

BUILDING APPLICATION FORM

Received 7007/225pt
File Number 5871
Application No. _____
Date _____ 198__

I hereby apply for permission to erect, ~~repair, alter, extend a building at~~ No. 67 Leonard Rd.

Ngongatoha for
(Address)
Mr/Mrs *R + S M. Dufall* of *Wellington*
(Owner) (Address)

according to locality plan and detailed plans, elevations, cross sections, and specification of building deposited herewith in DUPLICATE (see reverse side).

PARTICULARS OF LAND

Lot No. *66* D.P. No. *DPS 260 64*
Area: *91.62 m²* Zoning: *Residential*

PARTICULARS OF USE OF BUILDINGS

Proposed purpose for which every part of building is to be used or occupied (describing separately each part intended for use or occupation for a separate purpose, i.e., shop, factory, dwelling, office, carport, etc.)

SE Residential

Area of ground floor *97 m²* Estimated value:
Gross floor area _____ Building work \$ *34,600.00*
Area of accessory buildings _____ Plumbing & Drainage \$ *2,200.00*
KAWERAU HOME BUILDERS LTD. Total \$ *36,800.00*
P.O. BOX 179,
Builder's name *KAWERAU* Signature of Applicant *[Signature]*
(Please Print) *Phone 7710* Address *KAWERAU HOME BUILDERS LTD.*
Address _____ P.O. BOX 179,
Phone No. _____ Phone No. *KAWERAU*

FOR OFFICE USE ONLY

Application checked and approved by:	Health Inspector <i>[Signature]</i>	Issue of Permit Approved <i>[Signature]</i> Engineer Date <i>28/4/83</i>
Building Inspector <i>[Signature]</i>	Date <i>21/4/83</i>	
Date <i>28/11/83</i>	Dangerous Goods Inspector <i>[Signature]</i>	
Town Planning Officer <i>[Signature]</i>	Date <i>21/11/83</i>	
Date <i>28/11/83</i>	Geothermal Inspector <i>[Signature]</i>	
Plumbing & Drainage Insp. <i>[Signature]</i>	Date <i>22-11-83</i>	
Date <i>28-11-83</i>	General Inspector <i>[Signature]</i>	
Structural Engineer _____	Date <i>28/11/83</i>	
Date _____		

SUBJECT	APPLN No.	PERMIT No.	DATE	VALUE	FEE
Building		<i>B057663</i>		\$ <i>34,600.00</i>	\$ <i>186.00</i>
Plumbing				\$ <i>1,000.00</i>	\$ <i>80.00</i>
Drainage				\$ <i>800.00</i>	\$ <i>68.00</i>
Water Connection				\$	\$ <i>90.00</i>
Damage Deposit				\$	\$ <i>100.00</i>
Vehicle Crossing				\$	\$ <i>199.00</i>
Sewer Connection				\$	\$
Building Research Levy				\$	\$
Development Contribution				\$	\$ <i>37.00</i>
Date					
Receipt No.					

TOTAL: \$ *780.00*

FEE PAYABLE ON THE ISSUE OF ANY BUILDING PERMIT

according to the Estimated Value of Work

Estimated Value of Work	Fees
Not exceeding \$800	— \$15.00
Over \$800 and not exceeding \$1,600	— \$20.00
Over \$1,600 and not exceeding \$1,800	— \$25.00
Over \$1,800 and not exceeding \$2,000	— \$27.00
Over \$2,000 and not exceeding \$2,500	— \$30.00
Over \$2,500 and not exceeding \$3,000	— \$33.00
Over \$3,000 and not exceeding \$3,500	— \$36.00
Over \$3,500 and not exceeding \$4,000	— \$39.00
Over \$4,000 and not exceeding \$5,000	— \$43.00
Over \$5,000 and not exceeding \$6,000	— \$47.00
Over \$6,000 and not exceeding \$7,000	— \$52.00
Over \$7,000 and not exceeding \$8,000	— \$57.00
Over \$8,000 and not exceeding \$9,000	— \$62.00
Over \$9,000 and not exceeding \$10,000	— \$67.00
Over \$10,000 and not exceeding \$12,000	— \$72.00
Over \$12,000 and not exceeding \$14,000	— \$78.00
Over \$14,000 and not exceeding \$16,000	— \$85.00
Over \$16,000 and not exceeding \$18,000	— \$95.00
Over \$18,000 and not exceeding \$20,000	— \$104.00
Over \$20,000 and not exceeding \$25,000	— \$124.00
Over \$25,000 and not exceeding \$30,000	— \$145.00
Over \$30,000 and not exceeding \$35,000	— \$165.00
Over \$35,000 and not exceeding \$40,000	— \$186.00
Over \$40,000 and not exceeding \$50,000	— \$214.00
Over \$50,000 and not exceeding \$60,000	— \$241.00
Over \$60,000 and not exceeding \$70,000	— \$269.00
Over \$70,000 and not exceeding \$80,000	— \$296.00
Over \$80,000 and not exceeding \$90,000	— \$324.00
Over \$90,000 and not exceeding \$100,000	— \$351.00
Over \$100,000 and not exceeding \$120,000	— \$379.00
Over \$120,000 and not exceeding \$140,000	— \$406.00
Over \$140,000 and not exceeding \$160,000	— \$434.00
Over \$160,000 and not exceeding \$180,000	— \$461.00
Over \$180,000 and not exceeding \$200,000	— \$489.00
Over \$200,000 and not exceeding \$240,000	— \$544.00
Over \$240,000 and not exceeding \$280,000	— \$599.00
For every \$40,000 or part thereof in excess of \$280,000 an additional fee of	— \$28.00

NOTE—The permit fee for the installation of free-standing fire places, pot belly stoves, or log fires is \$12.00.

BUILDING RESEARCH LEVY

A building research levy based upon \$1 per \$1,000 or part thereof of total permit value requires to be paid. Permits of a lesser value than \$10,000 are exempt from this levy.

IMPORTANT

PLANS AND SPECIFICATIONS

All builders should be conversant with the Building Bylaws wherein the requirements regarding drawings are stipulated.

Any applications not complying will not be accepted.

It is an offence to start building work before a permit is issued.

All plans must be drawn in metric to scale.

SITING OF BUILDINGS

It shall be the responsibility of the Owner of the land and the Builder to ensure that siting of all buildings conforms with the requirements of the District Planning Scheme and the Building Bylaws.

DAMAGE DEPOSIT

The amount of the damage deposit referred to overleaf is necessary to ensure that the value of any damage that is caused to public property during construction operations is recovered from the main contractor, or applicant, as the case may be. The amount is to be regarded purely as a deposit and will be refunded or adjusted upon application at the completion of the work.

SEWER CONNECTIONS

Applicants are reminded of their responsibility to have regard to the levels of Council's drainage services before construction of a building commences. Service levels can be obtained from the District Engineer's Office, Depot Street. Failure to do so may result in plumbing alterations or pumping being required.

DEVELOPMENT CONTRIBUTIONS

If you are contemplating a residential development which comprises 3 or more new units, or 2 or more additional units, or an industrial or commercial development, the value of which exceeds \$100,000, you will be liable to make a development contribution to the Rotorua District Council. If your proposal comes within this levy you are advised to contact the District Town Planning Department for further information.

Inspector: M _____

File No. _____

Receipt No. 33

Date Permit Issued 30/11/83

OWNER

Name K+S Dubill
Mailing Address 67 Leonard Rd
Rotorua

BUILDER

Name Kawerau Home Bldg.
Mailing Address P.O. Box 179
Kawerau

PROPERTY ON WHICH BUILDING IS TO BE ERECTED/DEMOLISHED

SITE

Street No. 67
Street Name Leonard Road
Town/District Rotorua
Riding Ngongotata

LEGAL DESCRIPTION

Valuation Roll No. 7067/225pt
Lot 66 D.P. 26064
Section _____ Block _____
Survey District _____

DESCRIPTION OF PROPOSED WORK AND MAIN PURPOSE OF USE

Dwelling

FLOOR AREA

DWELLING UNITS

Whole
Sq. Metres91m²Number
Erected

ESTIMATED
VALUES
\$Building
Plumbing
Drainage
TOTAL

<u>34,600</u>	<u>00</u>
<u>2,200</u>	<u>00</u>
<u>36,800</u>	<u>00</u>

NATURE OF PERMIT (TICK BOX)

- ☒ NEW BUILDING
- include dwelling added, exclude domestic garages
- ☐ FOUNDATIONS ONLY
- ☐ ALTERED, REPAIRED, EXTENDED
- include conversions and resited buildings
- ☐ NEW CONSTRUCTION
OTHER THAN BUILDINGS - include demolitions
- ☐ DOMESTIC GARAGES
AND DOMESTIC OUTBUILDINGS

FEES APPLICABLE

Building Permit	\$ <u>186 00</u>	Water Connection	\$ <u>90 00</u>
Street Damage Deposit ..	\$ <u>100 00</u>	Vehicle Crossing Levy ...	\$ <u>199 00</u>
Building Research Levy ..	\$ <u>31 00</u>	M.S. Plumbing	\$ _____
Plumbing	\$ <u>80 00</u>		\$ _____
Drainage	\$ <u>68 00</u>		\$ _____
Sewer Connection	\$ _____	TOTAL:	\$ <u>760 00</u>

Receipt No. 33
Date of Payment 29/11/83
Authorised Officer [Signature]

Special Conditions: _____

Date Inspected

REMARKS (e.g. stage reached with work)

30/11/83Pile holes & ground bearing sitting as per plan16/1/84job completed

COMPLETED (Signature)

Date _____

11 November 1983

Kawerau Home Builders Ltd
P O Box 179
KAWERAU

Dear Sirs

re: LOT 66 LEONARD ROAD, NGONGOTAHA

Please find enclosed building application form. On return of this we can proceed with your permit.

Yours faithfully
D.J. McArtney
SENIOR BUILDING INSPECTOR

per: J.C. Anderson
BUILDING INSPECTOR

KAWERAU HOME BUILDERS LTD

17 Spencer Avenue,
P.O. Box 179,
KAWERAU.

Telephone 7023 and 7718



8. - 11 - 83

Building Inspector.
Mr J Anderson.
Rotorua District Council.
Private Bag
Rotorua

ROTORUA DISTRICT COUNCIL
INSPECTORATE DEPT.

10 NOV 1983

RECEIVED

Dear Mr Anderson

We herewith enclose Building
permit application for Mr. & Mrs R Duffell.
New Residence at Lot 66 Leonard Road
Ngongotaha

Yours Faithfully
J. P. Brown

BOROUGH OF KAWERAU

PLEASE QUOTE IN REPLY

PLEASE ADDRESS ALL CORRESPONDENCE TO:

Town Clerk,
P.O. Box 101,
Kawerau.

Islington Street,
Kawerau

Phone Kawerau 8779

The Manager,
Kawerau Home Builders,
P.O.Box 179
KAWERAU.

8th November, 1983.

Dear Sir,

Transportable Home - Plan 816 -Destination
Rotorua - 91.62 M²

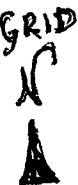
The above house has been inspected at the pre-lining stage and found to comply with N.Z.S. 3604.

Gib.foil has been used as wall insulation and macerated paper in the ceiling.

Yours faithfully,



R.A. Hamilton.
Assist. Borough Health and Building Inspector.



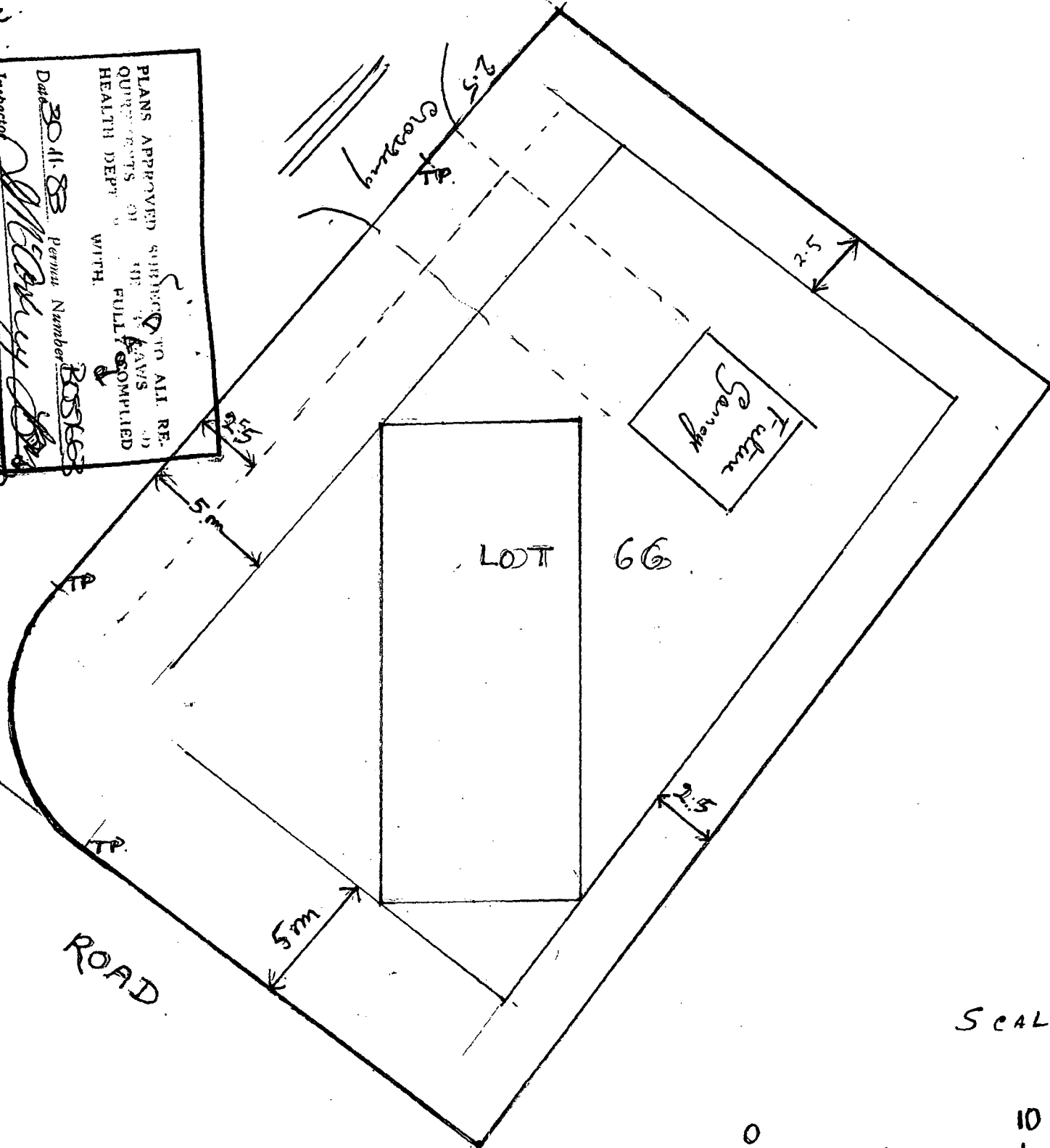
APPROX
MAGNETIC
NORTH

PLANS APPROVED SUBJECT TO ALL RE-
QUIREMENTS OF THE LAWS OF
HEALTH DEPT. & FULLY COMPLIED
WITH.

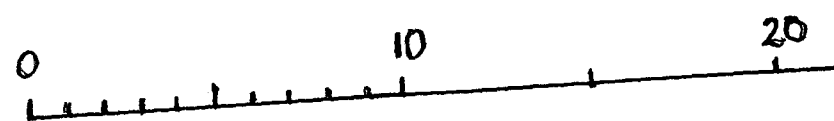
Inspector *[Signature]*
Date *20.11.83* Permit Number *10558*

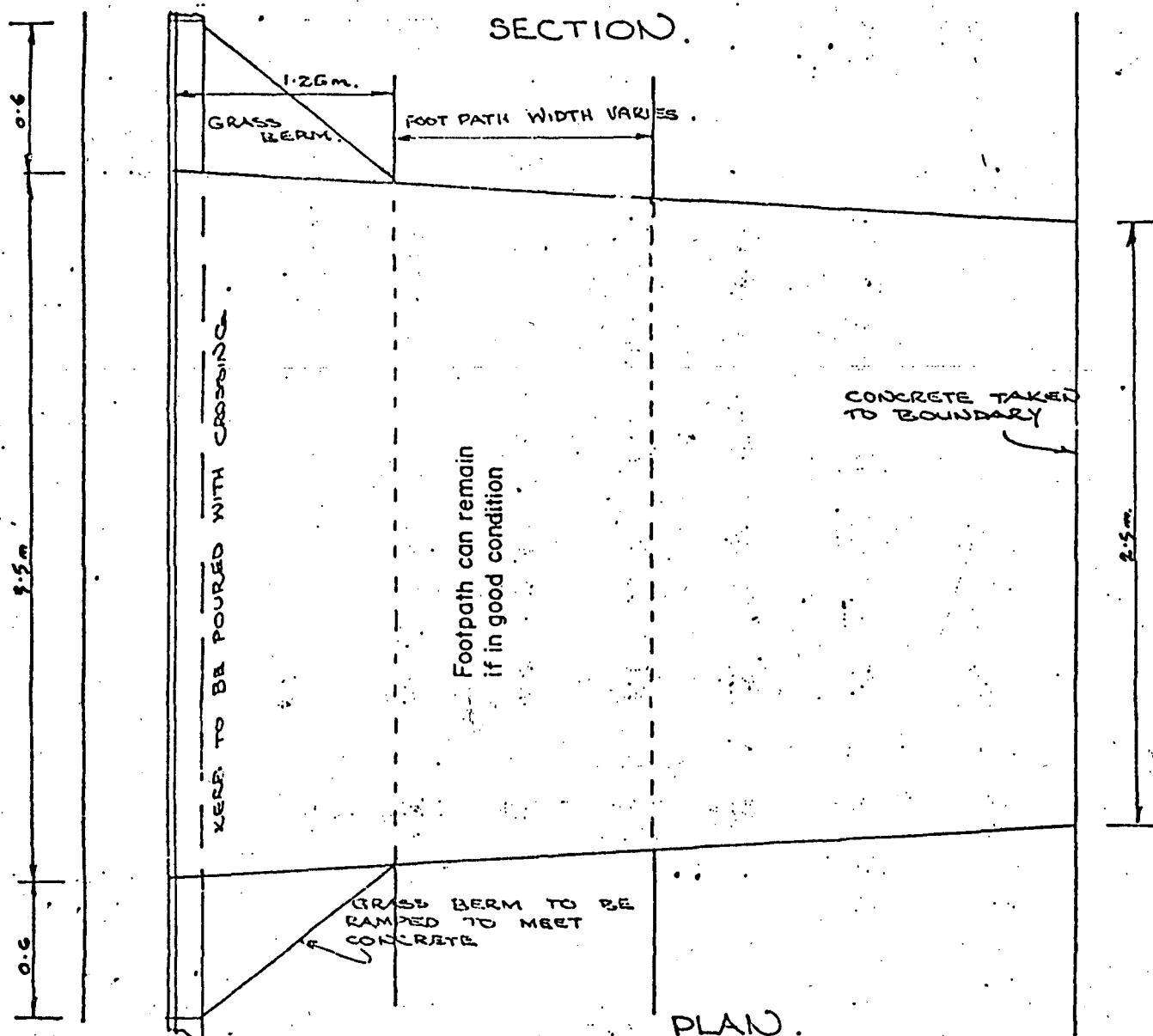
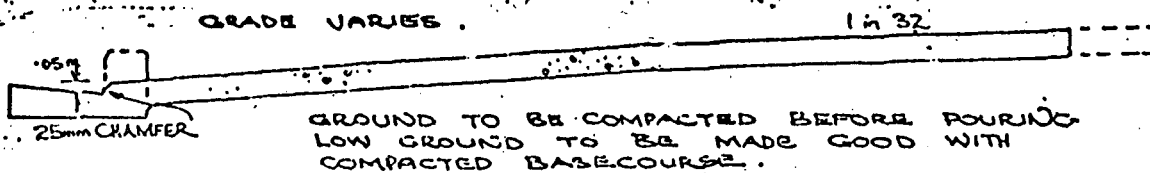
FUTURE

LEONARD
ROAD



Scale 1 = 200





RESIDENTIAL VEHICLE CROSSING.

SPECIFICATIONS

1. Concrete shall be 100mm thick for residential crossings
2. Concrete to be minimum strength 17.5 M.P.a. at 28 days.
Ordinary grade concrete as specified N.Z.S.S. 1900 chap 9.3.
3. It is necessary that the footpaths be kept in a safe condition at all times, with the placing of barricades, lighting etc.
4. If no footpath is provided, then crossing level at Boundary to be 3% of berm higher than Kerb Level at centre of crossing.

GRID

APPROX
MAGNETIC
NORTH

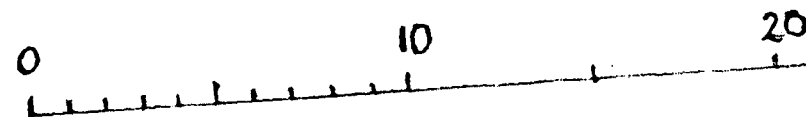
FUTURE
ROAD ?

LEONARD
ROAD

LOT 66

ROAD

SCALE 1 = 200



NAME: KAWERAU HOME BUILDERS ADDRESS: P.O. BOX 179, KAWERAU.

STOREY: ☒ Single or Uppermost
Lower of two or middle of three
Lower of three

ROOF TYPE: ☒ Light / Heavy

ROOF PITCH: $0^\circ - 25^\circ$ / $26^\circ - 45^\circ$

WIND AREA: High / Medium / ☒ Low

W = 44 B.U.'s/m

EARTHQUAKE ZONE: ☒ A / B / C

E = 4 B.U.'s/m²

ROOF OR BUILDING LENGTH

BL = 17.4 m

ROOF OR BUILDING WIDTH

BW = 7.2 m

GROSS ROOF OR BUILDING PLAN AREA

GPA = 125.3 m²

EARTHQUAKE: B.U.'s ALONG AND ACROSS

E x GPA = $4 \times 125.3 = 501.2$ B.U.'s

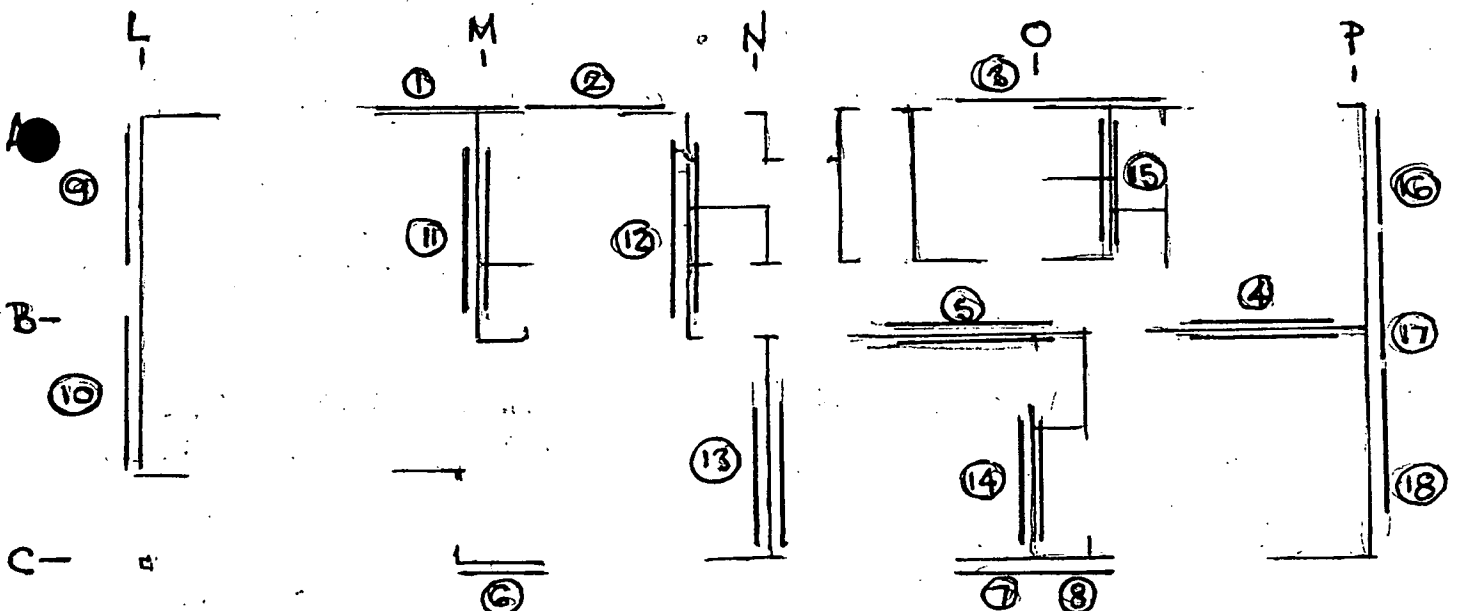
WIND: B.U.'s ALONG

W x BW = $44 \times 7.2 = 316.8$ B.U.'s

WIND: B.U.'s ACROSS

W x BL = $44 \times 17.4 = 765.6$ B.U.'s

SKETCH PLAN (external and internal walls):



SHEET B

Plan 816

1	2	3	4	5	6	7	8
Total B.U.'s Required	Wall Line		Wall Bracing Elements Provided				
	Label	Minimum B.U.'s Required	Label No.	Type	Rating B.U.'s/m	Length (m)	B.U.'s Provided
ALONG	A		1	1	42	2.400	100.8
			2	1	42	2.400	100.8
			3	1	42	2.400	100.8
		162	Sub-total				302.4
	B		4	2	62	2.400	148.8
			5	2	62	2.400	148.8
		70	Sub-total				297.6
	C		6	8	67	1.200	80.4
			7	1	42	1.800	75.6
			8	1	42	1.500	63
		162	Sub-total				219
	D						
			Sub-total				

765.6	TOTAL	394	TOTAL	819
-------	-------	-----	-------	-----

ACROSS	L		9	1	42	2.400	100.8
			10	1	42	2.400	100.8
		50	Sub-total				201.6
	M		11	12	42/1200	2.400	84
		76	Sub-total				84
	N		12	12	42/1.200	2.400	84
			13	12	42/1.200	2.400	84
		70	Sub-total				168
	O		14	12	42/1.200	1.200	42
			15	12	42/1.200	1.200	42
		70	Sub-total				84
	P		16	1	42	2.200	92.4
			17	1	42	1.600	67.2
			18	1	42	2.200	92.4
		60	Sub-total				252

765.6	TOTAL	320	TOTAL	789.6
-------	-------	-----	-------	-------

KAWERAU HOME BUILDERS

P.O. BOX 179,

KAWERAU.

TEL - 7023

SPECIFICATIONS

Excavator and Concretor

Excavator: Excavate for all piles, walls and other foundations as shown on the drawings, to a minimum depth of 12" on to good solid bearings, and horizontal on the bottom. All excavations are to be approved by the Local Body Building Inspector before concrete is poured.

Concrete: To be in the proportions of 4:4:1 metal, sand and cement or 6 parts of approved aggregate to one part Portland cement. The grade and crushing strength of the concrete shall be 2500 P.S.I. at 28 days.

Foundation Blocks: To be at least 24" x 8" x 6" or 8" x 8" concrete piles set in 12" x 12" x 4" thick concrete pads, and shall project a minimum of 1" above permanent ground level. Two No. 8 gauge galvanised wires shall be suitable fixed to secure studs or plates. Plates to be at a maximum of 1.370m centres in direction of stringers.

Chimney & Base: To be precast concrete type MONOCAST constructed in accordance with N.Z.S.S. 1051. The fireplace is to be fitted with approved fire brick lining and 14" grate. Space behind fire bricks to be filled with fine shingle and sealed with 50mm cement mortar. Foundation to be 150mm thick and 150mm wider than chimney all round reinforced with ½" m.s. rods at maximum 12" centres each way.

If concrete floor. 100mm concrete floor with 668 reinforcing on polythene and hard fill. The grade and crushing strength of concrete shall be 17.5 m.p.a. at 28 days.

Carpenter and Joiner.

General: All materials shall be the best of the respective kinds specified and shall comply with N.Z.S.S. No. 169.

All wall framing timbers to be gauged to a uniform thickness.

All finishing timbers shall be dressed and sanded to reprove machinery marks.

Damp Proofing: All timber is to be protected from dampness with 3-ply bituminous felt or other approved damp proofing.

Timber Schedule:

<u>Designation</u>	<u>Size</u>	<u>Quality</u>	<u>Remarks</u>
Jack Studs			
Sleeper Plates	100 x 75	No. 1 Radiata Tan	
Foundation bracing and sole plates	100 x 50	No. 1 Radiata Tan	
Floor joists	150 x 50	No. 1 B/T Radiata	450mm centres maximum span 2.400m
Wall framing generally		No. 1 B/T Radiata or Douglas Fir No.2 B/T Radiata or Douglas Fir	Studs, plates, lintels to bearing partitions Remainder of wall framing

Carpenter and Joiner - Contd.

Studs	100 x 50 75 x 50	No. 1 B/T Radiata or Douglas Fir	.600m centres max.
Noggs	100 x 50 75 x 50	" "	680mm "
Trimming Studs	100 x 75	" "	1370mm to 1980 openings
Plates	100 x 50 75 x 50	" "	

Timber Schedule:

Designation	Size	Quality	Remarks
Bracing	150 x 25 100 x 25	No. 1 B/T Radiata or Douglas Fir (or PRYDE galv. steel bracing)	Checked in flush
Lintels	75 x 50 125 x 50 150 x 50 200 x 50 225 x 50	on flat on edge " " " " " "	Up to 1.370m 1.370m to 1.800m 1.800m to 2.400m 2.400m to 3.000m 3.000m to 3.600m
Ceiling joists	100 x 50	No. 1 B/T Radiata	510mm centres max.
Ceiling strapping	50 x 25	B/T Radiata	500mm centres max.
Ceiling Noggs	50 x 50	No. 2 B/T Radiata	600mm centres max.
Ceiling Runners	150 x 50	No. 1 B/T Radiata	2.400 centres max.
Rafters	100 x 50 100 x 50	" " " " " "	900mm centres corr. iron 760 centres Decram.
Collar Ties	150 x 25	B/T Radiata	Collar ties max. 1.800m c.c
Roof strutting and under Purlins	100 x 50	No. 1 B/T Radiata	
Ridges and hips	200 x 25	B/T Radiata	Corrugated iron
Purlins	75 x 50	" "	900mm centres max.
Weatherboards	200mm	Pinex Fibroplank	
Fascia & Bargeboards	150 x 25	B/T D.A. Rimu	D4S and grooved
Flooring	19mm	Plycopyne	

Framing:

Sub-Floor:

Sleeper plates shall be 100 x 75 on edge supported at 1370 centres along their length. Jack studs to be 100 x 75 securely fixed to concrete foundation blocks and sleeper plates. The whole to be securely braced with 100 x 50.

Particle Board Flooring:

Where Particle Board Flooring is specified fix ex 50mm

nogs to ends of joists and to all joins in sheets at right angles to floor joists.

Wall Framing:

All timbers to be framed, braced, nailed and fitted together in a workmanlike manner, using the materials and dimensions specified. Load bearing walls to areas immediately under roof to be 100 x 50. Fix noggs at a maximum of 680 centres. Stud height to be shown as on plan.

Ceiling Framing:

Fix 100 x 50 ceiling joists to a maximum of 500mm

centres with 50 x 50 ceiling noggs at a maximum of 600mm centres cut between and to all margins of rooms. All to be well spiked to wall plates with 75mm and 100mm nails. Provide 150 x 50 ceiling runners at maximum 2.400mm centres above all ceiling joists exceeding 2.400m in length. Substitute ceiling noggs with 50 x 25 ceiling battens at 300 centres if ceilings are of pinex tiles.

Roof Framing:- Corrugated iron

Gang nail trusses or rafters to be 100 x 50 at a

maximum of 900 centres. All to be properly checked and birdsmouthed and securely nailed to plates and ridges with 75 and 100 nails. All 100 x 50 rafters exceeding 2.100m in length shall be strutted off bearing partitions at 1.800m centres with 100 x 50 supporting 100 x 50 under purlings.

Roof Framing (contd)

Extend rafters to give soffit width from frame as shown on plan. 75 x 50 purlins are to be fixed over rafters at max 900 centres

Harvey or Decramastic Tiles

Gang nail trusses or rafters to be 100 x 50 at a maximum of 760 centres fixed as for Corrugated Iron roof framing. Roof pitch is not to come below 12 degrees.

Bracing:

Wherever possible, brace all external corners with 150 x 25 diagonal braces checked flush into studs and 150 x 25 dragon ties checked flush into ceiling joists. Brace all internal bearing partitions with 100 x 25 braces checked flush into studs. All at approximately 45 degrees. Timber bracing may be substituted with PYRDE purpose made bracing.

Insulation: Floor, exterior walls and ceiling to the N.Z. standard specification.

Building Paper: To all walls sheathed in Firbolite products supply and fix approved building paper horizontally to exterior face of wall framing with minimum laps of 75.

Aluminium Joinery: All exterior window frames and sashes to be VANTAGE anodised aluminium, fixed in accordance with the manufacturer's instructions. Sizes shown on plan.

Interior Linings: Wall Linings - Gibraltar Board

Line interior walls with Gibraltar board sheets fixed with 30F.H. galv. nails. Edges to be nailed at 225 centres and at intermediate studs and noggs at 300 centres. Stopping to be done with best quality stopping plaster with all spots and risers removed giving an even surface in preparation for painter.

Wall Linings - Hardboard.

Line interior walls with 6mm pinex hardboard. Hardboard to be fixed with 25mm 16-gauge Cadmium plated brads at 100 centres along edges of sheets and at 225 centres to intermediate studs and noggs. Sheets are to be butted with exposed edges neatly v-jointed.

Ceilings - Sheet Pinex.

Supply and fix 10mm sheet pinex insulation boards to ceilings.

Finishes: Provide to windows, doors, floors and ceilings respective sillboards, aprons, architraves, skirtings and cornices as selected. All to be sanded to remove any machine marks and fixed with necessary scribes and mitres according to standard trade practices. All nails to be punched below the finished surface.

Kitchen Fittings: Generally all kitchen fittings are to have flushed doors hung on 1 pair A.C. butts. Shelving ex 25mm. Provide 100 toe space at floor to all units. Sink top and sink to be as selected by Owner.

H.W. Cupboard: To be lined full height and ceiled with wallboard as shown on schedule. Fit ex 25 slatted shelves at approx. 300 centres above and beside cylinder. Element to be boxed to Power Board's approval.

Meter Box: Trim and finish at meter box as required by electrician.

Manhole: Provide and fix 500 x 500 manhole in ceiling where directed and provide cover of same material as ceiling.

Access Door to Basement: Provide and fix access door to basement where directed. Door to be ledged and braced and hung on 1 pair galv. T-hinges.

Ceiling Vent: In any halls not having exterior doors or opening windows, supply and fix ceiling vent panel as selected by owner. Vent to have free air flow space of no less than 27 sq. inches, with equivalent vent through roof by plumber.

Electrician

General: All installations shall be made in accordance with the Wiring Regulations 1935 and to the approval of the Local Power Board. Electrician will make the necessary notification to the said Power Board before commencing any work for this contract. Provide and fix all materials necessary for the installation of the following, complete with 100 and 60 watt lamps. All switches and plugs to be flush type.

Mains & Switchboards: Provide and fix one meter board where directed by Owner allowing 600 of surplus wire which is to be neatly coiled behind meter board. Door to board to have glazed panel for meter reader and to be hinged to swing out.

Roofer

Corrugated iron: Over 75 x 50 purlins stretch and clout 50 galv. wire netting, then standard building paper with maximum laps of 75 fixed securely to purlins with large headed clouts.

Cover the whole of the roof with 26 gauge galv. corrugated iron with a minimum end lap of 225 and side laps of 62mm corrugations. All end and side laps, laps and underside of barge flashing, ridging and valleys to be painted with an approved priming paint before fixing. Ridging shall be 26 gauge ex 450 lead galv. iron. Valleys should be 26 gauge ex 380 galv iron with beaded edges.

Decramastic or Harvey

Tiles: Over rafters stretch and clout 50 galv. wire netting, then standard building paper or approved sisalation with minimum laps of 75 fixed securely with large headed clouts.

Cover the whole of the roof with Decramastic or Harvey tiles with ridging and barge flashing in matching colour, as selected by the owner. The whole to be laid in accordance with the Manufacturer's instructions.

Plumber

General: All plumbing work to fully conform with all governing regulations and By-laws.

Spouting & Downpipes: To be 24 gauge galv. iron with rivetted and soldered joints fixed on approved galv. iron clip brackets.

Downpipes to be 75mm diameter galv. iron fixed securely to walls with galv. brackets, at least 2 per downpipe. Provide shoes where necessary leading to stormwater drains.

Cold water supply: Connect up mains in 19mm galv. pipe to first branch below floor. This pipe is to be taken down at least 300mm below the ground. If under a carriageway this pipe is to be taken down at least 450mm below the ground. Lead off in 19mm P.V.C. pipe to bath and 10mm P.V.C. pipes to sink, handbasins, shower, laundry tubs, W.C. and 2 standpipes complete with hose taps. Connect from branch to pressure reducing valve and H.W. cylinder with 19mm diameter copper pipe.

In the case of "Multiple Dwellings" or of any building having more than one floor, supply and fix stop taps to control the supply to all outlets of each dwelling, and to each floor. Stop taps to be readily accessible from outside and protected by durable timber boxes or purpose made cast-iron boxes.

Hot Water Supply: Provide and fix approved gallon electric hot water cylinder with element, thermostat controls and all necessary connections to make same in working order. Lay water in 19mm copper piping to bath, and 12mm copper branches to sink, handbasins, shower and laundry tubs. All hot water piping to be lagged. Provide adequate pressure reducing valve and check valve to services. Check valve must be installed on the main's side of the gate valve at the inlet to the cylinder.

Plumber - Contd.

W.C.: To be provided and fixed complete with earthenware pan, polished seat and seat cover, buffers, 3-gallon low set silent flush cistern and chrome flush pipe.

All taps and extensions, except standpipes, to be chrome plated streamlined bib and pillar cocks, marked "HOT" and "COLD" respectively. Provide C.P. ball joint rose to shower, Standpipe taps to be brass complete with hose connections.

Wastes: Bath, sink, shower and laundry tubs to have 37mm wastes and handbasins to have 30mm waste. All wastes to be of P.V.C. complete with necessary cleaning eyes and anti-siphon pipes. All to discharge over gully traps.

Ceiling Vents: Supply and fix 225mm diameter galv. sheet metal pipe ceiling vent to all hallways not having direct ventilation to the outside of building. Vent to be taken up through the roof and capped with a suitable cowelling.

Geo-Thermal Areas: In Geo-thermal areas no P.V.C. water supply piping is to be laid or fixed within 450mm of ground level. No silfos jointing compound to be used. Use AGAFLOW or similar approved jointing systems.

Drainlayer.

General: The whole of the drainage work shall be carried out in accordance with the By-laws of the local Authority and to the requirements and satisfaction of its Inspector.

Provide all fittings necessary to complete the work and lay all drains to an even and consistent fall of not less than 1 in 40.

Storm Water: From G.E.W. bend carry second class 100mm diameter G.E.W. pipes to soakholes or to berm drain in footpath as required by the Local Auth.

Soakholes to be 600mm diameter machine drilled to a minimum depth of 3000mm or the satisfactory soakage. Cap soakhole 300mm below finished ground level with 1050mm diameter precast concrete lid complete with handles.

Soil Drains: Fix 100mm G.E.W. gully traps to take wastes and 4" bends to take soil pipe, T.V. etc. Each gully trap to be set on a concrete bed and shall have concrete kerbs and C.I. grating.

Take 100mm G.E.W. drains from gully traps and bends and connect with all necessary inspection fittings to Local Body sewer.

OR Take 100mm G.E.W. drains from gully traps and bends and connect to septic tank of approved size and design. Take 100mm G.E.W. effluent from septic tank and connect to soakage system as approved by Local Authority,

Testing: On completion have the whole drainage system tested and passed, and leave the ground in a tidy condition, with all surplus excavated materials suitably disposed of.

Painter and Paperhanger.

General: All material shall be the best of its kind and all work shall be performed by skilled tradesmen. Protect all work from damage and keep adjacent surfaces clean.

Exterior Work: Prime all exterior timbers with primers complying with N.Z.S.S. 1056 type L.R. or other approved mix. All exterior timbers and joinery shall be primed before fixing, and shall be thoroughly brushed into the woodwork to completely cover the whole surface. Primer is not to be sprayed. Putty all nail holes and defects, apply one coat of best quality exterior undercoating and finish with one coat of 1st grade high gloss exterior finishing paint in colours selected by the owner.

Painter and Paperhanger - Contd.

Interior Work: Walls and ceilings to kitchen, bathroom and W.C. and laundry to have a coat of sealer. Finishing timbers to have 1 coat of interior priming, then all work to be given 1 coat of tinted interior undercoating and 1 coat of 1st qual. high gloss enamel in colours selected by the owner. Insides of exterior doors and sashes to be prepared as above and finished in a coat of high gloss enamel to suit particular rooms. All timber joinery to be treated as above.

All ceilings not enamelled to be given one coat of sealer and 2 coats of 1st quality paint in colours selected by the owner.

All nail holes and defects to be stopped with best linseed oil putty and to be tinted where required.

Glazier.

General: All glass shall be of approved manufacture. Cut glass to fit rebates, with due allowance for expansion, secure with metal sprigs, properly bed and back putty, and neatly finish with a quick setting putty. Fixing for glazing into metal windows shall be specially manufactured for this purpose.