

Code Compliance Certificate

Section 43(3), Building Act 1991

Application

Application		
PAUL ENGLAND BUILDERS LTD	No.	990785
5 TAUPO CRESCENT	Issue date	25/11/99
PLIMMERTON		
	Overseer	Don Blaikie

New Construction	
Being Stage 1 of an intended 1 Stages	
NEW DWELLING	
Indefinite, but not less than 50 years	
RESIDENTIAL	
\$175,000	
11 HARRY SHAW WAY, PARAPARAUMU	
LOT 6 DP	
	Being Stage 1 of an intended 1 Stages NEW DWELLING Indefinite, but not less than 50 years RESIDENTIAL \$175,000 11 HARRY SHAW WAY, PARAPARAUMU

This is a final Code Compliance Certificate issued in respect of all the building work under the above building consent.

Signed for and on behalf of the Kapiti Coast District Council:

FOR COUNCIL USE:

						The state of the s	-
1	DEPARTMENT	REQUIREMEN			COMMENTS	CHECKED/DATESTAMP	1
	Town Planning		Yes	No		18/	
		Zoning				10 = leles aux 9	
		Confirms				TO SO SO THE SO	
		Dispensation		130000		a //////	
		Planning Consent					
4		Special Floor				MANAGER PLANNING	
		Level				101	
	Plumbing					Coast District	3
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0					KAPITI	COACT	.00000
					PLANS	APPENDISTRICT OF	-
			3116		AND DE	AINIA PILIMOUND	IL
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	Stormwater	To Channel	1	/		6/99 OFFICER:	
	Diominator .						
		To Drain				- coh	
		Confined to Lot				Consent may	
	D. 111:					(4)	
	Building				16	2/	
					APPO	P9-6-99 88	
					A	1100	
						1 hll	
						Officer	
	Structural	Specific Design				Softi Cosst District Con	
		Foundation				Control	
						OGS DISTILO	
		Structure					
		Roof		Ne La			
	Subdivisional Engineer						
	Subdivisional Engineer						
		Earthworks Byl	aw				
		Conditions					
	Environmental Health						
	Site- Foopath & Entrance	Conditions			Ground	100	
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		September 1			OTES:		
				V	OTES:		



APPLICATION FOR BUILDING CONSENT

Section 33, Building Act 1991

To: Kapiti Coast District Council [Cross each applicable box and attach relevant documents in duplicate]

CONSENT NO

990785

ANTICIPATED COMMENCEMENT DATE

PART A: GENERAL

(Complete Part A and B in all cases - Refer over for Parts C-E, sign and date)

APPLICANT (O	WNER*)	PROJECT			
Name: PAUL GOG MANS	Builders 90			Cross One	
Mailing address: 5		New or reloca	ated Building	X	
Phimmerre	0~	Alterations or	additions		
Contact [Print Name and position	on]:	Accessory Bu	ilding or Fire		
PANE ENGLAND	(BUILDER)	Building Dem	nolition or Removal		
Phone: 025 466-915 Fax	x	Being stage _	of an intended stag	ges.	
*Under section 33 of the Buildi applicant must be the owner of		Estimated val	ue (inclusive of GST): \$_\\75	1000.	
building work is contemplated of		Intended use,	eg Dwelling, Carport, Garage, et	С	
which has agreed in writing, wh	ether conditionally or		lig		
unconditionally, to purchase the estate or interest in the land, or		Intended life:	(of building)		
land, while the agreement remain			but not less than 50 years	K	
		Specified	as years		
FOR COUNC	IL USE		PROJECT LOCATION		
Received: 15/6/99					
Application fee: \$700.0	00	Street address (if any) 6 hippy			
Receipt No: 775996		Show WAY (1)			
	gland Builde	Legal descrip	tion (as shown on certificate of ti	tle or	
1 . 1 1	V ai	rates notice, i	fany): Lot		
Westpa	c Chq.	DP 54	D 843.		
NOTE: BALANCE OF FEES AR	F DAVARI F ON	Valuation No.			
CONSENT APPROVAL	ETATABLEON				
This Application is for:					
☐ Building Consent only, in	n accordance with		uilding consent and a project info	ormation	
project information			randum		
PLEASE NOTE The information provided in	CONFIDENTIAL Plans and Specifications	LITY	SIZE OF BUILDING		
support of this application is	Trans and Specifications		SAEZ OF BOLDEN VO		
public and as such is freely	1. I/We require that	my//our:	Floor area m ²	12 W2	
available on request. However under Section 27(3) of the	2. □ plans3. □ specifications		No of stories	(111111	
Building Act 1991 you may for	be treated as confidenti	al in order to	No of stories	1	
security and/or copyright reasons request the plans and	protect:		No of Units		
specifications pertaining to this	4. □ the security of the l5. □ copyright	ouilding		1.	
application be marked as	J. La copyright				
confidential by completing the	Signed:				

PART B: BUILDING DETAILS

Complete Part B in all cases)

This application is accompanied by (cross each applicable box, attach relevant documents in duplicate):
The drawings, specifications and other documents according to which the building is proposed to be
constructed to comply with the provisions of the building code, with supporting documents, if any, including:
☐ Building certificates
☐ Producer statements
☐ References to accreditation certificates issued by the Building Industry Authority
References to determinations issued by the Building Industry Authority
Proposed procedures, if any, for inspection during construction
PART C : PROJECT DETAILS
(Complete Part C only if you have not applied separately for a project information memorandum)
(Complete Furi & only if you have not applied department up of early applied and applied appli
Location, in relation to legal boundaries, and external dimensions of new, relocated, or altered buildings
New provisions to be made for vehicular access, including parking
Provisions to be made in building over or adjacent to any road or public place
New provisions to be made for disposing of stormwater and wastewater
Precautions to be taken where building work is to take place over existing drains or sewers or in close
proximity to wells or watermains
New connections to public utilities
Provisions to be made in any demolition work for the protection of the public, suppression of dust, disposal of debris, disconnection from public utilities and suppression of noise
Any cultural heritage significance of the building or building site, including whether it is on a marae
PART D : KEY PERSONNEL
(Complete Part D as far as possible in all cases. Give names, addresses and telephone numbers. Give relevant
registration numbers if known)
Designer(s): Resign Network. 301 Hapin Pd. (04) 2982129
Building Certifier(s):
Building Contine (3).
Dan Zinger Danger in E Trush Car
Builder/s Paul Examo Builders no 5 Tompo Cros
Phimelen 04 2389 201 025 466-415.
Primeter of 2389 201 025 466-915. Registered Drainlaver: P.G. Politikan REG NO:
Registered Drainlayer: P. G. Polysson REG NO: Craftsman Plumber: P. G. Polysson REG NO:
Registered Drainlayer: P. G. Pobinson REG NO: Craftsman Plumber: P. G. Pobinson REG NO:
Primeter of 2389 201 025 466-915. Registered Drainlaver: P.G. Politikan REG NO:
Registered Drainlayer: P. G. Pobinson REG NO: Craftsman Plumber: P. G. Pobinson REG NO:
Registered Drainlayer: P. G. Pobinson REG NO: Craftsman Plumber: P. G. Pobinson REG NO: Other: Stores Clectrical.
Registered Drainlayer: P. G. Poblisson REG NO: Craftsman Plumber: P. G. Poblisson REG NO: Other: Stocks Cleacher Col. PART E: COMPLIANCE SCHEDULE DETAILS
Registered Drainlayer: P. G. Poblisson REG NO: Craftsman Plumber: P. G. Poblisson REG NO: Other: Stock Clearly Coll. PART E: COMPLIANCE SCHEDULE DETAILS E1: Systems Necessitating a Compliance Schedule
Registered Drainlayer: P. G. Pobinson REG NO: Craftsman Plumber: Other: PART E: COMPLIANCE SCHEDULE DETAILS E1: Systems Necessitating a Compliance Schedule (Complete Part e1 for all new buildings and alterations, except single residential dwellings)
Registered Drainlayer: P. G. Poblisson REG NO: Craftsman Plumber: P. G. Poblisson REG NO: Other: Stock Clearly Coll. PART E: COMPLIANCE SCHEDULE DETAILS E1: Systems Necessitating a Compliance Schedule
Registered Drainlayer: Craftsman Plumber: P. C. Poblisson REG NO: Craftsman Plumber: P. C. Poblisson REG NO: Other: Stocks Cleartha Cal Other: Stocks Cleartha Cal PART E: COMPLIANCE SCHEDULE DETAILS E1: Systems Necessitating a Compliance Schedule (Complete Part e1 for all new buildings and alterations, except single residential dwellings) The building will contain the following (Cross each applicable box and attach proposed inspection,
Registered Drainlayer: P.G. Poblisson REG NO: Craftsman Plumber: P.G. Poblisson REG NO: Other: Stocks Clechaical. PART E: COMPLIANCE SCHEDULE DETAILS E1: Systems Necessitating a Compliance Schedule (Complete Part e1 for all new buildings and alterations, except single residential dwellings) The building will contain the following (Cross each applicable box and attach proposed inspection, maintenance, and reporting procedures):
Registered Drainlayer: P. G. Poblished REG NO:
Registered Drainlayer: Part E : Compliance Schedule
Registered Drainlayer: P. C. Poblisson REG NO:
Registered Drainlayer: Casteria Reg No:
Registered Drainlayer: Calcabase REG NO:

Received with thanks by 46/01 KAPITI COAST DISTRICT COUNCIL	eived with thanks by 47/01 ITI COAST DISTRICT COUNCIL				
12-07-99 9:32 Receipt no.778947	06-99 10:52 Receipt no.775996				
COPY *COPY* *COPY* DR BC990785 ENGLAND BUILDERS LTD 1,455.25- PAUL ENGLAND BUILDERS LTD::5 TAUPO CRES CQ W PAUL ENGLAND BUILDER 1,455.25	PY* *COPY* *COPY* BC990785 LENGLAND BUILDER 700.00- LENGLAND BUILDERS::5 TAUPO CRESCENT W PAUL ENGLAND BUILDER 700.00				

interes	The District reisons Commany	Wellale Act	191
	Handheld hoses for firefighting		

Such signs as are required by the building code or Section 25 of the Disabled Persons Community Welfare Act 1975

Signed for and on behalf of the Applicant:

Name:	Toler Pau	ENE AND.
Position:	BUILDER	Date: 151 6 1 99

FOR OFFICE USE ONLY APPLICATION DEPOSIT FEES 51144-Building DATE 15.6.9 RECEIPT NO Sewer Connection 775996 Water Connection INVOICE NO DATE..... Vehicle Crossing \$ 700.00 1.7.99 35520 Damage Deposit DATE 2 7 99 RECEIPT NO Structural Checking s175-Building Research Levy 778947 FEES PAID BY: Development Levy S113.75 BIA Levy Compliance Schedule \$22.5C BUILDING CONSENT DATE ISSUED Digital Storage Fee NUMBER Certificate of Title Change 12.7,99 990785 Photocopying \$2,155.25 AUTHORISATION FOR REFUND OF DEPOSITS SUBTOTAL \$ 700-5700-Deposit held = Less Deposit Paid Cost to Repair Damage Caused During TOTAL \$1,455-25 Construction = S. Nec Total Balance to be Refunded **GST INCLUDED** \$ 700-Authority Number: 4268 Authorised: DATE:



Building Consent

Section 35, Building Act 1991

Application

PAUL ENGLAND BUILDERS LTD

5 TAUPO CRESCENT

PLIMMERTON

Application date
Overseer

Overseer

PO0785

12/07/99

23/06/99

Don Blaikie

Project

Description NEW CONSTRUCTION

BEING STAGE 1 OF AN INTENDED 1 STAGES

NEW DWELLING

Intended Life

INDEFINITE, BUT NOT LESS THAN 50 YEARS

Intended Use

RESIDENTIAL

Estimated Value

\$175,000

Location

11 HARRY SHAW WAY, PARAPARAUMU

Legal Description

LOT 6 DP

\$

Valuation No.

Charges

The Council's charges paid on uplifting this Building Consent, in accordance with the

attached details are:

1,866.50

Building Research Levy

175.00 **1**13.75

Building Industry Authority Levy Total

\$ 113.75 \$ 2,155.25

This building consent is a consent under the Building Act 1991 to undertake building work in accordance with the attached plans and specifications so as to comply with the provisions of the building code. It is not a consent under the Resource Management Act and does not affect any duty or responsibility under any other Act nor permit any breach of any other Act.

Signed for and on behalf of the Council:

Name:

Lee

Date:

12.7.99

Addenda to Application

Application

PAUL ENGLAND BUILDERS LTD

No.

990785

5 TAUPO CRESCENT PLIMMERTON

Project

Description NEW CONSTRUCTION

BEING STAGE 1 OF AN INTENDED 1 STAGES

NEW DWELLING

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Intended Use

RESIDENTIAL

Estimated Value

\$175,000

Location

11 HARRY SHAW WAY, PARAPARAUMU

Legal Description

Valuation No.

LOT 6 DP

Builder:

PAUL ENGLAND BUILDERS LTD 5 TAUPO

CRESCENT, PLIMMERTON

General Requirements

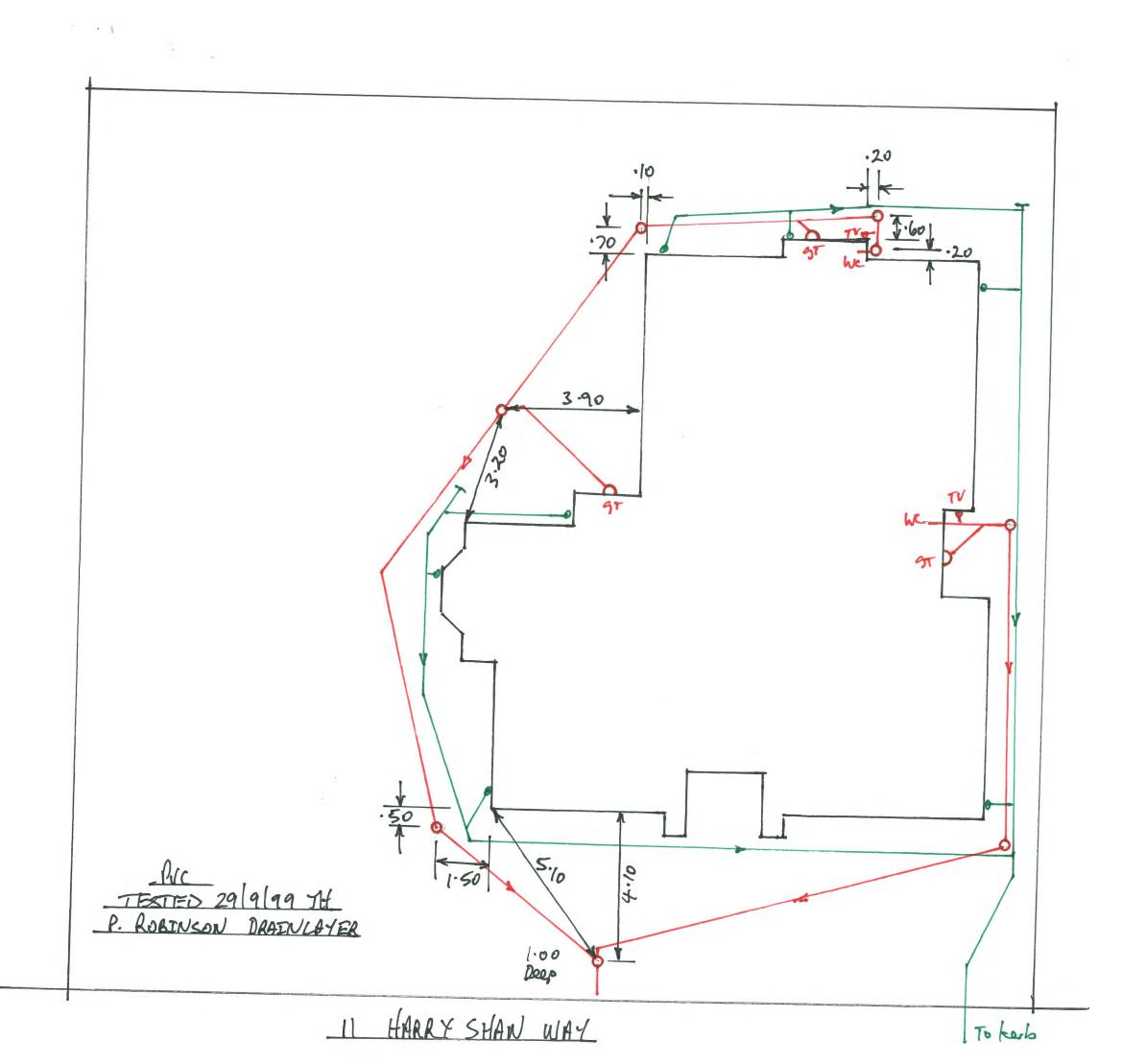
- a) The District Inspector is to be given 24 hours' notice before carrying out the following inspections:
- 1. INITIAL INSPECTION PREVIOUSLY COMPLETED
- 2. FOUNDATION INSPECTION
- 3. PRE-CONCRETE SLAB INSPECTION OF PLUMBING
- 4. PRE-SLAB INSPECTION, CONCRETE FLOOR
- 5. PRELINING INSPECTION, MOISTURE TEST, CHECK BRACING
- 6. PRELINING INSPECTION OF PLUMBING
- 7. POST-LINING INSPECTION, LININGS, FIXED AS PER BRACE DESIGN
- 8. WATER TEST ON SEWER DRAINS
- 9. FINAL INSPECTION BUILDING
- 10. FINAL INSPECTION OF PLUMBING
- 11. FINAL INSPECTION GULLIES, ETC
- 12. FINAL INSPECTION STORMWATER
- b) To arrange for any of the above required inspections by the District Inspector, please contact the building inspectorate on (04) 298 5139 between the hours of 8.00am and 4.30pm.

- 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 6 calendar months after the date of issue. Or within such further period as the territorial authority allows.
- 2. All foundations are to be to solid bearing minimum of 300mm
- 3. Work to comply with NZS3604-1990.
- 4. Metal head flashings required over all exterior joinery.
- 5. Note and comply with endorsements on approved plans.
- 6. Minimum heights of finished concrete slab-on-ground floors above adjoining finished ground level to comply with Fig E 1 NZS 3604 1990.
- 7. Provide from your Contractor a roof warranty covering the product and its installation.
- 8. Provide Texture Coating Warranty from your licensed coating applicator.
- 9. Comply with endorsements on approved plans re wall bracing design. Braces must meet minimum units for both wind and EARTHQUAKE and distribution as per NZS.3604:1990.
- 10. The cavity sliding door between Dining/Living Room cannot work as drawn. External wall framing cannot accommodate cavity sliders.

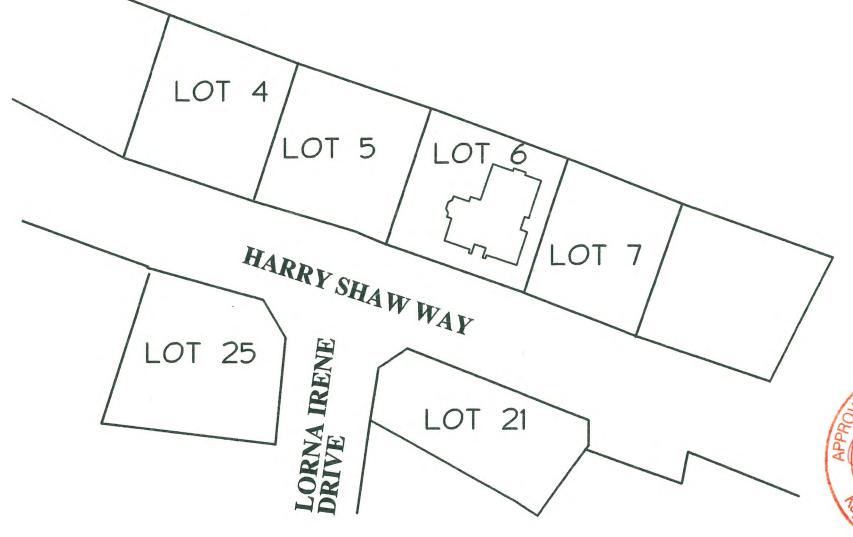
I have read the foregoing requirements, and the Owner/Builder/Authorised Person hereby agrees to comply with them.

OWNER/BUILDER/ AUTHORISED PERSON Blood

Date: 12/7/99



PROPOSED DWELLING FOR MR AND MRS VENNER LOT 6 HARRY SHAW WAY RAUMATI SOUTH



COUNCIL COPY

ARCHITECTURAL DESIGNERS

301 KAPITI ROAD, PO BOX 1616 PARAPARAUMU. TELEPHONE 04 2982129 FACSIMILE 04 2982192 EMAIL desnet@kapiti.co.n.z

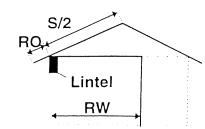
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Wall Bracing Calculation Sheet	A	i		Wall	Bracing	Calcu	alions	ineet E				
Job Details	box 1			Along								
Name Verner Hoose	· · · · · · · · · · · · · · · · · · ·				all or ing Line	Br	acing Elem Provided		V	Vind	Earl	Ihquake
Street and Number				1	2	3	4	5	6 W	7 W	6 E	7 E
Location of Storey: single/upper of two/lo	wer of two	1		Line Label	Minimum BUs Required	Bracing Element No.	Bracing Type	Length Element (m)	Rating BU/m W	BUs Achieved (BU/m × L) W	Rating BU/m	
Building height to apex 4.5 m	Roof weight Got/heavy	1			78	AL	BR4	0.9	100	90		
Roof height above eaves 2.2 in	Cladding weight (ght/heavy			. A	,	21	Cilal	2.4	75	1817		
Stud height Average roof pitch Building length BL = 1665 m	Room in roof space y/6			В	70	B2	1324 1324	2.4	75	138		
Building width BW = 15.1 Note: When the average roof pitch is over 25 de BL and BW.	Plan Area, $GPA = \frac{17}{2} \text{m}2$ grees, use the eaves length and width to determine		C)	С	70	02	4152	2.4	80	192		
Note: For heavy roofs use the roof plan at eaves	level to determine GPA.			D	20.	PI	Cab 2	2.4	SW	192		
Wind Zone	box 2			Е	166	EI E2	BRA	1.2	115	138		
Region: Terrain: Exposure: R1 0 Inland 0 Sheltered 0_	Topography: Gentle 0	-				Totals A	chieved		W	1340	E	
R2 1 Coastal 1 Exposed 1	Moderate 1			From Sh	naat A	Totals R			W	1131	E	814
Total points	Extreme 3			Wreq/E		1.59	·			1177		10,4
Wind zone: Low (0) Very	r high (3) cific Design (4)		0		,			If Wreq/E	Ereq is 1.5 o	less compler fr more con both W and	plete W c	
High (2)		1	•	Across	all or	Bra	acing Eleme	ents	144	ind	Fadh	nquake
				Bracin	ing Line	3	Provided	5	6 W	7 W	6 E	7 E
Earthquake zone From figure EQ1 select Earthquake Zone:	(A) B C	1		Line Label	Minimum BUs	Bracing Element	Bracing Type	Length Element	Rating	BUs Achieved	Rating	BUs Achieved
Ula required Wind	Dila manifest Carthaualia		0		Required	No.		(m) L	W	(BU/m x L) W	Е	(BU/m x L) E
SUs required Wind box 4 From Table W1A/W1B	BUs required Earthquake box 5 From Table EQ1				145	MI	Gibi	2.4	75	180		
W along = 28 BUs/m	E = 4 6 BUs/m2	•		М	70	N	Cribit	2.4	80	192		
Wacross 28 BUs/m	Note: For a room in the roof space use E+1 Total earthquake load,			N	10	01	9552	2.4	80	192.		
Total wind load, W ALONG:	EQ ALONG and EQ ACROSS:				70	01	CP4_	0.6	93	58.		
W ALONG: W along x BW = BUS W ACROSS	E x GPA BUS = \$14 BUS			0	'	<u> </u>	110	2 (1	22	100		
Wachoss \times BL = 1299 BUs	814	-		Р	70	PZ	Crist Crist	2.4	\$3	192		
	Consent may	100		Q	92	a 2	BR5_ BR4_	0.9	115	218.		
	ON DATE	Sul				Totals Ac	hieved		W	132	Ε	
				From Sh Wreq/Ero		Totals Re	quired		W	1299	E	814
	Officer	1-	()		- 1							



Lintel and Beam Guide - Work Sheet 1a

Job Title: Venner House	Date:
Lintel Description: Carace down listel.	By:

Single or Upper Storey Lintel



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#

1. Enter the following dimensions:

Roof Dimension	S	m
Root Dimension	5	m

Overhang RO 0-3m

Room Width RW 6-0 m

2. Circle the material and enter the clear span of the lintel:

Timber / Glulam / Steel

Span **L** 4.8m

7

7

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7

 \exists

 \exists

7

57.45 E

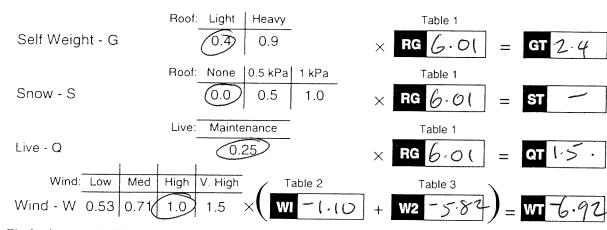
4

7

7

1

3. Circle the applicable loads then multiply them by the geometry factors obtained from Tables 1 to 3 of Part 3 to give the loads GT, ST, QT and WT applied to the lintel.



4. Circle the material duration factor on the left and multiply it by the gravity load (GT) from step 3 to calculate the Service Load (SL).

$$\times$$
 GT 2.4 = SL 2.4

5. Circle the material duration factors on the left then use them and the loads from step 3 to calculate loads U1 to U4 and the Ultimate Load (UL).

Timber Glulam Steel		
1.67 1.67 1.0	× 1.4× GT 2.4	= 11 3 36
$1.25 \mid 1.25 \mid 1.0 \times (1.2 \times)$	GT 2-7 + 1.6 × QT 1.5) = U2 5.28
$1.25 \mid 1.25 \mid 1.0 \times (1.2 \times 1.0)$	GT 2.7 + 1.2 × ST /) = us 2.88
0.6 ×	GT 2.4. + WT 6.92	= 45-48
Ultimate Load (UL) = Greatest val	lue from boxes U1 to U4	= UL 5-48



BRANZ Guide to Lintels and Beams

Lintel and Beam Guide - Work Sheet 1b

Job Title:	Date:
Lintel Description:	Ву:

6. Select a lintel from Part 4 which has resistance values SR and UR which are greater than those given in boxes SL and UL respectively. Enter the section and its resistance:

Section 180 UTS 22 SR 6.32 UR 14.91

7. Circle the roof weight factor and use it to calculate the uplift Reaction Force (RF) for the lintel. If RF is greater than 8.0 kN, additional fixings are required for the lintel.

$$\left(\begin{array}{c|c}
 & \text{Light} & \text{Heavy} \\
\hline
0.54 & 0.72 & + 0.49 \times L + 5 \end{array}\right) \times \text{U4} = \text{RF } 12 \cdot 34$$

Refer to Section 3.6, page 1.4 for end seating and fixing requirements.

3

2

BUILDER TO ENSURE THAT PROPOSED FOUNDATION HEIGHT WILL ALLOW A SATISFACTORY DRAINAGE CONNECTION TO THE SEWER MAIN.

Lot 6

4500

ss main

26.50m

6635qm

25.0lm 17° 09' 30"

BC 990 785 KAPITI COAST DISTRICT COUNCIL!
PLANS APPROVED PLUMBING
AND DRAINAGE
CONSENT MAY BE ISSUED.

80mm dia pvc stormwater

COUNCIL COPY



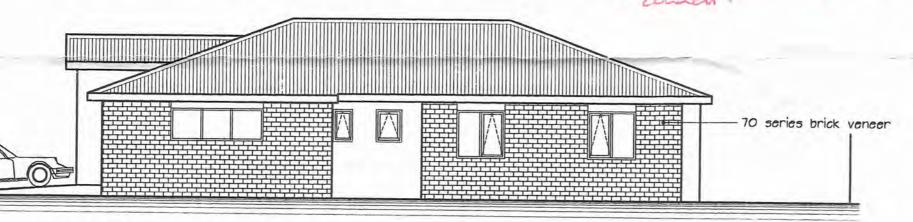
SOUTH ELEVATIONSCALE 1:100



WEST ELEVATION SCALE 1:100



NORTH ELEVATIONSCALE 1:100



EAST ELEVATION SCALE 1:100

SPECIFICATION BRICK VENEER-CONTROL JOINTS

If the brick veneer on this building is of concrete bricks, control joints <u>must</u> be constructed as required by both NZ\$4210 and by the manufacturers. If N.Z. made MONIER CLAY BRICKS are used, control joints are <u>not required</u>. For recommendations on control joints for imported clay bricks refer to the manufacturer.

Sealant or flashing required, to jambs/sills abutting brickwork.

The cavity between the masonry veneer and the exterior face of the timber stud wall shall be not less than 40mm nor more than 75mm wide. Pipes and services shall not be placed in the cavity.

The cavity shall be ventilated to the outside air with top and bottom openings. The bottom openings shall serve also as weep holes to drain moisture to the outside.

MINIMUM FIMISHED FLOOR LEVEL ABOVE -PROTECTED GROUND

100mm BRICK VENEER
150mm OTHER CLADDINGS

SITE AND DRAINAGE PLAN

PROPOSED DWELLING

25.01m 17° 09' 30"

SCALE 1:100

UNPROTECTED GROUND

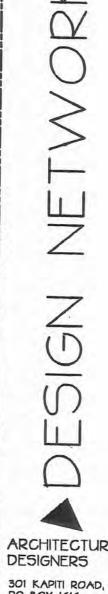
150mm BRICK VENEER
225mm OTHER CLADDINGS

VENNER HOUSE

van

COUNCIL COPY

100mm dia foulwater drain



ARCHITECTURAL

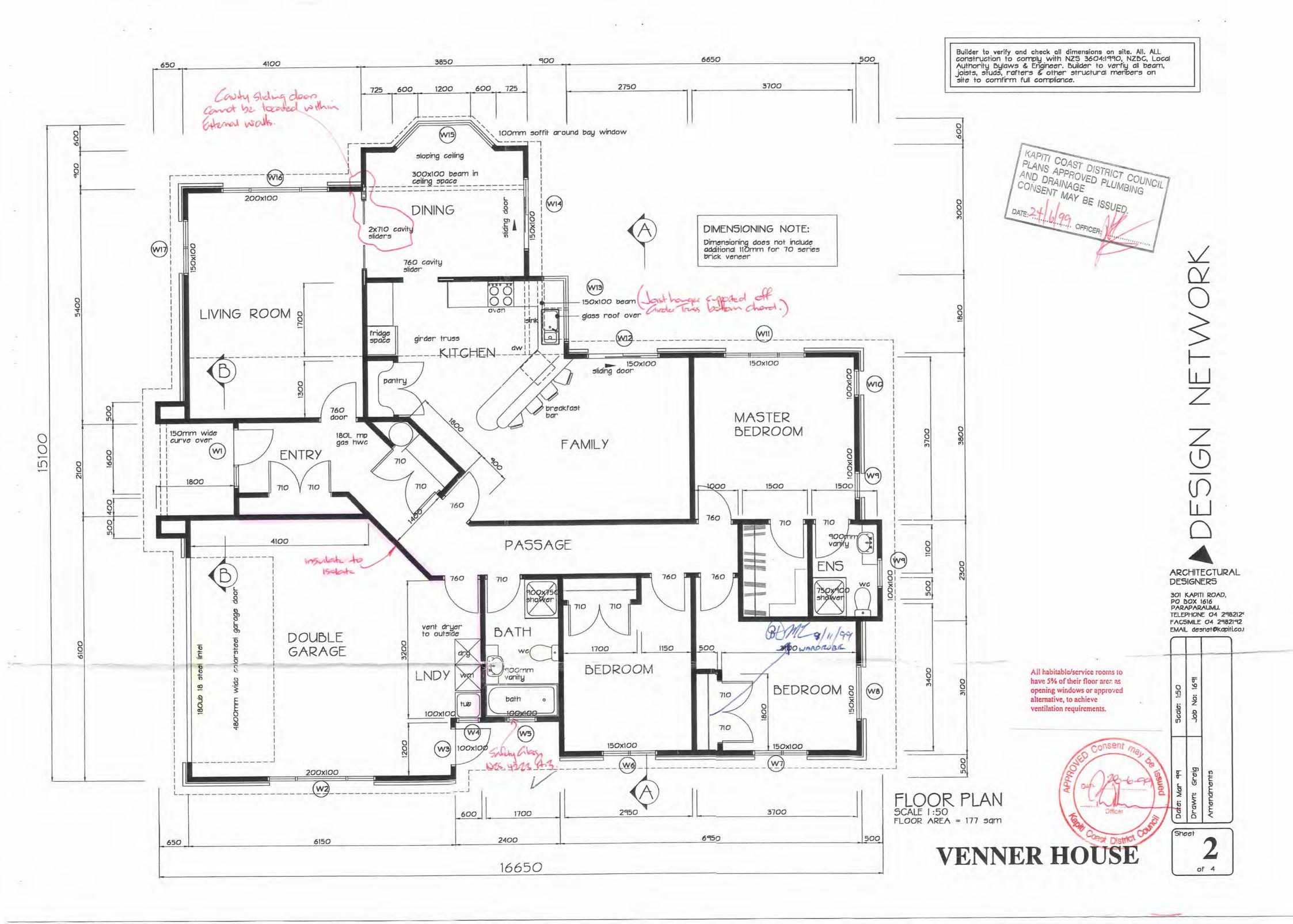
301 KAPITI ROAD, PO BOX 1616 PARAPARAUMU. TELEPHONE 04 29821; FACSIMILE 04 298219; EMAIL desnet@kapiti.cc

1:100

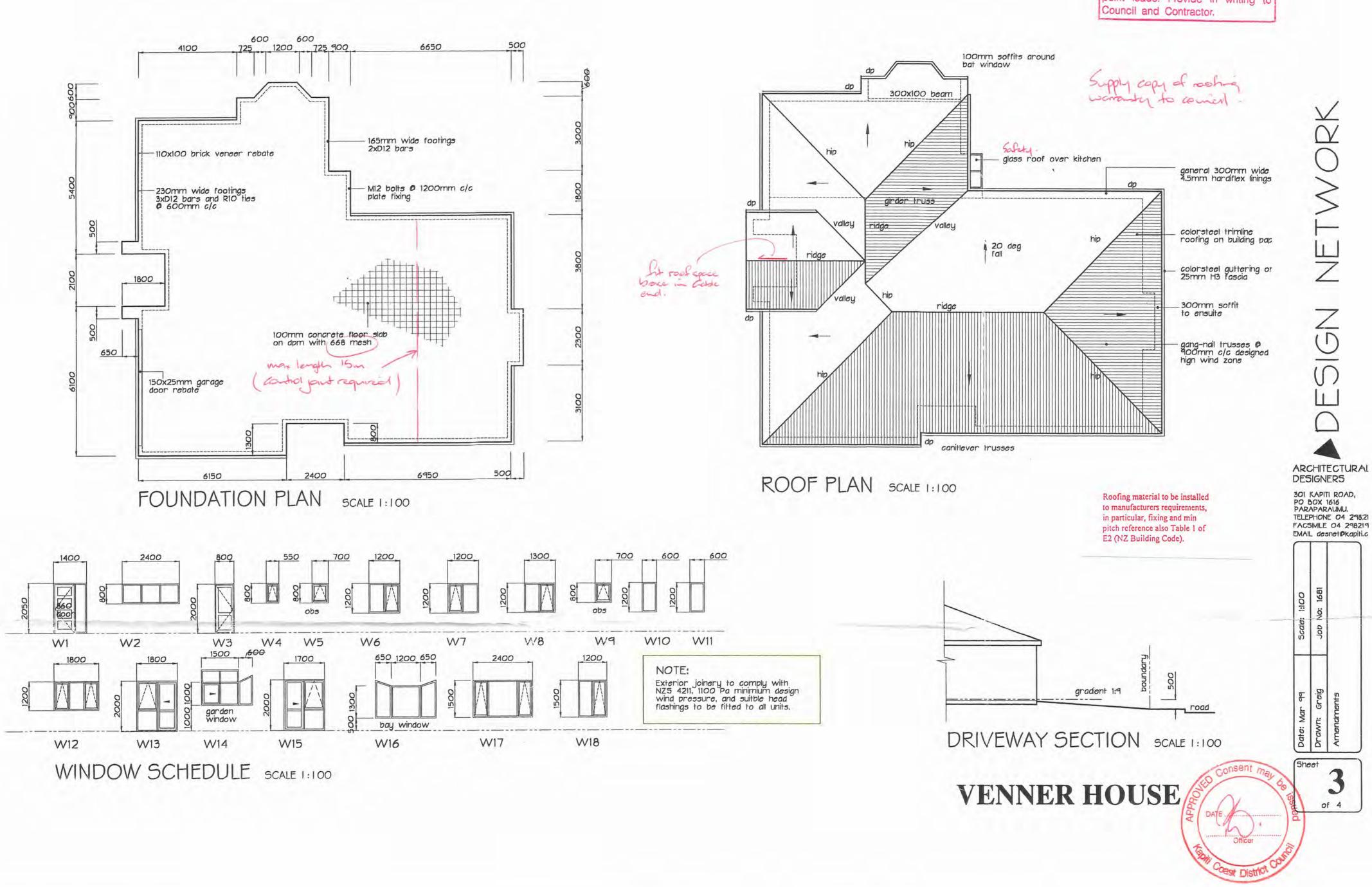
by 28-6-99

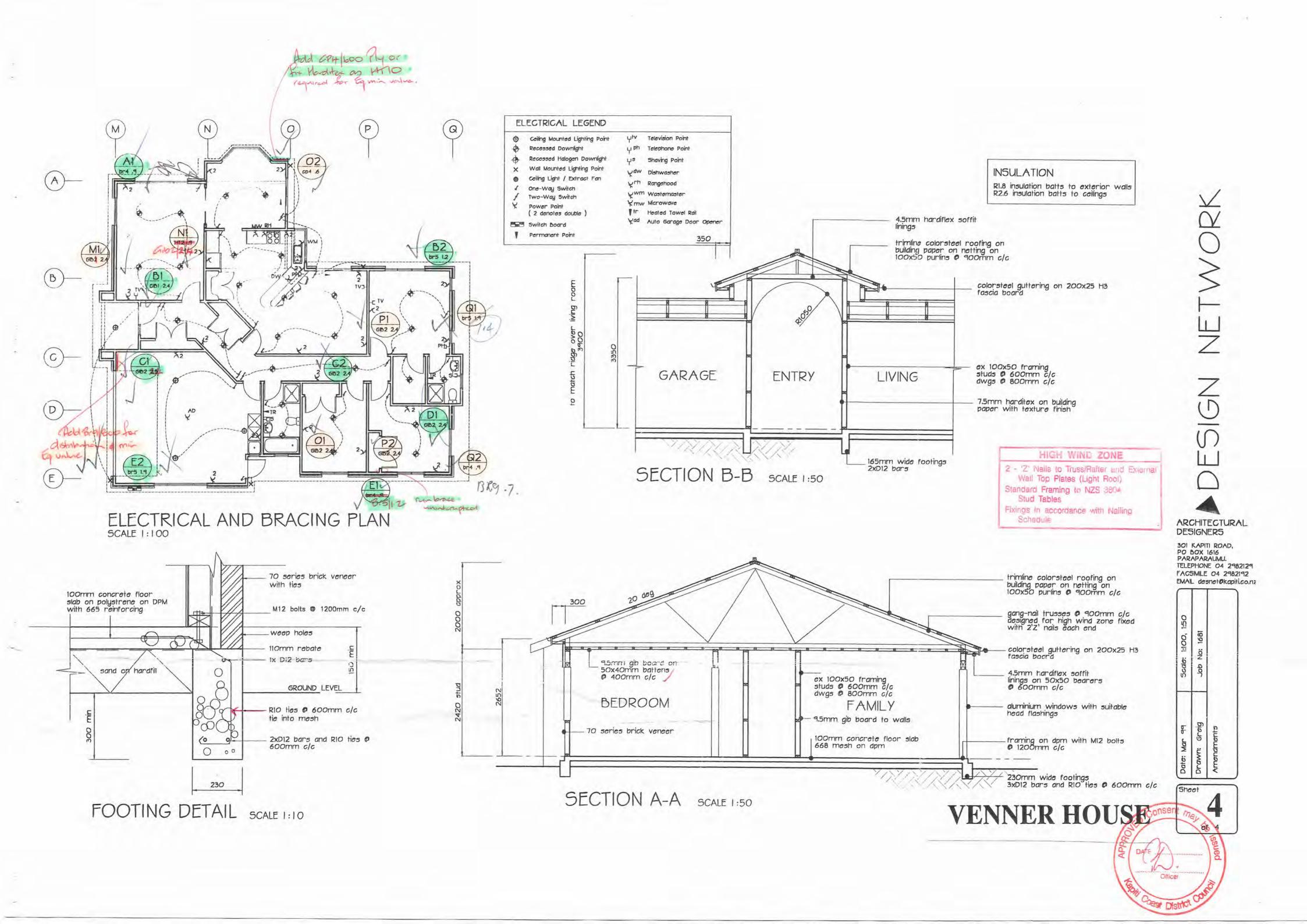


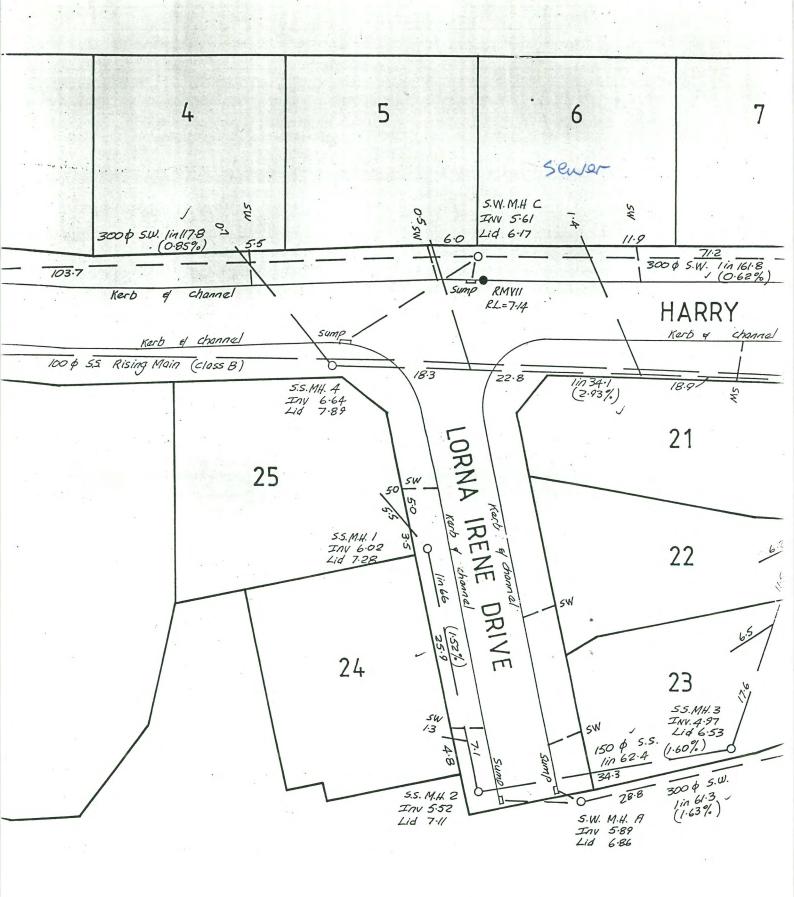




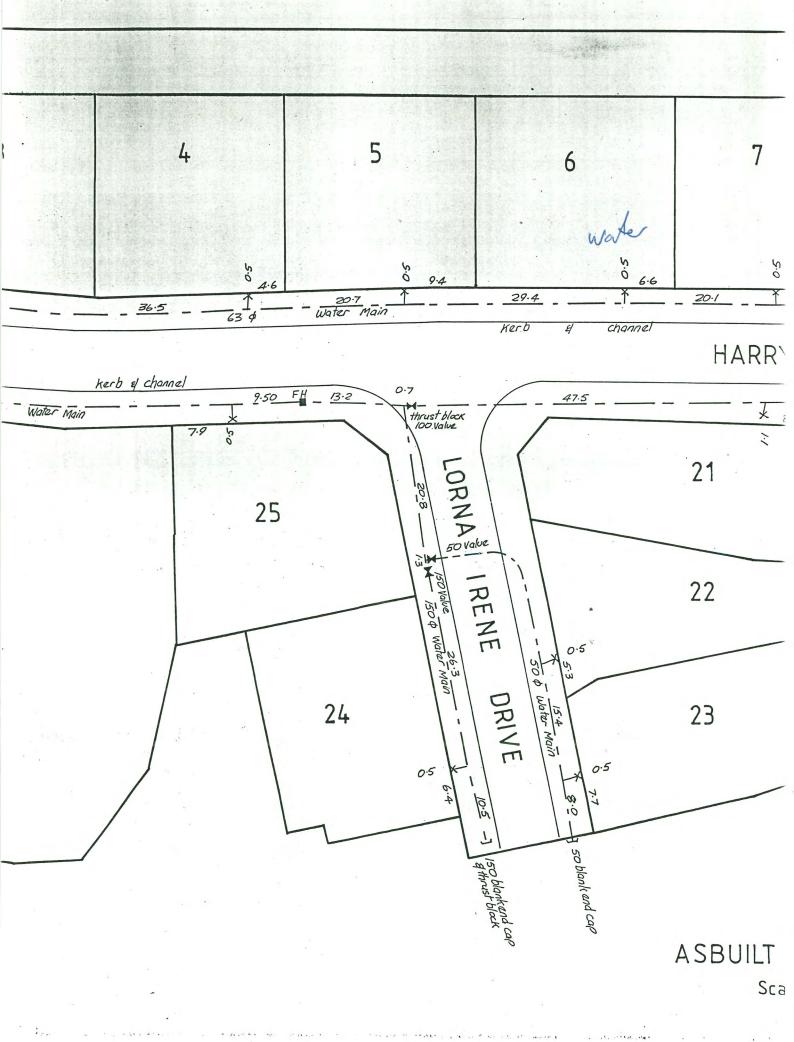
The Truss manufacturer must confirm the minimum size requirement of all Lintels or Beams supporting Girder Truss point loads. Provide in writing to Council and Contractor.

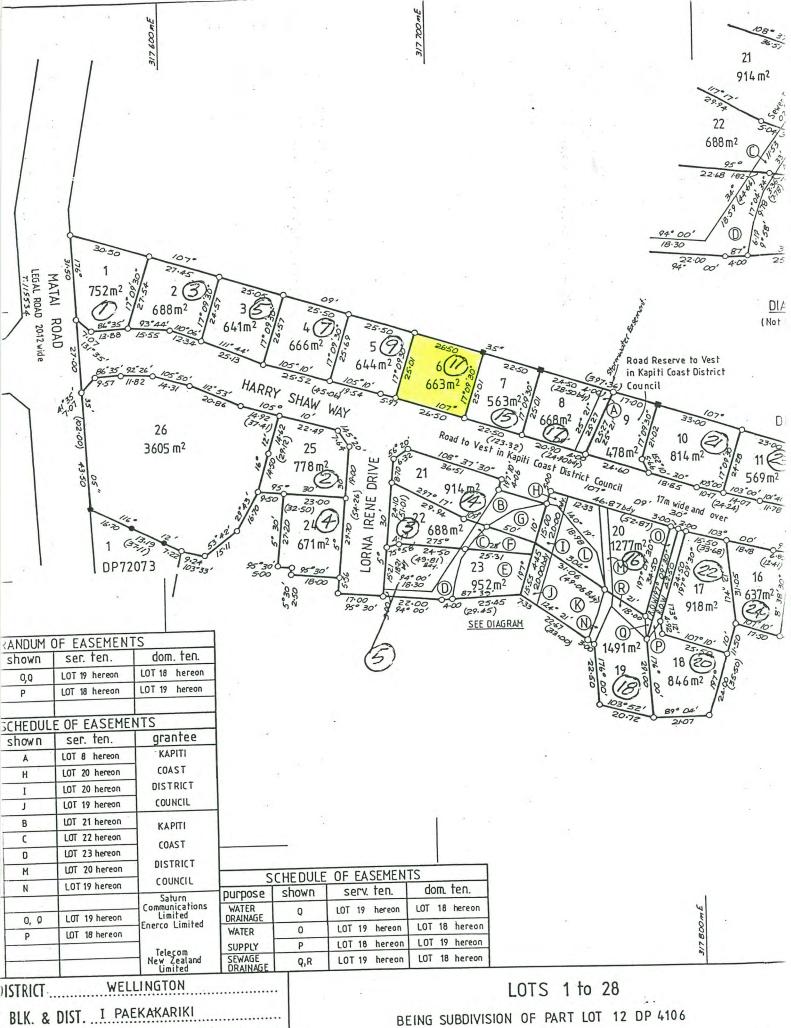






ASBUILT PLAN OF SANITARY





261 SHT R.26 RECORD MAP No 55:15, 56:15

BEING SUBDIVISION OF PART LOT 12 DP 4106

MATTI CUASI DISTRICT COUNCIL .

APPLICATION F	OR WATER SUPPLY AND	CONNECTION PERMIT
The Borough Engineer PRIVATE BAG PARAFARAUHU 1. Paw Eng	land Builo	lars (full name)
S layo	Cres Munne	von
hereby apply for an "ORDINARY" se premises owned by me at:	rvice to be laid from the K	apiti Borough Water Supply to the
(PROPERTY Address in full	1 Harry She	aw way
ees Payable (on application)	Mote	111 dm11(== =================================
Inspection \$	#OLE	:: All dwelling units to pay full :: inspection fees.
Connection -		The connection fee to be divided
Total \$ Subo	tylder.	equally between dwelling units situation the same lot sharing a common lat
Re	eta.	
	Amers Signature	Date
O O I THI	S PART TO BE COMPLETED BY P	LUNBER
1 Robinson		(full name)
,		(full name)
[(address)
eing a Licensed Craftsman Plumber orough Water Supply. I agree to .B. Connection NOT permitted unt.	comply in every respect wi	onnect the above premises to the Kapit th the Kapiti Borough Water Supply By-
(Signature)	7Craftsman Licence	No.) (Date)
Existing Water Supply	To be	retained/dismantled
Pressure: high/low	*Bead	er Tank*/Pressure Reducing Valve
B/W Cylinder Type	La Exhau	st Pipe/Pressure Relief Valve
Appro it 'e Ag' o Water Pipi	7.214.4 Coppe	r/PVC/Alkathene
If premises we wirming poor	mat car city	filter plant Yes/No
State precisely how it is prop	posed to make the new conne	ction:
	OFFICE USE ONLY	····
Permit No. 990705	Job Inspected	Building Register Entry

Connection Recored

Date Issued/

KAPITI COAST DISTRICT COUNCIL

APPLICATION FOR SEWER CONNECTION AND PERMIT



The Borough Engineer		7 4
Private Bas PARADARAUMU A		*
TANAL MIGHE /	1 = , 0 11	
· laul Ins	sland builders	
1,	PLEASE PRINT	- (Full name)
£ 7.	PLEASE PRINT	1
5 Tay	so yes primmer	Postal Addressi
horoby analy for an all		
mereby apply for an ordinary con	nection to the Kapiti Borough Sewer fr	om the premises owned by me at
	. 1	
	11 Harris Chaul	way
(PROPERTY Address in full -	II Jovie svene	wavi
if different from above)		4
6		
Lot DP		
Fees Payable (on application)		
		to pay full inspection fees.
Inspection \$	The connection fee	to be divided equally between
Connection \$	a common lateral.	uated on the same lot sharing
Total s Sulmin	/-	
3000 W	1001	
not:		the state of the s
Just		
. 0	mers Signature	Date
		5400
THIS I	PART TO BE COMPLETED BY DRAINLAYER	
0 0 1		
, Robinso	√	
1,		(füll name)
		(address)
being a licensed Desiration		
Kapiti Borough ewer.	for permission to connect the premise	s mentioned above to the
N.B. Connection COP permit red unt.	il permi objetanti.	*
1 -0 -0	11000 36	
(Signature)	(License No.)	
	(DICERSE NO.)	(Date)
English Tolland	OFFICE USE ONLY	1
Permit No.	Job Inspected	Building Register Entry
(100)		
990)25	2019/99	building Register Enery

· Connection Recored

Date Issued



90–104 Felton Mathew Ave, Glen Innes, Auckland PO Box 18071, Glen Innes, Auckland 1130, New Zealand Telephone 64 9 528 8109, Facsimile 64 9 521 1071

METAL TILE WARRANTY FOR NEW ZEALAND

(This warranty excludes installation in Rotorua)

26362AZ

Name of Purchaser

Paul England

Address Warranted

Lot 6 Harry Shore Way

Raumati South

Type of Warranty

New House

Installation Contractor

Mather Roofing Agencies-Wellington

Date of Warranty

August 1999

Brand

Gerard Tuffcoat

Colour

Jade

a) Weather Security Warranty by AHI Roofing Limited (hereinafter called the Company).

If any "Zincalume® steel roofing tile (a "tile") manufactured by the Company before the date of this warranty comprised in the roof fitted to the Purchaser's property described above (the "property") does not remain weatherproof for a period of 50 years from the date of this warranty then the Company will, at its option, either repair or replace the tile. The Company's obligation under this weather security warranty is limited to the full cost of repair or replacement in respect of claims made during the first 25 years following the date of this warranty and thereafter is limited to its share (calculated in accordance with Schedule A overleaf) of the cost of repair or replacement.

(b) Surface Coating Warranty by AHI Roofing Limited

If, during the period of 15 years from the date of this warranty, the surface coating of a tile deteriorates to the extent that, in the Company's reasonable opinion, the appearance of the roof is substantially affected, then the Company will at its option either replace the tile, apply the Company's surface coating to the affected tile or provide other reasonable compensation to the Purchaser. The Company's obligation under this surface coating warranty is limited to the full cost of remedial work in respect of claims made during the first five years following the date of this warranty and thereafter is limited to its share (calculated in accordance with Schedule B overleaf) of the cost of remedial work.

(c) Installation Warranty by the Installation Contractor

In the installation contract between the Purchaser and the installation contractor, the Company requires the installation contractor to warrant that defects in the Purchaser's roof arising within three years of the date of this warranty which are caused by faulty or defective workmanship in installation of tiles shall be made good by the installation contractor at no cost to the Purchaser.

Terms and Conditions of the Weather Security Warranty and Surface Coating Warranty (together the "warranties"):

- i. The warranties shall only apply if the Purchaser has made full payment for the supply and fitting of all riles and thereafter will extend to subsequent owners of the property.
- ii. The warranties shall only apply in respect of claims arising as a direct result of a manufacturing defect in a tile (for example, and not in limitation, claims arising as a consequence of faulty workmanship in the fitting of tiles and damage caused by walking on tiles (whether by the owner or any other person such as a plumber, TV repairman, electrician, painter etc) or from defects in the structure on which the tiles are fitted, are not covered by the warranties).
- iii. The Company shall not be liable under these warranties, or any implied warranties arising under local laws which are not excluded pursuant to paragraph (xii) below, for any consequential, indirect or special damage or loss of any kind whatsoever, or loss of profits or anticipated savings, including any such losses arising due to any delay by the Company in complying with its obligations under the warranties.
- iv. As colour variations may exist in tiles manufactured at different times, the Company reserves the right to repair or replace a tile in a colour similar to the original tiles.
- v. The warranties shall not apply if any work, except temporary emergency work, is done to tiles other than work carried out under the supervision, or subject to the prior inspection and prior written approval, of the Company.
- vi. The Company gives no warranties if, during installation of the tiles, skillsaws, abrasive disks or hacksaws are used to cut tiles except as directed in fixing instructions issued by the Company.
- vii. The surface coating warranty shall not apply where the growth of organic matter such as moss or lichen occurs on tiles. Organic matter, if left unchecked, may damage the surface of tiles or cladding products.
- viii. Any remedial work carried out under the warranties shall not extend the term of the warranties.
- ix. The chip used in the manufacture of tiles is crushed rock from different quarries throughout New Zealand. The colour is natural and from time to time variations in colour or texture, and the presence of other minerals, will occur. These natural occurrences are not covered by the surface coating warranty.
- x. All surface coating systems will fade and chalk over time, particularly on roofing surfaces where they are subjected to the extremes of continuous ultra violet radiation. Gradual fading and chalking over the period of the surface coating warranty is expected, and is not covered by the surface coating warranty.
- xi. These terms and conditions shall not in any way limit the rights of the Purchaser, or the obligations of the Company, under applicable local laws except to the extent permitted by such laws.
- xii. All warranties implied by local laws are negated to the fullest extent permitted by such laws.
- xiii. Each of the above limitations is a separate limitation applying even though one or more of the other limitations may be held not to apply in the circumstances.

Special Note:

If rainwater is collected from the roof for drinking, the water connection system should be disconnected from the tank for three good rainfalls, or hosed down, after installation of tiles and before reconnection.

SCHEDULE A WEATHER SECURITY WARRANTY PRO RATA								
Үеаг	Company Contribution	%	Purchaser Contribution (Owner)	%				
1-25	п	100%	и	Nil				
26	п	50%	11	50%				
27	11	48%		52%				
28	"	46%	it	54%				
29	11	44%	it	56%				
30	"	42%	n	58%				
31	и	40%	ч	60%				
32	It.	38%	ti .	62%				
33	н	36%	tt.	64%				
34	п	34%	II.	66%				
35	n	32%	· n	68%				
36	11	30%	и	70%				
37	H	28%	н	72%				
38	n	26%	н	74%				
39	TT.	24%	н	76%				
40	· ·	22%	u .	78%				
41	a a	20%	u.	80%				
42	н	18%	u	82%				
43	л	16%	n .	84%				
44	n	14%	u	86%				
45	· u	12%	o .	88%				
46	u u	10%	44	90%				
47	· ·	8%	14	92%				
48	0	6%	ч	94%				
49	· ·	4%	IF.	96%				
50	n .	5%	н	98%				
51	п	0%	ri .	100%				

SCHEDULE B SURFACE COATING WARRANTY PRO RATA									
Үеаг	Company Contribution	%	Purchaser Contribution (Owner)	%					
1 to 5	н	100%	· ·	Nil					
6	н	67%	u	33%					
7	n	60%	w	40%					
8	0	54%	0	46%					
9	· ·	47%	- "	53%					
10	н	40%	• · · · · · ·	60%					
11	н	34%		66%					
12	и	27%	44	73%					
13	п	20%	0	80%					
14 -	"	14%	н	86%					
15	u .	7%	N	93%					
s and thereafter		00.6	H.	100%					

How to care for your roof

- 1. You should not walk on your roof unless absolutely necessary. To avoid denting, cracking or other damage to your roof, you should, if you have occasion to walk on it, firstly wear soft soled shoes and secondly place your feet on the lowest point of the tile at the front edge.
- 2. In certain locations due to humidity or the proximity of trees and shrubs, lichen and moss may grow on your roof. If left unchecked this may damage the surface coating. The manufacturers RECOMMEND this growth be removed by spraying. Consult your local distributor to ascertain the suitability of any cleaning material you wish to apply to your roof.

SITE CHECK SHEET WORK CANNOT PROCEED PAST EACH STEP UNTIL THAT STEP HAS BEEN INSPECTED, APPROVED AND THIS FORM SIGNED BY THE RELEVANT INSPECTOR **FOUNDATIONS** Approved building consent documents on site: YES / NO SITING: Left hand side yard Conforms with approved plan Front yard Right hand side yard If no, has new site plan been requested YES / NO Rear yard Footing size Foundation wall reinforcing Minimum floor level Pile hole size Footing reinforcing Foundation wall size Subfloor vents Specific design Anchor pile size Steps/stairs If yes, has Engineer inspected Pile hole spacing Instruction No: . Has a Site Instruction been issued? Yes/No Yes/No Proposed date of Is a reinspection required? follow up inspection Producer Statement Yes/No/NA Yes/No Labels in place? COMMENTS

	PKE	L-SLAB	
PLUMBING AND DRAINAGE: Date:	22/1/	90 Officer:	
UNDERSLAB PLUMBING Pipe sizes Falls Pipe protection		UNDERSLAB DRAINAGE Pipe sizes Falls Pipe protection	
Has a Site Instruction been issued?	Yes/No	Instruction No:	
Is a reinspection required?	Yes/No	Proposed date of follow up inspection	
Labels in place?	Yes/No	Producer Statement	Yes/No/NA
COMMENTS Am	reSled	Loa	
BUILDING Date:	0	fficer:	
Minimum floor level DPC Joints taped Penetrations Specific design If yes, has Engineer inspected Yes /		Mesh Mesh chairs Slab thickening Bottom plate fixings	
Has a Site Instruction been issued?	Yes/No	Instruction No:	
Is a reinspection required?	Yes/No	Proposed date of follow up inspection	
Labels in place?	Yes/No	Producer Statement	Yes/No/NA
COMMENTS			
			-1

SUBFLOOR

Date: Officer:			
Ord pile fixings Anchor pile bolts Brace pile bolts and washers Timber treatment Subfloor framing Subfloor beams/bearers		Subfloor bracing Joists - size/spacing/fixing Cant. Joists - lth/size/spc Solid blocking - spacing Notching, holes etc Proprietary connections	
Has a Site Instruction been issued?	Yes/No	Instruction No:	• • • • • • • • • • • • • • • • • • • •
Is a reinspection required?	Yes/No	Proposed date of follow up inspection	
Labels in place?	Yes/No	Producer Statement	Yes/No/NA
COMMENTS			
Anchor pile bolts Brace pile bolts and washers Timber treatment Subfloor framing Subfloor beams/bearers Has a Site Instruction been issued? Yes/No Proposed date of follow up inspection. Labels in place? Joists - size/spacing/fixing Cant. Joists - lth/size/spc Solid blocking - spacing Notching, holes etc Proprietary connections Instruction No: Proposed date of follow up inspection. Yes/No/No			
			
Non rigid backing Building paper Battens (non rigid) Cavity (non rigid)		Spacers Nailing (Hardies) Flashings	
Has a Site Instruction been issued?	Yes/No	Instruction No:	
Is a reinspection required?	Yes/No		
Producer Statement Yes/N	lo/NA	tonow up hispection	
COMMENTS			

Plumbing and Drainage: Date:	PREI 3/9/99	LINE Officer:	<u></u>
Plumber: Polyingary			
Pressure test Visual leak check Pipe support/clips Pipe size Pipe material	P S V	oint strain ipe insulation tacks Vastes upply tank	
Has a Site Instruction been issued?	Yes/No	Instruction No:	
Is a reinspection required?	Yes/No	Proposed date of follow up inspection	
Preline Labels in place?	Yes/No	Producer Statement	Yes/No/NA
COMMENTS	50× 61	12	
10000	(NO PS)		
	2 9 9	. AR	
BUILDING Date:3		cer:	
Timber treatment Ceiling diaphragm Dragon ties Studs - size/spacing Wall insulation	T V T	Gracing straps Timber grade Vall dwangs Trimming studs Truss/rafter - fix/space	₹ ₹
Posts - size/fixing Lintels/bms - size/fixings	C	Ceiling joists late fixings	J.
Ext joinery - labels	V	entilation 'entilation'	Ž
Ceiling runners Wall bracing Mech ventilation		Ceiling battens Check exterior claddings	3
Moisture Content Walls %	(Ceiling	%
Has a Site Instruction been issued?	YesXNo	Instruction No:	100)
Is a reinspection required?	Yes/No	Proposed date of follow up inspection	
Preline Labels in place?	YesNo	Producer Statement	Yes/No/NA
COMMENTS Garage Door BK	of orb	Le Ne Ready	n be fitted

	POS	TLINE
Date: 0 9 9 9 Officer: 1	/.le	
Sheets nailed as per your schedule		Insulation to walls
Has a Site Instruction been issued?	Yes/No	Instruction No:
Is a reinspection required?	Yes/No	Proposed date of follow up inspection
Postline Label in place?	Yes/No	
COMMENTS		
-		
Drainlayer: Roberts Orain depth Subsoil drains Pipe material Disposal field Drains under building Connection to main Pipe supports Manhole - structure Lamp holes Drain test Has a Site Instruction been issued? Is a reinspection required? Producer Statement Yes COMMENTS	Yes/No Yes/No	AINS te: 29.19.99. Officer: Gully traps Granular bedding Terminal vents Even gradient/line Soil stack Manhole - haunching Inspection/bends SW to kerb Sumps Instruction No: Proposed date of follow up inspection

MISCELLANEOUS INSPECTIONS

Blockfill:	Date: Officer:						
Reinforcing Engineers design If yes, has engineer checked Yes/No		Cavities cleared					
Has a Site Instruction been issued?	Yes/No	Instruction No:					
Is a reinspection required?	Yes/No	Proposed date of follow up inspection					
Producer Statement Yes/No COMMENTS	o/NA	Tonow up inspection					
Retaining Walls							
Siting Stretchers Deadmen Poles/posts Footing Engineers design/supervision		Subsoil drainage Post Holes Retaining components Tie bars Headers					
Has a Site Instruction been issued?	Yes/No	Instruction No:					
Is a reinspection required? Producer Statement Yes/No	Yes/No /NA	Proposed date of follow up inspection					
Solid Fuel Heaters							
Chimney Check Seismic fixing Flue flashing Flue Mantel shelf		Flue height Hearth Clearances Ceiling plate					
Has a Site Instruction been issued?	Yes/No	Instruction No:					
Is a reinspection required?	Yes/No	Proposed date of follow up inspection					
COMMENTS		Totion up inspection					

FINAL INSPECTION

Building Exterior	CHECK PLANS
Subfloor - ventilation	Flashings - roof penet Gulley dishes
Decks - structure	hips Wastes to gullys
Balustrades - design	valleys Terminals vents
	gables Spouting - Downpipes
Steps/Stairs - design	flues Landscaping & ground levels
	Cladding (ground clearance) Texture Coating Warranty
Flashings - windows	Roofing & Fixings (roofing warranty)
Building Interior	CHECK FITTINGS
Service area floors & walls	
Stair design	Nat. ventilation Solid fuel heater CAS
Handrails -	Mech. Ventilation To Congression Supply tank
Barriers	Insulation Trap seals & AA Valves
Lightings	Hot water cylinder flues Cistern flushing
Laundering	Hot water cylinder valves WC pan connection
Cooking facilities	Hot water cylinder rest Septic Tank
	Tempering valve (engineers inspe report)
	Windows - labels LYTE VH
	Safety glass
Footpath crossing installe Refund crossing deposit Stormwater & site draina appear satisfactor	Yes/No Engineering site reports required Yes/No Engineering site reports received Yes/No
Has a Site Instruction bee	n issued? Yes/No NTR Instruction No. VIABAL Yes/No/NA
OK to issue final code co	
	issued please list proposed conditions on the reverse of this form.
Is a reinspection required	? Yes/No Proposed date of follow up inspection 20/11/99
Comments:	
FLASHINES	ACTOR PIPE TO CONTINUE TO EXTERGOR AT FRONT ENTRANCE VALLEY

FEE CALCULATION SHEET

ADMIN = \$40 per hour

PLAN VETTING = \$72 per hour

INSPECTIONS = \$60

DIGITAL SCANNING = \$22.50

TECHNICAL CONSULTANTS = Cost + 10% NETWORK UTILITY OPERATORS = Cost + 10%

Application No: 770/55
Date: 23/6/97
Site Address: 480

C	LASSIFICATION	\$	P	LAN	VETT	ING	TOTAL \$	CON	SULTANTS	TOTAL \$		INSI	PECTI	ONS		DIG SCAN	TOTAL \$	ADMIN \$	PIM	TOTAL
			Pl	D	Bld	EH		T/P			Site	Pl	D	Bld	Eh	Y/N			4 [24.1]	
1	Fire Places, Signs	0-1500			7	- 1		77			111							40	Nil	
2	Sheds, Carports	1501-4000																40	Nil	
3	Garages, Conservatories, Swim Pool, etc	4001-10000																40	50	
4	House Additions	4001-10000						/ 3										40	50	
5	House Additions	10001-50000	LI				1											40	50	
6	Dwellings	50001-100000				-											-	40	100	
7	Dwellings	100001-150000				1					,					1		40	100	
8	Dwellings	150001-200000	13	3	10	45	1885-	2	4	36-	1	3	2	5		us	600-	- 60	100	Muy-
9	Dwellings	200001-250000				1					1	-						60	140	11
10	Dwellings	250001-300000						1										80	140	
11	Dwellings	300000 +																80	160	
12	Commercial/ Industrial	0-10000																40	50	
13	Commercial/ Industrial	10001-50000					1											40	60	
14	Commercial/ Industrial	50001-10000																40	100	
15	Commercial/ Industrial	100001-150000																40	100	
16	Commercial/ Industrial	150001-200000																60	100	
17	Commercial/ Industrial	200001-250000																60	140	
18	Commercial/ Industrial	250001-300000									1							60	140	
19	Commercial/ Industrial	350001-350000																60	140	
20	Commercial/ Industrial	350001-400000					.,						Ġ					80	160	
21	Commercial/ Industrial	400001-450000																80	180	
22	Commercial/ Industrial	450001-500000																80	200	
23	Commercial/ Industrial	5000000 +																80	250	

CONSENT DATA INPUT REQUIREMENTS

REQUIRED INSPECTIONS	STANDARD ADDENDA			
14	32		17	
1	2	,	18	
17	3	1,	19	
7	4		20	/
16	5		21	1
2	6	1	22	
3	7	J	23	
18	8		24	
4	8A	1	25	
8	9	J	26	
5	10		27	
10	11		28	
12	12		29	√
6	13		30	
9 /	14		31	
11	15		33	
	16		34	
13	10			
15				

	STANDARD CONDITIONS			
1				
2				
3				

NON STANDARD ADDENDA

1 de constituir de la c
Lamply will endorsements on approved plans re wall bracing design. Braces must meet min white for both wind a early earl
The courty sliding door between Dung houng Roan cannot work as drawn External wall framing cannot accommodate
cavity stides.



FILE: NRL990785

10 November 1999

Paul England Builders Ltd 5 Taupo Crescent PLIMMERTON

Dear Paul

BUILDING CONSENT 990785 - 11 HARRY SHAW WAY

The following items require completion or change to comply with the above building consent documents:

Kitchen stove extractor fan to be taken to exterior atmosphere.

Reform flashing to roof above front entrance at top of both valley gutters, to become completely moisture proof.

Seal roof under eaves of roof above front entrance.

When the above work is complete, please arrange for re-inspection.

Yours faithfully

Barrie McLennan

BUILDING CONTROL OFFICER

MR & MRS VENNER LOT 6 HARRY SHAW WAY RAUMATI SOUTH

NEW RESIDENCE

SPECIFICATION



All references to standards and codes etc, shall be taken as reference to latest version, including amendments.





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Preliminaries and general

2201:-

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Carpentry

4201H:-

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Painting and Paperhanging

7101:-

Water

7201:-

Gas

7401:-

Rainwater Plumbing

7402:-

Sanitary Plumbing

7403:-

Drainage

7701:-

Electrical

1201 PRELIMINARIES AND GENERAL

1. THE PROJECT

1.1 DESCRIPTION

The scope of the works to be as described in this specification and as shown on the drawings.

1.2

The site of the works, the site address and the legal description are shown on the drawings. Confine access and work to the area of the site indicated.

2. **DOCUMENTATION**

2.1 SPECIFICATION SECTIONS

The designation and numbering of individual specification sections follows the CBI (Association for Coordinated Building Information in New Zealand) system for the co-ordination and classification of construction information. Sections are for reference and convenience only and do not constitute individual trade sections or work elements.

Read all sections together and read 1201 PRELIMINARIES AND GENERAL with all other sections.

2.2 **INTERPRETATIONS**

Required:

Required by the documents, or by a statutory authority.

Proprietary:

Identifiable by naming the manufacturer, supplier, installer, trade

name, brand

name, catalogue or reference number.

Approval: Direction:

Approval in writing. Direction in writing.

MANUFACTURER'S RECOMMENDATIONS 2.3

Manufacturer's recommendations means manufacturers recommendations, instructions, directions, specifications, or details issued by them for their particular material, product or component and are the latest edition.

DEFINED WORDS 2.4

Words defined in the conditions of contract, New Zealand Standards, or other reference documents, to have the same interpretation and meaning when used in their lower case, title case or upper case form in the conditions of contract and in the specification text.

2.5 **ABBREVIATIONS**

The following abbreviations are used throughout the specification sections:

NZBC

New Zealand Building code

NZS

New Zealand Standard

NZMP

New Zealand Miscellaneous Publication Joint Australian/New Zealand Standard

AS/NZS NZS/AS

Joint New Zealand/Australian Standard

AS

BS

Australian Standard

CSA

British Standard Canadian Standards Association

HERA

Heavy Engineering Research Association

2.6 REFERENCED DOCUMENTS

Throughout this specification, reference is made to various New Zealand Building Code (NZBC) acceptable solutions and verification methods for criteria and/or methods used to establish compliance with the Building Act.

Reference is also made to various Standards produced by Standards New Zealand (NZS, NZMP, AS/NZS, NZS/AS), Transit New Zealand specifications, overseas standards (AS, BS, CSA) and to listed Acts, Regulations and various industry codes of practice and practice guides. The latest edition (including amendments and provisional editions) at the date of this specification applies unless stated otherwise.

It is the responsibility of the contractor to be familiar with the materials and expert in the techniques quoted in these publications.

Documents cited both directly and within other cited publications are deemed to form part of this specification. However, this specification takes precedence in the event of it being at variance with the cited documents, with the resolution of any variance being confirmed by the owner in writing and then notified to the territorial authority for consent prior to any further work proceeding.

2.7 DOCUMENTS REFERRED TO

Documents referred to in this section are:

Building Act 1991 Building Regulations 1992 Health and Safety in Employment Act 1992 Smoke Free Environments Act 1990

2.8 CODE COMPLIANCE

It is an offence under the Building Act 1991 to carry out any work not in accordance with the building consent. The resolution of matters concerning code compliance to be referred to the owner for a direction in writing and then to the territorial authority for consent.

2.9 BUILDING CONSENT

Obtain the original or copies of the building consent form and documents from the owner and keep on site. Liaise with the territorial authority for all notices to be given and all inspections required during construction to ensure compliance. Return the consent form and documents to the owner on completion.

2.10 PRODUCER STATEMENTS

When producer statements verifying construction are required, provide copies to both the territorial authority and the owner.

2.11 COMPLIANCE SCHEDULE

Obtain from the owner the list of all systems and features agreed as comprising the compliance schedule when application was made for building consent. Liaise with the owner and supply any further information on each system or feature of the building, as required by the territorial authority prior to their issue of the building consent.

2.12 PROVIDE GUARANTEES

Provide guarantees in favour of the owner and executed by the contractor/subcontractor in respect of, but not limited to, materials, components, service, application, installation and finishing called for in that specified section of work. The terms and conditions of the guarantee in no case negate the minimum remedies available under common law as if no guarantee had been offered.

Provide two copies of all completed guarantees to the owner.

2.13 OVERALL WEATHERTIGHTNESS AND WATERTIGHTNESS

A guarantee is required from the contractor for a minimum period of 2 years, covering the weathertightness of the complete building envelope and the watertightness of all liquid supply and disposal systems and fittings. This general guarantee is in addition to any specific guarantees required.

2.14 TRADE GUARANTEES AND WARRANTIES

Where specific trade guarantees/warranties are offered covering materials and/or execution of proprietary products or complete installations, provide copies of all such guarantees/warranties to the owner.

2.15 FORM OF GUARANTEE

Conform with the form of guarantee included in this specification.

2.16 WORDING OF GUARANTEE

The wording of the guarantee to conform with the form of guarantee attached.

2:17 FAILURE

Failure to provide guarantees does not reduce liability under the terms of the guarantee called for in that specified section of the work.

2.18 COMMENCE

Commence all guarantees from practical completion.

Maintain their effectiveness for the times stated.

2.19 DELIVER

Deliver executed guarantees to the owner prior to the commencement of the work covered by the guarantee.

3. ESTABLISHMENT

3.1 COMPLY

Comply with all statutory obligations and regulations of regulatory bodies controlling the execution of the works.

3.2 APPROVALS

Attend on territorial authority officers, statutory and network utility inspectors, as necessary to obtain approvals (in addition to building consent approval) for and the satisfactory completion of, the works.

4. TEMPORARY WORKS AND SERVICES

4.2 PROVIDE

Provide, erect and maintain all scaffolding, sheds, toilets, water, power, hoardings and access to the site. Allow for all cartage, craneage, plant hire and storage. Arrange for all temporary works and services necessary for the completion of the works. Pay all fees and remove temporary works and services on completion of the works.

4.3 PROTECT

Protect all parts of the work liable to damage, including all adjoining public or private property, existing buildings, existing roads, footpaths, fences, site services, trees, landscaping and all existing retained site features, until completion of the works. Take all precautions necessary to protect the works from damage by unauthorised entry or inclement weather. Brace and support all parts of the works against damage during construction.

Make good all damage to existing property and site features arising from construction activities or failure to protect.

4.4 STORAGE

Provide temporary storage areas and protective covers and screens. Framing and structural members to be fillet stacked and protected from moisture and contamination. Finishing materials to be completely protected from the weather and damage and stored in accordance with the manufacturer's recommendations. Fabricated elements to be protected from the weather and damage, and stored in accordance with the supplier's recommendations.

5. PROJECT MANAGEMENT

5.1 WORK OUTSIDE NORMAL HOURS

Work outside normal hours is permitted, but 24 hours notice is required in writing to the owner before commencing such work. Obtain any necessary permits and permission for such work.

5.2 HEALTH AND SAFETY

Refer to the requirements of the Health and Safety in Employment Act 1992. Identify hazards and if their elimination or isolation is not possible, then minimise hazards in the work on site by using proper equipment and techniques. Supply protective clothing and equipment. Inform employees and others on site of the hazards and put in place procedures for dealing with emergencies.

Fence off, light, or otherwise separate any source of danger to people both off and on the site, including outside working hours.

5.3 SMOKING

Do not smoke on site except in a designated location in accordance with the Smoke Free Environments Act 1990. This location to be determined by the contractor with the approval of the owner.

6. CONSTRUCTION

6.1 NUISANCE

Take all reasonable precautions to prevent damage and nuisance from water, fire, smoke, vehicles, dust, rubbish, noise and all other causes resulting from the contract works. Comply with the requirements of the territorial authority and all relevant Acts and Standards.

6.2 SET OUT

Set out the work to conform with the drawings. Establish a permanent site datum to confirm the proposed building ground floor level and its relationship to all other existing and new building levels.

While it remains the contractor's responsibility to set out the works accurately and correctly and to confirm any changes from the approved location with the territorial authority, the contractor to obtain the owner's written confirmation that the owner has sighted the proposed building location, site datum and profiles before commencing any further work.

6.3 EXECUTION

Conform to the requirements of this specification. All work to be level, plumb, and true to line and face. Employ only experienced workers familiar with the materials and techniques specified.

6.4 MATERIALS

Materials to be new unless stated otherwise, the best quality of their respective kinds, and complying with all cited documents.

Substitution of alternative materials, plant or equipment from those specified to be confirmed by the owner in writing, with the substitution then approved by the territorial authority.

6.5 COMPLETE ALL SERVICES

Ensure all building services are complete and operational, with all labelling and service instructions provided.

6.6 CLEAR AWAY

Clear away all trade debris, unused materials and components from the site and leave the building clean and ready for occupancy, with all services operating and mechanical parts in good working order. Remove all temporary markings, coverings and protective wrappings.

6.7 CLEANING

Clean and wash down all external surfaces to remove dirt, debris and marking. Clean all interior surfaces including cabinetwork, joinery, sanitary and hardware items. Vacuum or polish all floor finishes. Clean and polish all glass, both sides.

2201 PREPARATION AND GROUNDWORK

1. GENERAL

1.1 DOCUMENTS

Documents referred to in this section are:

NZS 3604

Light timber frame buildings not requiring specific design

Occupational Safety and Health Service (OSH) publication: Approved code of practice for safety in excavation and shafts for foundations

1.2 SAFE WORKING CONDITIONS

Provide adequate support for all excavations. Cover holes and fence off open trenches and banks.

2. PRODUCTS

2.1 GRANULAR BASE FOR SLABS

To conform with NZS 3604 appendix E5. Consolidate with a vibrating roller. Blind the surface with coarse sand or sand/cement and roll ready to receive a dampproof membrane.

2.2 GENERAL BACKFILLING

Obtain written confirmation from the owner before using any excavated material. Compact approved backfilling in 150mm layers with the last 200mm in clean topsoil, lightly compacted and neatly finished off.

2.3 RETAINING WALLS

Backfill behind retaining walls with free draining granular material and compact in 200mm layers. Ensure any tanking membranes, drain coil and dampproofing are not punctured.

3. EXECUTION

3.1 CARRY OUT

Carry out all excavation to the guidelines set by the Occupational Safety and Health Service (OSH) publication: "Approved code of practice for safety in excavation and shafts for foundations."

3.2 FIRES

Do not light rubbish fires on site.

3.3 EXISTING WORK

Existing buildings, structures, roads, paving and services shown on the drawings to be retained.

3.4 PREPARATION

Comply with NZS 3604 - clause 3.4, Site preparation. Remove all turf, vegetation, trees, topsoil, stumps and rubbish from the area to be built on.

3.5 UNDERGROUND ELEMENTS AND SERVICES

Break out and remove old foundations, slabs, drainage pipes, manholes, tanks, cables and redundant services. Report for instructions when any unexpected voids, made-up ground or services are encountered. Seal off the ends of drains or remove to territorial authority approval.

3.6 TOPSOIL

Stockpile excavated topsoil on site where directed. Keep separate from other excavated materials. Spread and level where directed before completion of the works.

3.7 SHORING AND UNDERPINNING

Carry out shoring and underpinning shown on the drawings and as necessary to prevent subsidence of adjoining public or private property and to ensure the safety of the public and site personnel. Maintain protection throughout the progress of the works, or until foundations and subgrade structures have been completed and the stability of adjoining public and private property secured.

3.8 GENERAL EXCAVATION

Trim ground to required profiles, batters, falls and levels. Remove all loose material. Protect all cut faces from collapse. Keep all excavations free from water.

3.9 ROCK EXCAVATION

If rock is found at any level above the underside of the structural foundations, or above required base levels for site service trenches, immediately notify the owner. Obtain written instructions from the owner on the proposed approach to rock excavation, or consequent alterations to subgrade construction. Confirm any changes with the territorial authority.

3.10 EXCAVATION FOR FOUNDATIONS

Foundation excavations to be taken to depths shown. Keep trenches plumb and straight, bottoms level and solid, stepped as detailed and clean and free of water.

3.11 INADEQUATE BEARING

If bearing is inadequate then excavate further and backfill with material as follows:

Below slabs on grade: Hardfill Below footings: 10MPa concrete Service trenches: Hardfill

If excavation exceeds the required depths, backfill and compact to the correct level with material as listed.

3.12 SURPLUS MATERIAL

Remove all surplus and excavated material from the site.

2301 FOUNDATIONS

1. GENERAL

1.2 DOCUMENTS

Documents referred to in this section are:

NZS 3109	Concrete construction
NZS 3602	Timber and wood-based products for use in buildings
NZS 3603	Timber structures standard
NZS 3604	Light timber frame buildings not requiring specific design
NZS 3605	Timber piles and poles for use in buildings
NZS 3631	New Zealand timber grading rules
NZMP 3640	Minimum requirements of the NZ Timber Preservation Council

2. PRODUCTS

2.1 TIMBER PILES

Corsican pine or radiata pine, treated to NZMP 3640, hazard class H5, Group B, to design data assigned in NZS 3603, section 7 and complying with NZS 3605 for cross section, length, straightness, strength and branding. All to NZS 3604 for footing and type.

2.2 TIMBER SUB-FLOOR FRAMING

Species, grade, moisture content in service and level of treatment as set out in NZS 3602. Grading to NZS 3631 and treated to NZMP 3640.

2.3 NAILS

Steel, stainless steel and galvanised steel of pattern to NZS 3604, appendix A.

2.4 BOLTS AND SCREWS

Steel, stainless steel and galvanised steel to NZS 3604.

2.5 NAIL PLATES

Stainless steel and galvanised steel toothed or nailed steel plates to the manufacturer's design for the particular locations shown on the drawings.

2.6 CONCRETE

For piles and footings high grade 20 MPa to NZS 3109, section 6 and NZS 3604, clause 4.3.5.

2.7 BRUSH ON LIQUID-APPLIED MEMBRANE

Fully stable, water-based colloidal bitumen emulsion.

3. EXECUTION

3.1 GENERALLY

Comply with NZS 3602 and NZS 3604 except as varied by this specification. Execution to include those methods, practices and processes contained in the unit standards for the National Certificate in Carpentry and the National Certificate in Joinery (cabinetry, exterior joinery, stairs).

3.2 EXCAVATIONS

Refer to 2201 PREPARATION AND GROUND WORK.

3.5 INSTALL ROUND TIMBER PILES

Prepare for and drive timber piles to NZS 3604, appendix D. Protect pile heads with a suitable cushion.

3.6 INSTALL SQUARE TIMBER PILES

Prepare for, place and secure as detailed on the drawings.

3.7 SUB-FLOOR FRAMING

Frame up off foundation walls and piles, all fabricated, fastened and braced to NZS 3604, sections 2.5 and 4.

DESIGN NETWORK General Specification

3.8 CONCRETE

Refer to 3101 CONCRETE for poured concrete footings, foundations, foundation walls and floor slabs.

3.9 BLOCKWORK

Refer to 3302 BLOCKWORK for concrete block foundation walls.

3.10 SHEET DAMPPROOFING

Protect all horizontal surfaces to be dampproofed with a 50mm layer of 15MPa site concrete. Ensure surfaces to be dampproofed are free from voids, spalled areas, loose particles and sharp protrusions. Masonry joints to be struck flush. Apply primer, then install the rubberised bitumen membrane system, strictly in accordance with the manufacturer's recommendations. All work to be completed by applicators licensed by the manufacturer. Protect all vertical surfaces with polystyrene sheets glued to the membrane and taped over joints.

3.11 BRUSH ON LIQUID-APPLIED MEMBRANE

Three coats of water-based bitumen emulsion applied strictly in accordance with the manufacturer's recommendations. First coat at the rate of 0.20 litres/m², with the second and third coats each at the rate of 0.75/m². Protect all vertical surfaces with polystyrene sheets before backfilling.

3.12 **LEAVE**

Leave all work to the standard required by all following trades.

DESIGN NETWORK General Specification

3101 CONCRETE

1. GENERAL

1.1 DOCUMENTS

Documents referred to in this section are:

NZS 3104	Concrete production - high grade and special grade
NZS 3108	Concrete production - ordinary grade
NZS 3109	Concrete construction
NZS 3114	Concrete surface finishes
NZS 3124	Concrete construction for minor works
NZS 3402	Steel bars for the reinforcement of concrete
NZS 3422	Welded fabric of drawn steel wire for concrete reinforcement
NZS 3604	Light timber frame buildings not requiring specific design

2. PRODUCTS

2.1 REINFORCEMENT

Bars to NZS 3402. Welded reinforcing mesh to NZS 3422.

2.2 VAPOUR BARRIER

0.25mm minimum polythene to NZS 3604, appendix E8.

2.3 READY-MIX CONCRETE

High grade 20 MPa, maximum aggregate size 19mm to NZS 3104.

2.4 SITE MIXED CONCRETE

To NZS 3124. Ordinary grade 17.5 MPa minimum strength, using either separate batching of sand and coarse aggregate to NZS 3108, or builder's mix.

2.5 SITE CONCRETE

To NZS 3124. 1:8 (cement : all-in aggregate) with minimum water for workability, all materials and batching to NZS 3108.

3. EXECUTION

3.1 FALSEWORK AND FORMWORK

Falsework and formwork to be of sufficient strength to retain and support the wet concrete to the required profiles and tolerances. Formwork finish to be selected to produce the specified finished quality. Timber or plywood used for formwork to be non-staining to the set concrete.

Securely fix and brace formwork with sufficient strength to support all loads and with joints and linings tight enough to prevent water loss. Tie wires or rods not to be used unless approved in writing by the owner. Unless detailed otherwise, all interior and exterior angles of beam and column forms to have a 19mm chamfer or fillet strip, mitred at intersections.

Water blast to clean formwork. Keep formwork wet before concrete is placed.

Unless detailed otherwise, set up soffit boxing for beams and slabs to provide a camber when forms are stripped, of 3mm rise for every 3 metres of total clear span.

3.2 INSPECTION

Do not place concrete until all excavations, boxing and reinforcing have been inspected and passed by the territorial authority inspector.

3.3 COMPLY

Comply with NZS 3109, section 3 for execution and construction.

3.4 REINFORCEMENT

To comply with NZS 3109. Bends to be made cold and once only. Reinforcing to be accurately placed and well secured against displacement. Do not weld reinforcement.

3.5 SURFACE FINISHES

To comply with NZS 3114, section 105, or as denoted on the drawings.

3.6 EXPOSED CONCRETE

Formwork linings and surface finishes as nominated for both fair face and concealed or exposed surfaces. Unless detailed, obtain written confirmation of the type and pattern of all joints.

3.7 TOLERANCES

To comply with NZS 3114, sections 104 and 105, with the suggested tolerances becoming the required tolerances.

3.8 VAPOUR BARRIER

Apply polythene membrane to prepared basecourse with 150mm laps; tape seal laps and penetrations. Refer to drawings for perimeter details.

3.9 DAMPPROOFING

Refer to 2301 FOUNDATIONS.

3.10 CASTING IN

Allow to build in all grounds, bolts and fixings for wall plates and bracing elements, holding down bolts, pipes, sleeves and fixings as required by all trades and as shown on the drawings, prior to pouring the concrete.

Continuous grounds (i.e. exceeding 100mm) must not be used. Location and form of conduits to be approved in writing by the owner. Minimum cover 40mm. Bare aluminium items not to be encased in concrete. Steel embedded items not to be painted more than 25mm into the concrete encasement. Any form ties to be cut back to specified cover and the cavities filled with mortar.

Form all pockets, chases and flashing grooves as required by all trades and as shown on the drawings.

Wrap all pipes embedded in concrete with tape to break the bond and to allow for expansion. Pipes for conveying liquids exceeding a temperature of 50 degrees centigrade not to be embedded in concrete.

3.11 PUMPING CONCRETE

Pump operation, placing and compaction of the mix to be set up and supervised in accordance with NZS 3109. Advise the ready-mix supplier of the type of pump to be used and the slump required, in addition to the concrete grade, strength and quantity.

3.12 COMPACTION

To be achieved by the use of power operated vibrators.

3.13 RESIDENTIAL FLOOR SLABS

Construct in accordance with NZS 3604, appendix E. Lay to true and straight surfaces, screeded, floated and steel (manual or power) trowelled finish. Tolerance on flatness to be a maximum 3mm gradual deviation over a 3 metre straight-edge, to the requirements of NZS 3109.

3.14 CONSTRUCTION JOINTS

Locate and construct as shown on the drawings.

3.15 SAW CUTS

Floor slabs cast on the ground to be poured in areas not greater than 25 square metres, with a maximum ratio of length to breadth of 1:1.5

Cut slabs where indicated on the drawings and as required to control shrinkage cracking. Cutting to be carried out as soon as possible, without causing tear-out of aggregate and before shrinkage cracking has occurred, generally within 24 hours of pouring. Where saw cuts are made, cut out 100mm of every second wire of the mesh for a length of 50mm each side of the saw cut position. Saw cuts to be 1/3rd slab depth or 30mm minimum.

3.16 REPAIRS

Make good surface defects immediately after forms are stripped. Make good hollows or bony areas with 1:2 mortar or plaster, finished to the same tolerances as the parent concrete. Fill any tie rod holes with 1:2 mortar.

3.17 CURING OF CONCRETE

Keep damp for not less than seven days. Ensure curing of slabs commences as soon as possible after final finishing, by the use of continuous water sprays, or ponding. Alternately, apply a curing membrane. Make sure any membrane used will not affect subsequent applied finishes.

12 hours

3.18 STRIKE FORMWORK

Strike formwork without damaging or overloading structure. Do not remove formwork before the following minimum periods:

Sides of beams, walls and columns:

Slabs in beam and slab construction: 4 days

(leave props under slab spans over 2 metres)

Props from under slab spans over 2 metres: 10 days

Beams, soffits and slab spans over 5 metres: 18 days

3.19 CLEAN OUT

Clean out saw cuts and fill with cement grout where the floor will be covered with carpet or vinyl.

3.20 REMOVE

Remove all unused materials and all concrete and reinforcing debris from the site.

3801 CARPENTRY

1. GENERAL

1.1 DOCUMENTS

Documents referred to in this section are:

AS 1748	Mechanically stress-graded timber
AS/NZS 1859	Reconstituted wood based panels
	1859.1 Particle board
AS/NZS 2269	Plywood - structural
NZS 2295	Building papers (breather type)
NZS 3602	Specifying timber and wood-based products for use in building
NZS 3603	Timber structures standard
NZS 3604	Light timber frame buildings not requiring specific design
NZS 3606	Manufacture of glue-laminated timber
NZS 3617	Profiles of weatherboards, fascia boards and flooring
NZS 3631	NZ national timber grading rules
NZMP 3640	Minimum requirements of the NZ Timber Preservation Council Inc.
NZS 4214	Methods of determining the total thermal resistance of parts of buildings
NZS 4218	Energy efficiency - Housing and small building envelope
NZS 4222	Materials for the thermal insulation of buildings

BRANZ Bulletin 302: Preventing moisture problems in timber framed skillion roofs

BRANZ Bulletin 328: Selection and use of fasteners

BRANZ Bulletin 343: Moisture in timber

BRANZ Bulletin 357: Thermal insulation of houses

2. PRODUCTS

2.1 BUILDING PAPER

Breather type to NZS 2295.

2.2 ALUMINIUM FOIL

Aluminium sheet, kraft paper fibre reinforced laminates to NZS 4222, part 4 and fitted to NZS 4218.

2.3 GLASS FIBRE INSULATION

Interleaved glass fibre quilt in block form.

2.4 TIMBER FRAMING GENERALLY

Species, grade and level of treatment as set out in NZS 3602. Grading to NZS 3631 and treated to NZMP 3640. Mechanical stress grading to be acceptable as an alternative to visual grading.

2.5 TIMBER FRAMING DRY, CHEMICAL FREE, MECHANICALLY STRESS GRADED Species, grade and moisture content in service as set out in NZS 3602. Machine stress graded to AS

Species, grade and moisture content in service as set out in NZS 3602. Machine stress graded to AS 1748, with an average moisture content at supply of 16% or less.

2.6 TIMBER FRAMING DRY, TREATED

Species, grade and moisture content in service as set out in NZS 3602. Treated H1 to NZMP 3640, with an average moisture content at supply of 16% or less. Either mechanically stress graded to AS 1748, or visual grading to NZS 3631.

2.7 CEILING BATTENS

Species, grade, moisture content in service and level of treatment as set out in NZS 3602. Grading to NZS 3631 and treated to NZMP 3640.

2.8 LAMINATED TIMBER

Radiata pine laminations to NZS 3606, table 1, treated as required by NZS 3602, to the requirements of NZMP 3640, with special attention to section 4 "Recommendations and advisory notes." Supply weather resistant sealed.

2.9 TIMBER STRIP FLOORING

Dressing grade to NZS 3631, section 4.4. H1 treated to NZMP 3640. Profiles to NZS 3617.

2.10 PARTICLE BOARD FLOORING

Flooring grade high density resin bonded to AS/NZS 1859.1.

2.11 PLYWOOD

Structural plywood to AS/NZS 2269 for bracing, bracketing, sarking and floors.

2.12 COMPRESSED FIBRE CEMENT SHEET FLOORING

18mm thick high density sheet of Portland cement, fine sand, cellulose fibre and water, with a smooth finish both sides.

2.13 HARDWOOD SPACED BOARDING FOR EXTERIOR DECKS

Plantation-grown hardwood. Dressed four sides and with arrises removed. Provide a timber sample for approval prior to laying.

2.14 SOFTWOOD SPACED BOARDING FOR EXTERIOR DECKS

Selected radiata pine, treated to H3 to NZMP 3640, sections 8.6 and 9.3. Dressed four sides and with arrises removed. Provide a timber sample for approval prior to laying.

2.15 DAMPPROOF COURSE

2-ply/3-ply kraft felt strip saturated and coated with bitumen.

2.16 NAILS

Steel, stainless steel and galvanised steel of pattern to suit the location and to BRANZ Bulletin 328 "Selection and use of fasteners."

2.17 BOLTS AND SCREWS

Steel, stainless steel and galvanised steel of pattern to suit the location and to BRANZ Bulletin 328 "Selection and use of fasteners."

2.18 NAIL PLATES

Stainless steel and/or galvanised steel toothed or nailed plates to the manufacturer's design for the particular locations as shown on the drawings.

2.19 CONNECTORS

Galvanised steel connectors and structural brackets to the manufacturer's design for particular locations shown on drawings.

3. EXECUTION

3.1 ATTENDANCE

Provide and fix blocks, nogs, openings and other items as required by other trades.

3.2 MOISTURE CONTENT

Maximum allowable equilibrium moisture content (EMC) in accordance with BRANZ Bulletin 343 for framing supporting interior linings:

		<u>EMC</u>
Ι.	Framing at erection	24%
2.	Framing at enclosure	20%
3.	Framing at lining	16%
4.	Timber strip flooring (at time of laying)	10%

3.3 GENERALLY

To NZS 3603 and 3604 except as varied in this specification. Execution to include those methods, practices and processes contained in the unit standards for the National Certificate in Carpentry and the National Certificate in Joinery (cabinetry, exterior joinery, stairs).

3.20 LAYING TIMBER SPACED BOARDING FOR EXTERIOR DECKS

Confirm with the owner whether the grooved side of the boards are to be face up or face down. Avoid excessively short or long lengths, drill for all fixings, stagger end joints and space boards a maximum of 2mm apart. Fix using annular grooved galvanised jolt head nails, heads driven flush with the board surface.

3.21 **LEAVE**

Leave all work to the standard required by all following trades.

4201H JAMES HARDIE CLADDING

1. GENERAL

1.1 DOCUMENTS

Documents referred to in this section are:

NZS/AS 2908

Cellulose - cement products

2908.2 Flat sheets

NZS 2295

Building papers (breather type)

NZS 3604

Light timber frame buildings not requiring specific design

NZS 4214

Methods of determining the total thermal resistance of parts of buildings

BRANZ appraisal certificate 229: James Hardie wall bracing systems

BRANZ Bulletin 284: Sealed joints in exterior claddings - 2. Sealants

BRANZ Bulletin 304: Flashing design

BRANZ Bulletin 305: Domestic flashing installation

1.2 JAMES HARDIE DOCUMENTS

James Hardie documents that relate to work in this section are:

- Harditex™ Technical
- Harditex™ Selling
- Harditex™ Premium Selling
- Harditex™ BRANZ appraisal certificate 243
- Hardibacker® Technical
- Hardibacker® BRANZ appraisal certificate 240
- Hardiflex® Technical
- Hardiflex® Selling
- Hardiflex® BRANZ appraisal certificate 242
- James Hardie Weatherboards Technical
- James Hardie Weatherboards Selling
- James Hardie Weatherboards BRANZ appraisal certificate 241
- James Hardie Soffits Technical
- James Hardie Soffits Selling
- BRANZ Appraisal Certificate 229: James Hardie wall bracing systems

Copies of the above literature are available by phoning the James Hardie Helpline on 0800 808 868.

2. PRODUCTS

2.1 UNDERLAY

Breather type flame retardant lightweight paper to NZS 2295

2.2 GENERALLY

James Hardie fibre cement sheets to comply with NZS/AS 2908.2.

2.5 HARDITEX™ FLUSH CLADDING SYSTEM

Treated cellulose fibre in a matrix of cement and sand autoclaved sheet, with rebated joints both sides and one edge, oxide tinted pink.

2.6 HARDIFLEX® SOFFIT PANELS

Treated cellulose fibre in a matrix of cement and sand autoclaved sheet with an unsanded finish.

2.7 SCREWS FOR TIMBER

For timber framing, countersunk Phillips-head stainless steel screws.

2.8 SCREWS FOR SOFFIT LININGS

Villadrive® wood screws, 6 gauge x 30mm and 6 gauge x 25mm for steel.

2.9 FASTENINGS FOR SOFFIT LININGS

Fastfix white nylon fasteners.

2.10 HARDIFLEX®, HARDITEX™, HARDIBACKER® NAILS GALVANISED

Galvanised 40mm x 2.8mm flathead minimum head diameter 6.8mm. Refer to relevant James Hardie technical literature.

2.11 HARDIFLEX®, HARDITEX™, HARDIBACKER® NAILS STAINLESS STEEL

316 stainless steel 40mm x 2.8mm flathead minimum head diameter 6.8mm. Refer to relevant James Hardie technical literature.

2.12 SOFFIT JOINTERS, CAPPING MOULDS, SCOTIA MOULDS

Extruded PVC. Refer to relevant James Hardie technical literature.

2.13 PANEL JOINTERS

Extruded PVC to suit the selected panel texture. Refer to relevant James Hardie technical literature.

2.14 SEALING STRIPS

Butynol rubber and/or compressible sealing strips. Refer to relevant James Hardie technical literature.

2.15 SUBSTRATE BOARD SECTIONS

PVC base mould, control joint mould, spacer angles and horizontal flashings. Refer to relevant James Hardie technical literature.

2.16 SEALANT

Silicone or polyurethane sealant. Refer to relevant James Hardie technical literature.

2.17 TIMBER FASCIAS AND BARGE BOARDS

Dressing grade to NZS 3631 and H3 treated to NZMP 3640. Finger-jointed timber to AS/NZS 1491.

3. EXECUTION

3.1 MOISTURE CONTENT

Maximum allowable equilibrium moisture content (EMC) of framing at enclosure 24%.

3.2 GENERALLY

To NZS 3604 except as varied in this specification. Execution to include those methods, practices and processes contained in the unit standards for the National Certificate in Carpentry and the National Certificate in Joinery (cabinetry, exterior joinery, stairs).

3.3 FIX PAPERS

Fix breather type building paper to NZS 4214, as detailed. Refer also to relevant James Hardie technical literature.

3.4 STORING JAMES HARDIE PRODUCTS

Take delivery of sheets dry and undamaged in pallets and stack vertically or lay horizontally on a smooth level surface. Protect edges and corners from damage and cover to keep dry until fixed.

3.5 HANDLING JAMES HARDIE PRODUCTS

Avoid distortion and contact with potentially damaging surfaces. Do not drag sheets across each other, or across other materials. Protect edges, corners and surface finish from damage.

3.6 SUBSTRATE JAMES HARDIE PRODUCTS

Do not commence work until the substrate is of the standard required by relevant James Hardie technical literature for the specified finish; plumb, level and in true alignment. Moisture content of timber framing to comply with NZS 3602 moisture content maximums, to minimise shrinkage and movement after sheets are fixed.

3.7 THERMAL BRIDGING JAMES HARDIE PRODUCTS

Install thermal bridging to steel framing, strictly in accordance with relevant James Hardie technical literature.

3.8 INSTALLING JAMES HARDIE PRODUCTS

To be strictly in accordance with relevant James Hardie technical literature. Refer to the JAMES HARDIE DOCUMENTS clause. Retain current copies of all relevant James Hardie publications on site and ensure that all installers are familiar with requirements for preparation, fixing and finishing James Hardie cladding products and accessories.

3.9 BRACING SYSTEM JAMES HARDIE PRODUCTS

Fix sheets in accordance with relevant James Hardie technical literature and BRANZ appraisal certificate 229.

3.10 INSTALL HARDITEX™ FLUSH CLADDING SYSTEM

Cut sheets dry, form holes and work sheets to relevant James Hardie technical literature. Cover framing with building paper to NZS 3604. Fit butynol rubber sealing strips behind joints before scribe fitting and nailing sheets to all framing. Fit control joints at 5.4 metre maximum centres to limit flush areas to 25 m² and vertical structural expansion joints at 14.4 metre centres. Finalise location and form of control and expansion joints on site before commencing cladding work.

3.11 INSTALL HARDIFLEX® SOFFIT PANELS

Cut sheets dry and scribe fit to fully support all edges and joints. Nail and drill for and insert PVC fasteners. Fit complete with colour matched jointers and capping moulds. Refer to relevant James Hardie technical literature.

3.12 INSTALL EXTERIOR TIMBER FINISHINGS

Fix timber fascias, barge boards, facings, beads, trim and enclosures level, true to line and face, with all end grain sealed and joints mitred.

3.13 FIX FLASHINGS

Fix flashings, covers and soakers as detailed and to BRANZ Bulletins 304 "Flashing design" and 305 "Domestic flashing installation."

3.14 USE OF SEALANTS

Selection and use of sealants to follow BRANZ Bulletin 284 "Sealed joints in external claddings - 2. Sealants."

3.15 LEAVE

Leave all work to the standard required by all following trades.

4301 ROOFING

1. **GENERAL**

1.1 **DOCUMENTS**

Documents referred to in this section are:

NZBC

E2/AS1

External moisture

1.O Roofs

NZS/AS 1397 Steel sheet and strip - hot-dipped, zinc-coated, or aluminium/zinc-coated NZS 2295 Building papers, (breather type)

NZS 3403

NZS 3602

Hot-dipped galvanised corrugated steel sheet for building Timber and wood-base products for use in building

purposes

NZS 3604

Light timber frame buildings not requiring specific design

NZMP 3640 NZS 4206

Minimum requirements of the NZ Timber Preservation Council Concrete interlocking roofing tiles

NZS 4217

Pressed metal tile roofs

NZS 4222

Materials for the thermal insulation of buildings

BRANZ Bulletin 284: Sealed joints in external claddings - 2. Sealants

New Zealand Metal Roofing and Cladding Manufacturers' Association Inc. Profiled metal roofing design and installation handbook

1.2 **ROOFER QUALIFICATION**

Carry out all roofing work using experienced, competent roofers familiar with the materials and techniques specified.

1.2 WIND AND EARTHQUAKE LOADINGS

Use fixings and methods capable of sustaining the loads appropriate to the area as set out in NZS 3604, table 2.3.

1.4 COORDINATE

Coordinate to ensure substrate and preparatory work is complete and other work programmed in the order required for access and completion of the roof.

2. **PRODUCTS**

2.1 **TILE BATTENS**

Douglas fir, or No 1 framing radiata pine to NZS 3602. Size to NZS 3604, table 10.8. Treated to NZMP 3640, group A, hazard class H1.

2.2 **BUILDING PAPER**

Breather type kraft paper laminates to NZS 2295.

2.3 UNDERLAY SUPPORT

50mm hexagon mesh of 1mm diameter galvanised steel wire in 900mm (minimum) width sheets.

2.4 METAL ROOFING TILES

Pressed steel sheet galvanised to NZS 3403, aluminium-zinc coated to NZS/AS 1397. Accessories, cappings, flashings, and fixings to match and to the manufacturer's recommendations.

3. **EXECUTION**

3.1 STACK ROOFING

Stack roofing and accessories on clean, level areas of the site and protect from damage and from weather until ready to fix in place.

3.2 SET OUT

Set out the planned layout before fixing commences, to ensure true lines and the correct relationship to module, grid and roof features.

3.3 LAY ROOF UNDERLAY

Lay and fix to NZBC acceptable solution E2/AS1, NZS 3604, section 11.2 and the manufacturer's recommendations.

3.4 LAY ROOFING, GENERALLY

Take care to avoid damaging pre-finished roofing both during and after fixing. Wear only soft-soled shoes on the finished surface.

3.5 FIX THE TILE BATTENS

Fix the tile battens to the roofing manufacturer's recommendations and with all joints fully supported and staggered.

3.6 CUT METAL TILES

Cut with recommended tools, fold ends and seal cut edges of tiles and accessories without damaging their integrity or finish, all to the manufacturer's recommendations.

3.7 LAP METAL TILES

Lap metal tiles and fix complete with all matching accessories, flashed to all roof features and penetrations; all to the manufacturer's recommendations and NZS 4217.

3.8 FIX COVERS AND FLASHINGS

To comply with NZBC acceptable solution E2/AS1, 1.0. Install and fixed as detailed and to the roofing manufacturer's details.

3.9 PENETRATIONS

Flash and overflash all penetrations through the roof.

3.10 USE OF SEALANTS

Selection and use of sealants to follow BRANZ Bulletin 284 "Sealed joints in external claddings - 2. Sealants."

3.11 **LEAVE**

Leave the work complete with all flashings, undercloaks, valleys, ridges and hips properly installed so the finished roof is completely weathertight.

3.12 **CLEAR**

Clear all trade rubbish and unused materials from the roof and surrounds regularly during the work and at completion. Sweep down the completed roof and flush out all spoutings, gutters and rainwater pipes, ensuring that metal filings, metal scraps and loose fixings are removed.

3.13 REPLACE

Replace damaged or marked elements. Remove unused materials from the site.

4502 ALUMINIUM WINDOWS AND DOORS

1. GENERAL

1.1 DOCUMENTS

Documents referred to in this section are:

NZBC

F2/AS1

Hazardous building materials

1.0 Glazing

AS/NZS 1231

Aluminium and aluminium alloys - Anodised coatings for

architectural applications

AS/NZS 2208

Safety glazing materials in buildings

NZS 3504

Aluminium windows

NZS 4211

Performance of windows Glazing in buildings

NZS 4223

Parts 1 & 2: Glazing in buildings

Part 3: Human impact safety requirements

Architectural Aluminium Association of New Zealand: Aluminium Window Handbook

Architectural Aluminium Association of New Zealand: Specification for powder coatings on architectural aluminium products

Architectural Aluminium Association of New Zealand: Installation code for aluminium joinery products

BRANZ Bulletin 349: Finishes for aluminium

1.2 SUBMIT

Submit full size section samples, with the selected finish through all profiles offered. Provide evidence from a laboratory accredited by International Accreditation of New Zealand that the windows offered comply with the requirements of NZS 3504 and the required site and building design wind pressure, air leakage and water leakage levels to NZS 4211.

Provide written confirmation that all windows and doors have a serviceability wind pressure (SWP) and an ultimate wind pressure (UWP) corresponding to the wind zones set down in NZS 3604, table 5.

1.3 ALUMINIUM WINDOWS AND DOORS QUALITY

To be fabricated by a member of the Architectural Aluminium Association of New Zealand. Nominate brand and type for approval. The owner reserves the right to reject any nominated brand and request the nomination of alternatives.

2. PRODUCTS

2.1 SECTIONS

All aluminium members to be formed from extruded sections. Folded sections restricted to flashings and concealed members only.

2.2 GLASS GENERALLY

All glazing to comply with NZS 4223, with particular attention to NZS 4223, part 3 where glass could be subject to human impact.

2.3 GLASS, FLOAT

To NZS 4223, part 1, selection G. Thickness as required by NZS 4223, part 1 and AS/NZS 2208.

2.4 GLASS, PATTERNED

Translucent, annealed glass with a decorative pattern on one surface.

2.5 GLASS, LAMINATED

To Grade A safety glazing material requirements with PVB or CIP resin interlayer.

2.6 GLASS, TOUGHENED

To Grade A safety glazing material requirements.

2.7 INSULATING GLASS UNITS

To the performance requirements of NZS 4223, part 2, clause 209.

2.8 GLASS, FLOAT SOLAR

Float glass, body-tinted or reflective coated glazing.

2.9 ORGANIC POWDER COATING FINISH

To BRANZ Bulletin 349 "Finishes for aluminium" and the Architectural Aluminium Association of New Zealand's "Specification for powder coatings on architectural aluminium products." All finished surfaces to show uniformity of gloss and colour (to match approved sample) free of all coating defects.

2.10 ANODISING

To BRANZ Bulletin 349 "Finishes for aluminium" and AS/NZS 1231.

2.11 SEALANT

To the window manufacturer's recommendations.

2.12 GLAZING TAPE AND GASKETS

To the window manufacturer's recommendations.

2.13 FIXINGS

All fixings and bracketing to be compatible with aluminium. Do not use electroplated zinc fasteners or brass fastenings.

3. EXECUTION

3.1 SITE MEASURE

All window frame measurements to be verified on site prior to fabrication.

3.2 GENERALLY

Execution to be in accordance with the requirements of NZS 4211 and the Architectural Aluminium Association of New Zealand's "Aluminium window handbook" and "Installation code for aluminium windows."

3.3 AVOID DISTORTION

Avoid distortion of components during transit, handling and storage. Prevent pre-finished surfaces from rubbing together. Prevent contact with mud, plaster and cement. Do not deliver to site any components which cannot be immediately unloaded into suitable conditions of storage.

3.4 CORROSION PROTECTION

All cut ends and holes drilled in aluminium to be sealed, or suitably coated before the frames are installed. Before fixing, apply bituminous coatings, slips or underlays between dissimilar metals in contact, or aluminium in contact with concrete.

3.5 FIX FRAMES

Fix frames rigidly in place without distortion, to the manufacturer's and the Architectural Aluminium Association's "Aluminium window handbook" recommendations, plumb, true to line and face, weathertight and with all openings operating freely.

3.6 DRAINAGE

All sills to incorporate anti-condensation channels. All sills to sashes and fixed lights to incorporate positive drainage to the exterior.

3.7 GLAZING INSTALLATION

Glazing and infill panels to be the responsibility of the window manufacturer for structural and weather-tight performance. All glass to be held in aluminium beads and black PVC gaskets.

3.8 SAFETY GLASS INSTALLATION

Use in all doors, sidelight panels, low level windows and all other locations to comply with NZS 4223, part 3, as modified by NZBC acceptable solution F2/AS1. Glass to comply with AS/NZS 2208.

3.9 INSTALL FLASHINGS

Install flashings to heads, jambs and sills of frames as supplied and recommended by the window manufacturer and as detailed on the drawings. Head flashings to be finished to match window finish.

3.10 SEAL FRAMES

Seal frames to each other and to adjoining structure and finishes, all as recommended by the manufacturer and to make the installation weathertight.

3.11 RETAIN PROTECTIVE COVERINGS

Retain protective coverings and coatings in place during fixing wherever possible. Provide additional protection to prevent marking of surfaces which will be visible in the completed work. Remove protection on completion.

3.12 ON COMPLETION

On completion remove temporary protection and clean down both sides of all aluminium and glass, using the method recommended by the manufacturer.

3.13 INDICATE

Indicate the glass in place with inert whitening, paper, glazing signs or tape.

3.14 CLEAN

Clean off or remove indicators at completion of the building. Clean all glass inside and out to a shining finish.

5101 LINING

1. GENERAL

1.1 DOCUMENTS

Documents referred to in this section are:

NZMP 9	Fire properties of building materials and elements of structure
AS/NZS 1859	Reconstituted wood-based panels
	1859.1 Particle board
	1859.2 Medium density fibreboard (MDF)
AS/NZS 2269	Plywood - structural
AS 2458	Hardboard
NZS/AS 2908	Cellulose-cement products
	2908.2 Flat sheets
NZS 3602	Timber and wood-based products for use in buildings
NZS 3604	Light timber frame buildings not requiring specific design
NZS 3610	Profiles of mouldings and joinery
NZS 3612	Interior plywood
NZS 4221	Fibrous plaster sheet
NZS 7607	Plastics - Decorative laminated sheets based on thermo-setting resins:
	Dort 1: Cassification

Part 1: Specification

Part 2: Determination of properties

16%

Interior Systems Association: Levels of finish

New Zealand Fibrous Plaster Association: Code of recommended practice for the application and fixing of fibrous plaster

BRANZ Bulletin 328: Selection and use of fasteners

BRANZ Bulletin 343: Moisture in timber

1.2 MOISTURE CONTENT

Maximum allowable equilibrium moisture content (EMC) in accordance with BRANZ Bulletin 343 for

		EMC
1.	Framing at lining	24%
	(timber-based)	

2. Framing at lining (plasterboard/fibrous)

1.4 PROTECT

Protect all joinery, fittings and finishes already in place from water staining or damage from lining installation. Immediately make good any damage.

1.5 BUILDING

Building to be weatherproof before lining work commences.

2. PRODUCTS

Plasterboard

2.1 PLASTERBOARD

Gypsum plaster core encased in a durable face and backing paper formed for: standard use, bracing use, water resistance, and for fire rated use as approved by the fire ratings committee of Standards New Zealand for inclusion in NZMP 9.

Refer to the drawings and/or the finishing schedule for the location of standard, water resistant, bracing, special ceiling, fire rated, sound rated panels.

2.2 EXTERNAL ANGLE

Slim type 0.5mm galvanised steel.

2.3 CASING BEAD

Slim type 0.5mm galvanised steel or PVC.

2.4 NAILS

Galvanised clouts 40mm x 2.5mm.

2.5 SCREWS

40 x 6 gauge zinc electro-plated bugle head gypsum drywall screws.

2.6 JOINTING

Compound and paper tape to the board manufacturer's recommendations.

2.7 ADHESIVE

Multi-purpose water based wallboard adhesive.

3. EXECUTION

3.1 SUBSTRATE

To NZS 3604, sections 6, 9, 11 and the standard required by the manufacturer's recommendations. Starting work implies acceptance the substrate will allow work of the required standard.

3.2 LEVELS OF FINISH

Before commencing work, confirm the surface finish assessment procedures necessary to ensure the specified levels of finish will be obtained.

Plasterboard

3.3 LEVELS OF FINISH

Provide levels of finish to standards laid down by the Interior Systems Association document "Levels of finish," as follows:

Level 3: surfaces receiving heavy to medium texture finishes

Level 4: surfaces receiving light texture or wall covering finishes

Level 5: surfaces receiving thin coating finishes.

3.4 LINE CEILINGS

Line ceilings with plasterboard sheets, fastened to the manufacturer's recommendations.

3.5 LINE WALLS

Line walls that are up to 2400mm high by the horizontal method and walls above 2400mm high by the vertical method, with plasterboard sheets, fastened to the manufacturer's recommendations.

3.6 LINE WET AREA WALLS

Line wet area walls with water resistant plasterboard sheets using adhesive and nail fixing to studs at centres to suit the surface finish and to the manufacturer's details.

3.7 FORM BRACING PANELS AND SYSTEMS

Form using high density plasterboard sheets fixed with clout-washers and clouts to the manufacturer's details. For panels strap substrate and for systems diagonal brace to NZS 3604, appendices K.4 and K.2.

3.8 FIX EXTERNAL ANGLES

Fix full length to all external corners with clouts at 100mm each side staggered.

3.9 FILL JOINTS

Fill joint recess with bedding compound, centre the paper tape, apply second coat of bedding compound followed by a coat of finishing compound; allow to dry and lightly sand off, all to the manufacturer's recommendations.

3.10 STOPPING

Fill nail holes and flush up external angles with two successive coats of bedding compound followed by a coat of finishing compound, allow to dry and lightly sand off, all to the manufacturer's recommendations.

Sundry Items

3.11 CEILING ACCESS

Trim out ceiling to form 600mm x 500mm square clear opening. Fit finished 40mm x 12mm timber facings to perimeter, set to support a lift-out panel of the ceiling material.

3.12 INSTALL TRIM

Scribe and fit facings to exterior joinery, architraves to interior joinery, skirtings to all walls and timber bead cornices as detailed and shown.

3.13 CLEAN ALL

Clean all adjoining surfaces and fittings of spots, marks, dust and droppings.

3.14 LEAVE

Leave all work to the standard required by all following trades.

7403 DRAINAGE

1. GENERAL

1.1 DOCUMENTS

Documents referred to in this section are:

NZBC	B1/AS1	Structure - general
		6.0 Drains
NZBC	E1/AS1	Surface water
NZBC	G13/AS2	Foul Water - drainage
NZS 3108	Concrete pr	oduction, ordinary grade
NZS 3402	Steel bars for the reinforcement of concrete	
AS/NZS 3500	National plu	umbing and drainage code
NZS 7643	-	of Unplasticized PVC pipe systems

Plumbers, Gasfitters and Drainlayers Act 1976

1.2 SUPPLY

NZS 7649

Supply a 1:100 scale as-built plan of drains and fittings to the territorial authority and to the owner on completion.

Unplasticized PVC sewer and drain pipe and fittings

1.3 ALL WORK

All work to be carried out by or under the direct supervision of a person registered under the Plumbers, Gasfitters and Drainlayers Act 1976.

2. PRODUCTS

2.1 FILL

Scoria or rock of general all-passing 40 grading to NZBC acceptable solution G13/AS2, 8.0.

2.2 CONCRETE

17.5 MPa and 20 MPa ordinary grade to NZS 3108.

2.3 REINFORCEMENT

To NZS 3402 Grade 300 deformed bars.

2.4 UPVC PIPES

UPVC pipes bends, junctions, fittings and joints to NZS 7649.

2.5 PLASTIC PIPING

Plastic piping for field drains perforated and coiled with filter fabric over.

2.6 GULLY TRAPS

To NZBC acceptable solution G13/AS2, 3.2, complete with grating.

2.7 SURFACE WATER SUMP GRATINGS

Cast iron frame with lift-up grating.

2.8 INSPECTION COVERS

Cast iron frame with screw-down cover.

3. EXECUTION

3.1 EXCAVATE

Excavate for drains to a firm even base with correct gradients set in straight runs.

3.2 DRAINAGE LINES GENERALLY

All to the pipe manufacturer's recommendations.

3.3 CARRY OUT

Carry out drainage work and tests to AS/NZS 3500and NZS 7643, all as modified by NZBC acceptable solution B1/AS1, 6.0.

3.4 LAY FOUL WATER DRAINS

Lay drains in straight runs to correct gradients, to discharge into the network utility operators sewer. Set all inspection fittings on a concrete base.

3.5 INSTALL GULLY TRAPS

Set on concrete brought up to protect the top of the fitting. Trowel off.

3.6 LAY STORMWATER DRAINS

Confirm the required location of all downpipes and all finished ground levels before commencing pipework. Set downpipe bends in concrete brought up to protect the top of the fitting from damage. Trowel off and fit a cast iron grating. Lay drains in straight runs to correct gradients to discharge into the network utility operator's stormwater system.

3.7 LAY SUBSOIL DRAINS

Lay perforated coil piping firmly in a granular bed in straight runs to correct gradients, discharging into a cesspit. Carry the granular bed up over the pipes without disturbing them, to a total depth of 300mm and cover with geotextile fabric; all to the pipe manufacturer's recommendations.

3.8 INSTALL SURFACE WATER SUMP

To NZBC acceptable solution E1/AS1 standard, complete with ceramic half-siphon pipe and cast iron frame with a lift out grating.

3.9 INSTALL STORMWATER INSPECTION CHAMBERS

To NZBC acceptable solution E1/AS1 standard, with channels to form a cascade and with a 75mm fall across the chamber. Bench from channels at 45 degrees and plaster all the interior with 1:2 cement: sand mortar, trowelled smooth. Fit a cast iron cover and frame.

3.10 INSTALL FOUL WATER INSPECTION CHAMBERS

To NZBC acceptable solution G13/AS2 standard, with ceramic channels to form a cascade and with a 75mm fall across the chamber. Bench from channels at 45 degrees and plaster all the interior with 1:2 cement: sand mortar, trowelled smooth. Fit a cast iron cover and frame.

3.11 SOAKHOLES OR TRENCHES

Dispose of stormwater on site as shown on the drawings, by soakage, to suit local geology and soil structure; all as directed by the territorial authority.

3.12 CONCRETE ENCASE

Concrete encase shallow drains and drains under driveways, on a 100mm deep 17.5 MPa concrete bed reinforced with three 10mm mild steel bars. Surround pipes with a polythene membrane to allow movement and encase in 100mm 17.5 MPa concrete.

3.13 FIELD TEST

Field test drains for watertightness (UPVC to NZS 7643 section 11) to the satisfaction of the territorial authority inspector.

3.14 BACKFILL

Backfill drain linesin 150mm layers, well tamped but without disturbing the drains. Finish off with 150mm of topsoil, slightly mounded above the finished ground line.

7701 ELECTRICAL

1. GENERAL

1.1 DOCUMENTS

Documents referred to in this section are:

AS/NZS 3194

Electric shaver supply units

NZS 6401

PVC-insulated cables for electric power and lighting

Electricity Regulations 1997

1.2 COMPLY

Comply with the Electricity Regulations 1997 for listed and prescribed work and with the utility network operator's requirements. Apply for the service connection. Arrange for the required inspections of listed work. Pay all fees.

1.3 ALL WORK

All work to be carried out by or under the direct supervision of a holder of a practising certificate under the Electricity Regulations 1997.

1.4 CERTIFICATE OF COMPLIANCE

Carry out the prescribed electrical work, test and complete a certificate of compliance, as required by the Electricity Regulations 1997, and in particular, clauses 16, 34 and 35. Allow the network utility operator to view before the meter installation, listed work inspection, polarity check and livening of supply. Supply the certificate to the owner.

2. PRODUCTS

2.1 MAINS UNDERGROUND, SINGLE PHASE

Tough plastic sheathed neutral screened cable to NZS 6401 with a minimum rating of 60 amps per phase.

2.2 CABLES

Tough plastic sheathed copper conductors to NZS 6401.

Lighting circuits

1.5mm² on 10amp MCB's

Power circuits (domestic)

1.5mm² on 16amp MCB's

Power circuits (domestic - insulated construction)

2.5mm² on 16amp MCB's

Power circuits (commercial)

2.5mm² on 20amp MCB's

2.3 METER BOX

Rust protected metal case (glass panel door), all powder coated and complete with meter mounting, main switch and fuse.

2.4 DISTRIBUTION BOARD

Complete with neutral and earth busbars, MCB's and 60 amp main switch, complete with removable insulated panel. Include 2 spare MCB's labelled as "spare." All protective devices to be 6kA MCB's of the appropriate rating.

2.5 WALL BOXES

Standard size in plastic, with 2 or more gang size in metal, all screw fixed

2.6 SWITCH UNITS

16 amp, 230 volt flush polycarbonate units. For number of switches per unit, dimmer units, neon (indicator or toggle) units, locator units and 2-way units refer to the electrical drawings.

2.7 HOT WATER SYSTEM SWITCH

One way 20 amp switch complete with clamp for flexible PVC tubing.

2.8 SWITCHED SOCKET UNITS

10 amp, 230 volt flush polycarbonate 3 pin combined switch units. For the number of single and double socket units and inbuilt earth leakage socket units refer to the drawings.

2.9 SHAVER AND EARTH LEAKAGE PROTECTED SOCKET OUTLETS

Earth leakage protected 110/230 volt multiple plug configuration and residual current protected socket outlets, tripping at 30 mA.

2.10 SHAVER AND TRANSFORMER PROTECTED SOCKET OUTLETS

Isolating transformer protected units to AS/NZS 3194.

2.11 CEILING ROSES

White plastic mounting base with screwed cover and to be terminal type.

2.12 BATTEN HOLDERS

Standard white plastic with angled cap and brass liners.

2.13 BELL SYSTEM

Supply a bell transformer as part of the distribution board.

2.14 TV AERIAL

Selected aerial, co-axial cable and outlets, suitable for both VHF and UHF reception.

3. EXECUTION

3.1 LAY MAINS

Lay underground mains to the network utility operator's requirements. Allow for trench excavation and backfill.

3.2 FIT METER BOX

Fit to the manufacturer's recommendations, level and plumb where shown on the plan. Recess into the external wall; flash to weatherproof.

3.3 FIT DISTRIBUTION BOARD

Fit to the manufacturer's recommendations, level and plumb where shown on the plan. Recess into the wall. All labelling to be complete and include a warning notice if light dimmers are used in the installation.

3.4 INSTALL CABLING

Design layout with a maximum of 8 light outlet units or 4 switched socket units on any circuit. Separate circuits for all electric heating appliances. All cabling to be run concealed. No TPS cable to be laid directly in concrete and all holes in timber framing for the passage of cables to be at the centre line of the timber member.

3.5 FIT SWITCH AND SOCKET UNITS

Fit all single and double switch units and socket units level and plumb where shown on the drawings. Install at the following heights (to the centre of the unit) unless shown otherwise on the electrical drawings.

Switch Units:

1000mm

Socket Units:

150mm above work benches

400mm elsewhere

Label all switch units which control electrical equipment by engraving on the rocker switch.

3.6 INSTALL LIGHT FITTINGS

Install selected light fittings in the locations and heights shown on the drawings and in accordance with the manufacturer's recommendations.

3.7 INSTALL EMERGENCY AND EXIT LIGHT FITTINGS

Install selected fittings in the locations and heights shown on the drawings and in accordance with the manufacturer's recommendations

3.8 ELECTRIC HOT WATER SYSTEM

Wire as a separate circuit through a wall-mounted isolating switch, with the cable from switch to element encased in flexible PVC hose, clamp fixed at each end. Hot water cylinders, thermostats and 3000 watt element supplied and fitted under 7101 WATER.

3.9 WIRE FOR PLUMBING FITTINGS

Wire for all fittings to the Electricity Regulations 1997 and to the manufacturer's recommendations.

3.10 TELEPHONE WIRING

Wire for the telephone outlets shown on the electrical drawings.

3.11 TELEPHONE DRAW WIRES

Supply draw wires for the telephone outlets shown on the drawings.

3.12 FIT TV AERIAL

Fit aerial, run cabling concealed below the roof and fit outlets where shown on the electrical drawings.

3.13 INSTALL ELECTRIC POWERED FITTINGS AND EQUIPMENT

Provide, install and wire all selected fittings and equipment to the Electricity Regulations and the manufacturer's recommendations. Refer to the drawings for required layouts and locations for equipment.

3.14 ELECTRIC POWER FOR SITEWORKS

Provide circuits and connections for site installations, including 12 volt path lighting and electronic irrigation systems. Refer to the drawings for required connection points. High current capacity wiring to be used for all 12 volt system wiring.

3.15 EARTHING

Provide a plastic toby box or UPVC tube to contain and protect the earth pin. Fix the connecting earth wiring closely and securely against wall surfaces.

3.16 LABELLING

Provide and install a printed label under each controller, switch and circuit breaker on all distribution boards. List the rating of each circuit.

3.17 COMPLETION

Leave all work operating correctly, with all equipment clean and all light bulbs and tubes operational.

5501 JOINERY FITTINGS

1. GENERAL

1.1 DOCUMENTS

Documents referred to in this section are:

NZBC

D1/AS1

Access routes

4.0 Stairways

AS/NZS 1859

Reconstituted wood based panels

1859.2 medium density fibreboard (MDF)

NZS 3602

Timber and wood-based products for use in buildings

2. PRODUCTS

2.1 MDF BACKING BOARD

Medium density fine wood fibreboard sheet 6mm maximum thickness, to AS/NZS 1859.2.

2.2 PRE-FINISHED MDF BACKING BOARD

Medium density fine wood fibreboard sheet 6mm maximum thickness, to AS/NZS 1859.2.

2.3 SOLID TIMBER COMPONENTS

Selection to NZS 3602.

2.4 CARCASE

Melamine urea formaldehyde resin bonded medium density wood particle board sheet to AS/NZS 1859.2.

2.5 PRE-FINISHED CARCASE

Melamine urea formaldehyde resin bonded, medium density, wood particle board sheet to AS/NZS 1859.2, or urea formaldehyde resin bonded, medium density, fine wood fibreboard sheet to AS/NZS 1859.2, veneered both sides, with decorative sheet impregnated with melamine resin.

2.6 CUPBOARD DOORS, PRE-FINISHED

Melamine urea formaldehyde resin bonded, medium density, wood particle board sheet to AS/NZS 1859.2, or urea formaldehyde resin bonded, medium density, fine wood fibreboard sheet to AS/NZS 1859.2, veneered both sides, with decorative sheet impregnated with melamine resin.

2.7 CUPBOARD DOORS, WOOD VENEER

Medium density wood fibreboard to AS/NZS 1859.2, veneered with selected species wood veneer.

2.8 DRAWER FRONTS

As for CUPBOARD DOORS.

2.9 SHELVING

As for PRE-FINISHED CARCASE, supported on chrome plated adjustable shelf studs.

2.10 JOINERY FITTINGS, COMPONENTRY

Carcase connectors to be one piece steel straight deep cut thread, fibreboard screws with press fit plastic trim cap. Carcase fasteners to be knocked down type centric sphere zinc alloy connectors with connecting bolts, sleeves and dowels to suit each particular fastening location.

2.11 HARDWARE

Drawer runners, handles, metal and plastic connectors, shelf supports, rails and sundry fittings, all as shown and described on the drawings. Allow to fit.

3. EXECUTION

3.1 GENERALLY

Execution to include those methods, practices and processes contained in the current syllabus for the National Certificate in Carpentry and the National Certificate in Joinery (cabinetry, exterior joinery, stairs).

3.2 ALL JOINERY FITTINGS

Check site dimensions. Carry out machining within the practices recommended for the particular timber, wood product or pre-finished wood product being used. Machine drill and cut all holes and recesses and form all joints to the componentry manufacturer's recommendations. All work to be accurate, square and true to line and face.

3.3 FABRICATE JOINERY FITTINGS

Carry out glueing, dowelling and all other operations necessary for the proper assembly of the fittings as detailed with all fixings concealed unless otherwise detailed. Scribe fit adjustable shelves with 4 shelf pins and locate force fit pin holes at 50mm maximum centres in solid cheeks. Construct drawers as detailed, using proprietary metal section drawer runners. Fit drawers with 3mm clearance into the drawer space.

Hang doors on concealed hinges.

Use glue joints where provision for shrinkage is not required, with contact surfaces, glueing and pressure all applied to the glue manufacturer's recommendations.

Locate and drive connectors and connecting bolts to the manufacturer's recommendations. Scribe fit on site - level, square, plumb and true to line and face.

3.4 FABRICATE TIMBER STAIRS

To comply with NZBC acceptable solution D1/AS1, 4.0. closed type, unless detailed otherwise Ex 250mm x 50mm strings, with ex 50mm treads housed into ex 25mm risers. House and wedge treads and risers 15mm into strings, all glued, wedged and blocked. Form nosing overhangs of 25mm by splaying risers forward to finish flush with the front of the treads. Fabricate and install the handrails and balustrading as detailed, complete with all associated metal componentry and hardware.

3.5 WARDROBES AND COAT CUPBOARDS

Fit out with 300mm wide melamine faced board shelf, on ex 25mm scotia bead to back and ends. All exposed edges clashed to match. Fit the selected coat rail to the front edge of the shelf.

3.6 STORAGE CUPBOARDS

Fit out with 5 full depth melamine faced board shelves on ex 25mm scotia beads along back and ends. All exposed edges clashed to match. Shelf heights as shown on the drawings.

3.7 HOT WATER CUPBOARDS

Fit out with 2 full depth 20mm x 70mm timber slat shelves on ex 25mm scotia bead along ends. Confirm the height of the hot water cylinder before installing the shelves.

3.8 LEAVE

Leave all work to the standard required by all following trades.

6601 PAINTING AND PAPERHANGING

1. GENERAL

1.1 DOCUMENTS

Documents referred to in this section are:

NZS 7703

The painting of buildings

Health and Safety in Employment Act 1992

1.2 PAINTER QUALIFICATION

All work to be carried out by competent and experienced painters and paperhangers.

1.3 HEALTH AND SAFETY

Refer to the requirements of the Health and Safety in Employment Act 1992 and if elimination or isolation are not possible, then minimise the hazards in this work.

Refer to NZS 7703 for the recommended procedures and precautions when:

- 1. Treating or removing lead based paint.
- 2. Burning off paint.
- 3. Sanding off paint.
- 4. Using solvent based paint removers.

2. PRODUCTS

2.1 PAINT TYPES

To NZS 7703 for exterior and/or interior primers, undercoats, sealers, stains, clear coatings, solvent-borne and water-borne paints.

2.2 GAP FILLERS

Gap fillers to be linseed oil, putty, plastic wood, wood filler or plastic filler, to suit and to match the surface being prepared.

3. EXECUTION

3.1 INSPECT

Inspect all surfaces to be painted and report to the owner any that will not, after the preparatory work laid down in NZS 7703, allow work of the required standard. Confirm that all areas have adequate lighting and are sufficiently free of other construction activities to enable painting and/or paperhanging work to proceed.

3.2 COVER UP

Cover up all adjoining surfaces and areas liable to damage or over-painting.

3.3 REMOVE ALL HARDWARE

Remove all hardware liable to damage or over-painting and replace on completion.

3.4 WHERE NECESSARY

Where necessary to prime or seal surfaces before or while other materials are being built in, arrange with those concerned to inform the painter when this work is required.

3.5 CONFIRM SELECTIONS

Confirm all selections, colours and finishes for both paint and wallpaper with the owner, before commencing work.

3.6 EXTERIOR PAINTING SYSTEMS

To the manufacturer's recommendations and NZS 7703.

3.7 INTERIOR PAINTING SYSTEMS

To the manufacturer's recommendations and NZS 7703.

3.8 CARRY OUT

Carry out all work within acceptable temperature and humidity limits, and with all timber dry and in the equilibrium moisture content range required by NZS 7703.

3.9 PREPARE SURFACES

Prepare surfaces to be coated by making good all damage and defects. Gap filler to be linseed oil putty, plastic wood, wood filler or plaster filler as appropriate to the surface and to the paint manufacturer's recommendations.

3.10 APPLY PAINT

Apply paint by brush and/or roller to suit the location of the coating to NZS 7703, clause 6.7. Do not spray on site without express permission.

3.11 REFER TO

Refer to the paint manufacturers' manuals and follow their preparation, sequence and application recommendations applying to each system. Correct defective work immediately, with recoating to follow the systems recommendation.

All paint coats in any system to be supplied by the same manufacturer.

3.12 SCUFF BETWEEN ALL COATS

Scuff between all coats to remove any dust pick-up, protruding fibres and coarse particles.

3.13 ALL FINISHED PAINT SURFACES

All finished paint surfaces to show uniformity of gloss and colour, to have the correct thickness for each coat, and freedom from painting defects such as tackiness and conspicuous brush marks. Finished work to be clean and free of any disfigurement.

3.14 CONFIRM WALLPAPER

Confirm that all rolls of each pattern are from the same batch.

3.15 WALLPAPER INSTALLATION

Seal or size walls. All drops to be full-length, completely glued, pattern matched and hung vertically without bubbles or visible butt joints. Scribe cut paper 2mm onto surrounding trim.

3.16 CLEAN ALL

Clean all adjoining surfaces, glass and fittings of any paint contamination.

3.17 REPLACE ALL

Replace all hardware without damage to the hardware or the adjoining surfaces.

3.18 TAKE AWAY

Take away from the site all unused painting materials and equipment.

7101 WATER

1. GENERAL

1.1 DOCUMENTS

Documents referred to in this section are:

NZBC	G12/AS1	Water supplies	
NZS 4602	Low pressure coppe	r thermal storage electric water heaters	
NZS 4603	Installation of low p copper cylinders (or	ressure thermal storage electric water heaters en-vented systems)	with
NZS 4606	Storage water heater Part 3: Specific requ	rs irements for water heaters with composite shells	
NZS 4607 CSA B137-8	Installation of therm	al storage electric water heaters: valve-vented iping for hot and cold water distribution systems.	systems

Plumbers, Gasfitters and Drainlayers Act 1976

1.2 ALL WORK

All work covering water supply to be carried out by or under the direct supervision of a person registered under the Plumbers, Gasfitters and Drainlayers Act 1976.

2. PRODUCTS

2.1 WATER MAIN ALKATHENE

High density alkathene 32mm OD (minimum 25mm internal diameter) pipe to minimum 1200 kPa (170 psi) complete with rubber ring compression type fittings.

2.2 POLYBUTYLENE WATER PIPE

Polybutylene tubing to CSA B137-8 complete with fittings and accessories brand-matched.

2.3 GATE VALVES

De-zincified brass with screwed ends.

2.4 ELECTRIC HOT WATER CYLINDER, MAINS PRESSURE

A grade to NZS 4606, part 3 ceramic-coated steel thermal storage cylinder, insulated and complete with fittings recommended for installation by the manufacturer.

2.5 GAS HOT WATER HEATER, STORAGE TYPE

Insulated cylinder with an integral gas burner and flue.

2.6 GAS HOT WATER HEATER, CONTINUOUS FLOW TYPE

Continuous flow unit with an integral gas burner and flue.

EXECUTION

3.1 AVOID

Avoid electrolytic action by eliminating contact or continuity of water between dissimilar metals.

3.2 GENERALLY

Generally carry out the whole of this work and tests to NZBC acceptable solution G12/AS1.

3.3 EXCAVATE

Excavate for the water main to a firm, even trench base in straight runs. Allow to backfill.

3.4 LAY WATER MAIN

Lay a minimum of 450mm below ground level from the utility network operator's supply through a gate valve and meter toby box to the building.

3.5 INSTALL COPPER WATER SUPPLY

Size the piping layout to eliminate loss of pressure at any point by simultaneous draw-off. Run pipes in straight runs, firmly fixed to falls, with long radius bends and jointed by brazing or with crox fittings, all to NZBC acceptable solution G12/AS1. Conceal all piping, insulate all hot water piping and pressure test before the wall linings are fixed.

3.6 INSTALL POLYBUTYLENE WATER SUPPLY

Size the piping layout to eliminate loss of pressure at any point by simultaneous draw-off. Run pipes complete with all fittings and jointed to the manufacturer's specifications, all to NZBC acceptable solution G12/AS1. Conceal all piping and pressure test before the wall linings are fixed.

3.7 INSTALL GAS HOT WATER HEATER, STORAGE TYPE

Install where shown complete with all the necessary fittings to the manufacturer's recommendations and in accordance with NZBC acceptable solution G12/AS1 4.10. Complete flue installation in accordance with the manufacturer's details and recommendations.

3.8 FINISH TO EXPOSED PIPES

Chrome plate on copper or white polybutylene or PVC including back nuts. At wall penetrations provide and fit collars to match pipe finish.

3.9 INSTALL TAPS AND FAUCETS

Install all taps and faucets strictly in accordance with the tap manufacturer's recommendations. Flush out on completion and check that washers or discs are operating correctly.

3.10 **LEAVE**

Leave all water services in proper working order. Pressure test to ensure no leakage and leave all in proper working order.

3.11 CLEAN UP

7201 GAS

1. GENERAL

1.1 DOCUMENTS

Documents referred to in this section are:

NZBC

G10/AS1

Piped services (Gas)

NZS 5258

Gas distribution

NZS 5261

Installation of gas burning appliances and equipment

NZS 7646

Polyethylene pipes and fittings for gas reticulation

Electricity Regulations 1997

Gas Regulations 1993

Plumbers, Gasfitters and Drainlayers Act 1976

Documents listed above and cited in the clauses that follow are part of this specification. However, this specification takes precedence in the event of it being at variance with the cited document.

1.2 COMPLY

Comply with the Gas Regulations, Electricity Regulations and the network utility operator's requirements. Give notices for inspections and carry out tests as required.

1.3 ALL WORK

All work to be carried out by or under the direct supervision of a person registered under the Plumbers, Gasfitters and Drainlayers Act.

1.4 DESIGN

Design the piping system with pipe sizes to give a minimum pressure at any appliance inlet of 1.13 kPa for natural gas, when all appliances are in use; and with a maximum design pressure drop from meter outlet to any appliance of 80 Pa. All to NZS 5261.

1.5 ARRANGE

Arrange for the network utility operator to extend their distribution system through the primary meter to connect to this installation, all to NZS 5258. Include for the cost of this service complete with excavation and backfilling.

2. PRODUCTS

2.1 COPPER PIPE

Complete with fittings to NZS 5261.

2.2 STEEL PIPE

Galvanised and wrapped or coated, complete with fittings to NZS 5261.

2.3 POLYETHYLENE PIPE

To NZS 7646 and complete with fittings to NZS 5261

2.4 ISOLATING VALVES

Manual shut-off valves to NZS 5261.

2.5 METER

Primary meter to suit design load, supply pressure and pressure drop, supplied and installed by the network utility operator.

3. EXECUTION

3.1 CARRY OUT

Carry out the whole of this work to the requirements of NZBC acceptable solution G10/AS1 and NZS 5261.

3.2 METER INSTALLATION

Check the location of the meter enclosure with the owner. Allow to recess or conceal as detailed.

3.3 PIPING

Run the system, completely concealed, in the most suitable type of pipe for each part of the installation, bent, supported, jointed and complete with all fittings to NZS 5261. Confirm the type of pipe to be used and its location.

3.4 PRESSURE TEST

Pressure test the system for leakage to NZS 5261 before pipework is concealed by linings.

3.5 GAS APPLIANCES

Supply, fit and connect the following appliances to NZS 5261, complete with flues as required and all to the manufacturer's recommendations.

3.6 GAS HOT WATER HEATER

Connect the following gas hot water heater supplied and fitted under 7101 WATER, to NZS 5261 and the heater manufacturer's recommendations.

3.7 REPLACE

Replace all damaged, cracked or marked elements.

3.8 LEAVE

Leave all appliances clean and in full working order and leave all work to the standard required for all following trades.

3.9 REMOVE

Remove all debris, unused materials and components from the site.

3.10 SUBMIT

Submit the work for inspection and test and prove to the satisfaction of the network utility operator that the installation complies with all Acts and Regulations and has been tested for leakage and proved to be sound.

7401 RAINWATER PLUMBING

1. GENERAL

1.1 DOCUMENTS

Documents referred to in this section are:

NZS/AS 1397

Steel sheet and strip - hot-dipped, zinc-coated or

aluminium/zinc-coated

BRANZ Bulletin 304: Flashing design.

BRANZ Bulletin 305: Domestic flashing installation.

2. PRODUCTS

UPVC

2.1 UPVC SPOUTING

Profile, jointing, brackets and fittings brand matched and complete to the manufacturer's specifications.

2.2 UPVC DOWNPIPES

Tubes, stand-off brackets and fittings brand matched and complete to the manufacturers specifications.

General

2.3 RAINWATER HEADS, DROPPERS, OVERFLOWS

Fabricate and install as detailed.

2.4 FLASHINGS GENERALLY

0.6mm sheet steel galvanised to NZS/AS 1397, aluminium-zinc coated to NZS/AS 1397, 1.8mm (20kg/m²) copperised pure lead, 0.5mm copper sheet and 0.7mm aluminium sheet, all to location, compatibility and design requirements of BRANZ Bulletin 304 "Flashing design."

3. EXECUTION

3.1 AVOID

Avoid electrolytic action by eliminating contact or continuity of water between dissimilar metals.

3.2 CHECK

Check compatibility of all metals used for rainwater goods, against the materials used for roofing and flashings. Notify any incompatibility to the owner and obtain written approval for amendments to selections and then submit to the territorial authority for their approval.

UPVC

3.3 FIT UPVC SPOUTING

Fit and screw fix brackets, set to falls to outlets. Solvent welded or rubber ring jointed spouting section to be complete with all fittings to the manufacturer's recommendations.

3.4 FIX UPVC DOWNPIPES

Screw fix stand-off brackets, set pipes plumb and clear of the wall, solvent welded. Discharge into stormwater bends.

General

3.5 INSTALL FLASHINGS

Scribe fit, fold, lap, seam, or run solder as required by the metal, to flash all roof penetrations, roofing and exterior joinery to prevent weather penetration. Allow for 2 rows of rivets to all overlapping sheet joints. Install

and fix flashings and flashing joints to the criteria stated in BRANZ Bulletins 304 "Flashing design" and 305 "Domestic flashing installation."

3.6 LIAISON

Liaise with all associated trades to ensure material selections are compatible and all required flashing work is completed.

3.7 LEAVE

Leave all rainwater services in proper working order and all flashing work completed to keep the building weathertight.

3.8 CLEAN UP

Take away from the site all unused materials and components.

7402 SANITARY PLUMBING

GENERAL

1.1 DOCUMENTS

Documents referred to in this section are:

NZBC

G1/AS1

Personal hygiene

2.0 Fixture construction and installation

3.0 Location of sanitary fixtures

NZBC

G13/AS1

Foul water - sanitary plumbing

AS/NZS 3500

National plumbing code

NZS 7641

Unplasticized PVC waste and ventilating pipe, fittings and

accessories, 32mm, 40mm and 50mm

Plumbers, Gasfitters and Drainlayers Act 1976

1.2 ALL WORK

All work covering waste disposal and plumbing fittings to be carried out by or under the direct supervision of a person registered under the Plumbers, Gasfitters and Drainlayers Act 1976.

2. PRODUCTS

2.1 COPPER WASTE, SOIL AND VENT PIPES

2.2 UPVC WASTE, SOIL AND VENT PIPES

UPVC pipe to NZS 7641 complete with fittings brand-matched to the manufacturer's specifications.

3. EXECUTION

3.1 CARRY OUT

Carry out the whole of this work and tests to AS/NZS 3500 or NZBC acceptable solutions G1/AS1, 2.0, 3.0 and G13/AS1.

3.2 AVOID

Avoid electrolytic action by eliminating actual contact or continuity of water between dissimilar metals.

3.3 INSTALL SANITARY FIXTURES

Fit and install all sanitary fittings and associated screens, components and hardware, plumb, true to line and rigid, all to the manufacturer's recommendations. Standard chrome plated wastes and plastic plugs on chrome plated chains to be supplied with all basins, tubs and baths.

3.4 INSTALL TRAPS, WASTE AND VENT PIPES

Connect waste outlets to traps and run waste pipes and back vents concealed, all sized and fixed to AS/NZS 3500 or NZBC acceptable solution G13/AS1. Discharge wastes into the drainage system stack, soil pipe, or gully trap as shown. Bird proof mesh to all roof vents and vermin proof mesh to all untrapped waste pipes.

3.5 FINISH TO EXPOSED PIPES

Chrome plate on copper, or white UPVC including back nuts. At all wall penetrations provide and fit collars to match pipework.

3.6 INSTALL SUNDRY HARDWARE

install all sundry hardware and fittings as selected.

3.7 TEST

Test all soil and waste disposal systems to ensure no leakage exists and leave all in working order.

3.8 CLEAN UP

Remove labels and clean all fittings. Remove all unused materials from the site.



Project Information Memorandum

Section 31, Building Act 1991

Application

PAUL ENGLAND BUILDERS LTD	No.	990785
5 TAUPO CRESCENT	Issue date	1/07/99
PLIMMERTON	Application date	23/06/99
	Overseer	Don Blaikie

Project

Description NEW CONSTRUCTION

BEING STAGE 1 OF AN INTENDED 1 STAGES

NEW DWELLING

Intended Life

INDEFINITE, BUT NOT LESS THAN 50 YEARS

Intended Use

RESIDENTIAL

Estimated Value

\$175,000

Location

11 HARRY SHAW WAY, PARAPARAUMU

Legal Description

LOT 6 DP

Valuation No.

This project information memorandum is confirmation that the proposed building work may be undertaken, subject to the provisions of the Building Act 1991, and any requirements of the building consent.

This project information memorandum includes:

 Information identifying relevant special features of the land concerned
 Details of relevant utility systems
Details of authorisations which have been granted

Signed for and on behalf of the Council:

Name:

Date:

1.7.00



- PROJECT INFORMATION MEMORANDUM

Planning Requirements

APPLICANT: England
MAILING ADDRESS:
SITE ADDRESS: 11 Harry Shaw Gay - Pr
LOT NO: DP:
PROJECT: New Building Alteration Removal/Demolition Relocated Building (approx age
INTENDED USE: Dew Lse
ZONING: TRANSITIONAL DISTRICT PLAN: NA PROPOSED DISTRICT PLAN: Residential
USE PERMITTED: Permitted activity
RESOURCE CONSENT GRANTED: None listed
DESIGNATIONS ON PROPERTY:
EASEMENTS: None historial
SITE SUBJECT TO INUNDATION: Not known to be
COASTAL BUILDING LINE RESTRICTION:
RELOCATABLE ZONE:
MINIMUM FLOOR LEVEL (50 year event) Metres above mean sea level
RECOMMENDED MINIMUM
FLOOR LEVEL (100 year event) Metres above mean sea level
YARD AND HEIGHT REQUIREMENTS:
TREE/BUILDING PRESERVATION:
OTHER COMMENTS:
,
NOTE: Minimum floor levels must use Mean Sea Level Wellington Datum 1053. Certification

Registered Surveyor prior to foundation inspection.

that the floor level complies with the minimum floor level will be required from a

SPECIAL FEATURES OF THE ABOVE LAND

Information is attached identifying the following special features of the land concerned that are known to Council:

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Potential Erosion	······································			0
Potential Avulsion	•••••			🛛
Potential Subsidence				🗆
Potential Slippage				0
Potential Alluvion	······································			0
Potential Inundation				0
Presence of Hazardous Con				
	s) likely to be releva ent from the Distric	t Scheme or	District Plan:	011 0
	(Plumbing & Draina			_
SEWER AVAILABLE/CONNECTE	ED .	. **		_
WATER AVAILABLE/CONNECTI	ED			_
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LOCATION OF PUBLIC DRAINS (STORMWATER DISPOSAL TO	CHANNEL	none	Crown 0	
LOCATION OF PUBLIC DRAINS (STORMWATER DISPOSAL TO	CHANNEL	none		
LOCATION OF PUBLIC DRAINS (STORMWATER DISPOSAL TO ADDITIONAL COMMENTS	CHANNEL	none		



KAPITI COAST DISTRICT COUNCIL CONSENT NOTICE PURSUANT TO SECTION 221 OF THE RESOURCE MANAGEMENT ACT 1991 FOR THE DEPOSIT OF LAND TRANSFER PLAN 90477 THE SUBDIVISION OF LOT 4 DP 89871, HARRY SHAW WAY & LORNA IRENE DRIVE, RAUMATI, FOR PRITCHARD GROUP LIMITED

The District Land Registrar at Wellington

PURSUANT to Section 221 of the Resource Management Act 1991 the Kapiti Coast District Council hereby gives notice that it has consented to the proposed subdivision and the following conditions are to be complied with on a continuing basis:

- 1. That specific foundation design by a registered engineer will be required for any new dwelling or additions and alterations to a dwelling within lots 85 90 land transfer plan 90477 and may be required for any new dwelling or additions and alterations to a dwelling on Lots 79 84 land transfer plan 90477 in accordance with the recommendations within the soil test report prepared by Cuttriss Consultants Ltd. dated August 2000 a copy of which is available in Council's Resource Consents Office.
- 2. The owners and occupiers of lots 79 82 land transfer plan 90477 shall be responsible for the maintenance of the lake within those allotments on an ongoing basis. This shall include preservation of the stormwater storage capacity of the lake; maintenance of water quality to ensure there are no adverse effects on residential amenity values from insects, odour or other nuisance; and maintenance of all associated equipment. It should be noted that the ground water level in the area governs the minimum water level and should not vary to any large degree. Information relating to this matter is contained within files No. RM 980182 and RM 980504, which are available to be viewed in Council's Resource Consents Office.

3. The maximum height of any dwelling, accessory building or any other building of any description to be constructed or relocated within lots 87 – 90 land transfer plan No. 90477 shall not exceed the 20 metre contour line as depicted on the plan titled "Proposed Subdivision of Pt. Lot 5 DP 88076, (Raumati Estate Stage 4), RE 4, dated February 2000" submitted with application no. RM 000067. A copy of the plan is held on file No. RM000067 at the Council offices.

Issued in respect of application No. RM 000067 on this 28th day of November 2000.

AUTHORISED OFFICER

AUTHORISED OFFICER



File: RM 000067

28 November 2000

District Land Registrar Land Registry Office Private Bag WELLINGTON

Dear Sir/Madam

SCHEME PLAN RE 4 SUBMITTED WITH APPLICATION NO. RM000067 BEING THE PROPOSED SUBDIVISION OF LOT 4 DP 89871, HARRY SHAW WAY & LORNA IRENE DRIVE, RAUMATI, FOR PRITCHARD GROUP LIMITED

In the matter of Land Transfer Plan No. 90477 and pursuant to Section 224 (c) of the Resource Management Act 1991 we hereby certify that some of the conditions of the subdivision consent have been complied with to the satisfaction of the Kapiti Coast District Council and that a consent notice pursuant to Section 221 of the Resource Management Act 1991 has been issued in respect of those conditions which have not been complied with.

Dated this 28th day of November 2000.

AUTHORISED OFFICER

AUTHORISED OFFICER

RAUMATI ESTATE

" Summer time reflections."

Protective Covenants

THE Purchaser acknowledges and agrees with the Vendor that each lot in the Vendor's subdivision forms part of a development which is intended to be established as a modern and well designed subdivision and it is desirable that supervision and control be exercised by the Vendor for the protection of and in the interests of all Purchasers in relation to the nature and type of construction to be permitted in the subdivision and in recognition of these objects the Purchaser for his lots and for the benefit of all other residential lots comprised in the subdivision <u>DOES HEREBY AGREE</u> with the Vendor and will covenant whether by deed, transfer or otherwise as required, with the Vendor, or such other person or persons as are nominated by the Vendor (including its successors in title) for the Purchaser and his executors, administrators, assigns and successors in title in relation to the lot purchased as follows:-

- (1) Not to erect any building other than a new residential home and not to permit or allow the removal onto the property of any pre-built transportable or relocatable house or existing house which has been previously lived in.
- (2) Except in the case where consent has been obtained to allow two dwellings to be erected on the lot which may be subdivided into no more than two Lots, not to erect any more than one single family dwelling house on the land nor to subdivide the property any further.
- (3) Except in the case where consent has been obtained to erect two dwelling units on a lot, a dwelling house must have a floor area greater than 130m²

 In the case of a two dwelling unit lot, the floor area of each unit must be greater than 100m².

 The floor area measurements in both cases should be exclusive of garage, carports, decking, breezeways and roof overhang.
- (4 i) To construct any dwelling house with a minimum of 70% of the non-glazed exterior cladding of the dwelling consisting of any of the following materials: kiln fired or concrete brick, stucco textured finish, stone or timber, pre-finished metal or vinyl weatherboard construction or any other new exterior cladding material which has architectural merit. Any dwelling with an exterior finish in the form of flat cladding, concrete block, poured concrete or similar shall have the surface textured in such a manner as to fully cover the base material.
 - ii) If the dwelling contains or comprises any separate garage or other outbuilding, such garage or other outbuilding must be of a similar design and construction (including materials used in construction) to the rest of the dwelling.



- (5) To construct any dwelling house with more than two hips or gables in the roof line and to construct such dwelling house in a shape other than a simple square or rectangle. The provisions of this covenant will be met in the case of a flat roofed dwelling house provided that it meets the terms of these covenants and has more than one level of roofing.
- (6) Not, to erect or place any building or other erection or structure whether permanent or temporary and not to plant any tree or shrub, the maximum height of which exceeds a vertical height of 4.9 metres above the average ground level of the building platform for that Lot <u>PROVIDED THAT</u> television aerials, chimneys and hot water overflow pipes shall be excluded in assessing the maximum height of any building or other erection or structure. The average ground level of the building platform being the arithmetic average measured at the external foundations of the building of the subdivision's finished ground level of the Lot. A basement garage can be incorporated into the dwelling if the sloping nature of the section allows the construction below the average ground level of the building platform. Lots 1-4, 12, 13, 24, and 25 of Stage 1 are exempt from this condition, but still must comply with K.C.D.C. Building Consent conditions.
- (7) Not to use any metal clad roof that has not been factory prepainted or any roofing material which will create a glare offensive to adjoining property owners.
- (8) To complete any building within 9 months of commencement of laying down the foundations for such building and within 15 months of laying down the foundations to complete all ancillary works such as fencing and landscaping AND FURTHER will within that 15 months construct in a proper and tradesmanlike manner a driveway, or vehicle access in a permanent continuous surfacing of concrete, concrete block, brick paving, or tar-sealing.

: 15:

- (9) Once construction has been substantially completed not to bring or allow to remain on the land or any internal road of the subdivision any temporary dwelling, caravan, trade vehicle or other equipment or materials or machinery unless garaged or screened so as to preserve the amenities of the neighbourhood and to prevent noise likely to cause offence to residents in the subdivision. No recreational or commercial vehicles or trailers are to be regularly located on the street or footpath nor in front of the building line of the dwelling on the land.
- (10) i Not to permit the land to be occupied or used as a residence unless the buildings on the property have been completed in accordance with this agreement and any local authority building consent.
 - ii Not to require Pritchard Group Ltd and J. & C. West to contribute towards the cost or erection or repair of any dividing or boundary fence between the property and any adjoining land owned by Pritchard Group Ltd and J. & C. West, but the benefit of this fencing covenant shall not benefit the transferee of such adjoining land.
- (11) Not to erect or allow to be erected upon the land any fence constructed of corrugated iron or post and wire fencing or exceeding .75 metres in height within 4.5 metres of the front boundary of the Lot. Not in respect of the balance of the land in those Lots to erect or allow to be erected upon the land any fence constructed of corrugated iron or post and wire or exceeding 1.8 metres in height.

or building.

- (13) Not to carry out landscaping on the road frontage of the Council owned land except in accordance with the general overall landscaping plan prepared by the Vendor.
- (14) Not to being on to raise, breed or keep any animals or livestock on the land or building except to keep a maximum of three animals limited to cats and dogs.
- (15) To keep and maintain in a neat and tidy condition the section and the Council owned road frontage of the land from the date of possession.
- (16) Not to construct any clothesline or letterbox except such clothesline or letterbox as may be aesthetically sensitive in terms of design and location, siting any clothesline in such a way as to not be highly visible from the street and siting any letterbox adjacent to but not in the road reserve.
- (17) To enhance the quality and appearance of attachments to the building (including but not necessarily limited to television antenna and solar hot water panels) and to construct such attachments to be discreetly integrated with the dwelling so they are not highly visible from the street, thoroughfare or adjacent properties.
- (18) To ensure that in any construction, due allowance is made for adequate current and future drainage of all excess stormwater from the residential lot, the Purchaser remaining responsible for all costs, claims or demands for any remedial action undertaken for any breach hereof.
- (19) To re-instate, replace or be responsible for all costs arising from damage to the landscape, roading, footpaths, kerbs, concrete or other structures in the subdivision arising from the Purchasers use of the land directly or indirectly through the Purchasers agents or invitees.
- (20) If there shall be any breach or non- observance of any of the foregoing covenants and without prejudice to any other liability which the registered proprietor for the time being of the Subjects Lots may have to any person having the benefit of these covenants the registered proprietor for the time being of the Subjects Lots in respect of which there is a breach or non-observance shall on demand by the registered proprietor for the time being of any or all of the Dominant Lots.
 - i. Pay to the person making such demand as liquidated damages the sum of ONE THOUSAND DOLLARS (\$1,000.00) or a sum equal to one quarter of the cost of any building used or erected or repaired in breach or non-observance of the foregoing covenants or any of them whichever is the greater, and
 - ii. Remove or cause to be removed from the said land any building or fence used erected or repaired in breach or non-observance of the said restrictive stipulations: and
 - iii. Replace any building material used or permitted to be used in breach or nonobservance of the said covenants; and

of the covenants if it is capable of a remedy.

(21) Pritchard Group Limited shall not be required nor liable to enforce nor answerable to the registered proprietors (at any time) of the Subject Lots or Dominant Lots for the breach or non-observance of any covenants binding any of the Subject Lots UNLESS Pritchard Group Limited is the registered proprietor for the time being of the Subject Lots in respect of which there is a breach or non-observance of the covenants.

(22) <u>Pritchard Group Limited</u> (or its successors appointed by deed) may in special circumstances grant such exemptions or waivers from any of the above requirements on such terms and subject to such conditions as it deems fit provided the overall quality and character of the subdivision is maintained. Any exemption or waiver shall be binding upon all registered proprietors from time to time of the Subject Lots and Dominant Lots.

The covenants contained the clause shall run with the land and shall be at the discretion of the Vendor incorporated in any Memorandum of Transfer to the Purchaser executed pursuant to this agreement or in the alternative the covenants may be added to the title to each lot by the Vendor, prior to the title and date AND THE PURCHASER DOTH HEREBY COVENANT with the Vendor that if the Purchaser shall transfer, assign or otherwise dispose of his interest in the land then he shall make transfer, assignment or disposition subject to the provisions of this clause and shall procure from the transferee or assignee a Deed of Covenant in favour of the Vendor whereby such Purchaser or assignee undertakes to fulfil the Purchaser's obligations under this clause.





Checksheet

New Dwelling

Use this check sheet to assist you in lodging a complete building consent application and to avoid delays in processing. Please attach 2 copies of the following information (unless otherwise specified below) with your completed building consent application form. Tick each box which is relevant and ensure you attach the information. If it is not relevant, please write NA across the box.

					For office use only
	One	tificate of Title copy of current certif	icatels	softitle.	
Ø					
	Site plan (1:100/1:200) showing: dimensions of all boundaries, north point, ground contours/levels existing and proposed. site area, street name and number, outline of dwelling and distances to boundaries. Include points that height control planes are taken from.				
	Four	ndation plan (1:100/1: if concrete slab - details of steel layout	50) sh	owing: if concrete - ring foundation, indicate subfloor ventilation.	
		footing details	THE	timber sub-floor bracing	
	Ø	dimensions of external foundations	MA.	bracing schedule for sub-floor	
		Engineers structural details for walls etc			
	Drai	nage plan (1:500/1:10	00) sho	owing:	
	ď	outline of dwelling with location of all fixtures and fittings (1:100)		design of drain systems with all inspection bends and junctions (1:100)	
	175	if dwelling is 2 storeys or more - schematic layout of levels showing all soil stacks, vents, waste pipes and falls (1:100) Rimu Road, Private Bag 60	(1) Para	On site effluent disposal Provide specific design by qualified engineer showing compliance with Wellington Regional Council Regional Plan in respect to discharges to land. paraumu. Phone (04) 298 5139, Fax (04) 297	2563.

Floo	ground floor area, all framing including roof structure layout, dimensions and room sizes, all spaces designated, door and window sizes, sanitary fixtures and fixings, kitchen stove, food storage areas.	nowing	if the dwelling is two storeys or more additional floor plans are required showing upper floor area to the nearest square metre (m²), all framing and room dimensions details of stairs, barriers and handrails, floor joist layout, support, beams, trimmer joists.	
Brac	cing plan (1:100/1:50) location, type and number of bracing elements to indicate compliance with NZS 3604:1990 (include calculations).	show	ing if the bracing was specifically designed by an engineer attach a copy of the calculations with this application.	
	bracing schedule calculation sheet			
Elevations (1:100/1:50) showing: accurate ground lines from boundary to boundary on each elevation, relevant District Plan daylight control lines, the maximum height on each elevation, location of door and window openings, fixed and opening sashes, floor levels in relation to ground levels, exterior cladding nominated to all elevations, down pipes and spouting, ventilators to sub-floor area (suspended floors only).				
Sect	ions and Details (1:10 foundation detail - reinforcing steel	00/1:50	0) showing: insulation systems and materials to floors, walls and roof	
o o	stud heights of rooms and total height from ground floor level to top of ridge (along and across) and details of all major connections.		details of fire rated partitions from floor to underside of floor above (if more than one fire cell) and noise control system).	
Ø	roof cladding, eaves, faces, gutters, flashings to openings		finished ground levels relative to wall claddings.	
Б	exterior cladding, including veneers		fire rated systems on all walls closer than one metre to any boundary (side or rear) lintel beams and timber dimensions	₹

NAU	Structural and calculations If any design work required the services of an engineer, attach a copy of the calculations with this application.					
10	Heating If the plans shows a solid fuel heating appliance (free standing or inbuilt), a copy of the manufacturers data and instructions for installing the heating appliance must be attached with this application.					
14.	Water Supply If the site cannot be supplied by a piped water connection from water mains, indicate on the plans the method of collecting and storing potable water.					
品	Producer Statements If this application for consent relies on any producer statements certifying compliance with the New Zealand Building Code Handbook, a copy of the producer statement must accompany the application.					
	Vehicle Access plan/s (1:100/1:50) showing: □ location and extent □ long section (1:100) showing of the driveway proposed levels and gradients along the centreline. □ long section (1:100) showing proposed levels and gradients along the centreline. □ long section (1:100) showing proposed levels and gradients along the centreline. □ long section (1:100) showing proposed levels and gradients along the centreline.					
	details of the proposed surface, drainage works and safety barriers where crossing required (length and location).					
4	If the proposed driveway is on road reserve and crosses the frontage of a neighbouring property or it affects an existing private driveway or existing path written approvals from the affected neighbours must be provided. If written approval is not given by the neighbours their objection and reasons shall be provided in writing and attached to this application.					
QA.	If any public services are affected by the proposed driveway or kerb crossing written approval from the relevant service authorities are required.					
P	Other Council approvals which may be required: Earthworks Consent (KCDC Bylaw) If the existing ground levels are to be altered 600mm vertically, or 50m³ or more of solid fill is moved, you will need to make a separate application for an earthworks consent (see note 1).					

7.7

District Plan - A land use consent is required if the proposed earthworks extend more than 2.0 metres beyond the foundation, and if the earthworks involve the disturbance of more than 50m³ and alter the ground level by more than 1.0 metre measured vertically.	
Specifications Provide two sets of specifications with relevant section headings. Specification should be specific to the project and contain no irrelevant information. The basic information such as site address, legal description and owners name and address, should be clearly shown. Specification should also include details of all materials and fittings required for the project and indicate compliance with the Building Code.	
PLAN PAPER SIZE Plans are to be drawn on plain white paper, coloured or graph paper is not acceptable. Paper size should be in proportion to the size of the project being shown. Size A3 is preferred, plans drawn on A1 or A2 should have an additional copy reduced to A3 supplied with the application (with reduced scale key). NOTE: As from 1 July 1998, Council will be commencing digital storage of all plans, if preferred, applicants may provide their	
	A land use consent is required if the proposed earthworks extend more than 2.0 metres beyond the foundation, and if the earthworks involve the disturbance of more than 50m³ and alter the ground level by more than 1.0 metre measured vertically. Specifications Provide two sets of specifications with relevant section headings. Specification should be specific to the project and contain no irrelevant information. The basic information such as site address, legal description and owners name and address, should be clearly shown. Specification should also include details of all materials and fittings required for the project and indicate compliance with the Building Code. PLAN PAPER SIZE Plans are to be drawn on plain white paper, coloured or graph paper is not acceptable. Paper size should be in proportion to the size of the project being shown. Size A3 is preferred, plans drawn on A1 or A2 should have an additional copy reduced to A3 supplied with the application (with reduced scale key).

Note: If other Council approvals are required you can apply for them:

- 1. at the same time when lodging this application; OR
- 2. before lodging this application.

Acceptance of your building consent will be conditional upon you providing:

- 1. All the relevant information described in this form;
- 2. A building consent application form;
- 3. Payment of an application deposit.

The Building Control Department reserves the rite to not accept any application for building consent where the quality of the information is poor or inadequate.