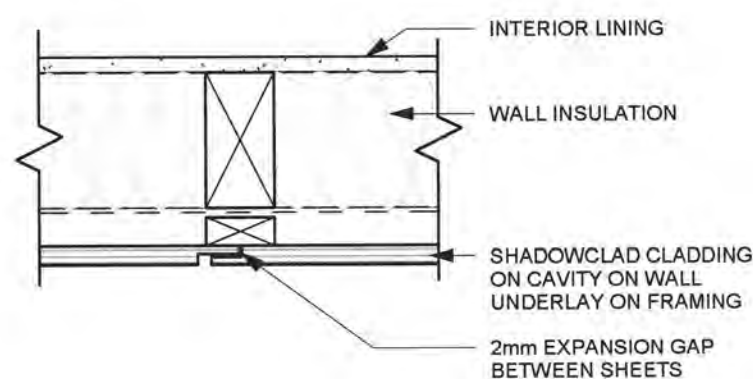


Phone: 04 904 59 59

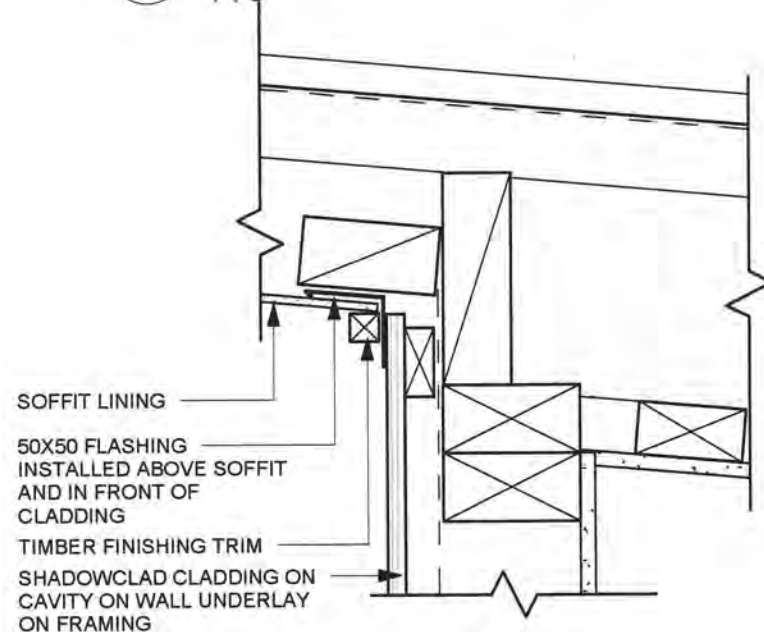
Rev	Date	Description
Proposed House for Esther & Peterson 142 Huia St Waikanae Lot 10 DP 22652		
A.D architecture LTD		
Tel : 04 298 5662 PO Box 1585, Paraparaumu Beach info@adarchitecture.co.nz www.adarchitecture.co.nz		
DETAILS		
BUILDING CONSENT		
DO NOT SCALE DRAWING		
Job	Date	Rev
11090	APRIL 2013	
Sheet		
(A3) 19		



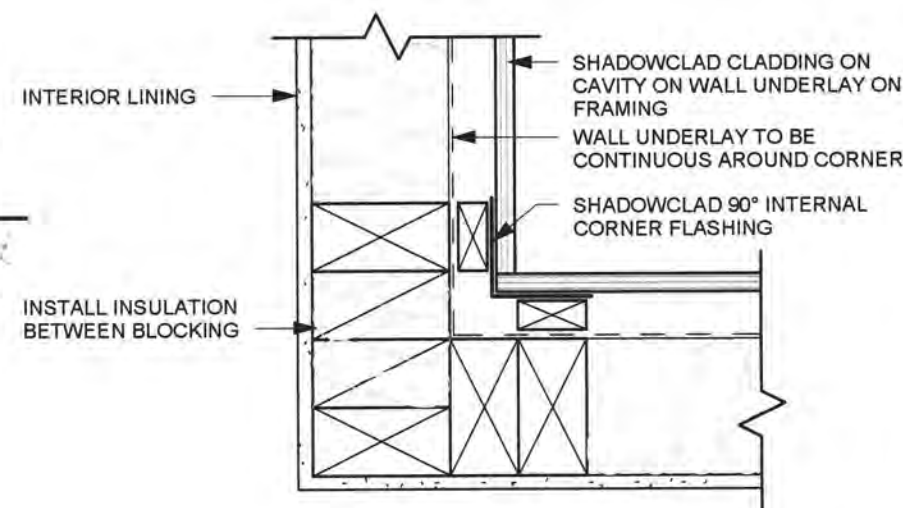
1 SHADOWCLAD DOOR SILL - REBATED
1:2



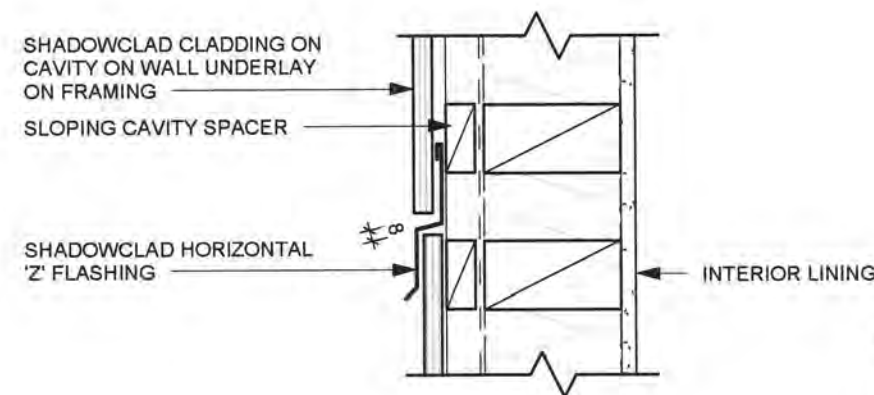
4 VERTICAL SHEET JOINT
1:5



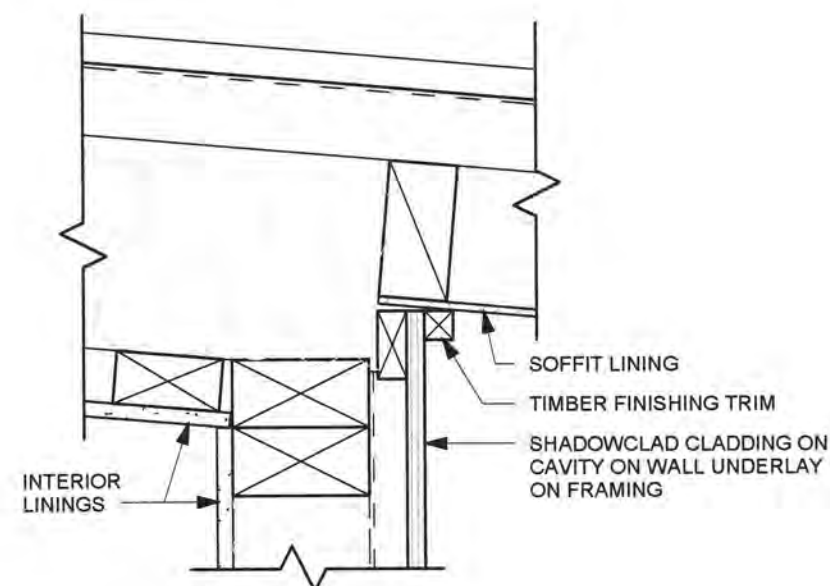
6 PLY / SOFFIT JUNCTION
1:5



2 SHADOWCLAD INTERNAL CORNER
1:5

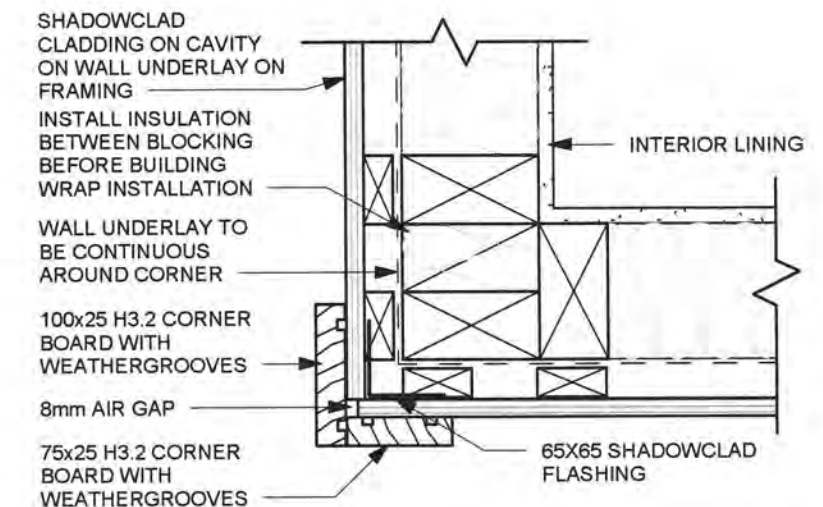


5 HORIZONTAL SHEET JOINT
1:5



7 PLY / SOFFIT JUNCTION
1:5

DETAIL NOTES
• THIS PAGE IS TO BE READ IN CONJUNCTION WITH SHEET 02 - CONSTRUCTION NOTES FOR ADDITIONAL INFORMATION
• CONTRACTOR MUST OBTAIN TERRITORIAL AUTHORITY ACCEPTANCE FOR VARIATION TO DETAILS

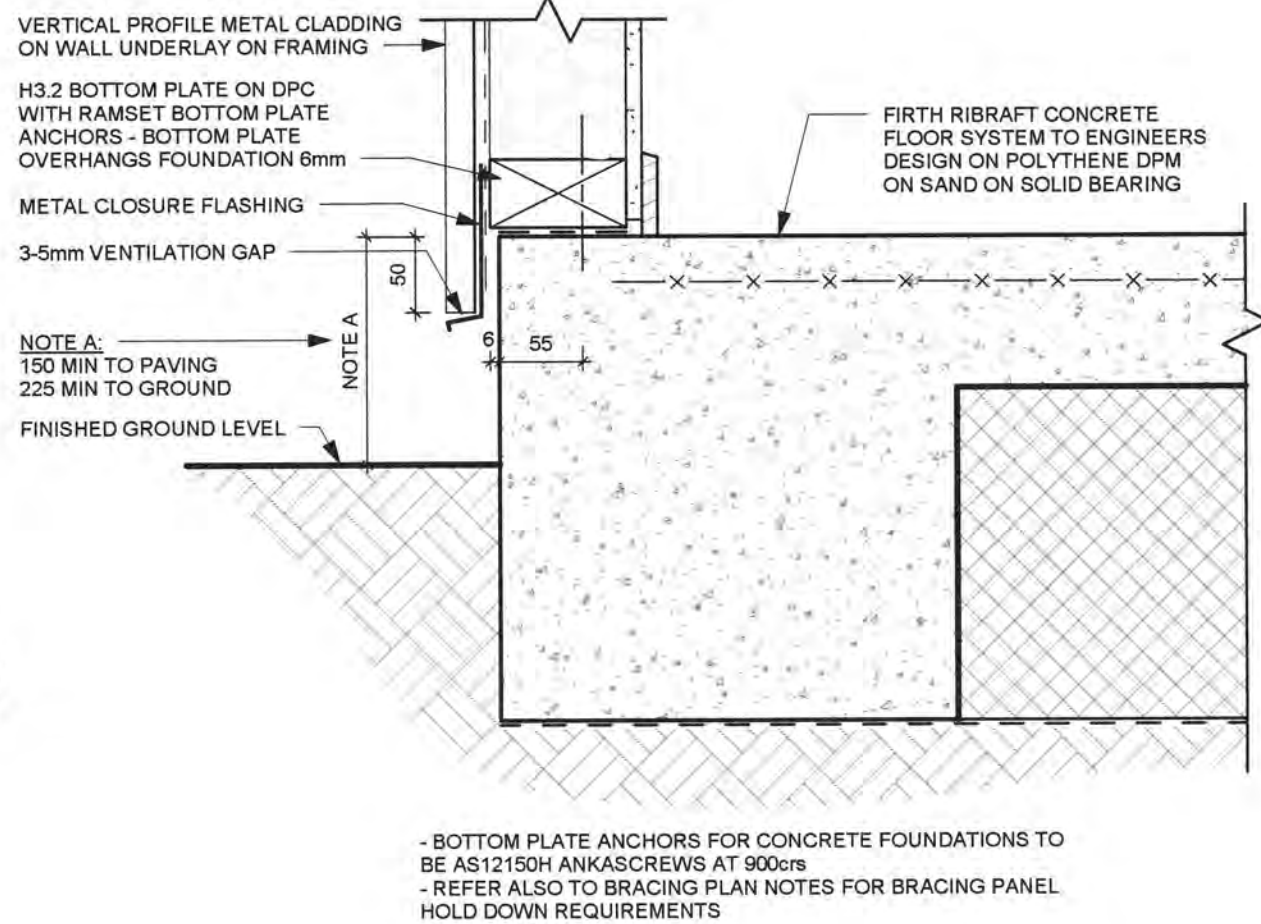


3 PLY EXTERNAL CORNER
1:5

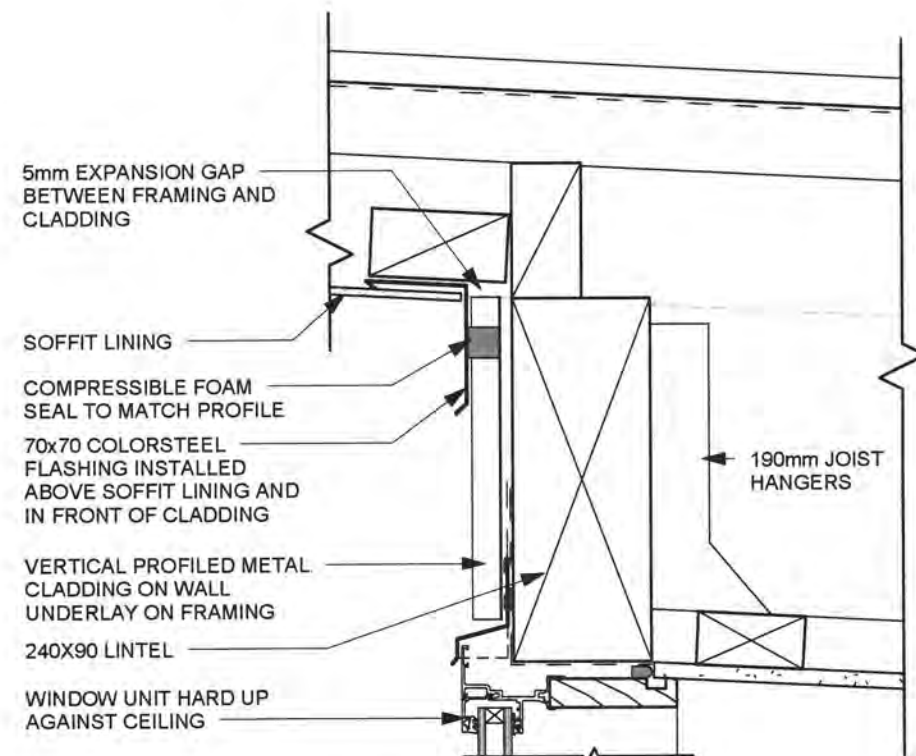


Phone: 04 904 59 59

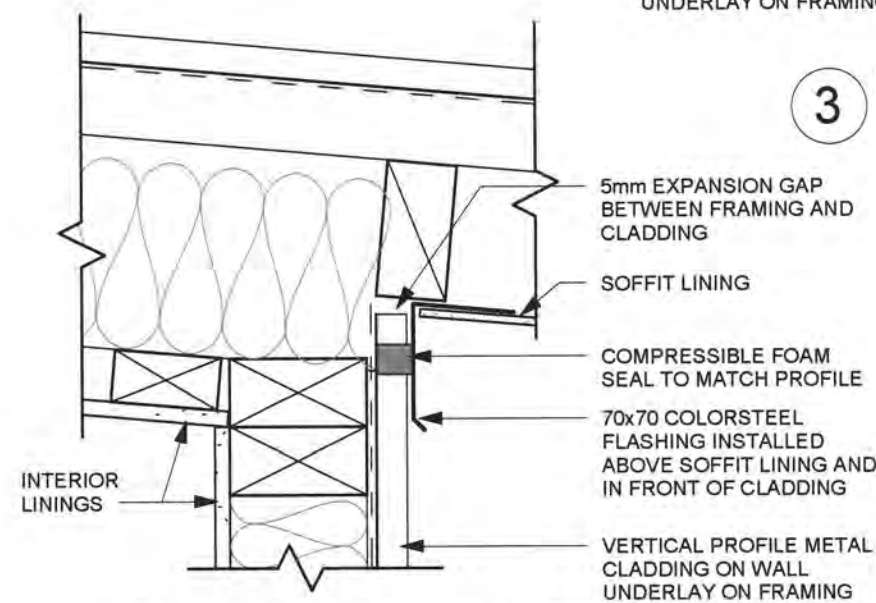
Rev	Date	Description	
Proposed House for Esther & Peterson 142 Huia St Waikanae Lot 10 DP 22652			
A.D architecture LTD			
Tel : 04 298 5662 PO Box 1585, Paraparaumu Beach info@adarchitecture.co.nz www.adarchitecture.co.nz			
DETAILS			
BUILDING CONSENT			
DO NOT SCALE DRAWING			
Job	Date	Rev	Sheet
11090	APRIL 2013		(A3) 20



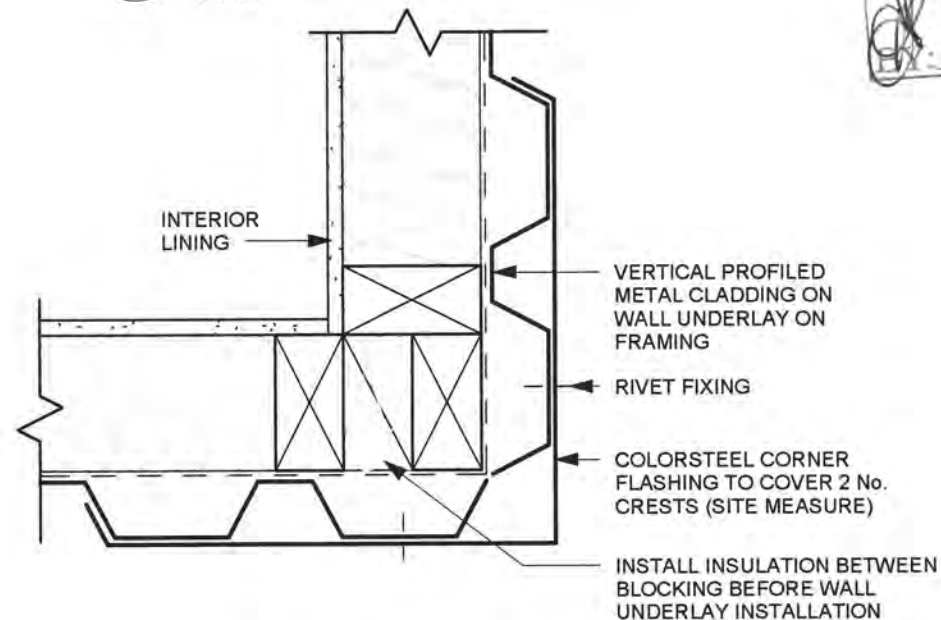
1 VERT. METAL FOUNDATION
1:5



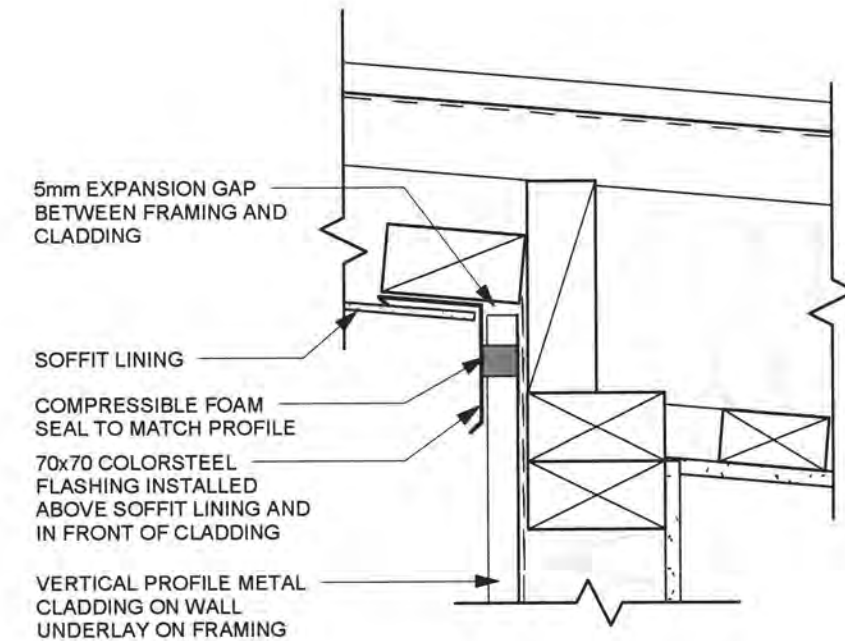
4 LINTEL JUNCTION
1:5



2 METAL CLADDING / SOFFIT
1:5



5 METAL EXTERNAL CORNER
1:5



3 METAL / SOFFIT JUNCTION
1:5

DETAIL NOTES

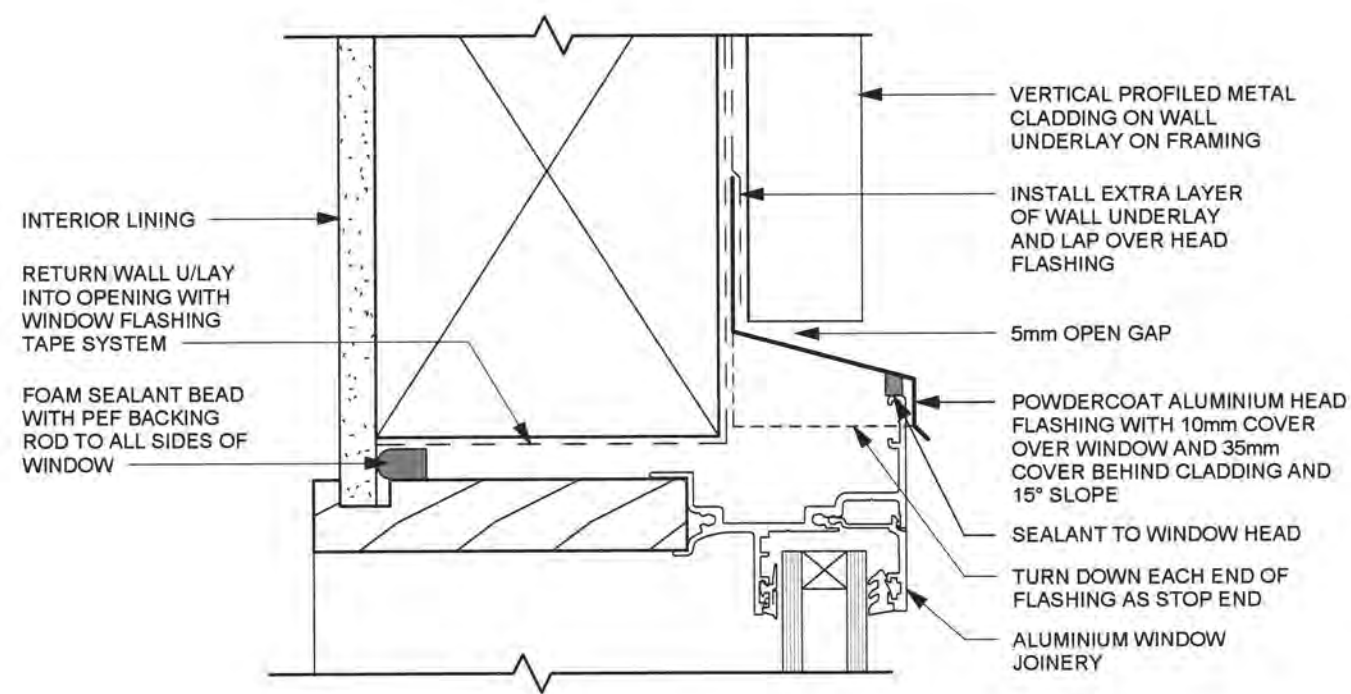
- THIS PAGE IS TO BE READ IN CONJUNCTION WITH SHEET 02 - CONSTRUCTION NOTES FOR ADDITIONAL INFORMATION
- CONTRACTOR MUST OBTAIN TERRITORIAL AUTHORITY ACCEPTANCE FOR VARIATION TO DETAILS



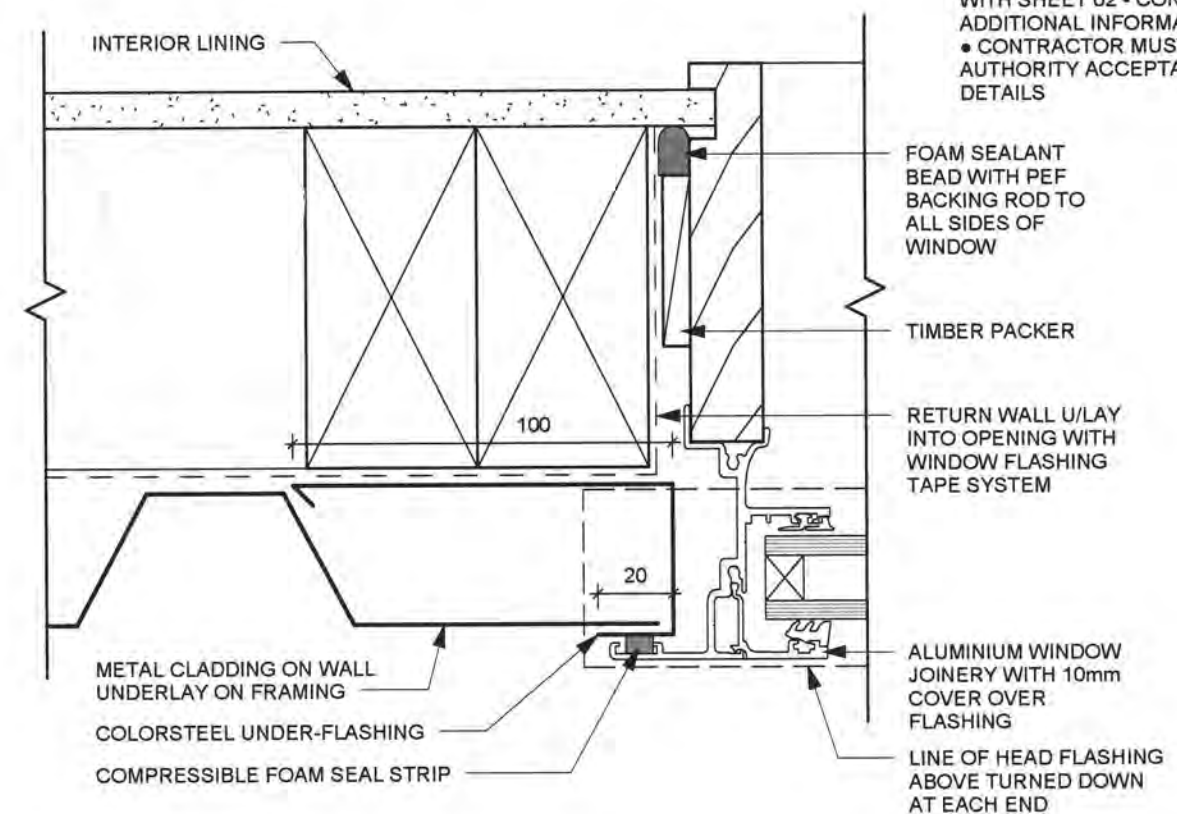
Phone: 04 904 59 59



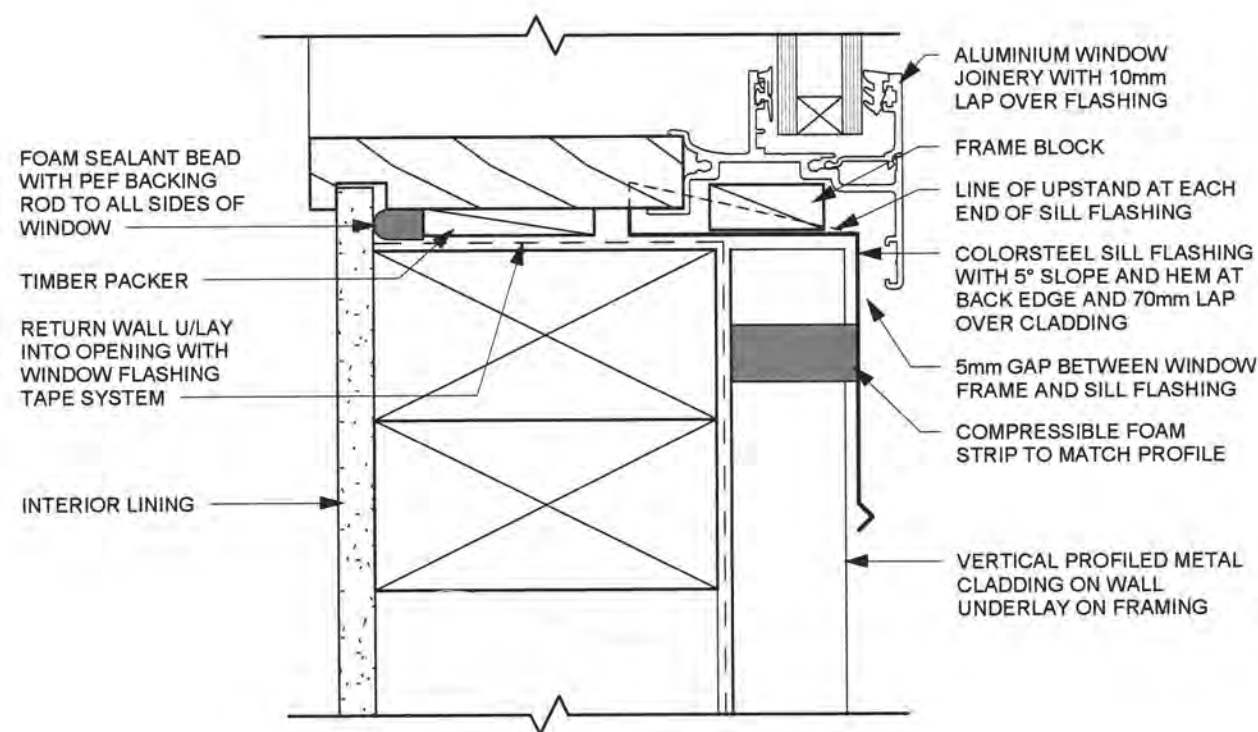
Rev	Date	Description
Proposed House for Esther & Peterson 142 Huia St Waikanae Lot 10 DP 22652		
A.D architecture LTD		
Tel : 04 298 5662 PO Box 1585, Paraparaumu Beach info@adarchitecture.co.nz www.adarchitecture.co.nz		
DETAILS		
BUILDING CONSENT		
DO NOT SCALE DRAWING		
Job	Date	Rev
11090	APRIL 2013	
Sheet		
(A3) 21		



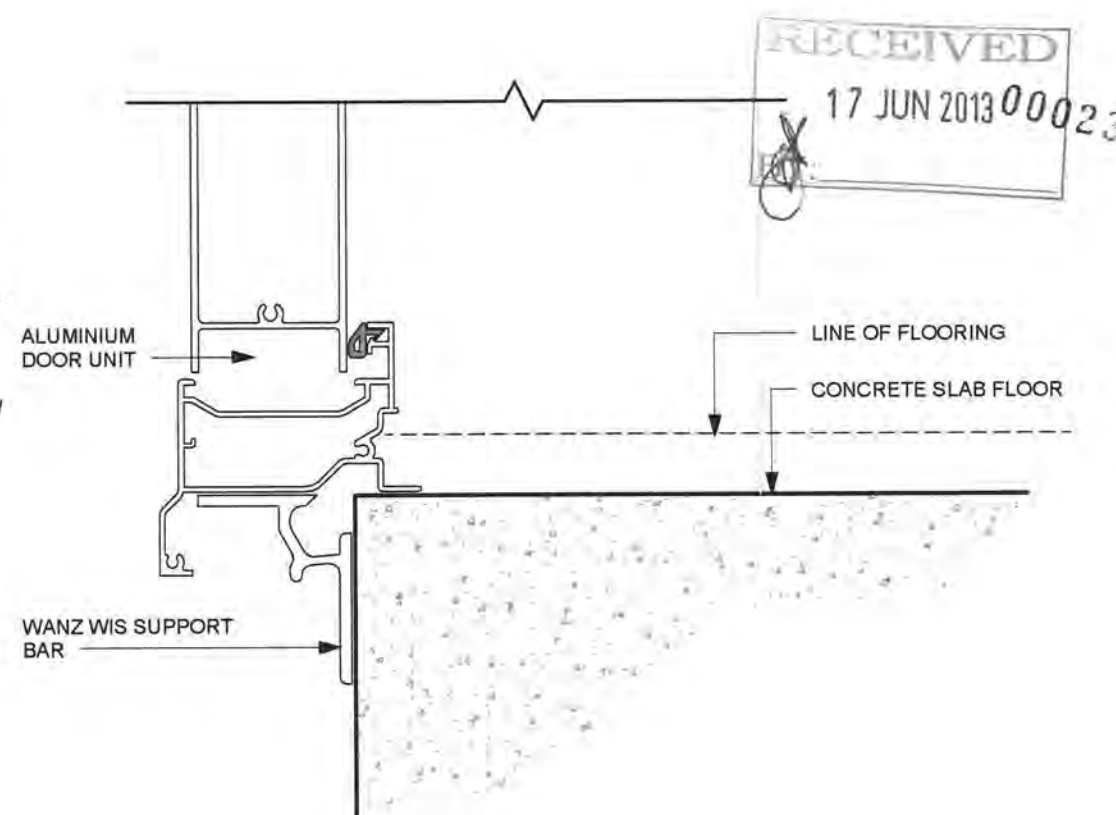
1 METAL WINDOW HEAD
1:2



2 METAL WINDOW JAMB
1:2



3 METAL WINDOW SILL
1:2



4 VERT METAL DOOR SILL
1:2

DETAIL NOTES

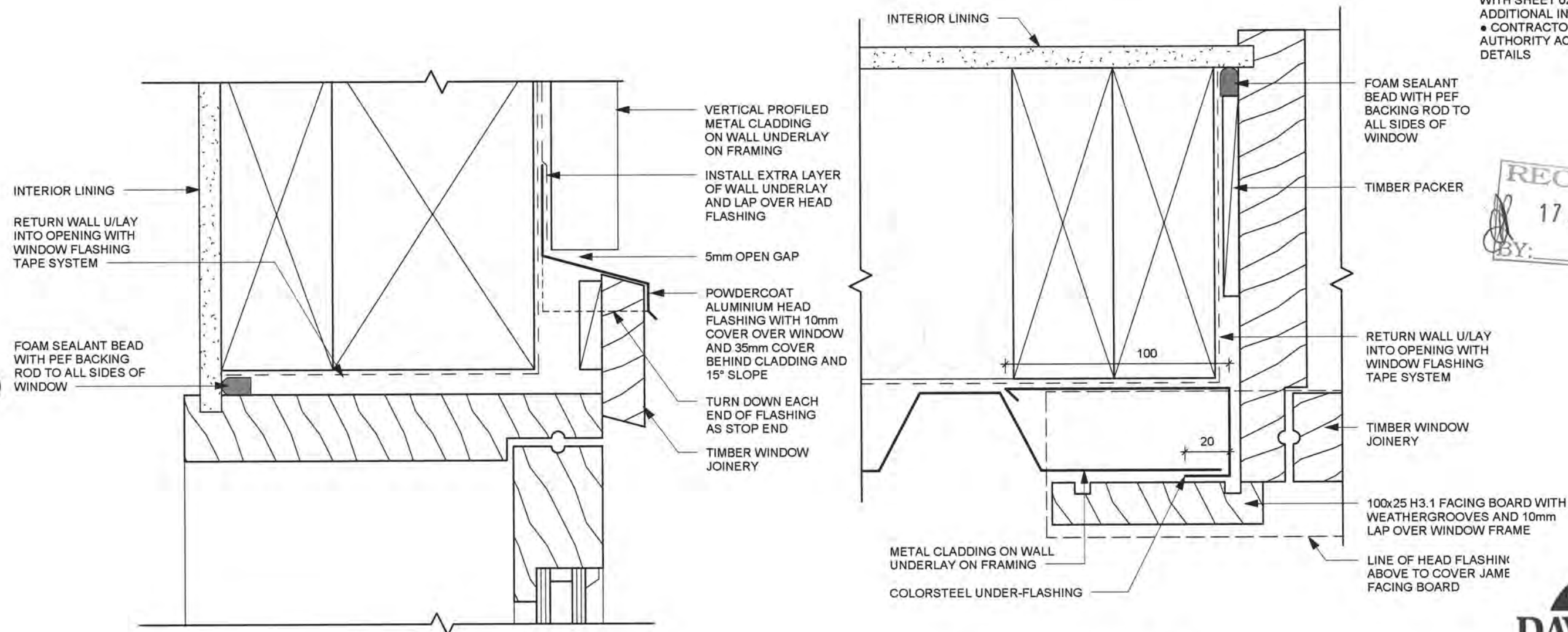
- THIS PAGE IS TO BE READ IN CONJUNCTION WITH SHEET 02 - CONSTRUCTION NOTES FOR ADDITIONAL INFORMATION
- CONTRACTOR MUST OBTAIN TERRITORIAL AUTHORITY ACCEPTANCE FOR VARIATION TO DETAILS



Phone: 04 904 59 59

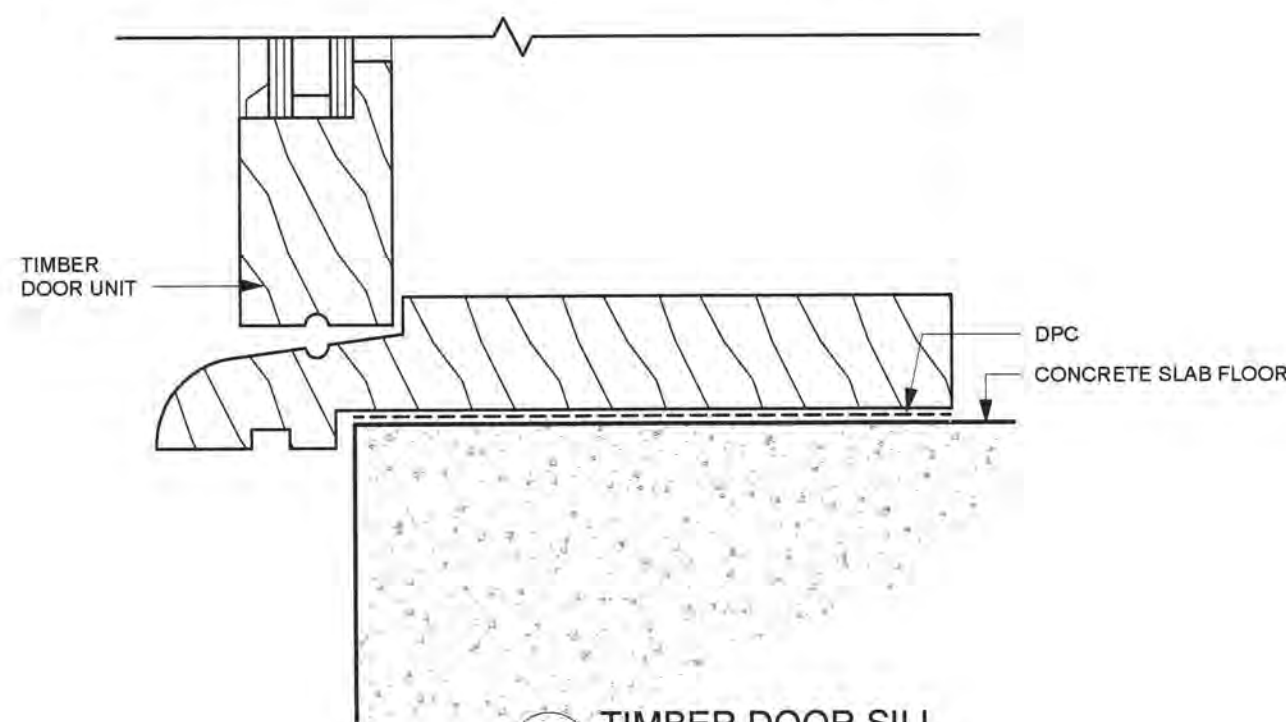
Rev	Date	Description
Proposed House for Esther & Peterson 142 Huia St Waikanae		
Lot 10	DP 22652	
A.D architecture LTD		
Tel : 04 298 5662		PO Box 1585, Paraparaumu Beach
info@adarchitecture.co.nz		www.adarchitecture.co.nz
DETAILS		
BUILDING CONSENT		
DO NOT SCALE DRAWING		
Job	Date	Rev
11090	APRIL 2013	
		Sheet
		(A3) 22

DETAIL NOTES
 • THIS PAGE IS TO BE READ IN CONJUNCTION WITH SHEET 02 - CONSTRUCTION NOTES FOR ADDITIONAL INFORMATION
 • CONTRACTOR MUST OBTAIN TERRITORIAL AUTHORITY ACCEPTANCE FOR VARIATION TO DETAILS



1 TIMBER DOOR HEAD
1:2

2 TIMBER DOOR JAMB
1:2

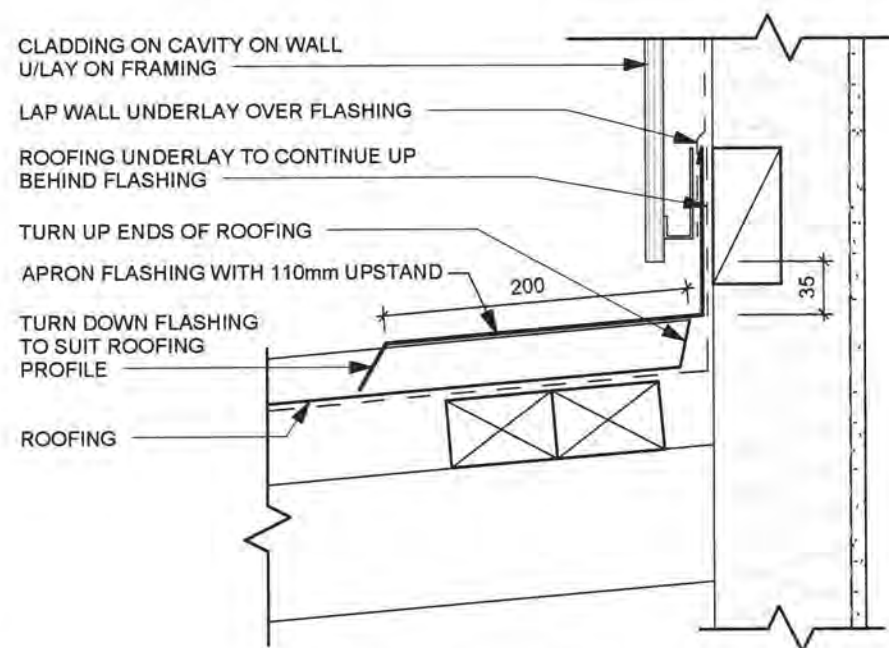


3 TIMBER DOOR SILL
1:2

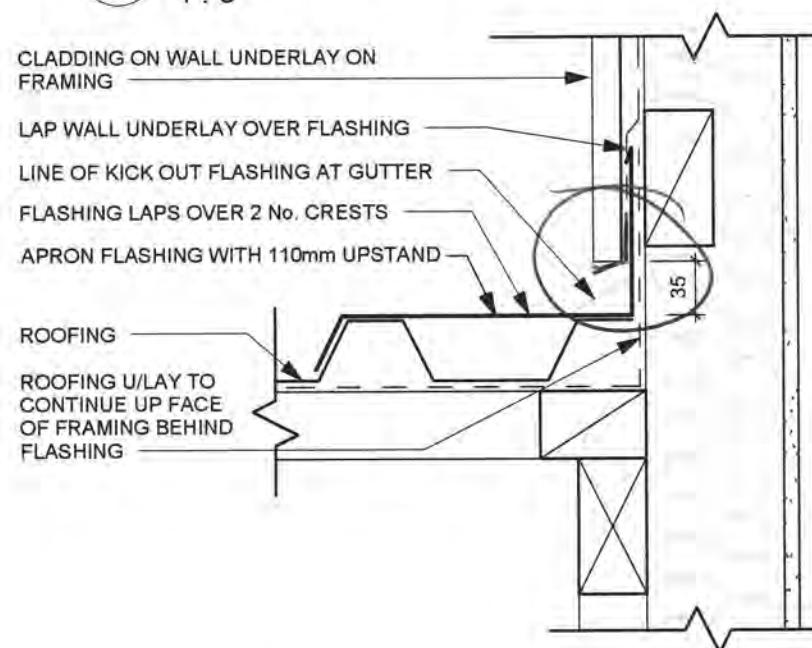


Phone: 04 904 59 59

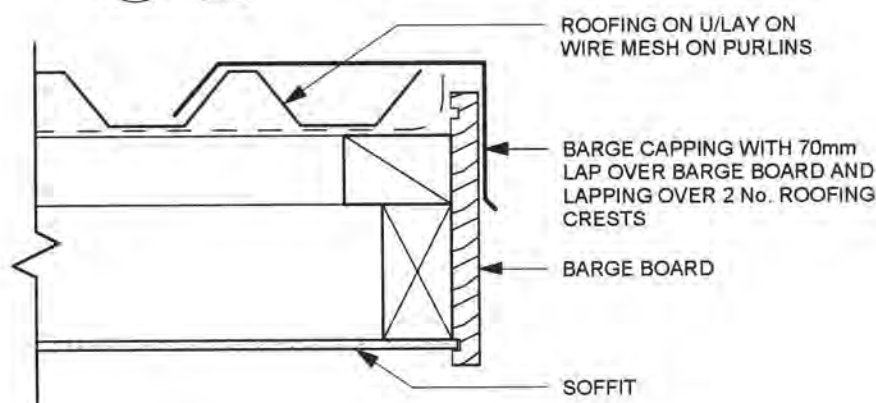
Rev	Date	For Consent	Description
3	23-05-13	For Consent	
Proposed House for Esther & Peterson 142 Huia St Waikanae Lot 10 DP 22652			
A.D architecture LTD			
Tel : 04 298 5662 PO Box 1585, Paraparaumu Beach info@adarchitecture.co.nz www.adarchitecture.co.nz			
DETAILS			
BUILDING CONSENT			
DO NOT SCALE DRAWING			
Job	Date	Rev	Sheet
11090	APRIL 2013	3	(A3) 23



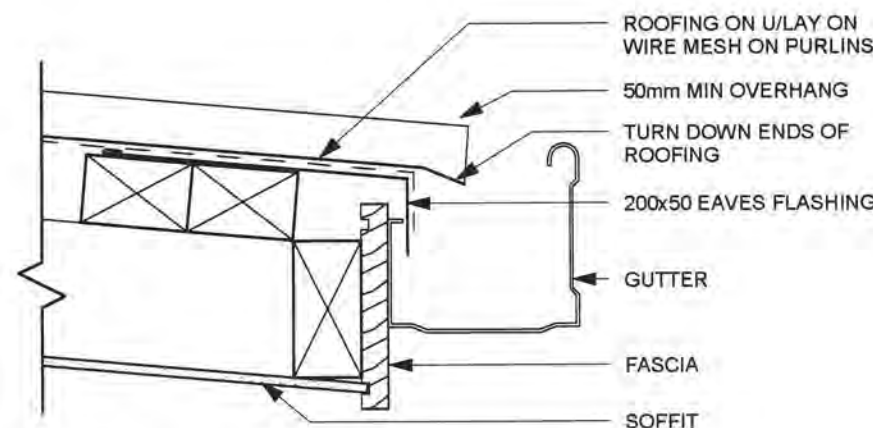
1 METAL ROOF APRON
1:5



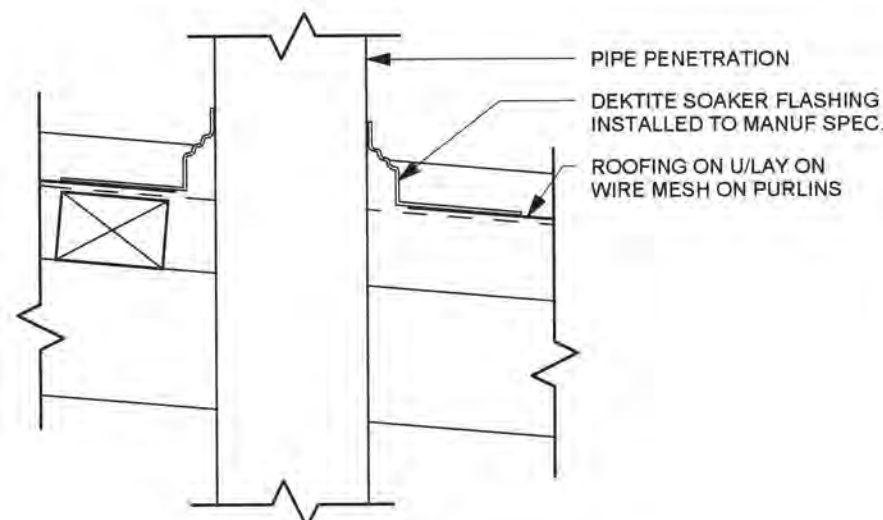
3 METAL ROOF PARALLEL APRON
1:5



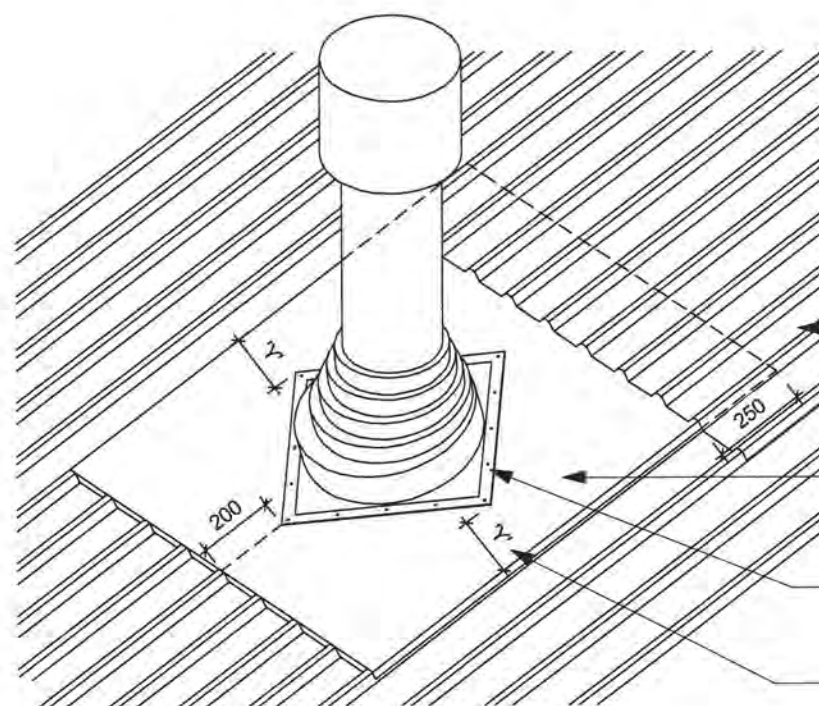
6 METAL ROOF BARGE
1:5



2 METAL ROOF EAVE
1:5



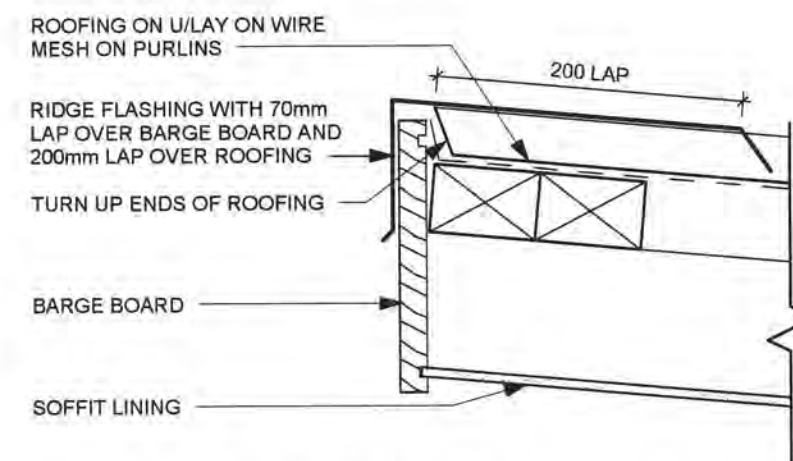
4 ROOF PENETRATION
1:5



7 ROOF PENETRATION
1:20



DETAIL NOTES
• THIS PAGE IS TO BE READ IN CONJUNCTION WITH SHEET 02 - CONSTRUCTION NOTES FOR ADDITIONAL INFORMATION
• CONTRACTOR MUST OBTAIN TERRITORIAL AUTHORITY ACCEPTANCE FOR VARIATION TO DETAILS

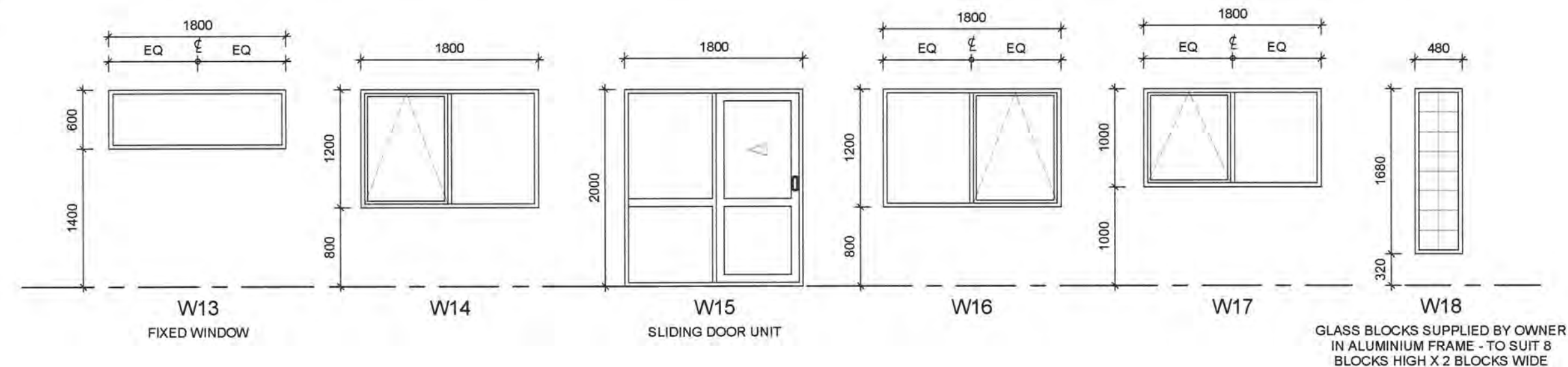
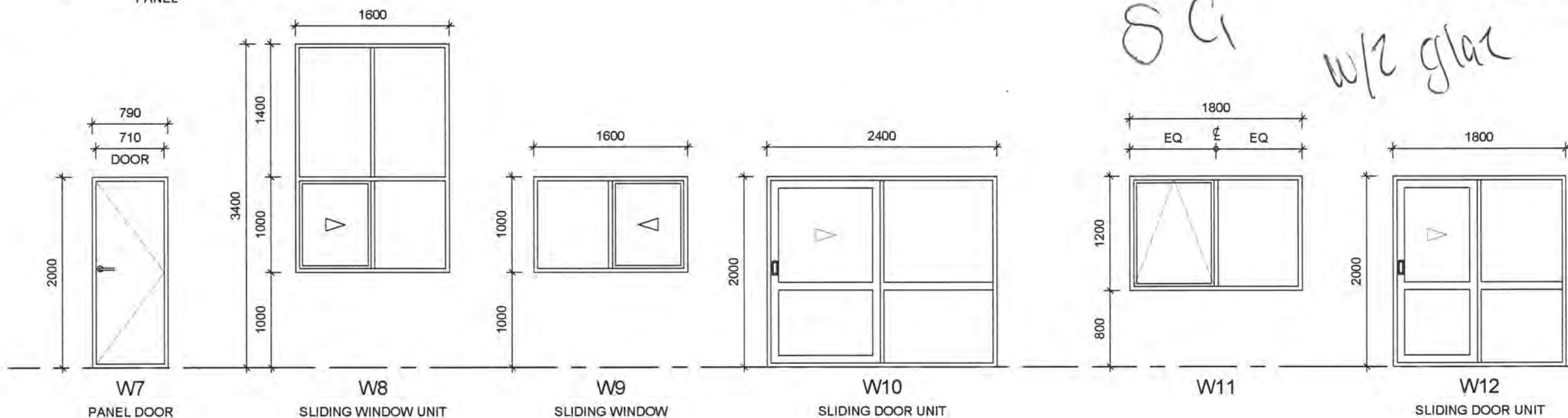
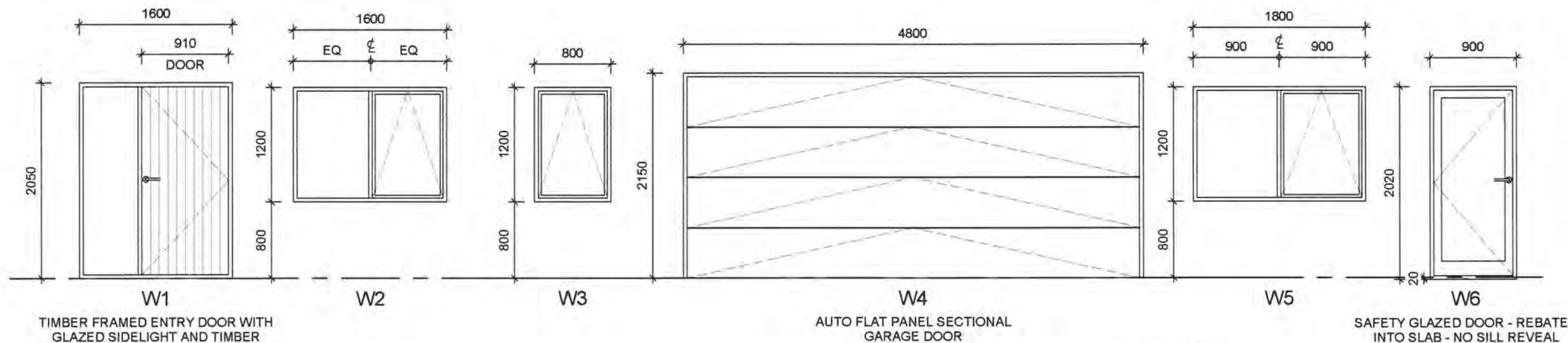


5 METAL ROOF RIDGE
1:5



Phone: 04 904 59 59

Rev	Date	Description
Proposed House for Esther & Peterson 142 Huia St Waikanae Lot 10 DP 22652		
A.D architecture LTD		
Tel : 04 298 5662 PO Box 1585, Paraparaumu Beach info@adarchitecture.co.nz www.adarchitecture.co.nz		
DETAILS		
BUILDING CONSENT		
DO NOT SCALE DRAWING		
Job	Date	Rev
11090	APRIL 2013	
Sheet		
(A3) 24		

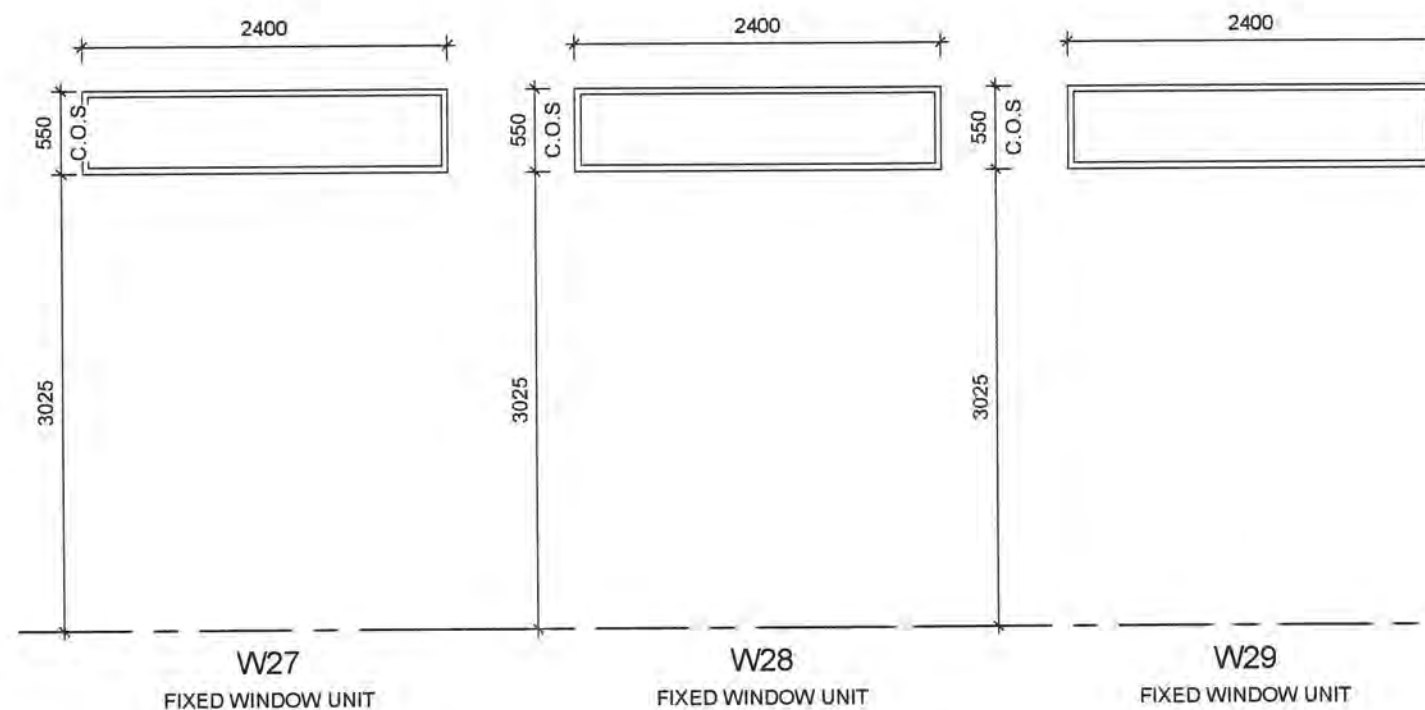
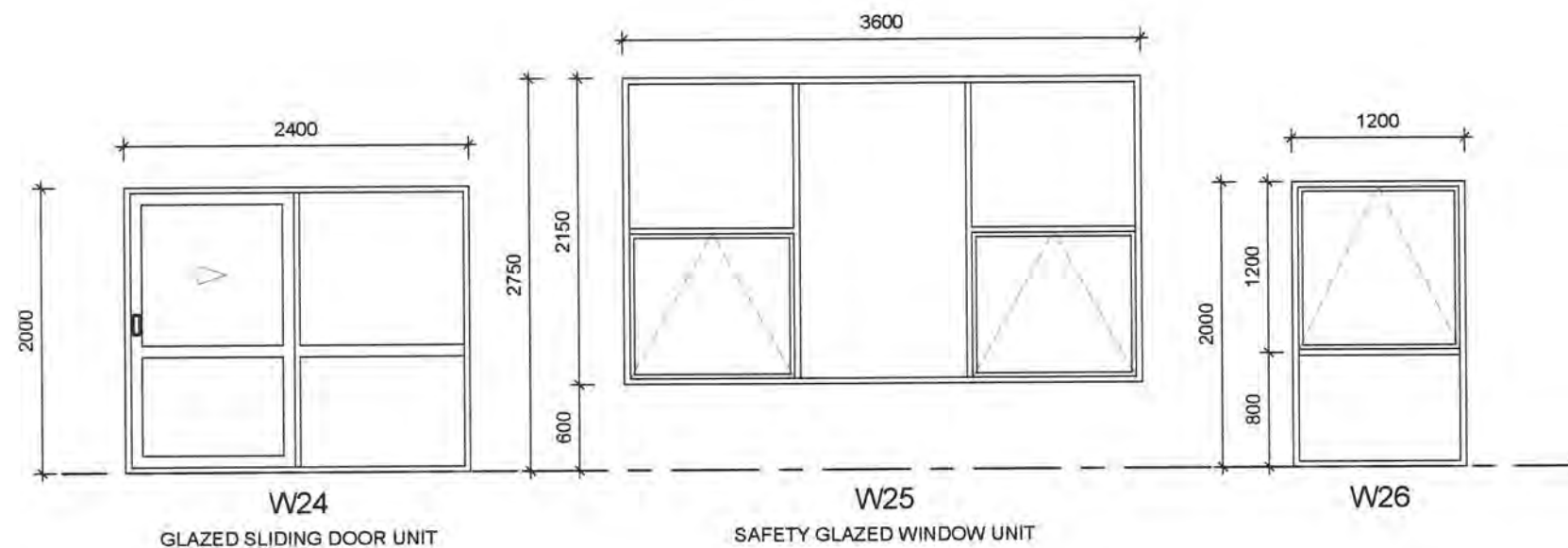
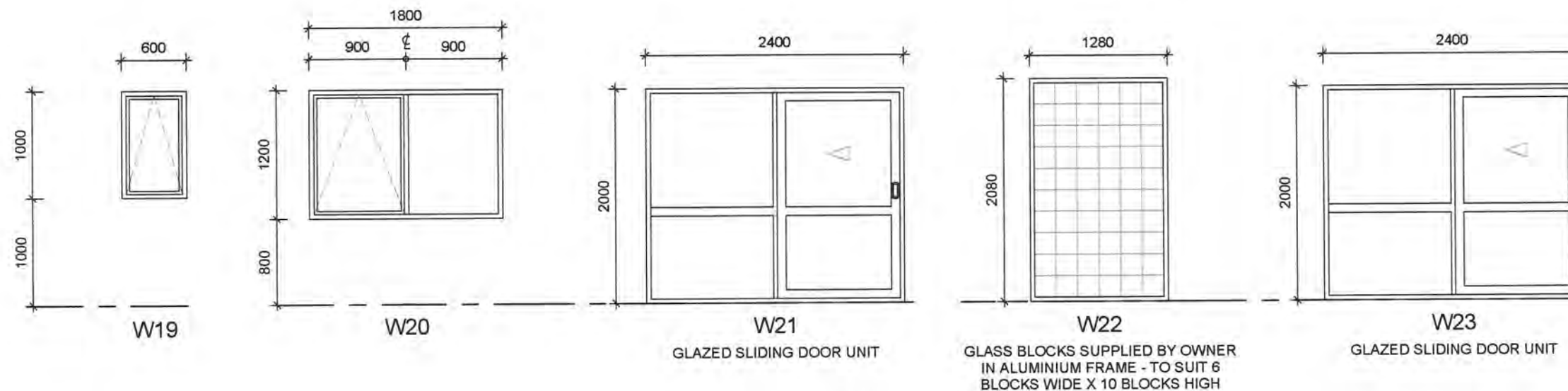


- ALUMINIUM WINDOWS & DOORS:**
- THIS PAGE IS TO BE READ IN CONJUNCTION WITH SHEET 02 - CONSTRUCTION NOTES FOR ADDITIONAL INFORMATION
 - JOINERY SHOWN AS VIEWED FROM EXTERIOR
 - ALUMINIUM JOINER TO CHECK OPENING SIZES ON SITE BEFORE MANUFACTURE
 - WINDOW MANUFACTURER TO SUPPLY ALL FLASHINGS AND WANS WIS COMPONENTS
 - REFER ALSO TO WINDOW DETAILS
 - ALL WINDOWS TO BE DOUBLE GLAZED UNLESS NOTED OTHERWISE
 - ALL WINDOWS HAVE SLIMLINE REVEALS REBATED FOR WALL LININGS
 - ALL OPENING SASHES TO HAVE COLOUR MATCHED DOUBLE TONGUE CATCHES
 - ALL JAMB LINERS TO BE 19mm FINGERJOINTED PINE, PAINT FINISH
 - ALL WINDOW & DOOR OPENINGS IN EXTERIOR WALLS TO HAVE A WINDOW FLASHING TAPE SYSTEM INSTALLED
 - ALLOW FOR 300w x 150h (TO BE CONFIRMED) VIEWING PANEL FOR ELECTRICAL METER PANEL
 - WINDOW OPENINGS TO BE 20mm LARGER THAN WINDOW HEIGHTS (10mm TOLERANCE EACH SIDE) AND 100mm LARGER THAN WINDOW WIDTHS (50mm TOLERANCE EACH SIDE)



Phone: 04 904 59 59

1	26-04-13	Client Requests	
Rev	Date	Description	
Proposed House for Esther & Peterson 142 Huia St Waikanae			
Lot 10 DP 22652			
A.D architecture			
Tel : 04 298 5662 PO Box 1585, Paraparaumu Beach info@adarchitecture.co.nz www.adarchitecture.co.nz			
EXTERIOR JOINERY SCHEDULE			
BUILDING CONSENT			
DO NOT SCALE DRAWING			
Job	Date	Rev	Sheet
11090	APRIL 2013	1	(A3) 25



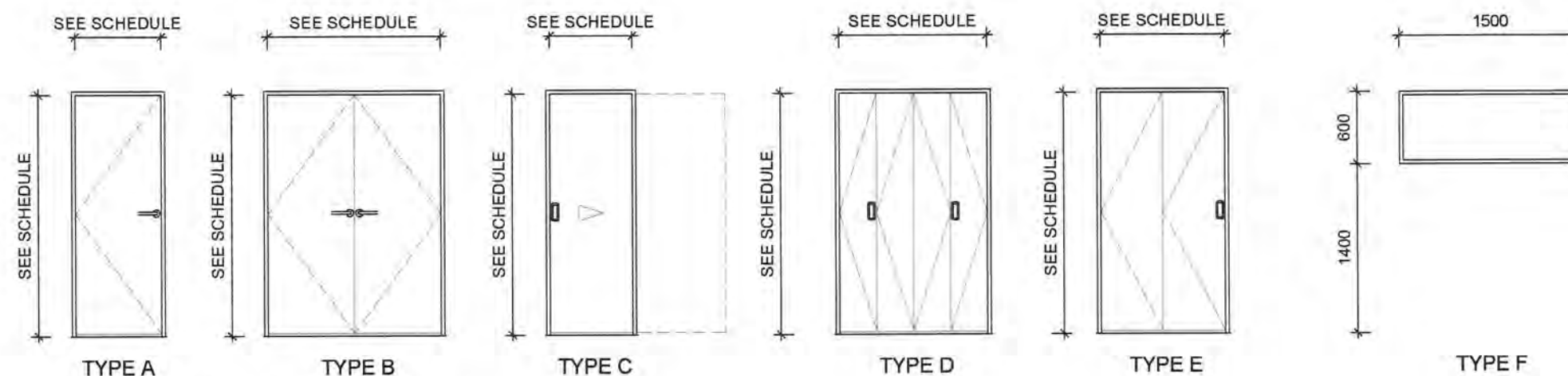
ALUMINIUM WINDOWS & DOORS:

- THIS PAGE IS TO BE READ IN CONJUNCTION WITH SHEET 02 - CONSTRUCTION NOTES FOR ADDITIONAL INFORMATION
- JOINERY SHOWN AS VIEWED FROM EXTERIOR
- ALUMINIUM JOINER TO CHECK OPENING SIZES ON SITE BEFORE MANUFACTURE
- WINDOW MANUFACTURER TO SUPPLY ALL FLASHINGS AND WANS WIS COMPONENTS
- REFER ALSO TO WINDOW DETAILS
- ALL WINDOWS TO BE DOUBLE GLAZED UNLESS NOTED OTHERWISE
- ALL WINDOWS HAVE SLIMLINE REVEALS REBATED FOR WALL LININGS
- ALL OPENING SASHES TO HAVE COLOUR MATCHED DOUBLE TONGUE CATCHES
- ALL JAMB LINERS TO BE 19mm FINGERJOINTED PINE, PAINT FINISH
- ALL WINDOW & DOOR OPENINGS IN EXTERIOR WALLS TO HAVE A WINDOW FLASHING TAPE SYSTEM INSTALLED
- ALLOW FOR 300w x 150h (TO BE CONFIRMED) VIEWING PANEL FOR ELECTRICAL METER PANEL
- WINDOW OPENINGS TO BE 20mm LARGER THAN WINDOW HEIGHTS (10mm TOLERANCE EACH SIDE) AND 100mm LARGER THAN WINDOW WIDTHS (50mm TOLERANCE EACH SIDE)



Phone: 04 904 59 59

2	30-04-13	Client Requests	
Rev	Date	Description	
Proposed House for Esther & Peterson 142 Huia St Waikanae Lot 10 DP 22652			
A.D architecture <small>LTD</small>			
Tel : 04 298 5662 info@adarchitecture.co.nz		PO Box 1585, Paraparaumu Beach www.adarchitecture.co.nz	
EXTERIOR JOINERY SCHEDULE			
BUILDING CONSENT			
DO NOT SCALE DRAWING			
Job	Date	Rev	Sheet
11090	APRIL 2013	2	(A3) 26



INTERIOR DOOR NOTES

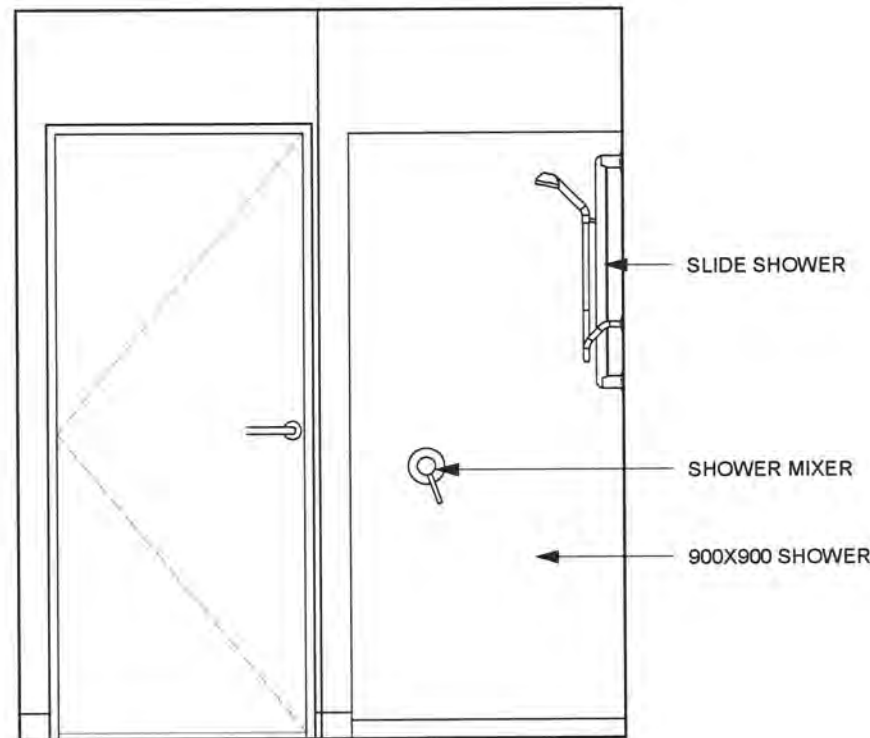
- INTERIOR DOORS TO BE AS PER DRH ADDENDUM
- REFER TO FLOOR PLANS FOR DOOR SWING DIRECTION

Interior Door Schedule						
MARK	TYPE	SIZE	OPERATION	FRAME MATERIAL	PANEL MATERIAL	COMMENTS
D1	C	810w x 1980h	Cavity Sliding	Timber Frame	Ribcore Panel - Steel 2 Sides	
D2	A	760w x 1980h	Hinged Swinging	Timber Frame	Solid Panel	
D3	C	760w x 1980h	Cavity Sliding	Timber Frame	Ribcore Panel - Steel 2 Sides	
D4	A	510w x 1980h	Hinged Swinging	Timber Frame	Ribcore Panel	
D5	C	910w x 1980h	Cavity Sliding	Timber Frame	Ribcore Panel - Steel 2 Sides	
D6	A	810w x 1980h	Hinged Swinging	Timber Frame	Ribcore Panel	
D7	C	760w x 1980h	Cavity Sliding	Timber Frame	Ribcore Panel - Steel 2 Sides	BATHROOM PRIVACY LOCK
D8	B	2/310w x 1980h	Hinged Swinging	Timber Frame	Ribcore Panel	
D9	A	810w x 1980h	Hinged Swinging	Timber Frame	Ribcore Panel	BATHROOM PRIVACY LOCK
D10	A	810w x 1980h	Hinged Swinging	Timber Frame	Ribcore Panel	
D11	A	810w x 1980h	Hinged Swinging	Timber Frame	Ribcore Panel	
D12	D	2/610w x 1980h	Bifold	Timber Frame	Ribcore Panel	
D13	E	2/510w x 1980h	Bifold	Timber Frame	Ribcore Panel	
D14	F	1500w x 600h	Interior Window	Timber Frame	Glazed panel	

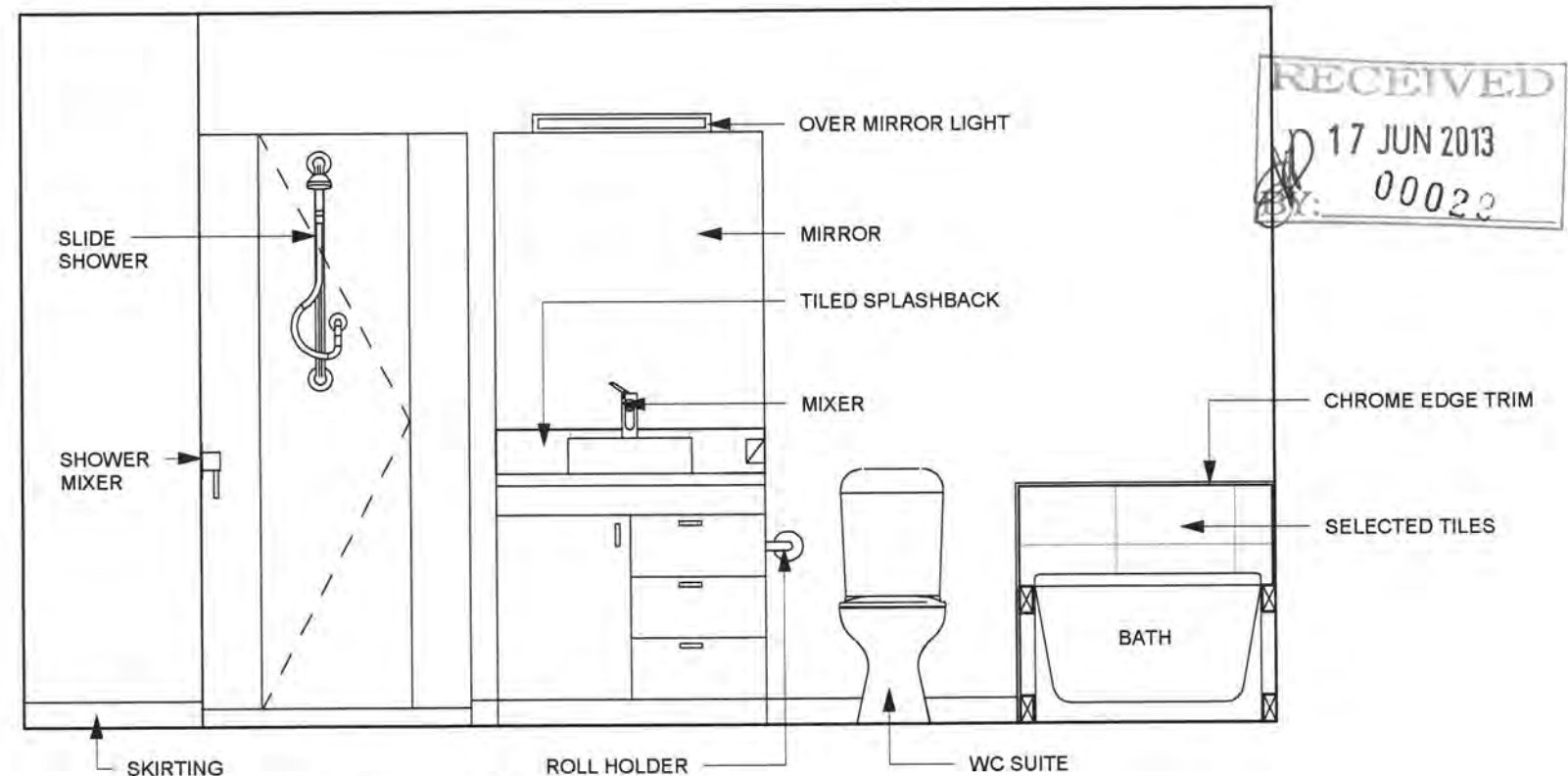


Phone: 04 904 59 59

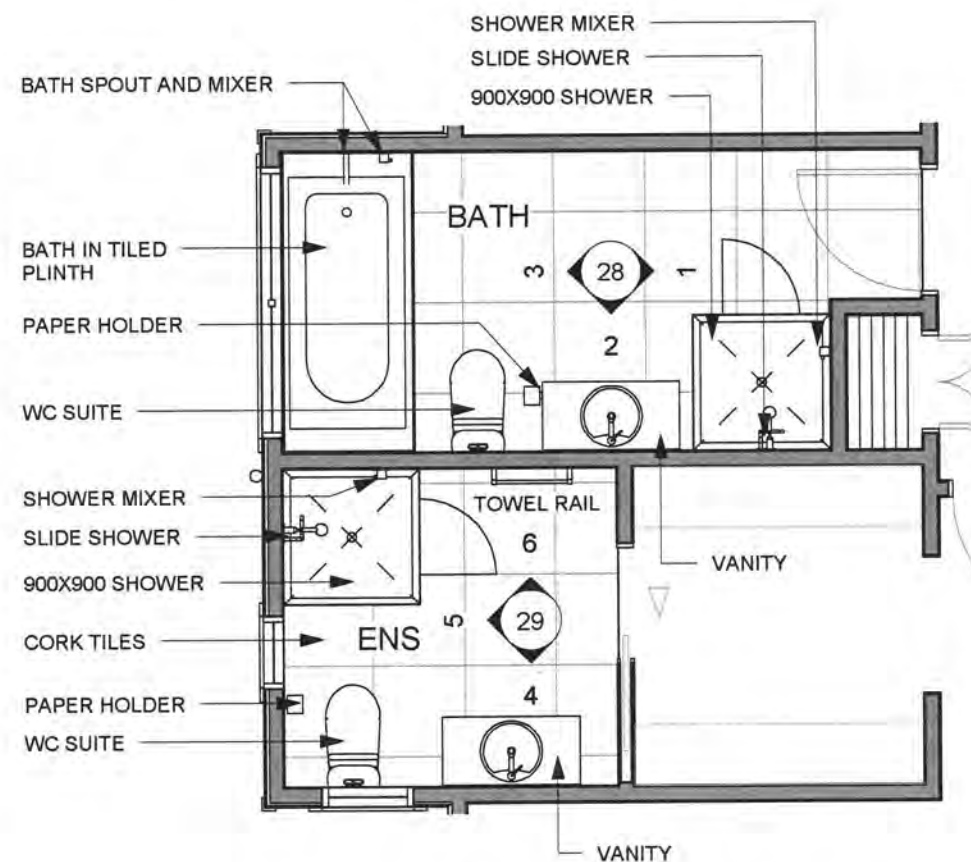
2	30-04-13	Client Requests
Rev	Date	Description
Proposed House for Esther & Peterson 142 Huia St Waikanae Lot 10 DP 22652		
A.D architecture LTD		
Tel : 04 298 5662 PO Box 1585, Paraparaumu Beach info@adarchitecture.co.nz www.adarchitecture.co.nz		
INTERIOR OPENING SCHEDULE		
BUILDING CONSENT		
DO NOT SCALE DRAWING		
Job	Date	Rev
11090	APRIL 2013	2
Sheet	(A3)	27



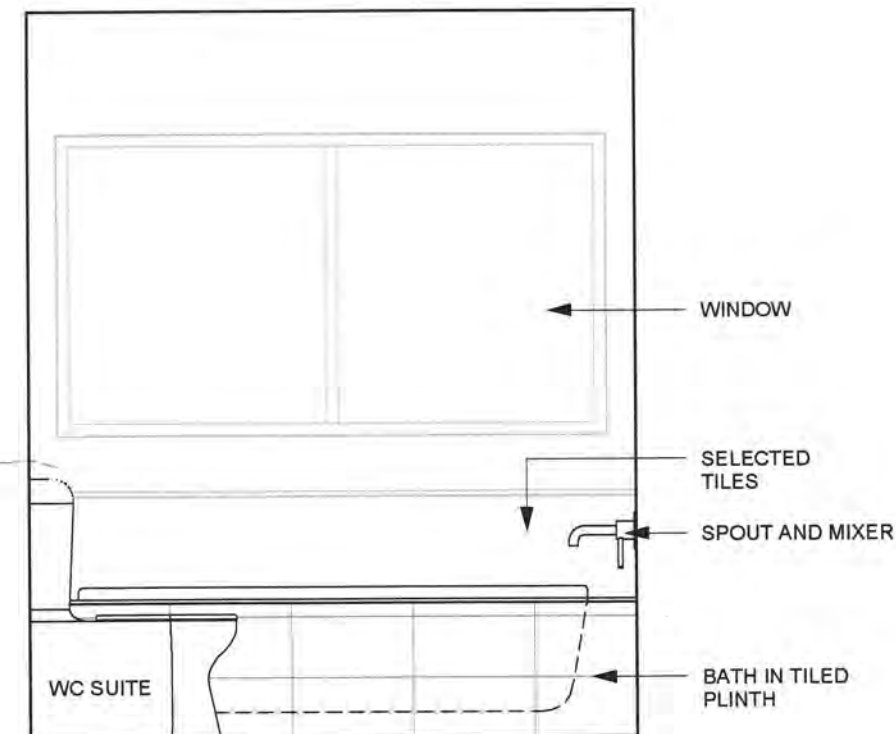
BATHROOM ELEVATION 1
1 : 25



BATHROOM ELEVATION 2
1 : 25



BATHROOM & ENSUITE FLOOR PLAN
1 : 50

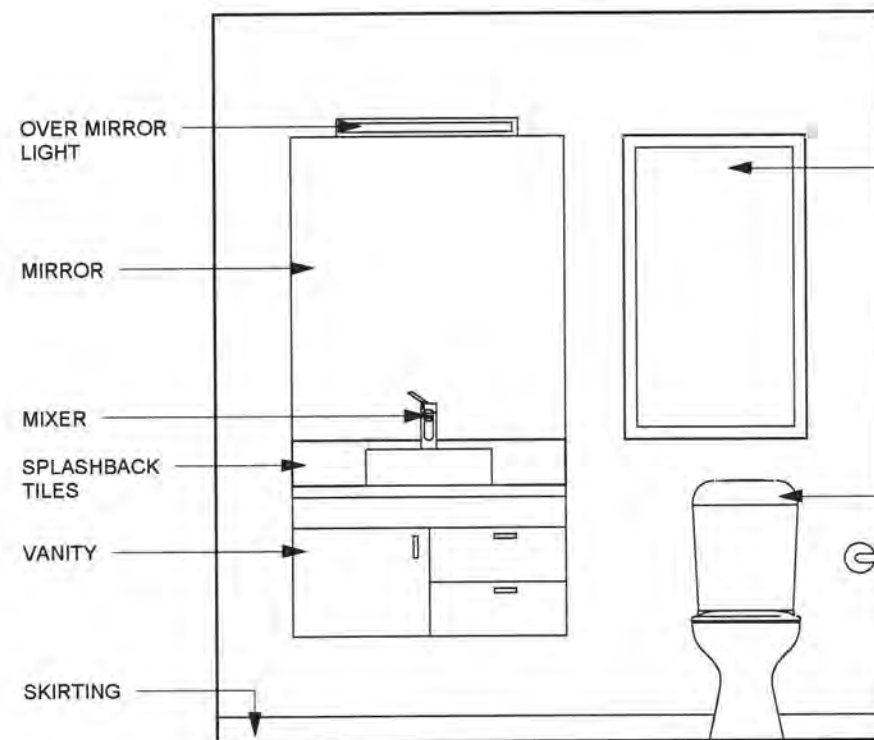


BATHROOM ELEVATION 3
1 : 25

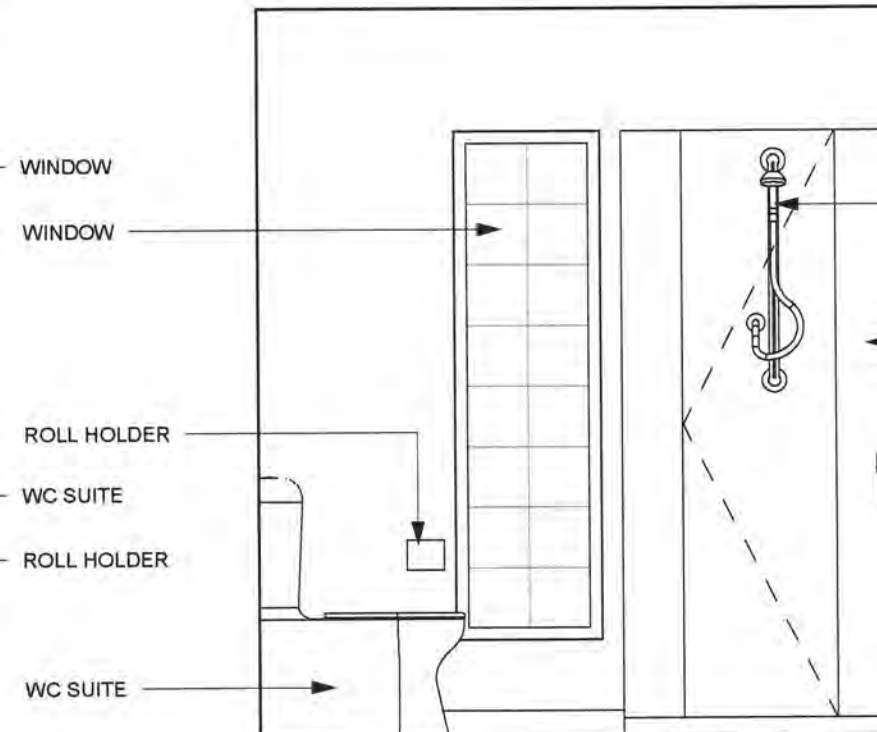


Phone: 04 904 59 59

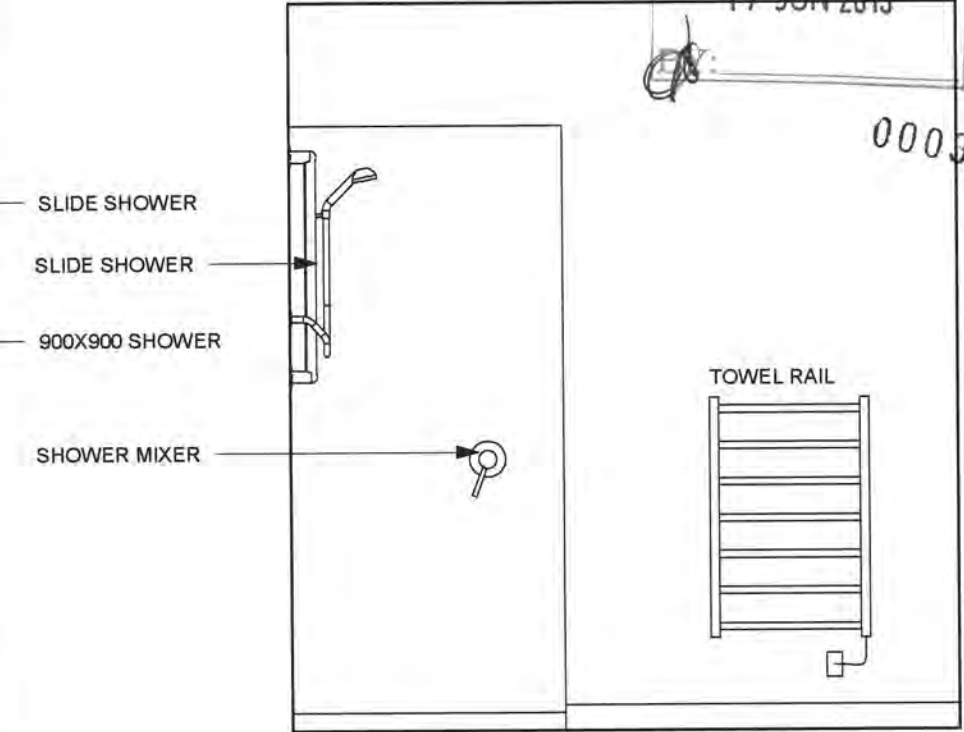
2	30-04-13	Client Requests	
Rev	Date	Description	
Proposed House for Esther & Peterson 142 Huia St Waikanae			
Lot 10		DP 22652	
A.D architecture LTD			
Tel : 04 298 5662		PO Box 1585, Paraparaumu Beach	
info@adarchitecture.co.nz		www.adarchitecture.co.nz	
INTERIOR ELEVATIONS			
BUILDING CONSENT			
DO NOT SCALE DRAWING			
Job	Date	Rev	Sheet
11090	APRIL 2013	2	(A3) 28



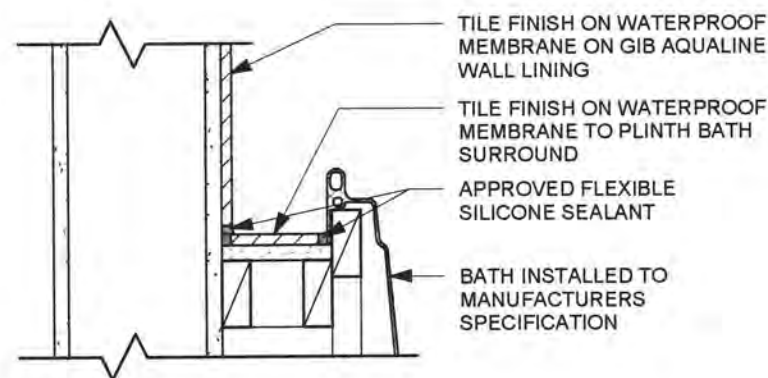
ENSUITE ELEVATION 4
1 : 25



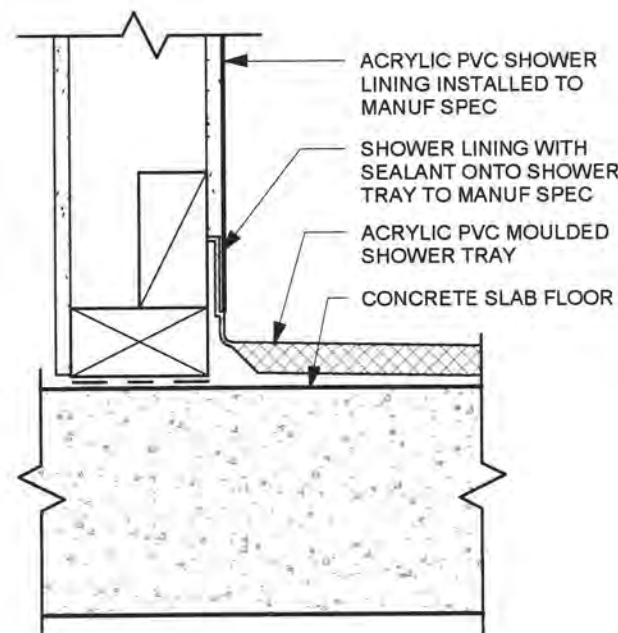
ENSUITE ELEVATION 5
1 : 25



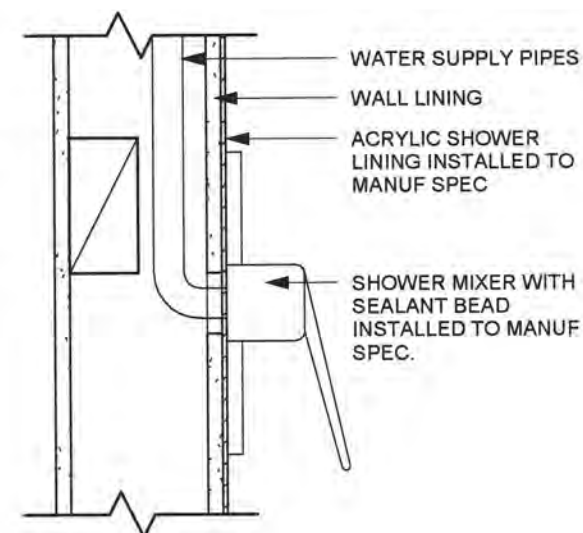
ENSUITE ELEVATION 6
1 : 25



1 BATH / WALL JUNCTION
1 : 5



2 ACRYLIC SHOWER BASE
1 : 5



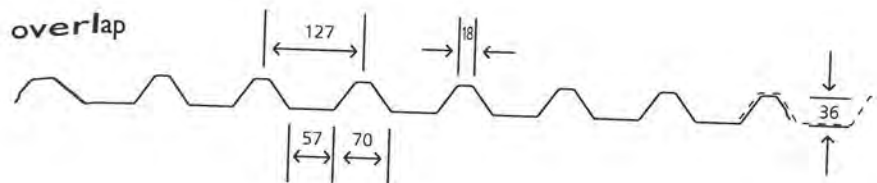
3 ACRYLIC SHOWER PENETRATION
1 : 5



Phone: 04 904 59 59

Rev	Date	Description
Proposed House for Esther & Peterson 142 Huia St Waikanae		
Lot 10	DP 22652	
A.D architecture LTD		
Tel : 04 298 5662		PO Box 1585, Paraparaumu Beach
info@adarchitecture.co.nz		www.adarchitecture.co.nz
INTERIOR ELEVATIONS & DETAILS		
BUILDING CONSENT		
DO NOT SCALE DRAWING		
Job	Date	Rev
11090	APRIL 2013	
		Sheet
		(A3) 29

2.1.4.3 (a) DIMOND LT7 PROFILE PERFORMANCE



Cover (mm)	889
Sheet width (mm)	933
Minimum Pitch	3° (approx. 1:20)

All dimensions given are nominal

Sheet TolerancesSheet width: $\pm 5\text{mm}$

Sheet width for aluminium +0, -15. If sheet cover widths are critical, advise Dimond at time of order.

Sheet length: +10mm, -0mm. For horizontal wall cladding where notified at time of order of intended use, tighter tolerances can be achieved +3mm, -0mm.

Material Options	Steel		Aluminium		Duraclad
Thickness (BMT) mm	0.4	0.55	0.7	0.9	1.7 (total thickness)
Nominal weight/lineal metre (kg/m)	4.12	5.55	2.31	2.96	2.90
Drape curved roof – min. radius (m)	80	50	80	50	24
Purlin spacings for drape curved roof (m) (1)	1.4	2.2	1.4	2.2	1.2
Machine crimp curved – roof min. radius (mm)	900	400	n/a	400	n/a
Unsupported overhang (2)	250	350	200	300	200

(1) Recommended maximum purlin spacing at minimum radius

(2) Based on 1.1 kN point load support, but not intended for roof access.

n/a – not available

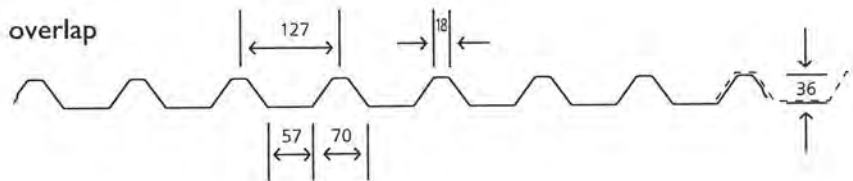
Roll-forming & crimp curving facility at: Palmerston North

Manufacturing location for Duraclad: Auckland

Sheet lengths: LT7 is custom run to order. Where long sheets are used consideration must be given to:

- special transportation licences for sheet lengths over 25m
 - site access for special lifting equipment
 - fixing techniques to accommodate thermal expansion.
- Refer Section 2.1.3.4.

2.1.4.3 (a) DIMOND LT7 PROFILE PERFORMANCE



Cover (mm)	889
Sheet width (mm)	933
Minimum Pitch	3° (approx. 1:20)

All dimensions given are nominal

Sheet TolerancesSheet width: $\pm 5\text{mm}$

Sheet width for aluminium +0, -15. If sheet cover widths are critical, advise Dimond at time of order.

Sheet length: +10mm, -0mm. For horizontal wall cladding where notified at time of order of intended use, tighter tolerances can be achieved +3mm, -0mm.

Material Options	Steel		Aluminium		Duraclad
Thickness (BMT) mm	0.4	0.55	0.7	0.9	1.7 (total thickness)
Nominal weight/lineal metre (kg/m)	4.12	5.55	2.31	2.96	2.90
Drape curved roof – min. radius (m)	80	50	80	50	24
Purlin spacings for drape curved roof (m) (1)	1.4	2.2	1.4	2.2	1.2
Machine crimp curved – roof min. radius (mm)	900	400	n/a	400	n/a
Unsupported overhang (2)	250	350	200	300	200

(1) Recommended maximum purlin spacing at minimum radius

(2) Based on 1.1 kN point load support, but not intended for roof access.

n/a – not available

Roll-forming & crimp curving facility at: Palmerston North

Manufacturing location for Duraclad: Auckland

Sheet lengths: LT7 is custom run to order. Where long sheets are used consideration must be given to:

- special transportation licences for sheet lengths over 25m
 - site access for special lifting equipment
 - fixing techniques to accommodate thermal expansion.
- Refer Section 2.1.3.4.

2.3.1 HANDLING AND STORAGE

Correct handling of profiled metal roofing and cladding products is critical to ensure damage does not occur during transportation and storage of the material. The following comments are made as guidelines to be used when inspecting Dimond Roofing and Wall Cladding Systems during the installation process.

Visual inspection of materials when they are delivered to the site should be carried out to ensure they are dry and free from damage. All components stored on site must be kept dry.

Site storage of sheet material requires dunnage evenly spaced to provide a surface for the materials to be placed on that is in plane.

Covers must be placed over the material to ensure it does not become wet during any storage period, and must remain clear of the material surface so air can circulate freely around the bundle. Product with strippable film applied must not be exposed to direct sunlight during storage.

The need to keep the sheets dry applies to all metal types. If aluminium is stored wet it will suffer black staining that detracts from appearance. If pre-painted Zinalume® products are stored wet, the paint finish will blister due to moisture absorption and eventual under-film corrosion. If unpainted Zinalume® products are stored wet, the surface will stain and can suffer loss of protection that will show up in time as premature corrosion. If the sheets have remained in this wet condition for more than 3 days, they should not be used.

If sheets do become wet and remained wet for less than 3 days, they must first be removed from the stack, immediately dried thoroughly and re-stacked with timber fillets being placed evenly between the sheets to ensure air can circulate freely over the sheet surfaces.

Sheets must always be lifted clear of the stack, never dragged.

Adequate support must be given along the length of sheets when lifting, whether it be single sheets by hand or bundles of sheets by crane or other lifting device. When lifting by mechanical means, spreader bars must be used to ensure the fabric strops do not damage the edge of the sheets as they are lifted.

2.5.2 LAYOUT AND FASTENING

The following comments are made as guidelines to be used when inspecting Dimond Roofing and Wall Cladding Systems during and after installation.

a. Netting

Netting should be run across purlins and tensioned to remove unnecessary sag. Fastening to timber should be with either galvanised staples or 25mm clouts avoiding contact with the roofing, and to steel with flat head screws.

Fixings should be at 150mm centres on end purlins in such a way that the netting cannot pull past the fixing. Edges of the netting should be tied together or twitched at 300mm centres and fixed to each purlin. Safety mesh should be installed to safety mesh manufacturers recommendations.

b. Roofing Underlay

Horizontal Application: underlay is unrolled across the roof parallel with purlins and secured as necessary. Joins should be lapped by a minimum of 75mm and supported on netting if roof pitch is below 8 degrees for self supporting and have the side edges supported on purlins.

Vertical Application: underlay is unrolled vertically up the slope of the roof from guttering to ridge and secured to the purlins as necessary before laying the roof sheet and fixing down. Joins should be lapped by a minimum of 150mm. Supports such as netting or safety mesh must be used on pitches below 8 degrees, or when using self supporting underlays on purlin spacings greater than 1200mm.

When used under roofing, all underlays must be supported on wire netting or strapping at 300mm maximum spacings. Self sufficient underlays can be used on purlins spacing up to 1200mm without support.

Underlay should overlay into the gutter at least 20mm and not more than 50mm, and avoid lapping into the water flow.

Maximum single underlay sheet lengths shall be 10m for bituminous and fire retarded kraft papers. Longer runs are to be end lapped 150mm. Synthetic underlays have no limit on their run length.

In general it is recommended that prolonged exposure of the underlay to the weather is avoided by fixing the roofing over the same day. Always follow underlay manufacturers recommendations.

c. Roofing and Cladding Sheets

Supporting Structure

- Roofing and wall cladding sheets should not be installed until the roofing contractor is satisfied that the support structure is complete, sound, and correctly aligned. This includes support around penetrations and openings.
- Purlin and girt spans both end and internal spacings must be in accordance with Dimond recommendations for profile, metal type and thickness, as well as the expected level of foot traffic. If in doubt, check.
- Curved roofs(whether draped/rolled or crimped) require purlin alignment within $\pm 5\text{mm}$ to minimise the risk of unacceptable finished appearance.
- Spacers must be fixed to steel purlins to allow insulation to fit between and to create a 25mm air gap between underlay and insulation. Do not compress the insulation.

Where the building is under the scope of E2/AS1 there is a requirement to install horizontal wall cladding onto a cavity batten system to achieve a 20mm air space between the back of the cladding and wall framing on all walls in accordance with NZBC E2/AS1. Dimond profiles that come within the scope of E2/AS1 are: Corrugate, Styleline, VeedekTM, DD300, DD400 and V-Rib.

Vertical run cladding does not require a cavity batten system on any risk matrix wall provided the details and installation is carried out in accordance with recommendations in this manual, which are based on past history where Dimond profiles have successfully been fixed.

Installation in this way will not be in accordance with E2/AS1: June 05 and is an alternative solution.

Continued on next page ...

2.3.2 Continued

Sheet Layout

- Firstly, the sheet should show no signs or evidence of transport damage or storage damage including wet storage effects. If the sheets are damaged they must not be fixed down, and the Dimond supplying branch should be informed as soon as possible.
- Care should be taken to ensure sheets are laid parallel to the lines of building ends, and perpendicular to ridges and gutters. If possible, the direction of laying should be such that the sheet side laps face away from the prevailing wind direction, or, in the case of wall cladding, away from the most common line of sight.
- Side laps must be properly engaged such that the overlap rib fits correctly over the underlay without obvious gaps or insufficient cover.
- Roofing sheets should run continuously from ridge to gutter, avoiding end laps. Long lengths separated for thermal expansion or handling reasons should join at a step in the roof. Where end lapping of straight and curved sheets cannot be avoided, a correctly formed 150mm minimum sealed lap is required, with a bead of neutral curing silicone sealant each end of the lapped sheets.
- Sheet ends should form an even line (within a workable tolerance) and roof sheeting should overhang into gutters by at least 50mm and must allow clearance to enable ease of gutter cleaning.

Sheet Ends

- All roofing and wall cladding sheet ends that terminate under flashings (regardless of pitch) should be formed with a full vertical dog-eared stop end to the full height of the profile rib. Where a full height dog-eared stop end cannot be achieved, a pull up stop end a minimum 28mm high on all profiles excluding Corrugate must be provided in conjunction with foam profile closures.
- For roofs below 8 degrees pitch the drip edge sheet end should be formed with a down turned lip.

Sheet Fastening

- Sheet must be fastened to every purlin (or girt) to transfer outward loads evenly to every structural member.
- The fastener system used should meet specification requirements and have a durability to at least match that of the sheeting, and be in accordance with Dimond literature for that profile.
- Fasteners must be perpendicular to the sheeting and tightened sufficiently to effect a durable seal without over tightening that results in seal washer distortion or profile crest dishing and depressing. Fixings must be to a line.
- Concealed clips used to fasten Dimondek 300, Dimondek 400 and Dimondek 630 products should not exhibit screw or nail head protrusion such that damage to the roof sheet and coating may result.
- Whenever oversize holes are required to accommodate expansion, profiled washers and seals must be used.
- Profiled washers and seals should be used whenever specified to provide extra wind uplift capacity.
- Note should be made to ensure there are sufficient fasteners, evenly distributed. In particular the perimeter zones of roofs, where maximum wind uplift occurs, must have sufficient fasteners.
- No areas on the roof should hold water that will cause ponding long term. The structure may require realignment and if the profile is damaged, this should be replaced.

Wall Cladding Underlay

- Can be laid either horizontally on steel girts or vertically on timber studs.
- When run horizontally lap upper sheet over lower sheet a minimum of 75mm. Adequately secure to framing at 300mm centres. When installed in high wind areas fix through a reinforced tape such as Danband branded polypropylene tape.
- Run lengths to be no greater than 10m.
- End laps to be no less than 150mm over studs of vertical joints.
- The underlay should be pulled taut as possible.
- Best practise is to Clad on the same day as the installation provided the product is kept dry and undamaged.
- Maximum period that the underlays are exposed to the weather is contained in Underlays manufacture literature.

Continued on next page...

Dimond

2.3.2. Continued

Side Lap Fastening

All metal profiles must have side laps fastened (either by primary fasteners through to the purlins, or by stitching the top sheet to the underlay sheet) to comply with the following maximum spacings.

Material	Thickness (mm)	Maximum Side Lap Fastener Spacing (mm)
Steel	0.40	1500
	0.55	2000
	0.75	2400
Aluminium	0.70	1500
	0.90	2000
Duraclad (GRP) Rib height 30mm or less	1.7	750
Duraclad (GRP) Rib height greater than 30mm	1.7	1000

Wall Cladding Side Lap

Side lap stitching on pan fixed wall cladding is recommended to improve the lap weather tightness, when the distance between fixings is greater than 1.5m. Side lap fixings should not exceed 750mm centre to centre.

The recommended side-lap fasteners for stitching sheets together are:

Metal Sheeting

10 – 16 x 16mm	Hex head	Tek® screws
10 – 12 x 20mm	Hex head	Type 17 screws

Duraclad

Bulb - Tite Rivet
or Bolt and compressible rubber sleeve

d. Duraclad

The above comments for roofing and cladding sheets generally apply. Additional attention should be given to:

- Stop ends should be correctly formed by attaching a metal (usually aluminium) folded angle to the sheet end, and sealing it in place.
- The supporting structure must be free of abrasive surfaces or irregularities. If used over netting or safety mesh, a barrier strip must be installed to prevent abrasive damage to the sheet surface.
- Fastening of Duraclad requires pre-drilling of the sheet with a hole size that is at least 2mm greater than the fastener diameter. Additional hole size may be required to accommodate thermal expansion of the sheeting.
- 32mm Weatherlok washers must be used as specified.
- Provision should be made during installation to enable foot traffic movement across the roof without applying point loads to the Duraclad sheeting. Planks or temporary walkways are recommended.
- Safety Mesh must be installed underneath Duraclad if the sheet thickness is less than 1.7mm. (If general foot traffic is expected, consult Dimond for the use of products specifically designed for the purpose.)

e. Natural Lighting Products

Refer to Section 2.4.1.3 for installation of these products.

2.3.3 FLASHINGS / PENETRATIONS

The following comments are made as guidelines to be used when inspecting Dimond Roofing and Wall Cladding Systems during and after installation.

Material

Must be the same material and coating as the roof or wall cladding to give a similar durability and compatibility as the roof/wall system.

Fabrication

Flashings should be fabricated to achieve sufficient cover width and to maintain falls to avoid water ponding. They must be without noticeable micro-cracking and be fixed without damage such as dings or crushing, and should be free of scratches and swarf the same as for roofing.

Flashing joins must be sealed at both ends of the lap, and the fasteners must pass through the sealant at the leading edge. Spacing of fasteners should be no greater than 50mm apart. Laps to be 150mm min.

Fastening

Wherever possible, flashings should be screw fixed through to the supporting structure, with sufficient slope or fall to ensure ponding does not occur. Stitch screws should be the preferred means of attaching flashings to sheeting ribs. If aluminium rivets are used, the minimum size should be 4.8mm diameter.

All fasteners should be of sufficient size and frequency to withstand the loads that may be applied through wind uplift or thermal expansion, throughout the life of the roofing material. As a guide, where flashings cover the roof, use the same fastener that has been used to fasten the roof.

As a guide, the fastener frequency for fixing flashings should be:

Wind Zone*	Fasteners Per Metre
Low (32 m/s)	1
Medium (37 m/s)	2
High (44 m/s)	3
Severe (50 m/s)	4

*in accordance with NZS 3604

Sensible allowance should be made to allow relative thermal expansion between flashings and sheeting if sheet lengths exceed 12m.

Expansion joints in the flashings should be considered for steel flashings greater than 18m and aluminium flashings greater than 12m in length.

Flashing lapping over roofing should be in accordance with Table 2.1.O of Section 2.1.3.6 in this manual. Where barges meet the gutter, this must be closed off to ensure wind driven moisture and birds cannot enter the building.

2.3.3 Continued

Profiled Foam

Profiled foam sealing strips should be installed when specified at the top end of the sheet, adjacent to the stop end. To help keep the strips in place it is good practice to position them on a bead of silicone sealant.

Notching

Best practice to notch flashing downturns around sheet profiles is to mark in-situ and use a rib-shaped template. Clearance gaps around the rib should be just sufficient to prevent cut edge contact with the sheet surface. Gaps between 1mm and 3mm are generally considered satisfactory.

Soft edging can be used on corrugate and low rib profiles with rib heights up to 30mm and should be neatly pushed down and formed in to the profile pans to achieve a neat-tight fit.

Property boot pipe flashing

Property boot pipe flashings must not be positioned in such a way that a dam is formed across a water channel. It is preferred that Property boot pipe flashings are positioned on the 'bias' rather than square across the sheet. If the pipe and Property boot pipe flashing dam up the pan or restrict more than 50% of the water flow around the pipe and flashing, an additional cover over flashing to the ridge and sealing of the Property boot pipe flashing to this flashing should be considered. Excess silicone sealant should be avoided, as it will add to the risk of water ponding

Penetrations

Penetration holes with their major dimension or diameter greater than 150mm must have support framing placed around the perimeter of the penetration holes.

Water diversion around the penetration must not cause an overload of the receiving channel such as the pans that the water has been diverted into, which may cause flooding. Penetration flashing shall not rely solely on the silicone sealant to achieve weather tightness of the flashing.

2.5.4 GENERAL WORKMANSHIP

The following comments can be used as guidelines to be used when inspecting Dimond Roofing and Wall Cladding Systems during and after installation.

Roof Access

The means of access must be safe and secure, and should provide protection to the sheeting at the access point. Provision for cleaning or changing footwear to prevent the transfer of dirt onto the roof surface is recommended to minimise the risk of surface scratching damage.

Walking on Roofs

Soft, clean (free from dirt and clay) light coloured sole footwear must be worn. Foot placement should be close to purlin lines, and point loads should not be applied to profile ribs through careless weight distribution while walking. Avoid foot placement on the underlay edge of roof sheets.

Translucent or Natural Lighting sheet must not be walked on.

Subsequent Trades

The work habits of trades accessing the roof must be controlled to avoid unnecessary damage from foot traffic, swarf, and storage of materials. Installed roofing that will be subject to further use (or abuse) during building construction should be protected by covers or temporary walkways. Care must be taken to protect and avoid scratching of the paint finish. The placement of scaffolding legs onto a roof should be avoided unless there is adequate support and protection to the roof finish to avoid damage. Penetration flashing should be placed as close to the ridge as possible to avoid large catchment areas upstream of the penetration. All penetration flashings should be done in accordance with the MRM Roofing Code of Practise.

Dissimilar Materials

Care should be taken to ensure that incompatible materials have not been used, particularly through the installation of walkways and air conditioning equipment. Copper pipe must not discharge or allow water run-off onto the metal roof. Where necessary, water run-off from dissimilar metals should be contained and discharged separately from the roofing material.

Wall cladding lapping onto concrete tilt slab or block walls must not contact the concrete. A small gap, such as 5mm, between or isolation strip is recommended.

Drilling and Cutting

When metal sheets require cutting, only shears, powered nibblers or hand snips should be used to leave a cleanly cut sheared edge. Any form of disc cut will nullify the material warranty.

Cutting of Duraclad sheets can be with an abrasive disc or a fine tooth saw. Breathing protection should be worn to prevent inhalation of dust.

Cutting and drilling should be carried out clear of other sheeting material, and the drilling swarf immediately removed from the surrounding sheet surface.

Coil on cut edge protection lacquer may be required to be painted on all cut edges in severe marine area to meet warranty requirements. Check with Dimond.

Swarf

The particles of metal that result from cutting, drilling or self-drilling screw placement can adhere to the sheet surface and rapidly corrode, causing staining problems. The sheet durability is not affected provided the swarf particles have not penetrated the coating. Loose swarf must be removed without damage to the metal surface at least at the end of each day's work including swarf driven by wind up under barge or apron flashings.

Remaining adhered swarf may be best left alone, provided no particles have broken the coating surface and the visual effect is acceptable. Roofs with heavy deposits of swarf or where the coating has been broken may require the affected sheets to be replaced.

It is best trade practice to clean up after each day's work to avoid swarf damage.

2.3.4 Continued

General Appearance

Screw fasteners should be installed to a straight line (staggered for lapped purlins). Extra care on wall cladding is required to achieve this. Flashings should run parallel with profile ribs or the building line.

Sheet side laps should not exhibit excessive gaps, which can be controlled by careful sheet layout and side lap stitching if necessary.

Water Ponding

The installed roof and flashings must not exhibit water ponding. Buckling of profile pans caused by poorly formed lip downturns at gutter lines is a particular area of potential ponding that should be checked.

Sealants

Only neutral cure silicone sealants should be used. All sealed joints must be mechanically fastened, and excess sealant removed to prevent unnecessary dirt buildup.

Joints in flashings or roof plane intersections should not be constructed in a way that relies entirely on sealant to remain weather secure. Sealant should only be used to seal between two metal surfaces, not fill holes or gaps.

Cleaning on Completion

All forms of debris must be removed daily from the roof surface to prevent scratching damage and moisture or dirt retention. On completion the roof should be thoroughly washed down and then inspected for any damage and any necessary remedial work carried out.

Strippable Film

Protective films must be removed within 1 day of product installation. Prolonged UV exposure will make removal difficult. The film must be removed from laps and under flashings during installation.

Scratches and Touch-up

Scratches that have not penetrated to the base metal (on coated materials) and minor surface abrasions should be left alone, as touch up painting will become obvious in time.

Sheets with heavy scratch damage (e.g.: scratches readily visible from a 3-metre distance that expose the base metal) should be replaced.

Buckled Ribs

Minor buckles that have occurred in profile ribs and will not retain water can be left alone. More severe buckles that will retain water or weaken the sheet should be pushed out from underneath, or be capped over with a rib section extending a minimum 50mm beyond the damaged section, fully sealed with silicone sealant and held onto the roofing rib with 4mm diameter blind aluminium rivets each side.

Major buckles that affect more than 1/4 of the ribs in line across any sheet will cause a severe loss of strength, and in such cases the sheet must be replaced, ie if more than 2 adjacent ribs are buckled on the same purlin line, the sheet's ability to hold load is reduced and it must be replaced.

93605

BC 100497

DAVE MILLER
Environmental Engineer

21 JUN 2010

PO BOX 1784
PALMERSTON NORTH
NEW ZEALAND
PHONE: 64 6 357 8426
FAX: 64 6 357 8726
email: dave.miller@xtra.co.nz
www.davemiller.co.nz

16 June 2010

Kapiti District Council
Private Bag 601
Paraparaumu 5254

ATTENTION: SIMON COPP

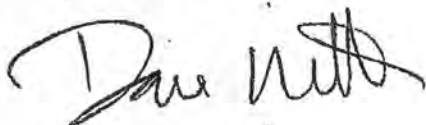
RE: PETERSON HOUSE - 142 HUIA STREET - WAIKANAE

Dear Sir,

Please find attached two copies of the wastewater report for the new sewage treatment system for the Peterson property at 142 Huia Street, Waikeanae.

Please do not hesitate to contact me should you require further assistance or clarification.

Yours faithfully



Dave Miller
Environmental Engineer

enclosures.

WASTEWATER TREATMENT AND EFFLUENT SYSTEM IS TO BE
SUPERVISED AND CERTIFIED BY THE DESIGNING
ENGINEER. A COPY OF CERTIFICATION IS TO BE
FORWARDED TO COUNCIL.

20/07/2010

DAVE MILLER
Civil & Environmental Engineer

PO BOX 1784
PALMERSTON NORTH
NEW ZEALAND
PHONE: 64 6 357 8426
FAX: 64 6 357 8726
email: dave.miller@xtra.co.nz
www.davemiller.co.nz

PETERSON HOUSE

142 HUIA STREET

WAIKANAE

WASTEWATER REPORT

INDEX

	PAGE
Report	1-2
Site Layout Plan - Effluent Disposal System	3
Trench Long and Cross Sections	4
Dosing Syphon Installation	5-15
Flow Control Assemblies - Hole Sizing Chart	16
Selection of Suitable Plant Species	17
Installer Declaration (to be completed and returned)	18

10 June 2010

CLIENT Dana Peterson
CONTACT: Dana Peterson
JOB DETAILS: LPED Syphon System

Designed by
DAVE MILLER
Environmental Engineer

INTRODUCTION

This design relates to a bedroom house being built on . The water supply will be provided by a pressure pump from water storage tanks.

Test holes dug in the area of the proposed effluent disposal area reveal of 200 to 300mm of topsoil overlaying a stony clay base which is consistent with soil category 5 as defined in AS/NZS 1547:2000 being a poorly drained light clay requiring a specific engineering design.

Traditional gravity septic tank systems in this area have a history of poor performance largely due to the effluent trenches being constructed below the water table or in the clay layer where the soakage is minimal. This, together with the known faults of traditional septic tank systems, namely, septic tank sludge sealing the natural pores in the ground and gravity fed effluent overloading the soil around the point of entry, have resulted in many septic tank systems failing.

This design seeks to extend the life of traditional septic tank soakage trenches by filtering the effluent and evenly distributing it throughout the effluent trenches using a Low Pressure Effluent Dosing (LPED) system. The effluent will be filtered and demand dosed by an Orenco (OSI) automatic dosing syphon to filter the effluent and distribute it evenly into the topsoil. OSI flow control assemblies are required at the beginning of each trench.

The design criteria is based on AS/NZS 1547:2000 for a 1 bedroom cottage (with 2 occupants) and a 4 bedroom house (to be built at a later date) with up to 6 occupants, each using 140 litres of water per day, giving a total wastewater usage of 1120 litres per day. The effluent disposal area is 400 square metres giving a design loading rate (DLR) of 2.8 litres per square metre per day.

The effluent trenches can be extended in the future if desired or required and a reserve area, of equal size, should be set aside for this purpose. Similarly a secondary sewage treatment system can be added to the septic tank to produce a colourless, odourless effluent. Both the secondary treatment system and/or trench extensions are additional to the work required for this installation.

WASTEWATER DESIGN

1. The new septic tank shall be 8000 litres in capacity fitted with an ORENCO effluent filter with a sealed access riser brought to the surface. This design incorporates the InnoFlow 'Designer' program which uses an ORENCO ('OSI') screened syphon to protect the effluent beds from carry over solids and evenly dose load the effluent trenches. The 'OSI' filter screen reduces the total suspended solids (TSS) from the septic tank to 33 parts per million. Tests from over 4800 septic tanks over a 15 year period confirm the reliability and validity of this filters performance. As this is a proprietary system specifically designed for Orenco products substitution of other brands of effluent filter is **NOT** permitted.
2. Install an ORENCO automatic dosing syphon in the septic tank as detailed in the manufacturers Installation Instructions (attached).
3. Install the 80Ø transport line as per the manufacturers Instructions (attached) ensuring there that no air locks can form in the pipeline.

4. The effluent disposal trenches are to be 6 x 25 metre trenches spaced 2 metres apart as shown on the accompanying plans. This disposal system can also be extended in size in the future if desired or required. The trenches are 200mm deep and 200mm wide with the 32Ø pressure pipe laid inside 110Ø Novaflo. The Novaflo must be covered with a permeable shade cloth which prevents soil being washed into the Novaflo and is also sufficiently permeable to allow the circulation of air. Flushing points situated inside fresh air inlets are to be located at the end of each lateral.
5. The laterals are drilled with evenly spaced 3mmØ squirt holes at 2.0 metre centres drilled into the top of the lateral pipes. This ensures the effluent discharge rate from each lateral does not exceed the designed parameter of 1.45 litres per minute and evenly distributes the effluent throughout the trenches.
6. Flow control assemblies are to be fitted at the beginning of each trench. If, during installation, the ground levels at the beginning of each effluent trench are found to vary, they must be recorded and communicated to me so I can calculate the correct size hole to be drilled in the flow control discs assemblies.

The Flow Control Assemblies - Hole Sizing Chart is included in this report for this purpose. These holes compensate for the hydraulic differential between disposal trenches at varying levels. If you do not have the correct drill sizes, an engineering workshop may drill the holes for you at its critical the correct sizes be drilled. The flow control details will be forwarded to the Council as an addendum to this design and can be attached to the consent documents.

PLANTING

The owner should prevent stock access to the disposal area by additional fencing as required. This area should be planted with selected trees and shrubs to assist transpiration; a list of suitable plants is attached. As trees transpire a significant volume of water this process is an integral part of effluent disposal. Grass, moderately mown, should complement the planting.

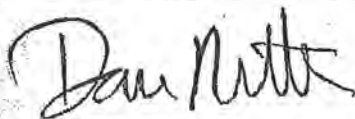
MAINTENANCE

The filter screen and syphon should be inspected on an annual basis and I enclose a leaflet on the maintenance procedure for your information. The syphon base should also be inspected to ensure there is no build up that might inhibit its operation.

If there is a sediment build up in the syphon base this should be hosed down and the effluent distribution laterals may need flushing. This can be done by opening the flushing points and briefly operating the syphon to clear the lateral lines.

This work is generally carried out by the installing plumber with records of inspections and maintenance being kept as an addendum to the wastewater report.

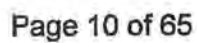
If you have any queries or require any additional information please do not hesitate to contact me.



Dave Miller
Environmental Engineer

**LOW PRESSURE EFFLUENT DISTRIBUTION PIPEWORK
TRENCH CONFIGURATION FOR ORENCO SYPHON (OSI)**

DAVE MILLER
Environmental Engineer

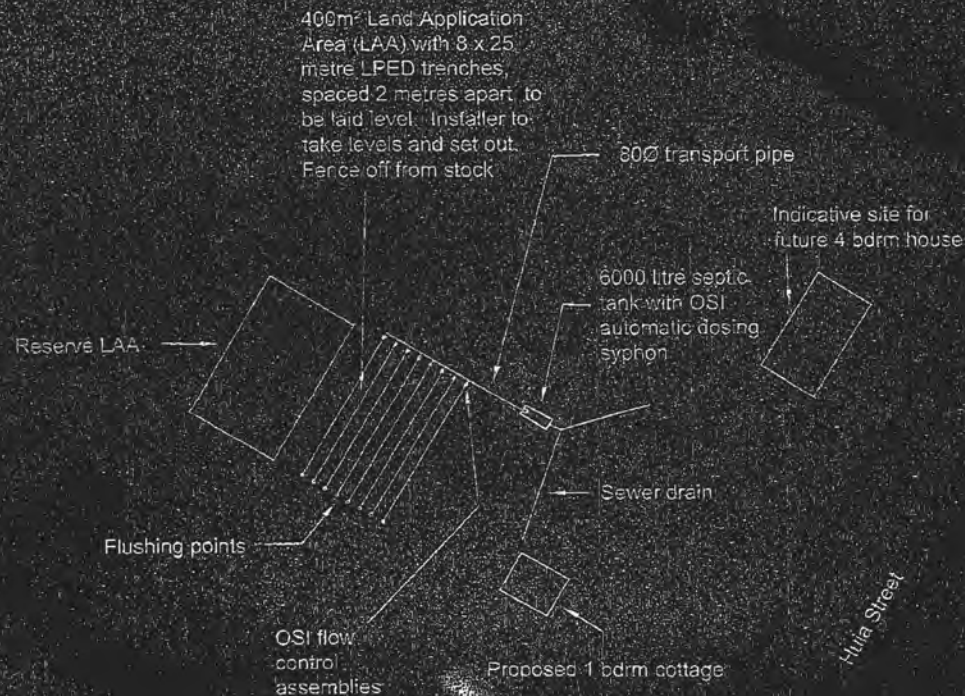


Client **Peterson - 142 Huia Street - Waikanae**
 Project **SEPTIC TANK SYSTEM**
 Title **SITE LAYOUT**

File **Pederson**
 Date **15 June 2010**
 Scale **1:1000**
 Dwg No **1 of 1**

DAVE MILLER
 Environmental Engineer

PO Box 1784, Palmerston North
 Ph: 06 357 8426 Fax: 06 357 8426
www.davemiller.co.nz



20/07/2010



INNOFLOW TECHNOLOGIES LIMITED
INNOVATIVE WASTE WATER TREATMENT AND DISPOSAL SOLUTIONS

Siphon Installation manual

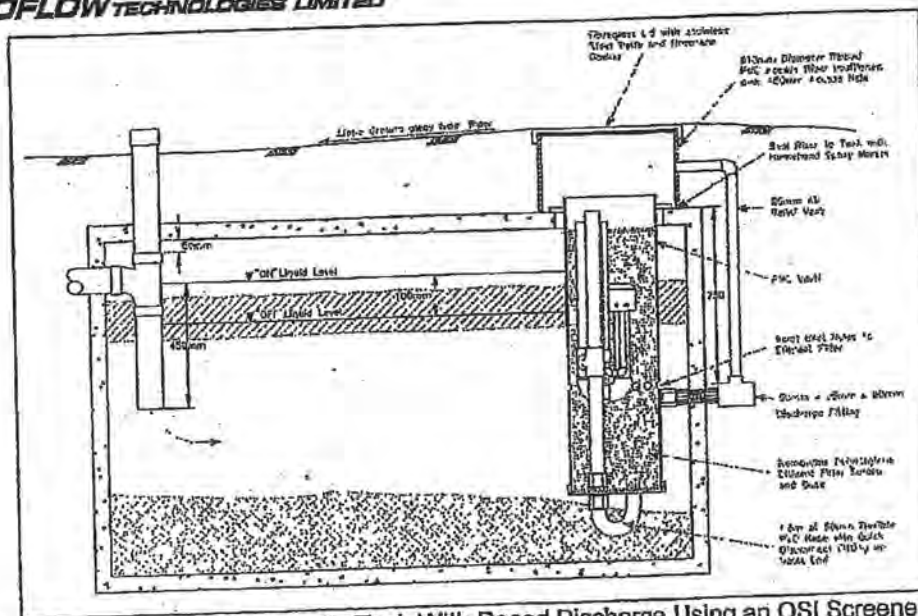


Figure 1: Schematic of Typical Septic Tank With Dosed Discharge Using an OSI Screened Siphon

OVERVIEW

General

The Innoflow Septic Tank Effluent Siphon (STES) kit is designed to provide all the benefits of dose loading and pressure distribution of wastewater, while still keeping with the Innoflow philosophy of low maintenance. The kit should be installed by an Innoflow Trained Installer to ensure the equipment is installed and commissioned according to the manufacturer's specifications.

Equipment Supplied

- Ribbed PVC Riser (610 mm diam by 450 mm) with bolt catchers and 25 mm quick fit rubber grommet
- Sealing lockable fibreglass lid with two screws and an allen key
- PVC screen vault with screen effluent filter and removable siphon unit (NOTE: the vault and siphon unit should have matching letters)
- Flexible hose discharge assembly with quick release fitting
- 50 mm Tank Discharge pipe
- 50 mm x 25 mm x 80 mm Tee discharge fitting
- 25 mm air relief vent with elbow

Minimum Tankage

- A 3300 ltr septic tank with internal height of 1.4 m. We recommend a 4500 ltr septic tank with internal height of 1.6 m. The increased volume improves the tank's performance and the 1.6 m height ensures the inlet holes to the screened vault are optimally placed in the clear zone between the sludge and scum layers.
- The tank requires a 450 mm diameter access hole over the outlet end of the tank, approximately 200 mm from the end of the tank.
- The septic tank must be installed level to ensure correct operation of the siphon (+/- 6 mm per m).
- Note that the outlet pipe provided with the kit should be installed 750 mm from the top of the tank.

Installation Overview

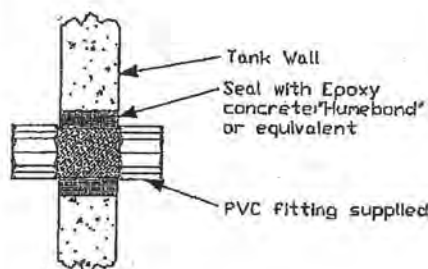
1. Fitting the siphon unit inside the screened vault
2. Installation of the outlet pipe
3. Installation of Riser
4. Fit the air relief vent
5. Installation of the Vault and discharge hose assembly
6. Disposal field setup (NOTE: The transport pipe needs to be a minimum of 80mm diam)
7. Startup and testing



INSTALLATION

- Step 1. Install the discharge fitting (provided) in the discharge end or side of the septic tank, 750 mm down from the top of the tank

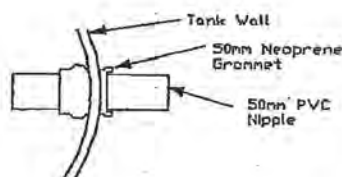
Detail 1 - Concrete Tank



Detail 1 illustrates installation of the fitting in a concrete septic tank.

Cut a 100 mm diameter hole in the tank wall and firmly pack grout around the tank fitting. Use an Epoxy grout like "Humebond" or equivalent.

Detail 2 - Fibreglass or Polyethylene Tank



Detail 2 illustrates installation of the fitting in a fibreglass or polyethylene tank.

Drill a 72 mm diameter hole with a hole saw and insert the 50 mm neoprene grommet, which is provided on request. Lubricate the 50 mm (Pressure Pipe) PVC nipple with gasket lube, silicone or Vaseline and insert it through the grommet.

- Step 2. Apply Teflon tape or pipe dope to thread on all threaded PVC fittings.
- Step 3. Check to be sure the neoprene washer is properly sealed in the pin lug connector on one end of the 50 mm PVC flex hose. Without the washer, the connection will leak and the siphon will not operate.
- Step 4. Connect the end of the hose with the PVC female adaptor to the 50mm PVC fitting inside the septic tank wall. Tighten firmly by hand. Then connect the 50 mm PVC elbow provided to the 50 mm PVC male adaptor protruding from the bottom of the siphon vault.
- Step 5. Lift the free end of the 50 mm PVC flex hose out of the septic tank and attach, by means of the 50 mm pin lug connector, to the 50 mm PVC elbow in the bottom of the vault. Tighten firmly by hand.
- Step 6. The Dosing Siphon is to be suspended in the septic tank and supported from top of the tank by the two support pipes provided. Install the support pipes in the holes in the top of the Siphon's PVC vault, using the screws provided to lock the pipes in position.
- Step 7. Lower the dosing siphon/vault into the empty septic tank.



- Step 8. Pour about 4 litres of water into each open vertical pipe at the top of the dosing siphon assembly. If the traps are not filled at this time, the system will not operate. In addition, be sure the flexible hose is completely filled with water. Any air trapped in the discharge hose will cause erratic behaviour. Place a 200 mm concrete block or similarly weighted object on top of the vault to prevent floating.
- Step 9. Connect the air-relief vent from the air-relief adaptor fitting up and into the riser. When connected to a pipeline the siphon will not operate unless it is vented in this manner.
- Step 10. Run water into the septic tank until the siphon discharges. Discharge occurs when the water level is about 25 mm above the top of the siphon bell dome. Observe the siphon through several cycles. Erratic behaviour usually indicates trapped air either in the flexi hose or in the main transport pipe.

✓ The system is now operational and will continue to function automatically.

Note : 80 mm diameter pipe should be used from the dosing tank to the drainfield, mound, trench, etc. and must slope continuously downward to prevent air-entrapment problems that can cause greatly reduced flow and/or pressure. Test and operate siphon before backfilling transport pipe trench to be sure air-entrapment problems have not occurred.

INSTALLATION IN OPERATIONAL SEPTIC TANKS

CAUTION : *The atmosphere in an operational septic tank may be poisonous! It is not necessary nor is it recommended that a person enter the tank. Only licensed septic tank installers should be employed to perform the work.*

Installation is the same as for new tanks with these exceptions :

1. The tank must be uncovered to provide working room to install the vault and to cut the discharge hole.
2. The tank contents must be pumped to bring the liquid level below the discharge hole.
3. After the hole is cut into the septic tank, securely fasten one end of the discharge fitting (connected 50 mm male adaptors) to the female adaptor on one end of the 50 mm flex hose. The hose is stiff enough that the end with the discharge fitting can be lowered through the vault hole and pushed out the discharge hole in the end or side of the septic tank. Grout can then be used to seal the discharge fitting in place. Seal off any other discharge pipe in the tank with an expandable dollar plug or cap.



SIPHON MAINTENANCE (Model ST204)

We recommend that a visual inspection be made periodically (perhaps twice annually) to ensure the system is operating. Care should be taken when removing the manhole lid so that leaves or other debris do not fall into the vault thus by-passing the screen and creating a potential for blockage. If the siphon is not dosing, but merely trickling, it can be restarted by lifting the siphon/vault assembly about 300 mm to recharge the bell with air before setting it back in place. Whenever the dosing tank is pumped, the vault and screen should be removed and both should be flushed with a hose. To remove the screen and siphon from the vault, remove the support pipes and unscrew the 20 mm plug. The siphon and screen will now lift out.

Initially the siphon should be inspected once a month to ensure it is operating properly. A battery operated counter connected to a liquid float is the easiest method of monitoring a siphon's activity and is highly recommended for all siphon installations. Not only does a counter allow a quick, easy method of checking a siphon's operation, it also can alert the user to problems such as leaking plumbing fixtures and tank infiltration. Excessive dose cycles are recorded when either of these problems are present. A notepad is recommended to keep a record of monthly counter readings. Without a counter, a visual inspection is necessary and water must be run into the tank until the siphon triggers. Although not difficult, this method is very time consuming and does not allow the user to catch problems such as leaking fixtures.

A high water alarm is not necessary since siphon failure does not result in a high water condition. A high water alarm installed in a tank with a dosing siphon would only be appropriate if there was concern that the downstream components (drainfield, trenches, etc) might plug completely and back up into the dosing tank.

If upon inspection the siphon is not operating properly, it should be monitored weekly for perhaps a couple of weeks once the siphon has been re-started to ensure proper operation is continuing.

The screen should be inspected annually and cleaned if necessary. Normally, the screen will only need to be cleaned when the tank requires solids pumping. If the screen does require cleaning, the following steps should be followed:

1. Remove the vault from the tank. Disconnect the hose from the bottom of the vault and remove the support pipes from the top of the vault. **Take care not to drop the discharge hose.** It is a good idea to fix a string to the end of the hose to prevent this.
2. Unscrew the fitting on the side of the vault that holds the siphon in place. Remove the siphon from the vault.
3. Slide the screen out of the vault. The siphon, screen, and vault can now be cleaned using a spray nozzle to hose the solids off back into the tank.
4. Re-assemble the siphon and vault by following the above steps in reverse. Re-prime the siphon as described next.

RE-PRIMING

If the siphon is removed for cleaning, it will be necessary to re-prime the siphon and refill the hose with water. The siphon is re-primed by filling the 50 mm vertical pipes with about 4 litres of water. If the tank contents are not pumped out the hose must be physically held down while refilling in order to allow air to escape and the hose to sink. A notched length of wood or a bent length of steel bar may aid in holding the hose down while refilling. If the siphon is removed for cleaning and the tank contents are pumped out, both the hose and trap still need to be filled as described above, but the hose will be much easier to fill as it will not have a tendency to float. However, the hose should be visually inspected to see that it is not stuck in a position above the tank outlet as this will cause siphon malfunction.



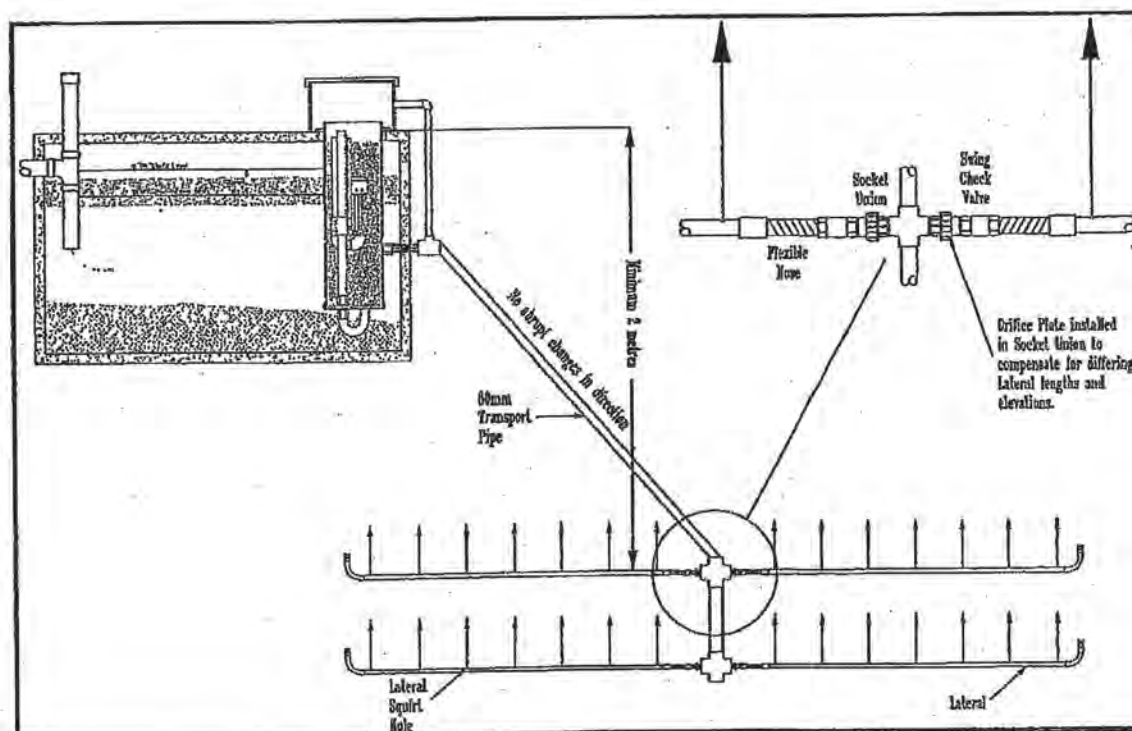
TROUBLESHOOTING

Virtually all siphon failures result with the siphon operating in a dribbling mode. Dribbling occurs when the liquid level stays relatively constant in the tank and the flow rate leaving the tank is equal to or less than the flow rate entering the tank. A dribbling siphon may be caused by one of the following problems:

1. A plugged snifter tube or even momentary blockage of the snifter tube.
2. A hose that is above the outlet level of the siphon or air that is trapped in the hose.
3. High flow rate entering the dosing tank at the same time the siphon is at the end of its discharge cycle.
4. A crack in the siphon bell or associated piping. A crack is usually caused by damage in shipping or handling. Please call Innoflow for replacement or instructions to repair damage.

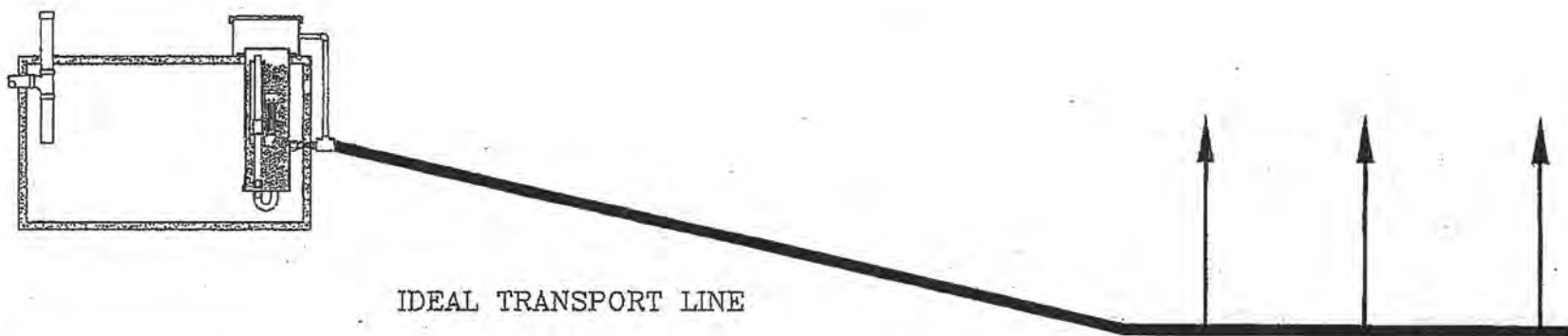
If the siphon loses its prime and starts to dribble rather than dose, it is necessary to re-prime the siphon. If the malfunction was caused from the hose floating, it will also be necessary to sink and refill the hose with water. Re-priming is usually accomplished simply by lifting the Screened Vault Assembly up just enough to expose the bottom of the bell, thereby replenishing the air under the bell necessary for proper operation. It is not desirable to lift the vault completely from the tank as the hose will lose its water and may float in the tank. If the vault is lifted completely from the tank, it will be necessary to refill the hose with water. As described above, the hose must be physically held down while refilling it if the tank is full.

Figure 2: Schematic of Siphon and Low Pressure Effluent Distribution (LPED) Pipes

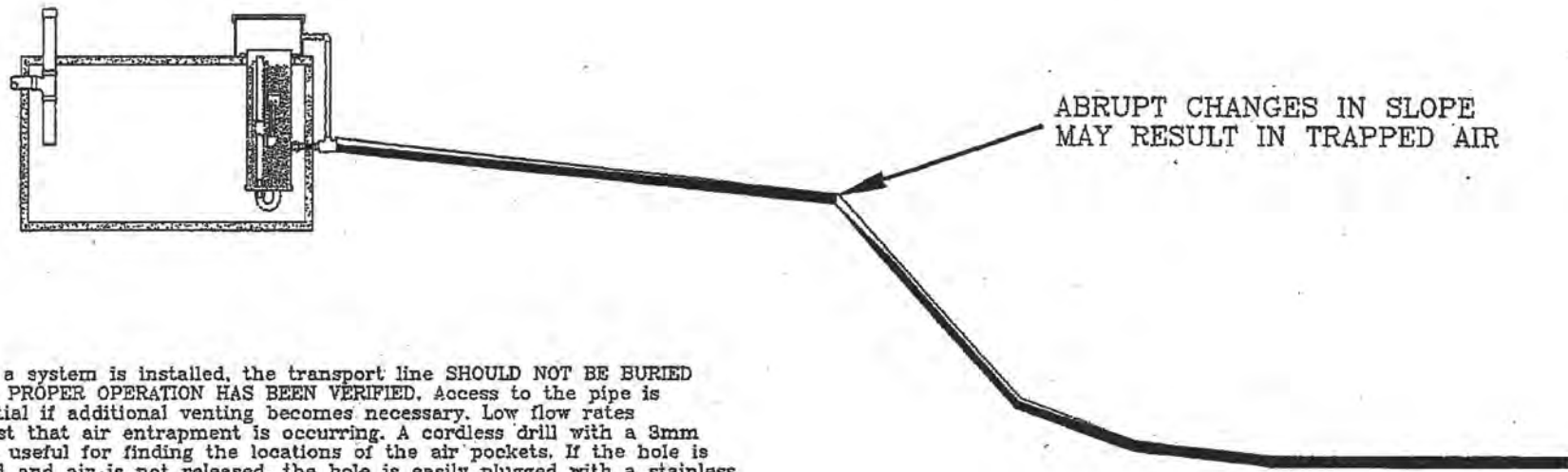




INNOfLOW TECHNOLOGIES LIMITED



IDEAL TRANSPORT LINE



ABRUPT CHANGES IN SLOPE
MAY RESULT IN TRAPPED AIR

20/07/2010

When a system is installed, the transport line SHOULD NOT BE BURIED UNTIL PROPER OPERATION HAS BEEN VERIFIED. Access to the pipe is essential if additional venting becomes necessary. Low flow rates suggest that air entrapment is occurring. A cordless drill with a 3mm bit is useful for finding the locations of the air pockets. If the hole is drilled and air is not released, the hole is easily plugged with a stainless steel tapping screw.

DAVE MILLER
Environmental Engineer

*I design septic tank and
sewage treatment systems*

P O BOX 1764, PALMERSTON NORTH

NEW ZEALAND


PHONE: 64 6 357 8426, FAX: 64 6 357 8726

email: dave.miller@xtra.co.nz

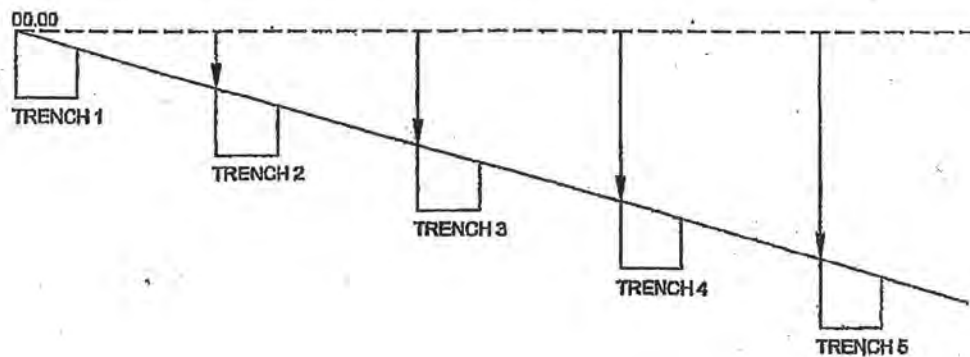
FLOW CONTROL ASSEMBLIES - HOLE SIZING CHART

ATTENTION	
COMPANY	
FROM	TIME
DATE	NO PAGES

Please forward the flow hole sizes for the site

ONE SIDE			TRENCH NUMBER	OTHER SIDE			DOWN HILL 
HOLE SIZE (mm)	TRENCH LENGTH	LATERAL DROP (mm)		HOLE SIZE (mm)	TRENCH LENGTH	LATERAL DROP (mm)	
NONE		0	1	NONE		0	
			2				
			3				
			4				
			5				
			6				
			7				
			8				
			9				
			10				

MEASURE DROP IN LEVEL OF EACH TRENCH FROM TOP TRENCH AS SHOWN
ENTER RESULTS ON TABLE AND RETURN BY FAX



M-015

Species Suitable for Low Pressure Effluent Dosing (LPED) Systems

The following plants have been selected by Matatoa Nursery for planting on and around LPED effluent disposal areas. The correct selection of plants is vital to achieve successful natural transpiration of effluent from this area.

Trees

(more suitable for peripheral zones due to ultimate size, but will offer additional transpiration and shelter if required)

Deciduous:

<i>Alnus glutinosa</i>	Common Alder
<i>Acer rubrum</i>	American Red Maple
<i>Quercus palustris</i>	Pin Oak
<i>Taxodium distichum</i>	Swamp Cypress
<i>Nyssa sylvatica</i>	Tupelo

Evergreen:

<i>Cordyline australis</i>	Cabbage Tree
<i>Corynocarpus laevigatus</i>	Karaka
<i>Laurelia novae-zealandiae</i>	Pukatea
<i>Macropiper excelsum</i>	Pepper Tree
<i>Melicytus ramiflorus</i>	Whiteywood/Mahoe
<i>Aristotelia serrata</i>	Wineberry
<i>Hoheira</i>	Lacebark
<i>Lagunaria patersonii</i>	Norfolk Island Hibiscus

Smaller Trees/Shrubs

<i>Clanthus</i>	Kakabeak
<i>Coprosma propinqua</i>	Mingimingi
<i>Coprosma robusta</i>	Karamu
<i>Leptospermum scoparium</i>	Manuka
<i>Paratrophis myrphylla</i>	Turepo

Grasses/Flaxes/Groundcovers

<i>Arthropodium</i>	Rock Lily
<i>Agapanthus</i>	
<i>Carex dipsacea</i>	sedge
<i>Carex geminata</i>	"
<i>Carex soladri</i>	"
<i>Carex secta</i>	"
<i>Carex virgata</i>	"
<i>Carex flagellifera</i>	"
<i>Carex trifida</i>	"
<i>Chionochloa flavicans</i>	Tussock Grass
<i>Cortaderia toe toe</i>	Toe Toe
<i>Juncus pallidus</i>	Giant Rush
<i>Phormium tenax</i>	Swamp Flax

Please Note:

These species have primarily been chosen on ability to grow in continuously moist soils, and secondly they do not have particularly invasive root systems. However, there will definitely be variation in their growth rates and level of root spread. Final selection must still be relative to the design, spacing, and depth of the pipe distribution system, soil type and degree or severity of wind exposure. Please contact Matatoa Nursery to arrange the optimum planting schedule for your site. Generally any slow growing evergreen (especially native trees or shrubs) is acceptable.

20/07/2010

INSTALLER DECLARATION

(to be signed by the Installer at the completion of the work and returned to Dave Miller)

RE: PETERSON HOUSE - 142 HUIA STREET - LPED EFFLUENT SOAKAGE SYSTEM

INSTALLER:

ADDRESS

I declare that I have installed the septic tank, OSI dosing siphon and Low Pressure Effluent Dosing (LPED) effluent soakage trenches for the Peterson house as per the plans and specification and hereby guarantee the quality of the workmanship.

Signed:

(Licensed Drainlayer)

Gold Card No.....

SPECIFICATIONS

Overall Data

Overall Collector Dimensions	mm	1941 x 1027 x 83
Weight of Collector - Full	kg	34
Accreditation		AS2712:2002
Aperture Area	m ²	1.86

Risers

Number of Risers		7
Fluid Capacity	litres	1.5
Riser Dimensions	mm	9.52 x 0.71 x 1864
Header Dimensions	mm	25.4 x 0.91 x 996
Test Pressure	kPa	300
Maximum Working Pressure	kPa	1400

Insulation

Glass Wool Insulation Density - Base	kg/m ³	12
Insulation Thickness - Base	mm	38
Fibreglass Insulation Density - Sides	kg/m ³	32
Insulation Thickness - Sides	mm	28

Absorber Plate

Absorber material	Copper with Sputtered surface	
Effective Absorber Surface Area	m ²	1.86
Absorber Plate Thickness	mm	0.2
Absorber Plate Dimensions	mm	1895 x 985
Emittance of Surface		0.04 +/- 2%
Absorptance of Surface		0.95 +/- 2%

Casing

Casing Thickness	mm	0.4
Casing Drain Holes	mm	4 x Ø4mm

Connections

Inlet/Outlet Connections	mm	33 Female Compression
Max. Torque	Nm	34

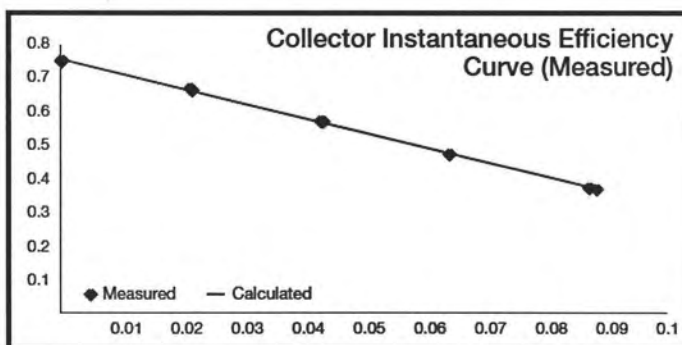
Your local distributor:

Glazing

Glazing Type	Tempered Low Iron Matt-Matt Glass	
Glazing Thickness	mm	3.2
Glazing Transmittance		0.89 min
Glazing Iron Oxide Content	%	<0.04



- 1. Low iron Matt/Matt Tempered Glass**
Maximises available solar radiation.
- 2. TiNOx Sputtered Copper Selective Surface Absorber Plate**
Improves solar gain with very low emittance values.
- 3. Glasswool Insulation**
Reduces heat losses and improves performances.
- 4. 7 Copper Risers**
Used for its excellent corrosion resistance and heat transfer properties
- 5. Durable COLORBOND® Steel casing**
Provides all weather protection to the collector internals.



η_0	0.757
a_1	4.039 W/(m ² K)
a_2	0.005 W/(m ² K ²)


EDWARDS
solar hot water®

For sales assistance call
132 949 (Australia Only)

For International Enquires

Tel +61 8 9351 4600

Fax +61 8 9351 8034

Website www.edwards.com.au

Email info@edwards.com.au

ABN 21 098 823 511

Re-Order Code: EHW17TECH (July 2006)

Titan Series 2

7 Riser Solar Collector

Technical Data

Introducing the Titan Series 2 collector - designed especially for high performance in cooler climates. Edwards has taken advantage of the latest advances in heat-transfer technology to build superior solar collectors to gather as much of the sun's energy as required. The Titan Series 2 collector uses an advanced titanium coated copper solar absorber plate combining first grade copper with titanium, to show superior qualities in both solar performance and durability when compared with other solar collectors available.

ABSORBER PLATE

Titanium is the ultimate high-grade solar material; it has greater solar performance and efficiency characteristics than other selective surfaces.

A typical flat plate solar collector would produce the following yearly energy yields:

Titanium = 546 kWh/m²*

Black Chrome = 456 kWh/m²*

The absorptance and emittance co-efficients also outperform other materials.

Absorptance = 0.96

Emittance = 0.05

CASING

Constructed from 0.4mm COLORBOND® Steel and extruded aluminium to provide good corrosion resistance properties and light handling capabilities.

INSULATION

Fibreglass batts are used to insulate the base of the collector to minimise heat loss. It is 38mm thick and has a density of 12kg per cubic meter.

CONNECTIONS

M33 brass compression fittings are used which conform to Australian and International Standards. Each fitting accepts a 25mm copper tube and ensures the prevention of water ingress through the casing.

RISERS

Designed for either water or propylene glycol, the copper tubes conform to Australian Standard AS1432 and other applicable international standards. The 25mm diameter headers and 10mm risers are of Type C copper and the 7 risers are spaced at 133mm. The risers are soldered to the absorber plate.

GLAZING

Tempered, low iron Matt-Matt glass is used to maximise the solar radiation available. It is extremely strong 3.2mm tempered glass that is hail resistant. It is specifically designed for solar applications and has a minimum energy transmittance of 0.89 and a low iron oxide content of only 0.04% or less.

* figures sourced from the Institute for Thermodynamics and Thermal Engineering (ITW) of the University of Stuttgart.

Re-Order Code: EHWEHPTCH (July 2006)



EFFICIENCY
ECONOMY
EXCELLENCE
ENVIRONMENT

Closed Loop Solar Setup

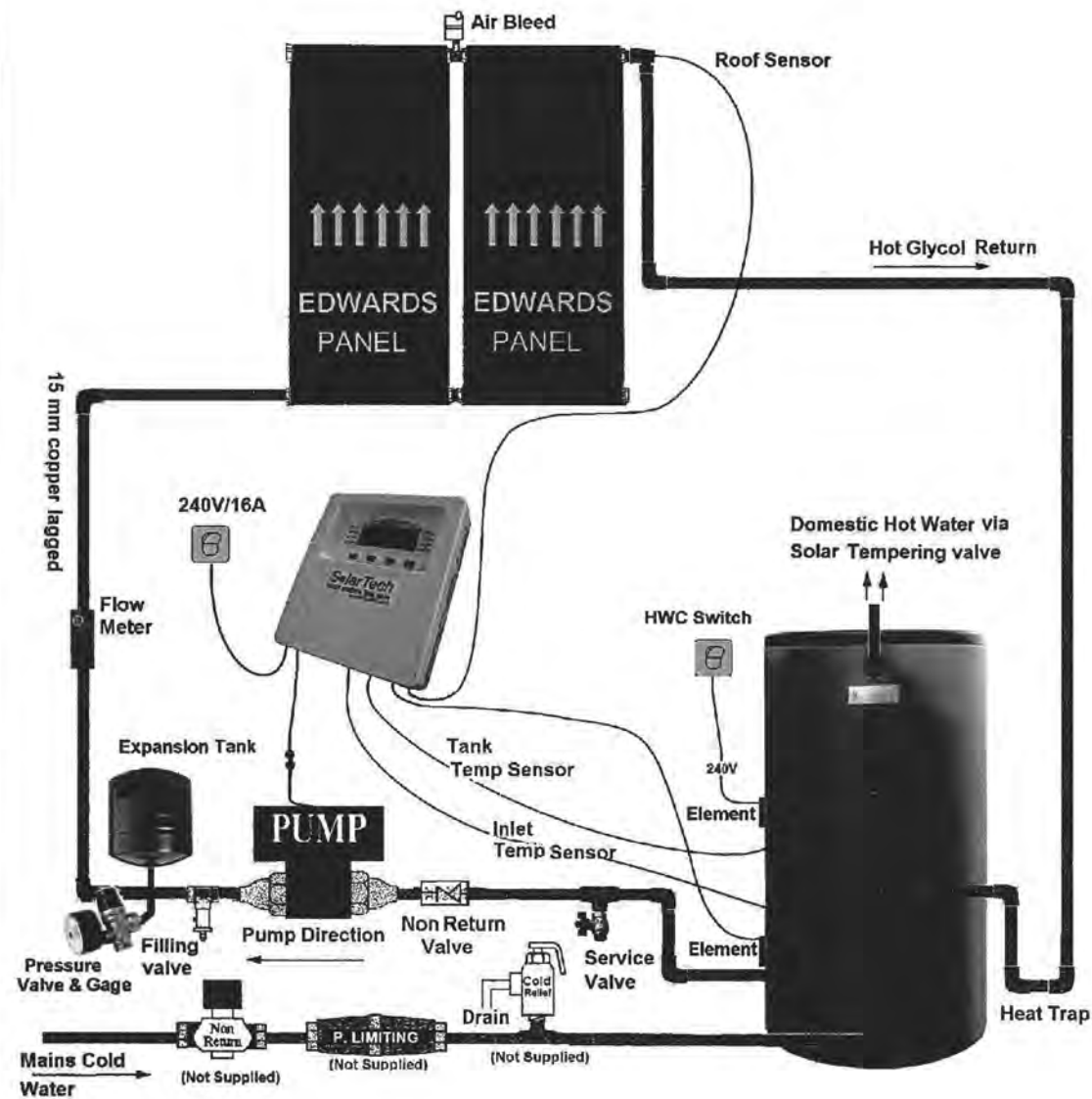
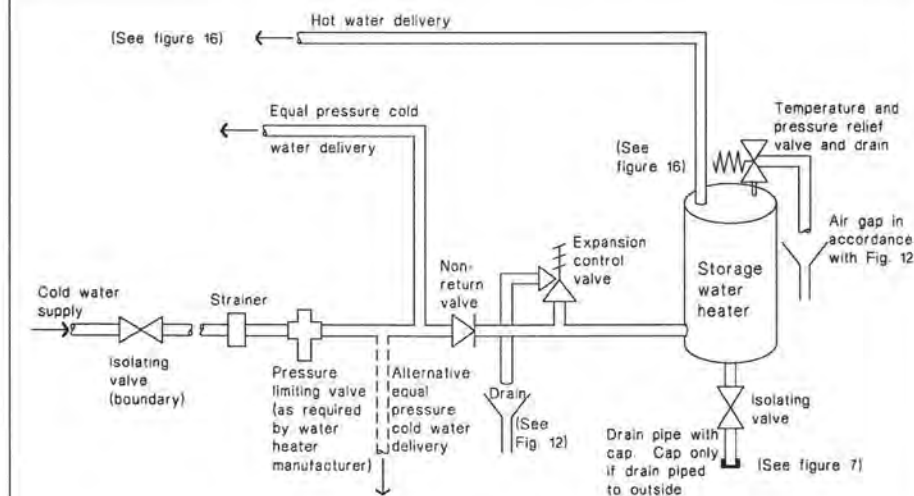


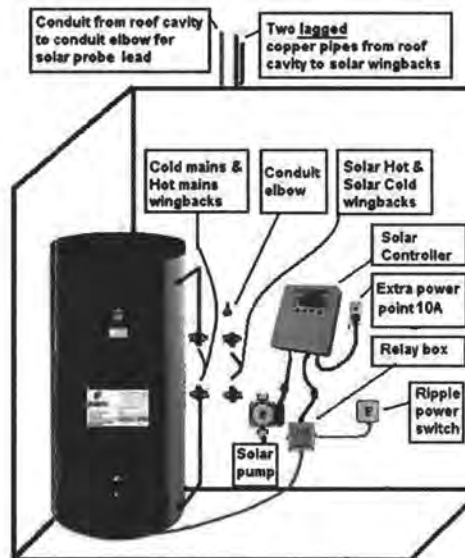
Figure 8: Mains Pressure Storage Water Heater System (unvented)
Paragraphs 6.1.2 and 6.2.1 b)



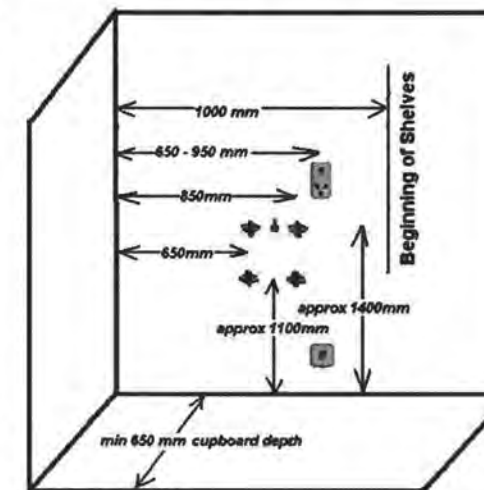
GREENGLO SOLAR CUPBOARD SETUP



Visual look of a solar cupboard setup



Dimensions of setup for GreenGlo 180S 180D; 300S; 300D (615 mm wide)



PRODUCT INFORMATION

General product information

Maximum working pressure 800kPa
Maximum water temperature 90°C
Maximum coils working pressure 800kPa
Maximum heat exchange temperature 95°C
Enamelled steel automatically welded
50 mm polyurethane in accordance to NZS4692.1 and NZS4692.2
Indoor use only
Note : The product must not be exposed direct sunlight, rain, etc. Uninsulated pipework exposed to outdoor decrease heater performance & may increase energy consumption.

Specific product information

Dimensions may change without notice	180S	300S	180D	300D	300DS	400D	500D	800D	1000D
Single Coil S Series	Double Coil D Series								
Volume (litres)	180	300	180	300	300	400	500	800	1,000
A - Height (mm)	1650	1780	1650	1780	1240	1580	1860	1750	2090
B - Diameter (mm)	520	615	520	615	755	755	755	1060	1060
C - Cold Inlet	180	80	180	80	95	75	60	395	395
D - Bottom Coil Cold	280	350	280	350	355	385	235	495	495
E - Bottom Coil Hot	500	655	500	655	565	595	690	870	920
F - Upper Coil Cold	N/A	N/A	570	755	655	690	780	965	1020
G - Upper Coil Hot	N/A	N/A	855	1210	865	1040	1320	1190	1510
H - Service Circulation	740	920	740	920	730	790	1010	710	1240
I - TPR Valve	1430	1570	1430	1570	940	1300	1580	1270	1610
J - Hot Outlet	1585	1720	1585	1720	1100	1490	1765	1365	1715
K - Bottom Element	240	290	240	290	300	335	315	385	385
L - Upper Element	N/A	N/A	935	1285	N/A	1060	1395	1260	1580
Element Rating (kW)	3.0	3.0	2.0	2.0	3.0	2.0	3.0	4.8	4.8
O - Ports Thread	1" F	1" F	1" F	1" F	1" F	1" F	1" F	2" F	2" F
Tank Thickness (mm)	3	3	3	3	3	3	3	4	4
Angle of ports	45°R	45°R	45°R	45°R	45°R	45°R	45°R	90°R	90°R
Max energy Bottom coil (kW)	9.0	17.5	9.0	17.5	20.0	24.6	39.3	35.0	37.2
Max energy upper coil (kW)	N/A	N/A	13.6	26.2	30.0	39.3	54.0	70.0	89.3
Weight (kg)	90	112	103	127	128	198	229	293	326

SOLAR GROUP LTD
19 ARRENWAY DRIVE
ALBANY, 0753
AUCKLAND

PH: 09 477 2999
FAX: 09 353 1441
WEB: WWW.SLG.CO.NZ



PAPER SIZE :	SCALE :
A3	
SHEET :	DATE :
JOB NO.	REVISION NO.

DRAWING TITLE :
SOLAR WATER HEATING
LAYOUT AND GREENGLO
CYLINDER SPECIFICATIONS

CLIENT :

	NAME	DATE
SURVEYED		
DESIGNED		
DRAWN		
CHECKED		
APPROVED		

REVISIONS DESCRIPTION:

#	DATE	DESCRIPTION

Report 10/2189

March 15th, 2010

Page 1/2

Customer: Solar Group Ltd
Unit 1
19 Arrenway Drive
Albany
Browns Bay 0753
AUCKLAND

P1585/4

Attention: Roy Netzer

Compliance Certificate for the Edwards Green Glo Solar Hot Water Systems

Appliance: Edwards Green Glo Solar Hot Water Systems

Standard Applied AS/NZS2712:2007

Full Report Ref.: 09/2050

Based on the information and results obtained during testing and assessment, the Edwards Green Glo Solar Hot Water Systems listed below comply with the requirements of AS/NZS2712:2007.

This compliance certificate relates only to the product sample tested. Any modifications to the product may invalidate the compliance results.

Our report 09/2050 gives details of the appliance, the assessment and the results obtained.

System name	EECA identifier	Heat exchange cct type	Heat exchange fluid	Collector model and quantity	
Green Glo 180 S/D with 2 Titan smart panels	SG002	Closed	Glycol	Titan blue II	2
Green Glo 300D/S with 2 Titan smart panels	SG004	Closed	Glycol	Titan blue II	2
Green Glo 300 OL with 2 Titan smart panels	SG006	Open	Water	Titan blue II	2
Green Glo 180S OL with 1 Titan smart panel	SG008	Open	Water	Titan blue II	1

System name	EECA identifier	Heat exchange cct type	Heat exchange fluid	Collector model and quantity	
Green Glo 400D three Titan	SG136	Open	Water	Titan	3
Green Glo 400D three Titan	SG142	Closed	Water	Titan	3
Green Glo 500D three Titan	SG137	Open	Water	Titan	3
Edwards 180R OL/1 Titan panel	SG140	Open	Water	Titan	1
Edwards 180R OL/2 Titan panels	SG030	Open	Water	Titan	2
Edwards 250R OL/2 Titan panels	SG031	Open	Water	Titan	2
Two Edwards titan panels smart OL 280R	SG032	Open	Water	Titan	2

This report:

Prepared by: G. Looman

Approved by: W. S. Webley

Release Date:



14-3-10

This report must not be reproduced except in full. Results are based on material and information supplied by the client. Applied Research Services Ltd shall not be liable in respect of any loss or damage (including consequential loss or damage) resulting from the use of reports prepared by them. Results issued in electronic form are subject to confirmation by issue of final written report.

PROJECT MANUAL

New House

for

Esther & Peterson

at

142 Huia St
Waikanae



Job Number: 11090

Date: May 2013

Contents:

- Certificate of Title
- Engineers PS1, drawings and calculations
- Prefabricated wall & truss design
- Hyspan Calculations
- Bracing calculations
- H1 calculations
- Risk Matrix calculation
- Lumberlok Lintel fixing schedule
- Lumberlock stud to top plate fixing schedule
- Ramset Bottom Plate Fixing Technical Statement
- Tekton Weatherization BRANZ Appraisal
- Tekton Building wrap BRANZ Appraisal
- Strandboard bracing details
- Metro Fire Installation Details
- Water Tanks Information
- Solar Panels Information

A.D
architecture

Ph: 04 298 5662 Fax: 04 298 5663
info@adarchitecture.co.nz

LTD
www.adarchitecture.co.nz
PO Box 1585, Paraparaumu Beach



**ISP CONSULTING
ENGINEERS LTD**

Civil & Structural
Seismic Risk Analysis
Building Compliance

Lower Hutt Office
Tel: 04 566 8004
Fax: 04 566 8037
Level 1, ISP Centre
14 Laings Road
P.O. Box 30 535
Lower Hutt 5010

Paraparaumu Office
Tel: 04 902 5750
Level 1 Office 24
Kayel Building
Margaret Road
Raumati Beach
P.O. Box 537
Paraparaumu 5254

Email: email@isp.co.nz
Web: www.isp.co.nz

Structural Calculations

For Proposed House At 142 Huia St, Waikanae

These calculations are in accordance with:

AS/NZS 1170 Structural Design Actions
NZS3101:2006 Design of Concrete Structures
NZS3604:2011 Timber Framed Buildings
NZS4230:2004 Design of Reinforced Concrete Masonry

Engineer:
Stuart Preston
Yaqi Wang

Initials:
SP
YW

Preamble:

Specific design of Rib – raft foundation.
Scala penetrometer test results are attached.

Date:
7 June 2013

Job No.
25056



PRODUCER STATEMENT - PS1 - DESIGN
(Guidance notes on the use of this form are printed on the reverse side)*
ISSUED: ISP Consulting Engineers Ltd

TO: **Esther & Peterson**
(Owner / Developer)
TO BE SUPPLIED TO: **Kapiti Coast District Council**
(Building Consent Authority)
IN RESPECT OF: **Proposed House**
(Description of Building Work)
AT: **142 Huia St, Waikanae**
(Address)
LOT.....10.....DP...22652.....

We have been engaged by the owner/developer referred to above to provide structural design services and construction monitoring of specifically designed elements in respect of the requirements of Clause B1 (B2 of specifically designed elements) of the building code for

☐ All

☒

Part only as specified of building work:

- Rib-raft foundation design
- Scala penetrometer test

The design carried out by us has been prepared in accordance with Compliance Documents issued by Department of Building & Housing B1, VM1, VM4

The proposed Building work covered by this producer statement is described on ISP calculations and drawings named '142 Huia St, Waikanae' and numbered '25056/Page 3 to page 7 and 25056/S1&S2'.

On behalf of the Design Firm, and subject to:

- (i) Site verification of the following design assumptions: **Bearing capacity of augered piles and correct placement of reinforcing steel to be confirmed on site by Engineer prior to pouring the concrete.**
- (ii) All proprietary products meeting their performance specifications requirements;

I Believe on reasonable grounds the building, if constructed in accordance with the drawings, specifications, and other documents provided will comply with the relevant provisions of the building code.

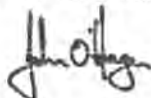
I, John O'Hagan am CPEng #179947

I am a member of: IPENZ and hold the following qualifications: BE(Hons), NZCE(Civil), MIPENZ, CPEng

The design firm issuing this statement holds a current policy of Professional Indemnity Insurance no less than \$200,000*.

The Design Firm is a member of ACENZ

SIGNED BY John O'Hagan ON BEHALF OF ISP Consulting Engineers Ltd



Date 7 June 2013

(Signature).....

Note: this statement shall only be relied upon by the Building Consent Authority named above. Liability under this statement accrues to the Design Firm only. The total maximum amount of damages payable arising from this statement and all other statements provide to the Building Consent Authority in relation to this building work, whether in contract, tort or otherwise (including negligence), is limited to the sum of \$200,000*.

This form is to accompany Form 2 of the Building (Forms) Regulations 2004 for the application of a Building Consent.

GUIDANCE ON USE OF PRODUCER STATEMENTS

Producer statements were first introduced with the Building Act 1992. The producer statements were developed by a combined task committee consisting of members of the New Zealand Institute of Architects, Institution of Professional Engineers New Zealand, Association of Consulting Engineers New Zealand in consultation with the Building Officials Institute of New Zealand. The original suite of producer statements has been revised as at the date of this form as a result of enactment of the Building Act (2004) by these organisations to ensure standard use within the industry.

The producer statement system is intended to provide Building Consent Authorities (BCAs) with reasonable grounds for the issue of a Building Consent or a Code Compliance Certificate, without having to duplicate design or construction checking undertaken by others.

PS1 Design

Intended for the use by a suitably qualified independent design professional in circumstances where the BCA accepts a producer statement for establishing reasonable grounds to issue a Building Consent;

PS2 Design Review

Intended for use by a suitably qualified independent design professional where the BCA accepts an independent design professional's review as the basis for establishing reasonable grounds to issue a Building Consent;

PS3 Construction

Forms commonly used as a certificate of completion of building work are Schedule 6 of NZS 3910:2003¹, or Schedules E1/E2 of NZIA's SCC 2007²

PS 4 Construction Review

Intended for use by a suitably qualified independent design professional who undertakes construction monitoring of the building works where the BCA requests a producer statement prior to issuing a Code Compliance Certificate.
This must be accompanied by a statement of completion of building work (Schedule 6).

The following guidelines are provided by ACENZ, IPENZ and NZIA to interpret the Producer Statement.

Competence of Design Professional

This statement is made by a Design Firm that has undertaken a contract of services for the services named, and is signed by a person authorised by that firm to verify the processes within the and competence of its designers.

A competent design professional will have a professional qualification and proven current competence through registration on a national competence-based register, either as a Chartered Professional Engineer (CPEng) or a Registered Architect.

Membership of a professional body, such as the Institution of Professional Engineers New Zealand (IPENZ) or the New Zealand Institute of Architects (NZIA) provides additional assurance of the designer's standing within the profession. If the design firm is a member of the Association of Consulting Engineers New Zealand (ACENZ), this provides additional assurance about the standing of the firm.

Persons or firms meeting these criteria satisfy the term "suitably qualified independent design professional".

Professional Indemnity Insurance

As part of membership requirements, ACENZ requires all member firms to hold Professional Indemnity Insurance to a minimum level.

The PI insurance minimum stated on the front of this form reflects standard, small projects. If the parties deem this inappropriate for large projects the minimum may be up to \$500,000.

Professional Services during Construction Phase

There are several levels of service which a Design Firm may provide during the construction phase of a project (CM1-5)³ (OL1-OL4)². The Building Consent Authority is encouraged to require that the service to be provided by the Design Firm is appropriate for the project concerned.

Requirement to provide Producer Statement PS4

Building Consent Authorities should ensure that the applicant is aware of any requirement for producer statements for the construction phase of building work at the time the building consent is issued as no design professional should be expected to provide a producer statement unless such a requirement forms part of the Design Firm's engagement.

Attached Particulars

Attached particulars referred to in this producer statement refer to supplementary information appended to the producer statement.

Refer Also:

1 Conditions of Contract for Building & Civil Engineering Construction NZS 3910: 2003

2 NZIA Standard Conditions of Contract SCC 2007 (1st edition)

3 Guideline on the Briefing & Engagement for Consulting Engineering Services (ACENZ/IPENZ 2004)

www.acenz.org.nz

www.ipenz.org.nz

www.nzia.co.nz

Memorandum from licensed building practitioner:

J25056

Certificate of design work

Section 45 and Section 30C, Building Act 2004

THE BUILDING

Street address: 142 Huia St

Suburb: Waikanae

Town/City: Kapiti Coast

Postcode: 5391

THE OWNER

Name(s): Esther & Peterson

BASIS FOR PROVIDING THIS MEMORANDUM

I am providing this memorandum in my role as the **Specialist** designer who supervised specific elements of RBW design work as outlined in this memorandum – other designers will be providing a memorandum covering the remaining RBW design work.

IDENTIFICATION OF DESIGN WORK THAT IS RESTRICTED BUILDING WORK (RBW)

I, John O'Hagan, supervised the following design work that is restricted building work

PRIMARY STRUCTURE: B1

Design work that is restricted building work	Description (as required)
Specific Foundations (✓)	Rib – raft foundation
Specific Walls (outside the scope of NZS 3604:2011) (✗)	
Specific Retaining Walls (✗)	
Specific Beams (✗)	
Specific Columns (✗)	
Specific Bracing (✗)	
Other (✗)	

WAIVERS AND MODIFICATIONS

No waivers or modifications of the building code are required.

ISSUED BY

Name: John O'Hagan

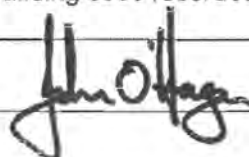
CPEng number: 179947

DECLARATION

I, John O'Hagan, LBP, on behalf of ISP Consulting Engineers Ltd, state that I have applied the skill and care reasonably required of a competent design professional in supervising the Restricted Building Work (RBW) described in this form, and that based on this, I also state that the RBW:

- Complies with the building code; or
- Complies with the building code subject to any waiver or modification of the building code recorded on this form.

Signature:



Date: 7 June 2013



**ISP CONSULTING
ENGINEERS LTD**

Civil & Structural
Seismic Risk Analysis
Building Compliance

Lower Hutt Office

Tel: 04 566 8004
Fax: 04 566 8037
Level 1, ISP Centre
14 Laings Road
P.O. Box 30 535
Lower Hutt 5010


Paraparaumu Office

Raumati Beach
P.O. Box 537
Paraparaumu 5254

Email: email@isp.co.nz
Web: www.isp.co.nz



ISO 9001

Date	Eng. JW	Job No. 25056	Sheet No. 3	
Project 142 Huia St, Waikanae				
<u>Rib - Raft Design</u> Building Type A : Single storey. Light ground floor external walls. Ultimate Bearing Capacity for 15kPa live load = 150kPa (min. 1 Blow/50mm)				
<u>Seismic Resistance</u> Building Type A, Roof Type Light, soil type clay, seismic zone A 8 piles per 100m ² of ground floor area for 15kPa live load required. Total floor area A = 187m ² $\text{Total number of piles required} = 8 \text{ piles} \times \frac{187\text{m}^2}{100\text{m}^2} = \underline{15 \text{ piles}}$				
<u>Wind Resistance</u> Building Type A, Roof Type Light, BU's provided per 100m ² for live loading of 1.5kPa = 1150 BU $\text{Total BU's provided} = 1150 \text{ BU} \times \frac{187\text{m}^2}{100\text{m}^2} = 2150 \text{ BU} > \begin{array}{l} 1169 \text{ BU wind along} \\ 748 \text{ BU wind across} \end{array}$				

5.2 Wind Resistance

The building's bracing demand from wind loading shall be assessed from Section 5 of NZS 3604:1999 for both directions (i.e. along and across the building). The bracing capacity of the system must exceed the greater of the bracing demands determined.

The bracing capacity of the system shall be determined as the sum of the bracing capacity provided by frictional resistance (i.e. friction between the system and the ground) and the bracing capacity provided by the shear keys (if any) necessary to meet the requirements of Clause 5.1.

The bracing capacity provided by frictional resistance shall be determined from Table 6 depending on the building type, roof weight, and floor live loading.

The bracing capacity provided by the shear keys shall be sum of the bracing capacity of the individual shear keys determined as follows. If the shear key is in clay, each shear key shall be considered to contribute 170 BU's. If the shear key is in sand, each shear key shall be considered to contribute 200 BU's.

If the bracing capacity of the system, determined from the frictional resistance and the shear keys as described above, is less than the bracing demand further shear keys shall be added until the bracing demand is met.

Building Type	Roof Type	BU's provided per 100m ² for live loading of:	
		1.5kPa	3.0kPa
A	Light	1150	1267
A	Heavy	1267	1383
B	Light	1800	1917
B	Heavy	1917	2033
C	Light	1617	1833
C	Heavy	1717	1950
D	Light	2267	2483
D	Heavy	2367	2600
E	Light	2717	2933
E	Heavy	2833	3050

Table 6 Bracing Capacity provided by Frictional Resistance per 100m² of ground floor area.

5.3 Shear Keys

Shear key piles required by Clauses 5.1 and 5.2 must be uniformly distributed around the perimeter of the building, and be located at the edge beam/internal rib junction. Where a shear key is required, the minimum number of shear keys shall be two per floor plan.

Construction details of the shear keys shall be as shown on Figure 6 below. Shear keys shall be a minimum of 900mm long. The holes shall be over-drilled at least 100mm and a polystyrene RibRaft Shear Key Support placed into the bottom of each hole. This will support only the plastic (wet) concrete and then allow movement of the shear key if settlement of the supporting ground occurs. The effective end bearing of the shear keys is therefore eliminated.

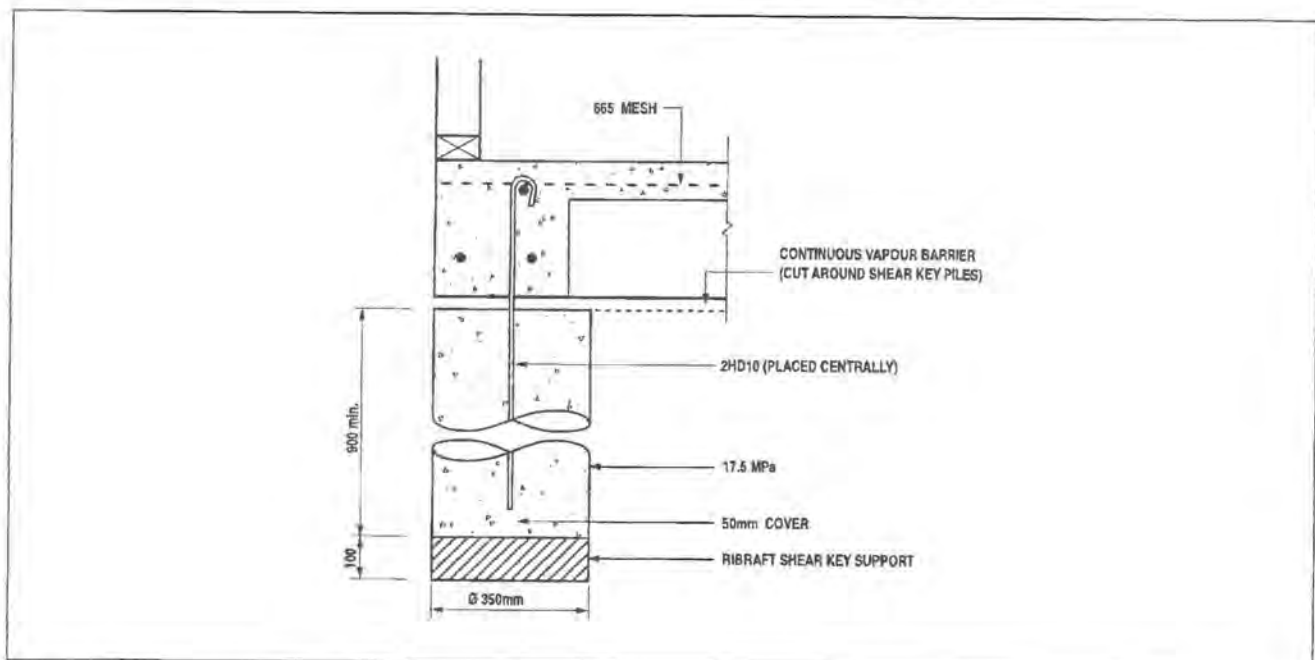


Figure 6 Shear Key Pile Construction Details

5 LATERAL RESISTANCE

Unlike conventional foundation systems, the Firth RibRaft system is not embedded into the ground. Sliding resistance to horizontal seismic and wind loads is provided primarily by frictional contact with the soil. Depending on the seismic or wind zone and the weight of the building elements this frictional resistance may not be sufficient on its own, and specific shear keys may be required.

To determine if shear keys are required the system's lateral resistance shall be checked firstly for seismic loads in accordance with Clause 5.1 and secondly for wind loads in accordance with Clause 5.2.

For the purposes of this Manual, the ground shall be classified as clay or sand according to the following descriptions:

Clay: retains shape when moulded under hand pressure; may stick to boots and hands; cracks and becomes hard, but retains shape, when dried in direct sunlight; and when dug with a spade the cut vertical surface stands.

Sand: Individual particles visible to the unaided eye; when dry will run through the fingers and forms a conical mound if poured; when moist quickly dries out under direct sunlight, and when dug with a spade the vertical surface does not stand for long.

5.1 Seismic Resistance

To determine the required number of shear keys, follow the two steps below:

Step 1 From Figure 5 below left (from NZS 3604:1999) determine the seismic zone for the building.

Step 2 From the Tables below determine the number of shear key piles required based on the soil type supporting the system.

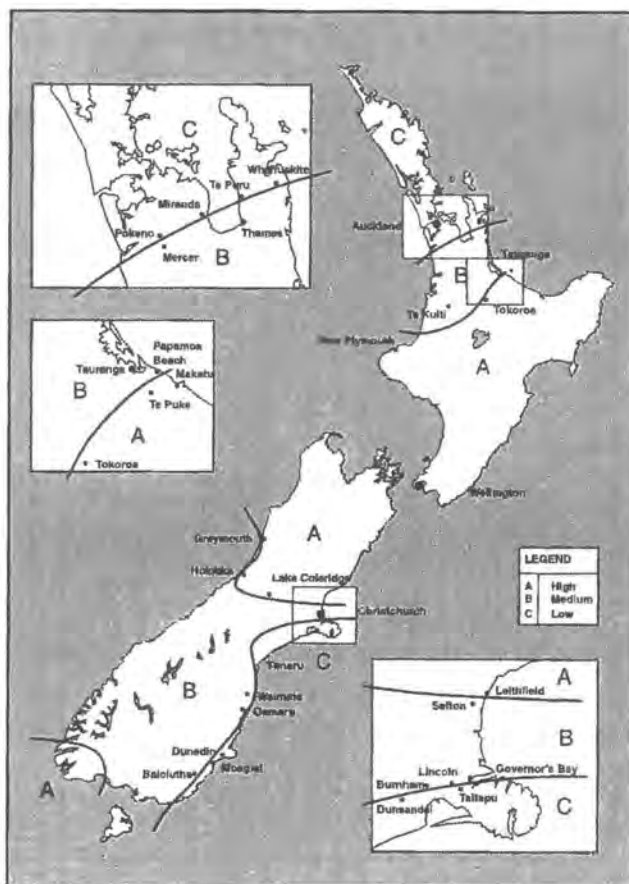


Figure 5 Seismic Zones

Building Type	Roof Type	Seismic Zone A		Seismic Zone B		Seismic Zone C	
		Sand	Clay	Sand	Clay	Sand	Clay
A	Light	6	8	3	4	—	—
A	Heavy	7	8	4	4	—	—
B	Light	10	12	5	6	—	1
B	Heavy	11	13	6	7	1	1
C	Light	9	11	5	6	—	1
C	Heavy	10	11	5	6	—	1
D	Light	13	15	7	8	1	1
D	Heavy	13	16	7	8	1	1
E	Light	15	18	8	9	1	1
E	Heavy	16	19	8	10	1	1

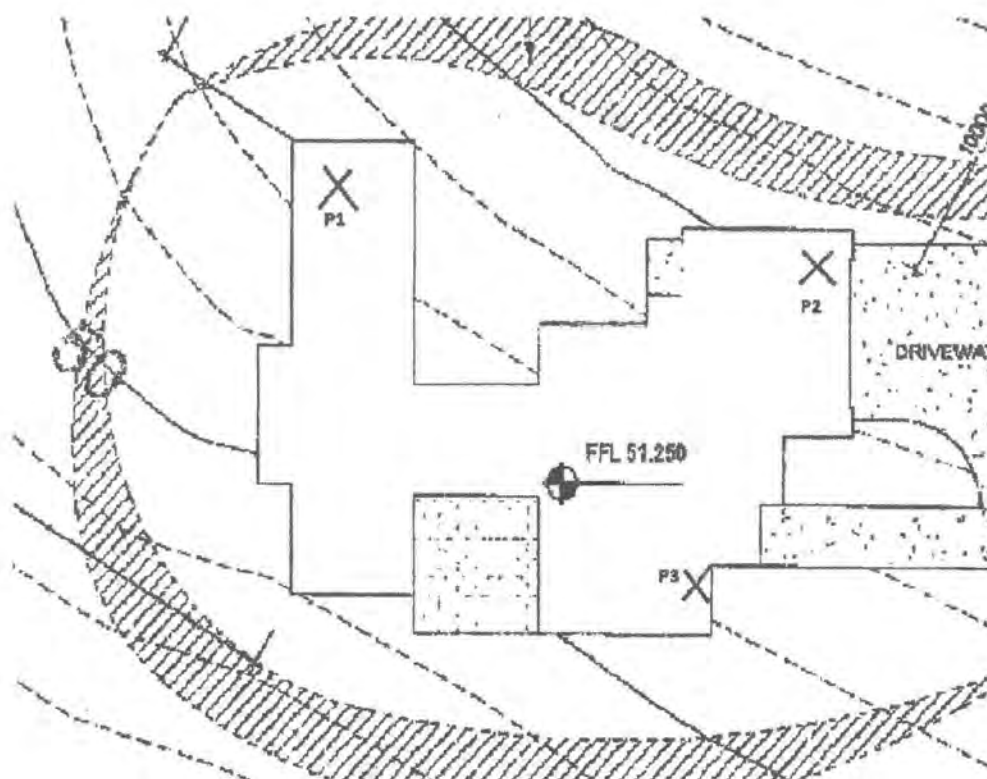
Table 4 Number of Shear Key Piles per 100m² of ground floor area for 1.5kPa live load

Building Type	Roof Type	Seismic Zone A		Seismic Zone B		Seismic Zone C	
		Sand	Clay	Sand	Clay	Sand	Clay
A	Light	7	8	4	4	—	—
A	Heavy	8	9	4	5	—	—
B	Light	11	13	6	7	1	1
B	Heavy	11	13	6	7	1	1
C	Light	10	12	4	6	—	1
C	Heavy	11	13	5	7	1	1
D	Light	14	16	6	9	1	1
D	Heavy	14	17	7	9	1	1
E	Light	16	19	9	10	1	1
E	Heavy	17	20	9	11	1	1

Table 5 Number of Shear Key Piles per 100m² of ground floor area for 3.0kPa Live Load

Soil type: clay

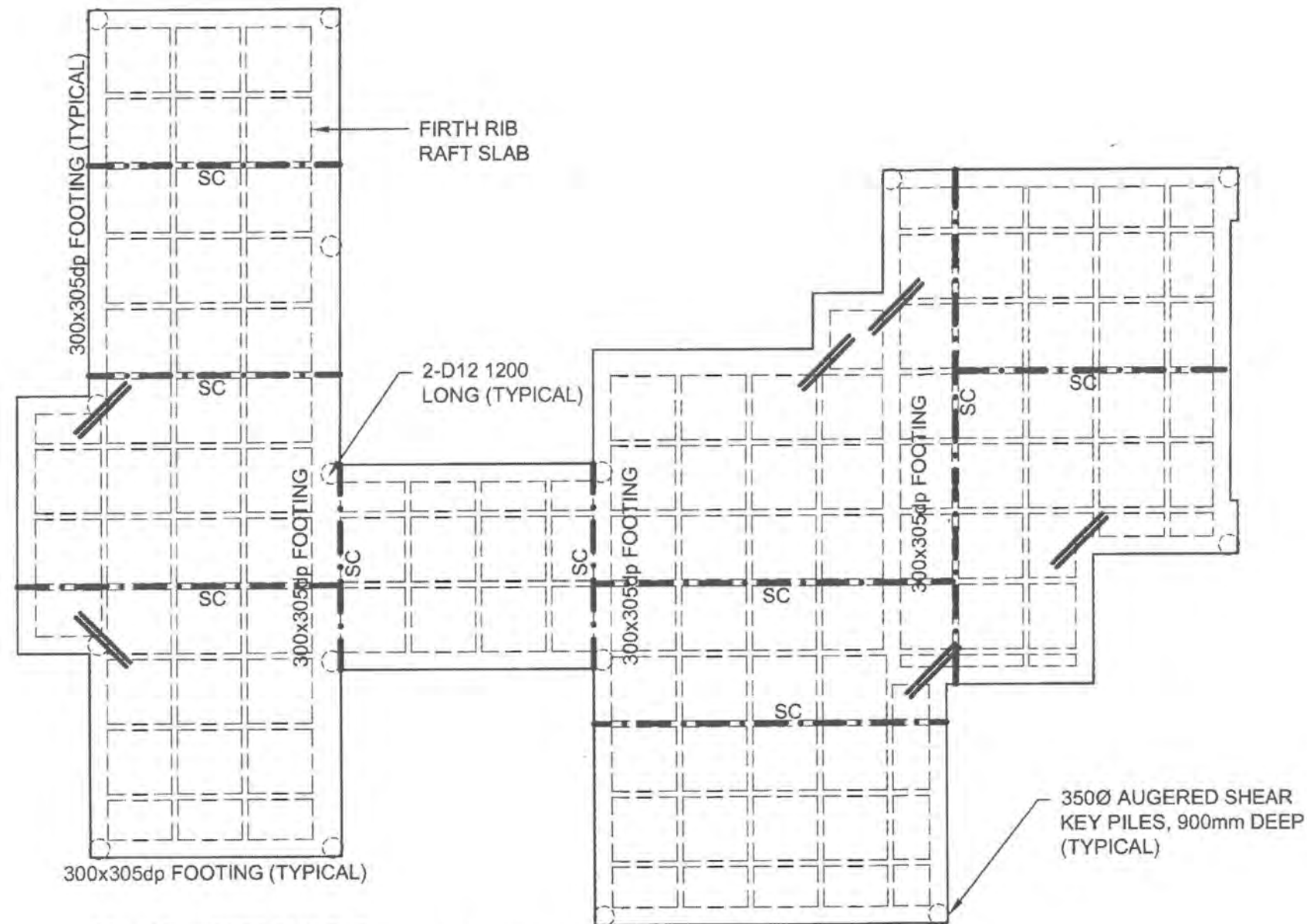
Job Number		25056		ISP Consulting Engineers Ltd													
Date		7-Mar-13		Scala Penetrometer Results Sheet													
Location		142 Huia St, Waikanae		ISP Centre, 14 Laings Road													
				P O Box 30535, Lower Hutt													
Client		0		Tel (04) 566 8004 Fax (04) 566 8037													
Notes		Probe Number 1		Probe Number 2		Probe Number 3											
Depth	No.	0	5	10	15	Depth	No.	0	5	10	15	Depth	No.	0	5	10	15
50	0					50	0					50	0				
100	0					100	0					100	0				
150	2					150	1					150	2				
200	2					200	2					200	2				
250	2					250	1					250	2				
300	3					300	2					300	3				
350	2					350	2					350	3				
400	2					400	1					400	3				
450	3					450	1					450	3				
500	3					500	1					500	3				
550	3					550	1					550	5				
600	5					600	1					600	3				
650	7					650	2					650	3				
700	4					700	3					700	2				
750	4					750	3					750	2				
800	3					800	3					800	2				
850	4					850	4					850	2				
900	7					900	5					900	2				
950	8					950	7					950	2				
1000	9					1000	7					1000	3				
1050	14					1050	9					1050	4				
1100	0					1100	11					1100	4				
1150	0					1150	12					1150	4				
1200	0					1200	0					1200	5				
1250	0					1250	0					1250	6				
1300	0					1300	0					1300	5				
1350	0					1350	0					1350	5				
1400	0					1400	0					1400	5				
1450	0					1450	0					1450	5				
1500	0					1500	0					1500	7				
1550	0					1550	0					1550	7				
1600	0					1600	0					1600	6				
1650	0					1650	0					1650	7				
1700	0					1700	0					1700	12				
1750	0					1750	0					1750	0				
1800	0					1800	0					1800	0				
1850	0					1850	0					1850	0				
1900	0					1900	0					1900	0				
1950	0					1950	0					1950	0				
2000	0					2000	0					2000	0				
2050	0					2050	0					2050	0				
2100	0					2100	0					2100	0				
2150	0					2150	0					2150	0				
2200	0					2200	0					2200	0				
2250	0					2250	0					2250	0				
2300	0					2300	0					2300	0				
2350	0					2350	0					2350	0				
2400	0					2400	0					2400	0				
2450	0					2450	0					2450	0				
2500	0					2500	0					2500	0				
2550	0					2550	0					2550	0				
2600	0					2600	0					2600	0				
2650	0					2650	0					2650	0				
2700	0					2700	0					2700	0				
2750	0					2750	0					2750	0				
2800	0					2800	0					2800	0				
2850	0					2850	0					2850	0				
2900	0					2900	0					2900	0				
2950	0					2950	0					2950	0				
3000	0					3000	0					3000	0				
3050	0					3050	0					3050	0				
3100	0					3100	0					3100	0				
3150	0					3150	0					3150	0				
3200	0					3200	0					3200	0				
3250	0					3250	0					3250	0				
3300	0					3300	0					3300	0				
3350	0					3350	0					3350	0				
3400	0					3400	0					3400	0				
3450	0					3450	0					3450	0				
3500	0					3500	0					3500	0				



LSP
 Lower Hutt Office
 Tel: (04) 566-8004
 Fax: (04) 566-8037
 ISF CONSULTING ENGINEERS LTD. Paraparaumu Office
 Tel: (04) 902 8750

SCALA PENETROMETER TEST LOCATION PLAN

CLIENT Esther & Peterson	DATE 7/06/13	DWG No.
PROJECT 142 Hwa St, Waikanae	SCALE NTS	
	DRAWN	
		JOB No 25056



SC - 25mm DEEP SAW CUT
ABOVE CENTRE OF RIB

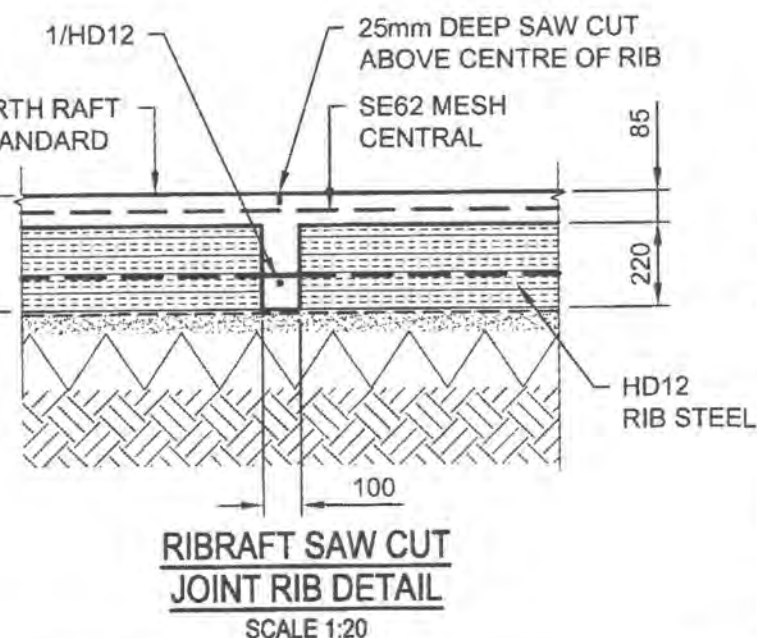
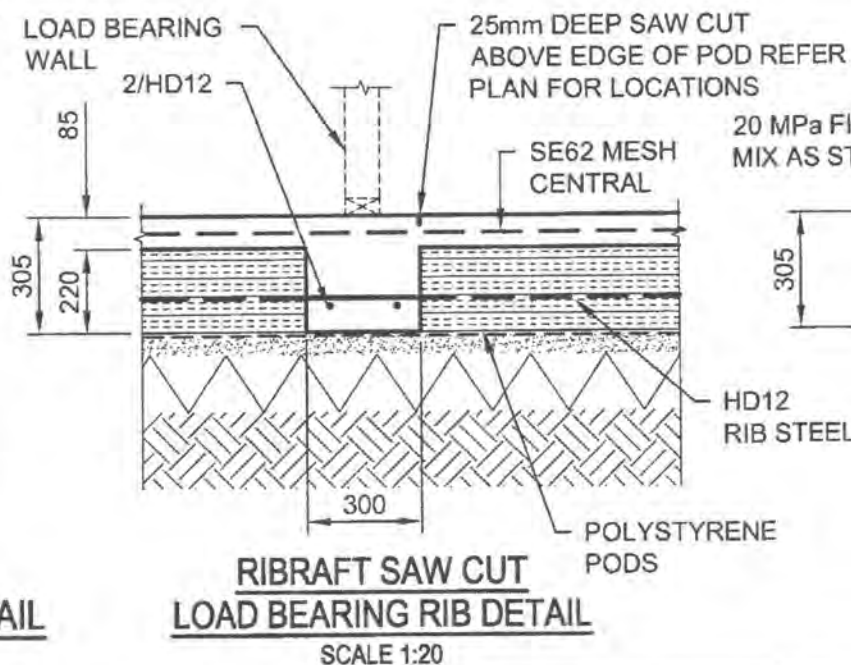
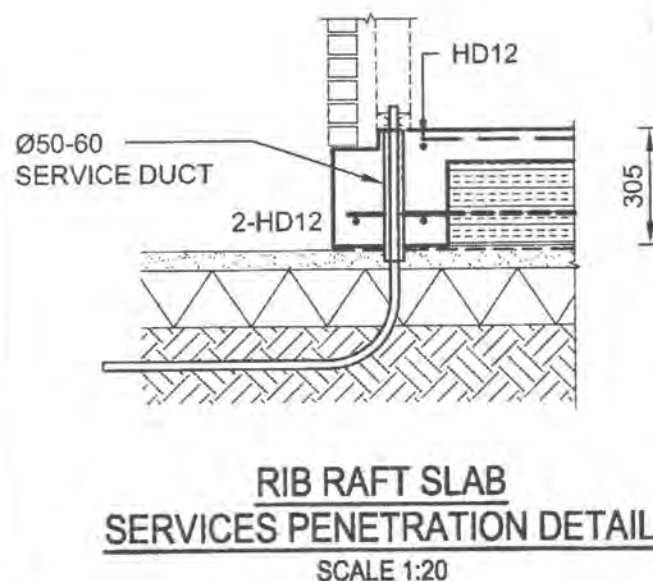
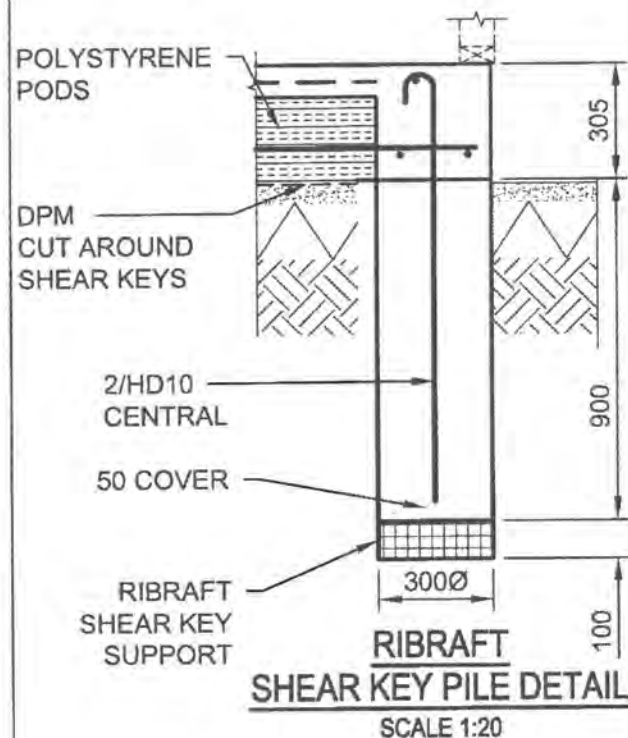
FOUNDATION PLAN

SCALE 1:100

CLIENT		ESTHER & PETERSON	
PROJECT		142 HUIA STREET WAIKANAE	
 ISP CONSULTING ENGINEERS LTD.	Lower Hutt Office Tel: (04) 566-8004 Fax: (04) 566-8037	DATE: 04.06.13	
	Paraparaumu Office Tel: (04) 902 5750	DRAWN: B.V.	
		APPROVED: C.W.	
		JOB No: 25056	SHEET No: S1

NOTES:

1. REFER ARCHITECT'S DRAWINGS FOR DIMENSIONS, UNLESS NOTED OTHERWISE AND FOR DETAILS OF ALL SERVICES TO BE CAST IN SLAB. DO NOT SCALE OFF THIS DRAWING.
2. ALL CONCRETE WORK SHALL COMPLY WITH THE REQUIREMENTS OF NZS3109:1997
3. CONCRETE SHALL BE:
- SLABS & FOOTINGS N25 (25MPa)
4. MAXIMUM SLUMP TO BE 100mm UNLESS NOTED OTHERWISE
5. HD12 BARS LAP LENGTH IS 600mm
6. CONCRETE FINISHES SHALL BE:
- SLABS U3
- EXPOSED FOOTINGS F4
10. CONCRETE COVER
-25mm MIN. INTERIOR
-40mm MIN. EXTERIOR
-75mm MIN. IN CONTACT WITH GROUND.
11. ALL REINFORCEMENT SHALL COMPLY WITH AS/NZS4671:2001 (HD BARS SHALL NOT BE REBENT)
12. REFER RIB RAFT SPECIFICATIONS FOR SAWCUTS AND SHRINKAGE CONTROL JOINTS
13. ENSURE BOTTOM OF PILE HOLES ARE FREE OF WATER AND LOOSE MATERIAL. TAMP AS NECESSARY
14. ENGINEER TO INSPECT PRIOR TO POURING CONCRETE. ENGINEER REQUIRES 24 HOURS NOTICE BEFORE ANY VISIT.
15. THE SAW CUTS SHALL BE CUT TO A DEPTH OF 25mm AND SHALL BE CUT NO LATER THAN 24 HOURS IN SUMMER, OR 48 HOURS IN WINTER. THE SHRINKAGE CONTROL JOINTS SHALL BE POSITIONED TO COINCIDE WITH MAJOR CHANGES IN FLOOR PLAN. WHERE THE CONCRETE IS TO BE EXPOSED, OR BRITTLE COVERING PLACED OVER, THE MAXIMUM INTERMEDIATE BAY SIZES SHALL BE LIMITED TO 6m. BAY DIMENSIONS FORMED BY SHRINKAGE CONTROL JOINTS SHALL BE LIMITED TO A MAX RATIO OF LENGTH:WIDTH OF 2:1. SHRINKAGE CONTROL JOINTS SHALL BE PLACED OVER 100mm WIDE INTERNAL RIBS WHEREVER POSSIBLE. WHERE A SHRINKAGE CONTROL JOINT RUNS ALONG THE LINE OF A 300mm WIDE LOADBEARING RIB THEN THE JOINT SHALL BE LOCATED DIRECTLY ABOVE ONE EDGE OF THE 300mm RIB. SUPPLEMENTARY REINFORCING USING 2-D10 BARS (GRADE 300) SHALL BE USED AT ALL RE-ENTRANT CORNERS AS SHOWN ON PLAN. THESE BARS SHALL BE 1200mm LONG, 200mm APART, TIED TO THE TOP OF MESH, WITH 50mm COVER AND SHALL NOT BE PLACED ACROSS ANY SHRINKAGE CONTROL JOINT.



CLIENT ESTHER & PETERSON		
PROJECT 142 HUIA STREET WAIKANA		
 Lower Hutt Office Tel: (04) 566-8004 Fax: (04) 566-8037 Paraparaumu Office Tel: (04) 902 5750	DATE: 04.06.13	
	DRAWN: B.V.	
	APPROVED: C.W.	
	SHEET No: S2	
JOB No: 25056	REV: 0	

Date: 23/5/2013

Fabricator: Wellington Frame & Truss

Job Name: David Reid Homes (Esther & Peterson)
142 Hula Street
Waikanae

Building Consent No: _____
(to be provided by the City / District Council)

Attn: City / District Council

We have been engaged to provide the trusses for the above project and have enclosed the truss layout and Producer Statement to allow completion of the consent application. On advice from the building project owner, the structure will be designed under the following parameters:

Wind Zone Very High

Snow Load N/A

Earthquake Zone 3

Roof Material Light

Treatment Definition	External walls	H1.2	Trusses	H1.2
	Internal walls	H1.2		

We can advise that the following will be provided at the time of truss manufacture to both the building owner and your office:

1. A full as-built truss layout and Producer Statement
2. Specific truss / truss and truss / top plate fixing details indicated on the truss layout.
3. All lintel sizes outside NZS3604: 2011 will be indicated on the frame layout.
(all timbers to be SG8 unless otherwise stated on layouts)
4. Top plate to stud connections will be indicated on the frame layout.

Acknowledgement of this letter, along with the Building Consent number, by fax to our office, would be appreciated.



MiTek New Zealand Limited

Correspondence from : AUCKLAND
40 Neales Road, East Tamaki 2013
PO Box 58-014, Botany 2163
Phone: 09 274 7109
Fax: 09 274 7100

CHRISTCHURCH
14 Pilkington Way, Wigram 8042
PO Box 8387, Riccarton 8440
Phone: 03 348 8891
Fax: 03 348 0314

MiTek 20/20 Engineering 4.8.6.14B

www.mitek.nz.co.nz

Printed: 09:28:02 23 May 2013

PRODUCER STATEMENT for MiTek 20/20® TRUSS DESIGN - Version 4.6

ISSUED BY: MiTek New Zealand Limited
TO: PLACEMAKERS - W.F.T.
IN RESPECT OF: MiTek® Truss Designs

This producer statement covers the MiTek 20/20® truss design and the structural performance of the GANG-NAIL® connector plate for the job reference **45443** and may be used by a Building Consent Authority to assist in determining compliance with the New Zealand Building Code.

The MiTek 20/20® truss design program has been developed by MiTek New Zealand Limited for the design of MiTek® timber roof, floor and attic trusses in New Zealand. The truss designs computed by MiTek 20/20® are prepared using sound and widely accepted engineering principles, and in accordance with compliance documents of the New Zealand Building Code and Verification Method B1/VM1; and internationally accepted standard ANSI/TPI 1 - 2002 as an alternative solution to satisfy the requirements of Clause B1 of the New Zealand Building Code.

On behalf of MiTek New Zealand Limited, and subject to:

- i) All proprietary products meeting their performance specification requirements
- ii) The provision of adequate roof bracing and overall building stability
- iii) Correct selection and placement of GANG-NAIL connector plates
- iv) Correct input of Truss Design Data as shown in the Fabricator Design Statement for this job
- v) The design being undertaken by the accredited fabricator under the terms of the software licence

I believe on reasonable grounds that the trusses, if constructed in accordance with the MiTek 20/20® truss design and shop drawings, will comply with the relevant provisions of the New Zealand Building Code.

MiTek New Zealand Limited holds a current policy of Professional Indemnity Insurance no less than \$500,000.

On behalf of MiTek New Zealand Limited,

Date: Thursday, 23 May 2013

In Ling Ng, BE (Hons), CPEng, IntPE, MiPENZ (ID: 146585)
TECHNICAL SERVICES MANAGER, MiTek New Zealand Limited

Job: 45443

Client: Placemakers Peraparemu
Phone:

Site:

DAVID REID HOMES
142 HUA STREET
WAIKANA EDescription:
Building Consent No.:
MTC 2010 Engineering 45443

Phone:

Printed: 08/20/13 23 May 2013

Mitek New Zealand Limited

MITEK FABRICATOR DESIGN STATEMENT

This statement is issued by Mitek accredited fabricator **PLACEMAKERS - W.F.T.**, being licensed to use the Mitek 20/20® software, to the client listed above and may be used by the Building Consent Authority to assist in determining compliance with the New Zealand Building Code.

Mitek 20/20® TRUSS DESIGN DATA

The Mitek 20/20® computer design for this job is based on the following design parameters entered into the program. The Fabricator shall ensure that these job details are current and relevant to the project for the design of the Mitek® trusses.

Job Details**Roof Truss**

Timber Group: MSGx45 H1.2
Roof
Material: Galv Iron .5mm
Dead Load: 0.210 kPa
Restraints: 900 mm centres
Live Load: Q_{cr} = 0.250 kPa
Q_c = 1.100 kN

Importance Level: 2

Pitch: 6.000 deg
Ceiling
Material: G1b Board 12mm
Dead Load: 0.200 kPa
Restraints: 800 mm centres
Live Load: Q_c = 1.400 kN

Design Working Life: 50 years

Nominal Overhang: 450 mm
Wind
Area: Very High (50.0 m/s)
Pressure Coeff: C_{pe} = varies; C_{pi} = -0.30, 0.20

The timber for these Mitek® trusses shall be treated to the requirements of NZS 3602:2003 and shall be graded to the requirements of NZS 3603:1993. Unless otherwise noted, this design assumes that the steel fixings and timber connectors proposed are located in a "closed environment", as defined by NZS3604:2011 Section 4.

Mitek® Truss List

Legend: * = detail only, ? = input only, ~~✗~~ = failed design, Ø = non certified, Unmarked trusses = designed successfully, LB = lateral bracing required
GB = gable brace required

Truss	Qty	Span (mm)	Pitch (deg)	Spacing (mm)	Truss	Qty	Span (mm)	Pitch (deg)	Spacing (mm)	Truss	Qty	Span (mm)	Pitch (deg)	Spacing (mm)
EN3	1	1700	6.000	888	T1	10	4300	6.000	903	*R6	1	2950	6.000	900
T2	5	5500	6.000	903	T3	2	1700	6.000	888					
T6	2	6980	6.000	888	T4	2	3510	6.000	888					
T6A	5	6980	6.000	888	*R1	4	5200	6.000	405					
EN1	2	4300	6.000	903	*R2	4	1440	6.000	405					
EN2	2	1200	6.000	900	*R3	2	6900	6.000	405					
EN4	1	5860	6.000	888	*R4	2	2600	6.000	405					
EN5	1	2450	6.000	900	*R5	1	2950	6.000	405					

Total quantity : 47

The computer design input has been carried out by:

Signed: 

Name of Detailer: M. J. TAYLOR

On behalf of:

PLACEMAKERS - W.F.T.

Date: ...Thursday, 23 May 2013....

Qualifications and Title: C.O.C 1990 + 2006

PlaceMakers
Know how. Can do.
Manufacturing

DETAILING MANAGER



Order 1101 Harvey Ltd
640 Great South Rd
Private Bag 92185
Masterton City, New Zealand

Telephone 0800 745 599
Facsimile 0800 745 400

Order Acknowledgement

Sold to 111079
Placemakers Paraparaumu (283)
Fletcher Distribution Ltd
P O Box 84
Paraparaumu 6450

Ship To 111079
Placemakers Paraparaumu (283)
Fletcher Distribution Ltd
Kapiti Rd
PARAPARAUMU 6450

Order number 3362720757
Order date 23 May 2013
Customer Order 372535-283

Page 1 of 1

Sales Rep: Jeremy Coker

Sales Consultant: NORRISA

Item	Material	Description	Plant	Quantity	UOM	Delivery Date	Unit Price	UOM	Est Tot Value
000010	2322571	PLY 7x2400x1200 DD H3 CCA F8 ECOPLY (40 Sheets)	Plywood Kinleith	1.000	PAK	27.05.2013	28.14	SHE	1,125.60
000020	2124434	PLY 17x2400x1200 CD H3 CCA F8 ECOPLY (32 Sheets)	Plywood Kinleith	3.000	PAK	27.05.2013	65.10	SHE	6,249.60
000030	2383239	TAPE,PLY;60MMX30M,BARRIER SEALING	Bestwood DC Akl	4.000	BOX	27.05.2013	61.16	ROL	2,446.40

DISCLAIMER: This confirmation does not constitute a binding obligation to supply at the price outlined. Price may be subject to change where there has been a general price review between order placement and despatch. Where this occurs, your order may be repriced by our system and invoiced according to the pricing in effect at the time of despatch.

Est Total Value NZD 9,821.60

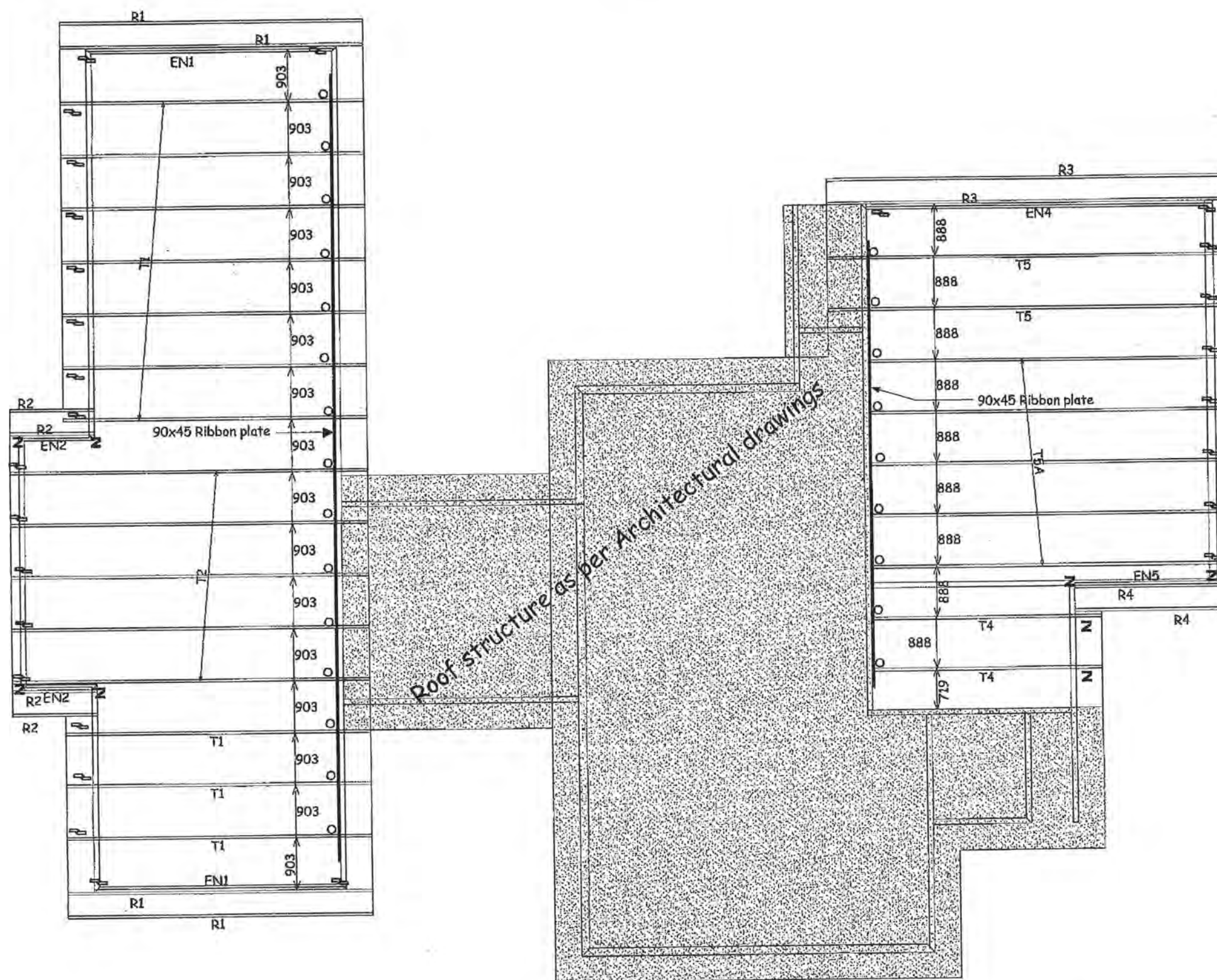
GST Exclusive

Payment Terms: Before 20th of following month

Incoterms: F1S Paraparaumu

GST Reg number: 13-979-219

Please refer to terms of sale on reverse.



NOTE : Where no fixings have been indicated
use 2 / 90 x 3.33mm (driven) skew nails.

Design wind speed category:	Very High
Pressure Coeff : Cpe = varies ; Cpl = -30.0, 020	
Timber size and grades :	90x45 MISG8 & MISG10 (H1.2)
Roof Weight & Type :	Light (Longrun Iron)
Roof Pitch :	6 Degrees
Roof Dead Load :	0.210 kPa
Roof Restraints :	900mm centres
Roof Live Load :	Q _{ur} = 0.250 kPa ; Q _e = 1.100 kN
Ceiling Material :	13mm Gfb Board
Ceiling Dead Load :	0.210 kPa
Ceiling Restraints :	600mm centres
Ceiling Live Load :	Q _e = 1.400kN
Earthquake Zone :	A
Snow Zone :	1

If Rondo battens on clips are used then the bottom chords of the trusses must be restrained @ 1800 c/s max.



No. off	Fixing description
1 pairs	"Z" nails (1 pair)
1	JH37 x 90
1	X JH37 x 120
1	O JH47 x 90
1	● JH47 x 120
1	▲ JH47 x 190
1	JH70 x 180
1	JH95 x 165
1 pairs	CPC 80 (75mm Hex screws)
1	200x100x1mm Nail on plate.
1	320x100x1mm Nail on plate.
1 pairs	Multi-Grips (pair)
1 pairs	CT200 (pair)
1	CT400 (cyclone ties)

Truss to Top Plate Fixings.

(In all other situations use 2 / 100mm skew nails)

Truss to Truss Fixings.

Truss to Truss Fixings.			(In all other situations use 2 x 17 (30mm screw) instead)		
□	JH37 x 90	Fill all holes with Product nails 30x3.15mm	⌚	JH70 x 180	Fill all holes with Product nails 30x3.15mm
✕	JH37 x 120	Fill all holes with Product nails 30x3.15mm	⦿	JH95 x 165	Fill all holes with Product nails 30x3.15mm
○	JH47 x 90	Fill all holes with Product nails 30x3.15mm	⌚	CPC 80	8 x Product nails 30x3.15mm / 4 x Type 17, 35mm screws
●	JH47 x 120	Fill all holes with Product nails 30x3.15mm	⌚	200x100x1mm	Nail on plate. (fill all holes to within 10mm of the timber edge)
▲	JH47 x 100	Fill all holes with Product nails 30x3.15mm	⌚	320x100x1mm	Nail on plate. (fill all holes to within 10mm of the timber edge)

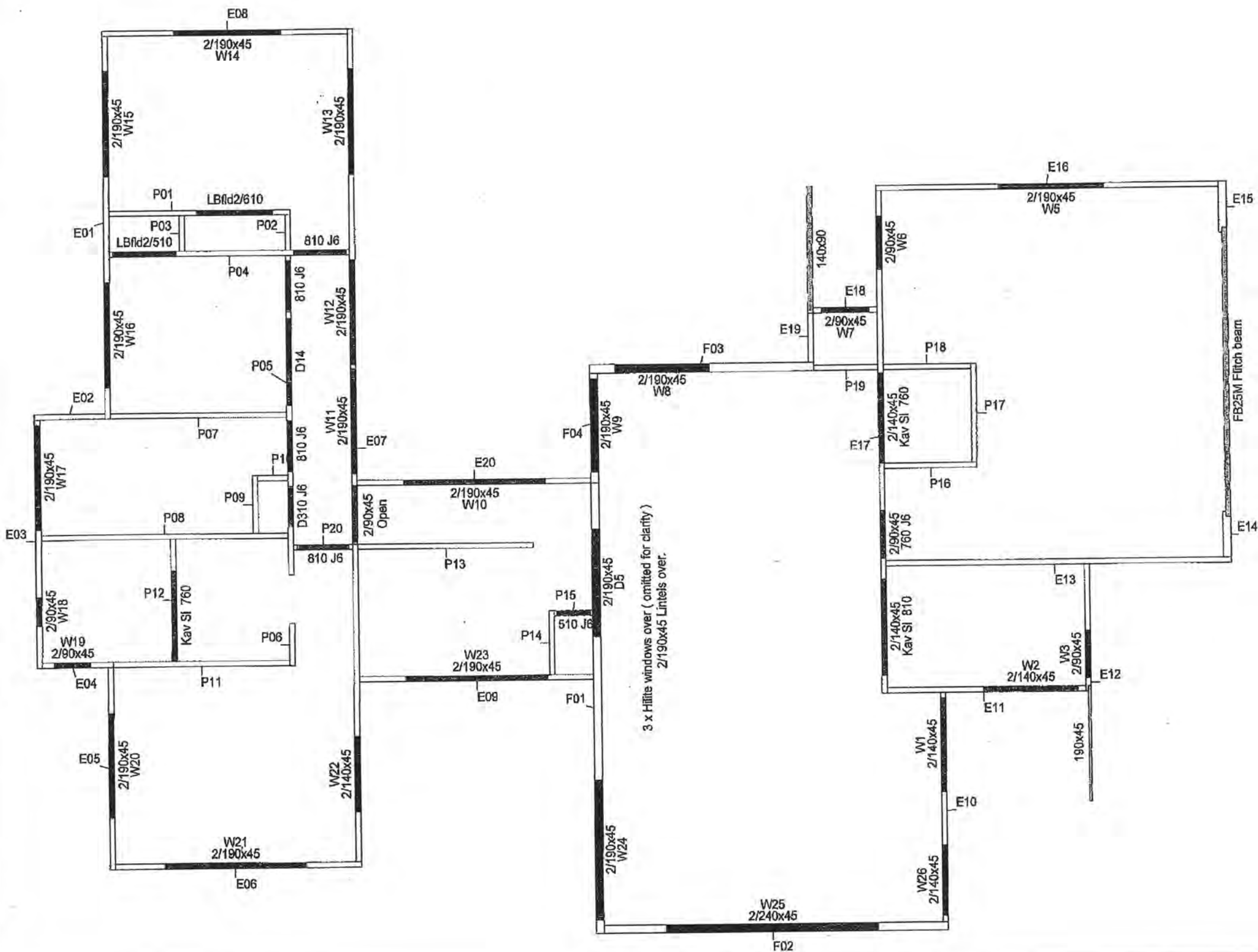
TRUSS LAYOUT FOR : DAVID REID HOMES (ESTHER & PETERSON)
142 HUIA STREET, WAIKANAЕ. JOB # 45443

WELLINGTON FRAME & TRUSS

Drawn by : Matt T aylor
PHONE (04) 298 8567 - FAX (04) 298 5488
E-MAIL: mtaylor@placemakers.co.nz

Version	Issue Date

Company	Placemakers Manufacturing		
Customer	Placemakers Paraparaumu		
Customer Address	11		
Stn	DAVID REID HOMES		
Stn Address	142 HUIA STREET, WAIKANA E		
Ln Type	Std		
Std Height	Varies		
Level	First Floor		
Job	Scale	Date	
45443	1 : 75	23/05/2013	



FACTORY

Design Certificate – Technical basis for structural design methodology contained in designIT for houses – New Zealand.

designIT for houses, New Zealand has been developed by experienced timber engineers to assist designers in selecting appropriate sizes of structural laminated veneer lumber products manufactured by Carter Holt Harvey (including hySPAN, hy90, hyONE and hyJOIST) and other generic stress grades of timber, to be used as structural elements for the construction of buildings that fall within the scope of NZS 3604.

The design methodology used for the software complies with the loading and general design requirements contained within AS/NZS 1170 and with timber structural design in accordance with NZS 3603:1993 including Amendment 4 (Verification method B1/VM1, 6.1).

designIT relies on the accurate input of span and loading information by the user. Where accurate inputs are submitted the product and/or stress grade and the size given will comply with the structural requirements of the New Zealand Building Code, provided the installation is in accordance with the installation requirements provided by designIT and/or in product literature and/or NZS 3604, or specific engineering design, as appropriate.

References:

NZS 3603:1993 Timber Structures Standard. AS/NZS 1170:2002 Structural design actions, Parts 0 and 1.
NZS 3604:2011 Timber-framed buildings. AS/NZS 1170:2011 Structural design actions, Part 2: Wind actions.
AS 1720.1 – 2010 Timber structures. Part 1: Design methods. AS/NZS 1170:2003 Structural design actions, Part 3: Snow and ice actions.
AS 1684.1 – 1999 Residential timber framed construction. Part 1: Design criteria.

This Design Certificate, and any associated warranty/certification, is void where there has been substitution of alternate products not detailed within the Member Specification.

Version date: 22 August 2011

For further information or advice please contact:

Carter Holt Harvey Woodproducts New Zealand
173 Captain Springs Road, Onehunga, Auckland
Telephone 0800 808 131
Facsimile 0800 808 132
Email: designit@chhwoodproducts.co.nz

Specifier details:

Specifier:	AD architecture		
Business name:	AD Architecture		
Address:			
Email:			
Phone: 04 298 5662	Mobile:	Facsimile:	

Project & Site details:

Project:	New House	Ref. no.: 11090
At (address):	142 Huia St Waikanae	
For (owner/s):	Esther and Peterson	
Wind zone:	Very high	
Snow loading	Snow Region: N1, Altitude: 51 m (sub-alpine), Ground snow load, $S_g = 0.0$ kPa	

MEMBER DESIGN DETAILS

Member 1

- 1) Member code and description R1 – Common rafters
- 2) Date prepared 28/01/2013
- 3) Serviceability criteria AS 1720.1-2010 and AS 1684.1-1999
- 4) Design inputs

Span	3.5 m - single
Maximum rafter spacing	600 mm
Roof mass	40 kg/m ²
Lateral restraint condition	Bottom edge restrained by ceiling / ceiling battens at 600 cfs max.
- 5) Member specification

Size, stress grade/product	Use 150 x 45 hySPAN
----------------------------	---------------------

Material type

Structural Laminated Veneer Lumber to AS/NZS 4357

6) Serviceability

Load case	Limit ³ on average deflection ²	Estimated average deflection ²	Rigidity ratio ⁴
Long term load - $G + \psi_L Q^*$	11.7 mm	6.6 mm (long term)	$\frac{11.7}{6.6} = 1.77$

*Critical serviceability load case

See 'Notes for interpretation of serviceability data' at the end of this report

7) Reactions

Load case	Limit states design reaction ^{2,3}	
	k_1^1	End ⁴ kN
1.35G	0.60	-0.7
1.2G + 1.5Q	0.80	-2.4
1.2G + $W_U + \psi_c Q$	1.00	-1.6
0.9G + W_U	1.00	1.4

See 'Notes for interpretation of reaction data' at the end of this report

8) Installation requirements

Minimum bearing - end supports, 30 mm.

Notes for interpretation of serviceability data

- "average deflection" is an engineering concept based upon a notional estimated load, notional member rigidity and, in some cases, an approximate model of material response to environmental conditions. These parameters are, 'standardised' in AS/NZS 1170, AS 1684.1 and AS 1720. Deflections calculated using this methodology cannot therefore be usefully compared with deflections calculated using other methods, eg GLTAA design methodology.
- Deflection is the flexural response to load – 'out-of-level' measurements of installations are not necessarily deflections and can incorporate 'initial out-of-straightness', whether intended or not. Furthermore, loads can be higher/lower than the notional estimate and in any comparison with measured levels, material variability needs to also be considered. AS 1720 gives the following basis for estimation of upper bound deflections for various materials.

No 1 Framing – visually graded to NZS 3631	Average + 100%
SG grades – mechanically graded to AS/NZS 1748	Average + 43%
GL grades for glulam to AS/NZS 1328	Average + 33%
LVL to AS/NZS 4357 (includes hySPAN and hyJOIST)	Average + 18%

As can be seen, comparison of the 'average deflection' for different materials, even if calculated on the same basis, does not give the whole picture!
- The limits referred are those specified in AS 1684.1 for the stated load case.
- 'Rigidity ratio' expresses the rigidity of the specified beam relative to the rigidity of a notional beam just meeting the serviceability requirements of AS 1684.1

Notes for interpretation of reaction data

- Duration of load factor ' k_1 ' for strength as per NZ 3603:1993
- Negative (-) reactions relate to the 'gravity' or 'downwards' force on the support
- Positive reactions relate to the 'upwards' forces or 'tie-down' requirement on the support
- End reaction includes allowance for overhang/cantilever where one has been designed

Bracing Calculation

GIB Ezy Brace Systems 2011

for

PROPOSED HOUSE

Ester & Peterson

142 Huia St

Waikanae

Job Number: 11090

prepared by

A.D

architecture

L T D

Ph: 04 298 5662 Fax: 04 298 5663

info@adarchitecture.co.nz

www.adarchitecture.co.nz

PO Box 1585, Paraparaumu Beach

GIB EzyBrace® 2011 Software



Demand Calculation Sheet

single storey

V06/11

Job Details

Project PROPOSED HOUSE
 Job Number: 11090
 Name Ester & Peterson
 Street and Number 142 Huia St
 City/Town/District Waikanae
 Designer Adarchitecture
 Date 1/08/2011



Select Lining Option

10 or 13 mm GIB® Plasterboard

Building Specification

Number of storeys	single	
Floor Loading	2kPa	
Foundation Type	slab	
	Single Floor	Complete Single Floor Column only
Cladding Weight	light	
Roof Weight	light	
Room in Roof Space	no	
Roof Pitch (degrees)	6 ✓	25
Roof height above eaves (m)	1.6	1.0
Building height to apex (m)	4.2 ✓	
Ground to lower floor level (m)	0.2 ✓	
Stud Height (m)	2.4 ✓	3.0
Building Length (m)	15.7 ✓	2.4
Building Width (m)	21.0 ✓	20.0
Building Plan Area (m2)	193	10.0
		200

Building Location

Wind Zone	Very High ✓	Earthquake Zone	Soil Type
Select by Building Consent Authority Map		3	D&E (deep to very soft)
or Preference	Very High		
Wind Region	Preference selected	Annual exceedance probability	
Lee Zone	Preference selected	1/500 (NZS3604:2011 default)	
Ground Roughness	Preference selected		
Site Exposure	Preference selected		
Topographic Class	Preference selected		

Bracing Units required for Wind

Demand W (BU)		Walls single
along	slab	1169
across	slab	748

Bracing Units required for Earthquake

Demand along / across E (BU)	
	Walls
	single
slab	993

GIB EzyBrace® 2011 Software



SINGLE OR UPPER STOREY WALLS ACROSS

V06/11

[illegible]

					Wind	Earthq.
Totals Achieved	W	198%	EQ	141%	1484	1399
Concrete Slab					OK	OK
Totals Required (from Demand)					748	993

H1 Energy Analysis

Calculation Method

for

PROPOSED HOUSE

Esther & Peterson

142 Huia St

Waikanae

Job Number: 11090

prepared by

A.D

architecture

L T D

Ph: 04 298 5662 Fax: 04 298 5663
info@adarchitecture.co.nz

www.adarchitecture.co.nz
PO Box 1585, Paraparaumu Beach

REFERENCE BUILDING (Non-Solid)				
Component	Description	Area (m ²)	R value (m ² °C/W)	Heat Loss (W/°C)
Roof		146.00	2.90	50.3
Wall		158.56	1.90	83.5
Floor		146.40	1.30	112.6
Glazing (30%)		67.96	0.26	261.4
Glazing (>30%)		0.00	0.31	0.0
Skylights		0.00	0.31	0.0
NOTES:			Total	507.8
Set wall area as either 70% of total wall area or actual wall area, whichever is lower.				
Set glazing area as either 30% of total wall area or actual window area, whichever is higher.				
Total area of glazing (including skylights) must be ≤50% of the total wall area				
An R-value of 0.26 may be used for traditional leadlight glass if the total area is ≤2.6 m ² .				
Non-glazed areas of door openings greater than 3 m ² are treated as wall.				

PROPOSED DESIGN (Non-Solid)				
Component	Description	Area (m ²)	R value (m ² °C/W)	Heat Loss (W/°C)
Roof Type 1		56.80	4.00	14.2
Roof Type 2		13.60	2.70	5.0
Roof Type 3	REFER TO COMPONENT DESCRIPTIONS	75.60	3.67	20.6
Roof Type 4				
Roof Type 5				
Wall Type 1		33.70	2.09	16.1
Wall Type 2		59.15	2.03	29.1
Wall Type 3	REFER TO COMPONENT DESCRIPTIONS	22.65	2.04	11.1
Wall Type 4		43.33	2.38	18.2
Wall Type 5				
Floor Type 1		146.40	1.80	81.3
Floor Type 2				
Floor Type 3	REFER TO COMPONENT DESCRIPTIONS			
Floor Type 4				
Floor Type 5				
Window Type 1		65.77	0.26	253.0
Window Type 2	REFER TO COMPONENT DESCRIPTIONS			
Window Type 3				
Skylight Type 1				
Skylight Type 2	REFER TO COMPONENT DESCRIPTIONS			
Skylight Type 3				
NOTES:			Total	448.7
R-values must be no less than 60% of the R-value of the corresponding Schedule values				
Total area of glazing (including skylights) must be ≤50% of the total wall area				
Non-glazed areas of door openings greater than 3 m ² are treated as wall.				
An R-value of 0.26 may be used for traditional leadlight glass if the total area is ≤2.6 m ²				
Minimum R-Values have to meet requirements given in NZBC VM/H1 Clause 1 - Table 1				

COMPLIANCE CHECK	
Glazing percentage of proposed design	30%
Minimum R-Value requirements	PASS

COMPONENT DESCRIPTIONS

ROOFS							Total
Type	Cladding	Type	Construction	Frame	Spacing	Insul.	R-value
Roof 1	Profiled Metal	Skillion	Rafters and battens	290mm	600mm	R4.0	4
Roof 2	Profiled Metal	Skillion	Rafters and battens	150mm	600mm	R2.6	2.7
Roof 3	Profiled Metal	Truss	Bottom chord and battens	90mm	900mm	R4.0	3.67
Roof 4							
Roof 5							

WALLS							Total
Type	Cladding	Type	Construction	Frame	Stds/dwngs	Insul.	R-value
Wall 1	Ply	Cavity	Timber framed	90mm	400/800mm	R2.6	2.09
Wall 2	Metal	Direct fixed	Timber framed	90mm	400/800mm	R2.6	2.03
Wall 3	10mm GIB - 2 sides	Direct fixed	Timber framed	90mm	600/800mm	R2.6	2.04
Wall 4	Metal	Direct fixed	Timber framed	140	400/800mm	R2.6	2.38
Wall 5							

FLOORS							Total
Type	Flooring	Type	Construction	Frame	Ratio - Crs	Insul.	R-value
Floor 1	Concrete	Slab on ground	Ribraft	90mm	1.88		1.8
Floor 2							
Floor 3							
Floor 4							
Floor 5							

WINDOWS					Total
Type	Framing	Type	Construction	Glazing	R-value
Wdw 1	Aluminium	Vertical	Double glazed	Clear	0.26
Wdw 2					
Wdw 3					

SKYLIGHTS					Total
Type	Framing	Type	Construction	Glazing	R-value
Skyl. 1					
Skyl. 2					
Skyl. 3					

FLOORS

REVIT				MANUAL			
Type Mark	Type	Area (m²)	Perimeter (m)	Type Mark	Type	Area (m²)	Perimeter (m)
				1	conc_ribrast	146.40	81.00
				2			
				3			
REVIT totals		0.00	0.00	MANUAL totals		146.40	81.00

REVIT sub-totals per floor type	Area (m²)	Perimeter (m)	MANUAL sub-totals per floor type	Area (m²)	Perimeter (m)
Floor type 1	0.00	0.00	Floor type 1	146.40	81.00
Floor type 2	0.00	0.00	Floor type 2	0.00	0.00
Floor type 3	0.00	0.00	Floor type 3	0.00	0.00
Floor type 4	0.00	0.00	Floor type 4	0.00	0.00
Floor type 5	0.00	0.00	Floor type 5	0.00	0.00

REVIT and MANUAL totals per floor type	Area (m²)	Perimeter (m)
Floor type 1	146.40	81.00
Floor type 2	0.00	0.00
Floor type 3	0.00	0.00
Floor type 4	0.00	0.00
Floor type 5	0.00	0.00

REVIT and MANUAL totals	Area (m²)	Perimeter (m)
Sum of floors	146.40	81.00

REVIT and MANUAL - Area/Perimeter Ratio	
Floor type 1	1.81
Floor type 2	0.00
Floor type 3	0.00
Floor type 4	0.00
Floor type 5	0.00

WALLS

[illegible]

WALLS

REVIT

MANUAL

WALLS

REVIT sub-totals per wall type	Area (m²)	MANUAL sub-totals per wall type	Area (m²)
Wall type 1	33.70	Wall type 1	0.00
Wall type 2	59.15	Wall type 2	0.00
Wall type 3	22.65	Wall type 3	0.00
Wall type 4	43.33	Wall type 4	0.00
Wall type 5	0.00	Wall type 5	0.00

Total walls (incl. openings)	226.52	Total walls (incl. openings)	0.00
------------------------------	--------	------------------------------	------

Actual walls (excl. openings)	158.83	Actual walls (excl. openings)	0.00
-------------------------------	--------	-------------------------------	------

REVIT and MANUAL totals per wall type	Area (m²)
Wall type 1	33.70
Wall type 2	59.15
Wall type 3	22.65
Wall type 4	43.33
Wall type 5	0.00

Sum of total walls	226.52
--------------------	--------

Sum of actual walls	158.83
---------------------	--------

70% of total walls	158.56
--------------------	--------

30% of total walls	67.96
--------------------	-------

Lower of 70% / actual walls	158.56
-----------------------------	--------

Higher of 30% total walls/actual windows	67.96
--	-------

WINDOWS

[illegible]

WINDOWS	
----------------	--

REVIT	MANUAL
-------	--------

WINDOWS	
----------------	--

REVIT sub-totals per window type	Area (m²)	MANUAL sub-totals per window type	Area (m²)
Window type 1	65.77	Window type 1	0.00
Window type 2	0.00	Window type 2	0.00
Window type 3	0.00	Window type 3	0.00

REVIT sub-totals	67.69	MANUAL sub-totals	0.00
------------------	-------	-------------------	------

REVIT and MANUAL totals	Area (m²)	MANUAL windows per wall type	Area (m²)
Window type 1	65.77	Wall type 1	0.00
Window type 2	0.00	Wall type 2	0.00
Window type 3	0.00	Wall type 3	0.00
		Wall type 4	0.00
		Wall type 5	0.00
Total window area	67.69		

Window area over 30%	0.00
----------------------	------

Total windows minus 30% walls	-0.27
-------------------------------	-------

Window to wall ratio	30%
----------------------	-----

[illegible]

ROOF sub-totals per roof type	Area (m²)
Roof type 1	56.80
Roof type 2	13.60
Roof type 3	75.60
Roof type 4	0.00
Roof type 5	0.00

ROOF totals	Area (m²)
Sum of roof areas	146.00

Risk Matrix Calculation

to E2/AS1 Building Envelope Risk Matrix

for

PROPOSED HOUSE

Esther and Peterson

142 Huia St

Waikanae

Job Number: 11090

prepared by

A.D

architecture

L T D

Ph: 04 298 5662 Fax: 04 298 5663
info@adarchitecture.co.nz

www.adarchitecture.co.nz
PO Box 1585, Paraparaumu Beach

PROPOSED HOUSE

Job Number: 11090

Esther and Peterson

Wind Zone

142 Huia St

Waikanae

Very High

Face of building as per Risk-Key

1,5a,9,14,15,17

Risk Factor	Severity	Score
Wind Zone	Very High	2
Number of storeys	Low	0
Roof/wall intersection design	Low	0
Eaves width	High	2
Envelope complexity	Low	0
Deck design	Low	0
Total risk score		4

Face of building as per Risk-Key

2,20

Risk Factor	Severity	Score
Wind Zone	Very High	2
Number of storeys	Low	0
Roof/wall intersection design	Low	0
Eaves width	Low	0
Envelope complexity	Low	0
Deck design	Low	0
Total risk score		2

Face of building as per Risk-Key

3,23

Risk Factor	Severity	Score
Wind Zone	Very High	2
Number of storeys	Low	0
Roof/wall intersection design	Very High	5
Eaves width	High	2
Envelope complexity	Low	0
Deck design	Low	0
Total risk score		9

Face of building as per Risk-Key

4,7,11,18,22

Risk Factor	Severity	Score
Wind Zone	Very High	2
Number of storeys	Low	0
Roof/wall intersection design	Low	0
Eaves width	High	2
Envelope complexity	Low	0
Deck design	Low	0
Total risk score		4

Face of building as per Risk-Key

21

Risk Factor	Severity	Score
Wind Zone	Very High	2
Number of storeys	Low	0
Roof/wall intersection design	Very High	5
Eaves width	Medium	1
Envelope complexity	Low	0
Deck design	Low	0
Total risk score		8

Face of building as per Risk-Key

5, 6, 8, 10, 12, 13, 16

Risk Factor	Severity	Score
Wind Zone	Very High	2
Number of storeys	Low	0
Roof/wall intersection design	Low	0
Eaves width	High	2
Envelope complexity	Low	0
Deck design	Low	0
Total risk score		4

Face of building as per Risk-Key

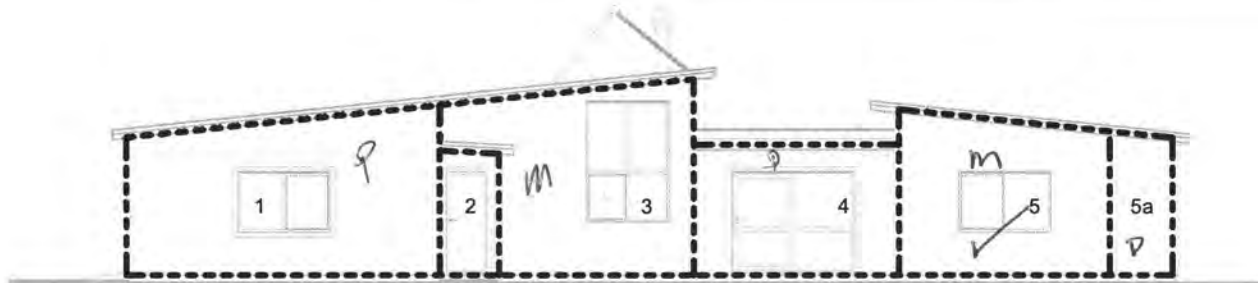
19

Risk Factor	Severity	Score
Wind Zone	Very High	2
Number of storeys	Low	0
Roof/wall intersection design	Very High	5
Eaves width	Medium	1
Envelope complexity	Low	0
Deck design	Low	0
Total risk score		8

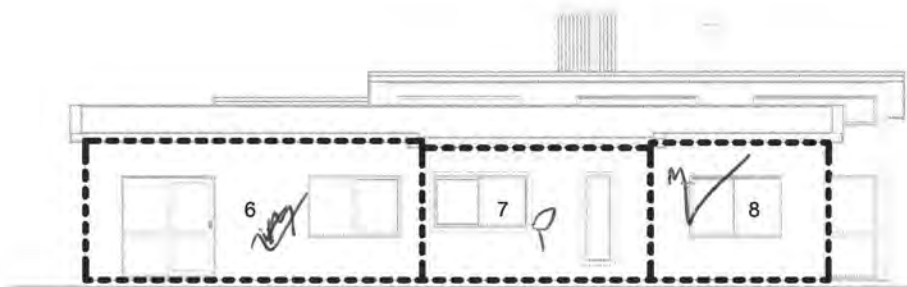
Face of building as per Risk-Key

NOT IN USE

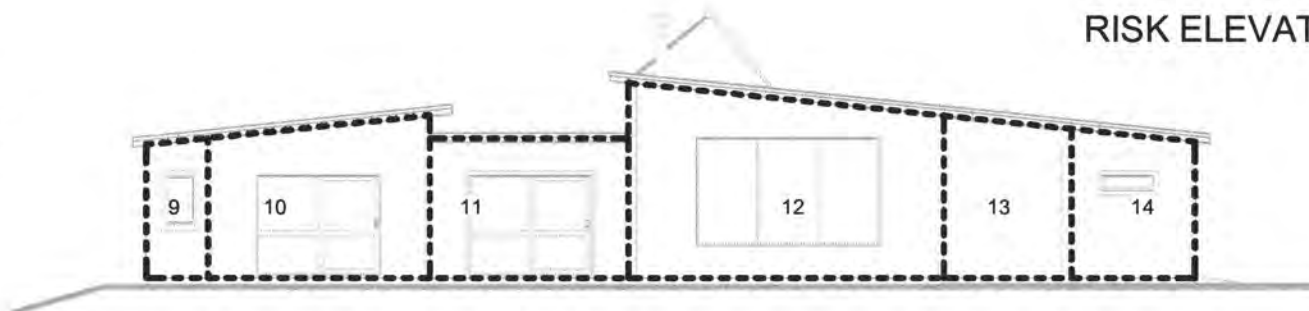
Risk Factor	Severity	Score
Wind Zone	Very High	2
Number of storeys	Low	0
Roof/wall intersection design	Low	0
Eaves width	Low	0
Envelope complexity	Low	0
Deck design	Low	0
Total risk score		2



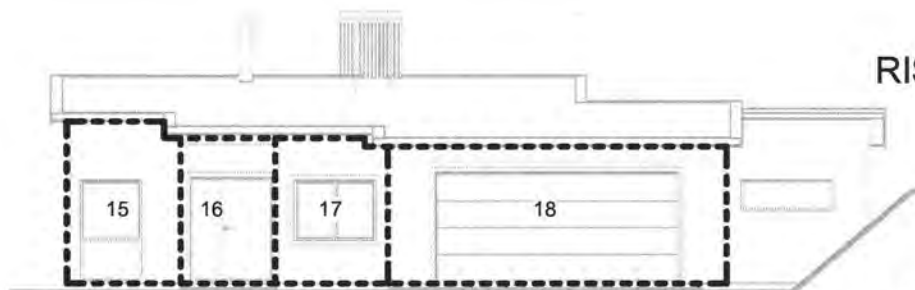
RISK ELEVATION 1



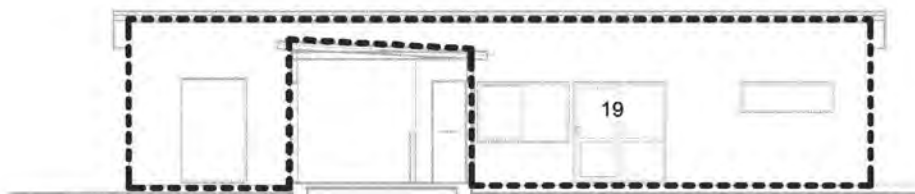
RISK ELEVATION 2



RISK ELEVATION 3

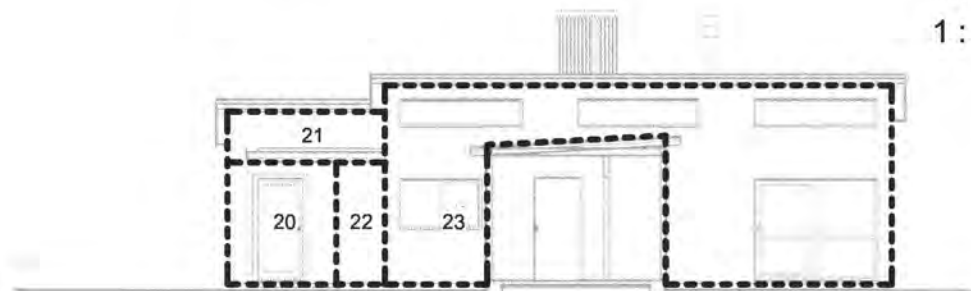


RISK ELEVATION 4



RISK ELEVATION 5

1 : 150



RISK ELEVATION 6

1 : 150

Suitable Wall Claddings

to E2 / AS1 Building Envelope Risk Matrix

Face as per Risk-Key	Score	Cavity	Actual claddings
1,5a,9,14,15,17	4	Yes	PLY AND BATTENS
2,20	2	Yes	PLY AND BATTENS
3,23	9	No	VERTICAL PROFILED METAL
4,7,11,18,22	4	Yes	PLY AND BATTENS
21	8	Yes	PLY AND BATTENS
5, 6, 8, 10, 12, 13, 16	4	No	VERTICAL PROFILED METAL
19	8	No	VERTICAL PROFILED METAL

Risk Score	Suitable Wall Claddings as per E2/AS1 - Table 3	
	Direct fixed to framing	Over nominal 20mm drained cavity
		Claddings on parapets, enclosed balustrades, and in Extra High wind zones shall be installed over drained cavity (5)(6)
0 – 6	a) Timber weatherboards – all types b) Fibre cement weatherboards c) Vertical profiled metal (3) – corrugated and symmetrical trapezoidal d) Fibre cement sheet (4) (Jointed finish) e) Plywood sheet	a) Masonry veneer (2) b) Stucco c) Horizontal profiled metal (3) – corrugated and trapezoidal only d) Fibre cement sheet (Flush-finished) e) EIFS
7 – 12	a) Bevel-back timber weatherboards b) Vertical timber board and batten c) Vertical profiled metal (3)(6) – corrugated only	a) Masonry veneer (2) b) Stucco c) Horizontal profiled metal – corrugated and trapezoidal only d) Rusticated weatherboards e) Fibre cement weatherboards f) Fibre cement sheet (Flush and jointed finish) g) Plywood sheet h) EIFS
13 – 20	a) Vertical profiled metal (3)(6) – corrugated only	a) Masonry veneer (2) b) Stucco c) Horizontal profiled metal – corrugated and trapezoidal only d) Rusticated weatherboards e) Fibre cement weatherboards f) Fibre cement sheet (Flush and jointed finish) g) Plywood sheet h) EIFS i) Bevel-back weatherboards
Over 20	a) Redesign the building to achieve a lower score, or b) Specific design – The design may need changing to reduce the risk – The building consent authority may require more comprehensive details and documentation providing evidence of weathertightness – The building consent authority, designer or owner may require more inspections – A third party audit of the design may be required.	

NOTES:

- (1) The wall claddings in this table are limited to those covered in this Acceptable Solution.
- (2) Traditional masonry veneer as per SNZ HB 4236, with minimum 40 mm cavity.
- (3) Refer Figure 38 for profiles.
- (4) Except stucco over a fibre cement backing.
- (5) Claddings in Extra High wind zones require rigid underlays - Refer to Paragraph 9.1.7.2
- (6) Direct fix vertical corrugated steel is included as cavity construction

Definitions of risk levels as per E2/AS1 - Table 1

Risk Factor	Score (5)	Risk Severity	Comments
A: Wind zone	0	Low risk	Low wind zone as described by NZS 3604
	0	Medium risk	Medium wind zone as described by NZS 3604
	1	High risk	High wind zone as described by NZS 3604
	2	Very high risk	Very high wind zone as described by NZS 3604
	2	Extra high risk	Extra high wind zone as described by NZS 3604 (4)
B: Number of storeys	0	Low risk	One storey
	1	Medium risk	Two storeys in part
	2	High risk	Two storeys
	4	Very high risk	More than two storeys
C: Roof/wall intersection	0	Low risk	Roof-to-wall intersection fully protected (e.g. hip and design gable roof with eaves)
	1	Medium risk	Roof-to-wall intersection partly exposed (e.g. hip and gable roof with no eaves)
	3	High risk	Roof-to-wall intersection fully exposed (e.g. parapets, enclosed balustrades or eaves at greater than 90° to vertical with soffit lining)
	5	Very high risk	Roof elements finishing within the boundaries formed by the exterior walls (e.g. lower ends of aprons, chimneys, dormers etc)
D: Eaves width (1)(2)	0	Low risk	Greater than 600 mm for single storey
	1	Medium risk	451 – 600 mm for single storey, or over 600 mm for two storey
	2	High risk	101 – 450 mm for single storey, or 451 – 600 mm for two storey, or greater than 600 mm above two storey
	5	Very high risk	0 – 100 mm for single storey, or 0 – 450 mm for two storey, or less than 600 mm above two storey
E: Envelope complexity	0	Low risk	Simple rectangular, L, T or boomerang shape, with single cladding type
	1	Medium risk	Moderately complex, angular or curved shapes (e.g. Y or arrowhead) with no more than two cladding types
	3	High risk	Complex, angular or curved shapes (e.g. Y or arrowhead) with multiple cladding types
	6	Very high risk	As for High risk, but with junctions not covered in C or F of this table (e.g. box windows, pergolas, multi-storey re-entrant shapes etc)
F: Deck design (3)	0	Low risk	None, timber slat deck or porch at ground floor level
	2	Medium risk	Fully covered in plan by roof, or timber slat deck attached at first or second floor level
	4	High risk	Enclosed deck exposed in plan or cantilevered at first floor level
	6	Very high risk	Enclosed deck exposed in plan or cantilevered at second floor level or above

NOTES:

- (1) Eaves width measured horizontally from external face of wall cladding to outer edge of overhang, including gutters and fascias.
- (2) Balustrades and parapets count as 0 mm eaves.
- (3) The term deck includes balconies, as described in the Definitions.
- (4) For buildings in Extra High wind zones, refer to Table 3 for rigid underlay and drained cavity requirements.
- (5) Refer also to Table 2