

Inspector: M _____ File No. _____

Receipt No. 27226

Date Permit Issued 14 / 7 / 92

OWNER

Name M J and P E Irwin
Mailing Address Te Tipua
4 R D
GORE

BUILDER

Name MacManus Heating Ltd
Mailing Address 43 Medway Street
GORE

PROPERTY ON WHICH BUILDING IS TO BE ERECTED/DEMOLISHED

SITE

Street No. _____
Street Name Dacre-Te Tipua, Roughan Road
Town/District Te Tipua
Ward Te Tipua

LEGAL DESCRIPTION

Valuation Roll No. 29430/464/00
Lot _____ D.P. _____
Section 14, 15 Block VIII
Survey District Lindhurst Hd

DESCRIPTION OF PROPOSED WORK AND MAIN PURPOSE OF USE

Installation of Gillies Longburn Yurea Wedy

FLOOR AREA

Whole
Sq. Metres

DWELLING UNITS

Number
ErectedESTIMATED
VALUES
\$Building
Plumbing
Drainage
G.S.T.

TOTAL

3,400 00

3,400 00

NATURE OF PERMIT (TICK BOX)

☐

NEW BUILDING

— exclude domestic garages and domestic outbuildings

☐

FOUNDATIONS ONLY

☒ALTERED, REPAIRED, EXTENDED, CONVERTED, RESITED
— include installation of heating appliances☐

NEW CONSTRUCTION

OTHER THAN BUILDINGS — include demolitions

☐DOMESTIC GARAGES
AND DOMESTIC OUTBUILDINGS

(9)

FEES APPLICABLE

Building Permit	\$	88 85	Water Connection	\$	
Street Damage Deposit	\$			\$	
Building Research Levy	\$			\$	
Plumbing	\$			\$	
Drainage	\$			\$	
Sewer Connection	\$			\$	
Vehicle Crossing Levy	\$		G.S.T.	\$	
M.S. Plumbing	\$		TOTAL:	\$	88 85

Receipt No. 27226

Date of Payment ____ / ____ / ____

Authorised Officer [Signature]

Special Conditions: _____

To be installed in accordance with
N.Z.S. 7421, and Manufacturers
Instructions. Advise S.C.C. when
Heating Unit is installed.17/7/92 Health OK. Unit clearance OK. 500mm
side clearance from floor exposed beam.
Have less than 25mm clearance to chipboard

Date Inspected

REMARKS (e.g. stage reached with work)

Flooring at first floor level to outer liner.
Ceiling level ground floor OK. Unable to
inspect ceiling at first floor level.

(CONTINUED OVER)

Ceiling plate possibly not venting enough.
~~Letter on file~~ 25mm around liner in first
floor bedroom.

McManus heating rang: (10.35 23/7/92.)

Installer advised double liner use through
first floor area so chipboard flooring
not a problem however will space
down ceiling plate so as to obtain
more ventilation.

4/8/92 double liner used at first floor
however not enough ventilation. Letter on file.

16/9/92. Ceiling plate spaced down off ceiling
approx 10mm to provide ventilation

Please keep flap
folded under when
completing application

SOUTHLAND DISTRICT COUNCIL

P.O. Box 903, Invercargill

APPLICATION FOR A PERMIT TO ERECT, REPAIR, ETC. A BUILDING

MacManus Heating Ltd

43 Medway St.
Gore

P.O. Box 32 Ph. 208-7560

I/We _____
of _____
hereby apply for permission to erect, repair, alter, add to, remove or demolish a
building as specified below.

Application No. 43062

Date Received 8-7-92

Permit No. K21170

Date Issued 14-7-92

Value of Building (including Labour & G.S.T.) \$ 3400 Fee \$ 88.85

Drainage and Plumbing \$ _____ 25% surcharge \$ _____ Permit Fee \$ 88.85

TOTAL VALUE of building \$ 3400 Research Levy \$ _____

Inspection Fee (if applicable) \$ _____

Planning Fee (if applicable) \$ _____

If total Value exceeds \$20,000 a research Levy of \$1.00 per \$1000 or part
thereof is payable.

Total Fee \$ 88.85

NOTE: Scale of Fees over page.

Receipt No. \$ 27226

OWNER

Name M J & P E Ewin
Address Tetipoo
No 4 RD
Gore

Member of

BUILDER

Name MacManus Heating Ltd
Address 43 Medway St.
Gore
P.O. Box 32 Ph. 208-7560

SITE

Land Area 169-8238ha
Road Dune - Le Tihua Roughan Road
Town/District Tetipoo
Ward Le Tihua

LEGAL DESCRIPTION

Valuation Roll No. 29430/464/00
Lot _____ DP 4
Section 14 & 15 Block V111
Survey District/Hundred Landhurst

Full Description of works Installation of 8.5kW Longburn with Double

Usage (Public, farm, commercial, residential or industrial) _____ Total floor area Renov fitted in accordance

Materials: Foundations _____ Framework with the Manufacturer

Wall Cladding _____ Roofing instructions

Licensed Drainlayer & Plumber _____ Application No _____

Principal Consultant Elliottson Signature of Applicant Elliottson

Estimated Start Date 14 / 7 / 92 Estimated Completion Date 22 / 7 / 92

APPROVALS

Planning Officer _____ Date _____ Design Engineer _____ Date _____

Health Inspector _____ Date _____ Building Inspector Ken J. O'Connell Date 13/7/92

Special Conditions of Permit _____

To be installed in accordance with
N.Z.S. 7421, and Manufacturers
Instructions. Advise S.C.C. when
Heating Unit is installed.

BUILDING PERMIT FEES**PERMIT FEES AS FROM 1 JULY 1991 - NOTE ALL FEES ARE INCLUSIVE OF G.S.T.**

NOTE: The Fee for the Building Permit is assessed on the estimated value of the Building only without plumbing and drainage labour. This application together with the appropriate fees can be lodged at the Invercargill Office of the Southland District Council or any of the Council's Service Delivery Centres.

Estimated Value of Work including G.S.T. Building
Excluding plumbing and drainage Permit Fee

			\$
Up	to	\$2,000	58.50
2,001	to	4,000	88.85
4,001	to	6,000	119.35
6,001	to	8,000	148.60
8,001	to	10,000	177.85
10,001	to	12,000	198.90
12,001	to	14,000	217.55
14,001	to	16,000	238.70
16,001	to	18,000	265.00
18,001	to	20,000	299.00
20,001	to	30,000	372.00
30,001	to	40,000	422.50
40,001	to	50,000	473.00
50,001	to	60,000	508.00
60,001	to	80,000	578.00
80,001	to	100,000	637.00
100,001	to	120,000	696.00
120,001	to	180,000	831.00
180,001	to	250,000	955.00

For permits with a building cost in excess of \$250,000, \$955.00 plus \$1.00 for each \$1,000 or part thereof. (All fees are GST inclusive).

To the above fees is to be added the sum of \$15.00 (GST inclusive), in respect of all permit applications other than those relating to heating units and internal alterations, to meet the cost of checking compliance with planning requirements.

Typical Calculation of fee and Levy

Building Value excluding plumbing and drainage labour costs	Amount
\$35,500	\$422.50

Plumbing and Drainage \$ 1,900

Total Building Value \$37,400

Planning Fee \$15.00

Value lies between \$37,000 and \$38,000 therefore Levy is charged on \$38,000 at \$1.00 per \$1,000 of Value \$38.00

Total: Fee and Levy \$475.50

BUILDING RESEARCH LEVY

NOTE: The Building Research Levy is assessed at the rate of \$1.00 per \$1,000, or part thereof, on all work of \$20,000 or more and is based on the total cost of the Building Including plumbing and drainage.

NOTE:

- Detailed **PLANS** and **SPECIFICATIONS** in **DUPLICATE** must accompany this application. Such Plans should show a Floor Plan, Four Elevations and a Cross Section sufficient to show the nature and extent of work to be undertaken.
- A **SITE PLAN** must accompany all applications (identify boundaries and buildings).
- The Documents **MUST BE SIGNED** by the Applicant.
- The **FEE** must accompany the Application.
- A separate Drainage Application is required for any drainage or plumbing work.
- A surcharge of 25% is to be added to all permit fees in respect of all buildings with the exception of: Dwellings as described on page ten of Section 1.1 of Chapter 1 of the By-law. (Includes Dwelling accessory buildings). Farm Buildings referred to in Chapter 11.2 of the By-law.
- A Search Fee of \$30.00 (GST inclusive) plus copying charges where appropriate, to allow the inspection of any file of a building permit following completion of the work.

Inspection of relocatable house or buildings

\$70.00 within Southland or Invercargill Districts. Outside Southland or Invercargill Districts, charges out at an hourly rate plus actual mileage at Public Service rates (GST inclusive)

Demolition Permit Fees

- Dwelling and Farm Buildings: **No charge**
- All others: **\$50.00 (per storey) GST inclusive.**



Southland District Council

P.O. Box 903 • 15 Forth Street • Invercargill • New Zealand • Telephone (03) 218-7259 • Facsimile (03) 218-9460 • DX Invercargill 17 822

If calling please ask for: Mr K J O'Connor
<md>

File Reference:
43062

10 August 1992

MacManus Heating Limited
43 Medway Street
GORE

COPY TO:
M J and P E Irwin
Te Tipua
4 RD
GORE

Dear Sir

Building Application No. 43062
Yunca Wegj Heating Unit

To confirm our telephone conversation of 23 July 1992 regarding the Yunca Wegj heating unit which you have installed for M J and P E Irwin of Te Tipua.

I recently confirmed that a double liner has been used through the first floor level, however, I am still of the opinion that the throttling of the cooling air intake is a bit excessive. The ceiling plate used only allows a maximum 5 mm clearance around the flue for ventilation.

Clause 315.1 of NZS 7421 requires a minimum ventilating gap of $8,000 \text{ mm}^2$ which equates to approximately 15 mm clearance all round the flue. As you stated the easiest option to overcome this problem would be to space the ceiling plate down from the ceiling 12 mm. However, I would recommend that the inside flue liner be kept hard down on the ceiling plate in its spaced down position.

Please notify us when this has been done so another inspection can be made.

Yours faithfully

K J O'Connor
BUILDING INSPECTOR

Cawthron Institute,
98 Halifax Street,
PO Box 175 Nelson,
New Zealand.
Telephone: 82-319
Telex: NZ 3429

Cawthron Institute

Date: 7 March 1988
Ref. No: 22552
Client No:

INSTALLATION OF DOMESTIC SOLID FUEL BURNING APPLIANCES CLEARANCE TEST

Gillies / Longburn (modified)

To NZS7421:1985

Commissioned by;
Gillies Manufacturing Co. Ltd

The provisions of the Southland
District Council Bylaws override
anything that is inconsistent in this
Specification, and must be com-
plied with.

SOUTHLAND DISTRICT COUNCIL

Appln. No. 43062

Approved Kevin J. O'Brien

Date 13/7/88

Job 22552 7/3/88 CLEARANCE TEST - NZS7421:1985

Page 2 of 5

Appliance Description

Type Freestanding _____ multifuel
Make Gillies
Model(s) Longburn (modified)

Manufacturer

Gillies Manufacturing Co. Ltd
184 Thames Street
Oamaru

Test type

Clearance test for freestanding heater

Test Method and Apparatus

As specified in NZS7421:1985

Calibration Procedure

The Molytek 2701 multichannel chart recorder has built-in thermocouple compensation, and was calibrated against a Fluke 2180A RTD digital thermometer between zero and 100 deg C.

Fuel Details

Wood - pinus radiata 18% moisture content (wet basis).

Woodstove model	Fuel dimensions (mm * mm * mm)	Fuelling Rate (wet kg/hr)
Gillies/Longburn	100 * 50 * 450	8

Conditions for Maximum Output

Fuel door	closed
Air control	fully open
Ash door	closed

Conditions for Flash-fire

Fuel door	open 15mm
Air control	fully open
Ash door	open 10mm

Hearth

An ash hearth 1100mm * 800mm, sheetmetal surface with 1 layer of 13mm Rocboard underneath.

Flue Shield

A semi-circular stainless steel shield 1200mm high, spaced 50mm from the flue. This was fitted with the lower edge resting on the grill on the top of the burner.

The provisions of the Southland District Council Bylaws override anything that is inconsistent in this Specification, and must be complied with.

Results

Maximum temperatures on the various parts of the test structure (deg C) as required in NZS7421:1985. With flue shield fitted.

Gillies/Longburn (modified)

Thermocouple Locations	Max o/p	Flash fire	CLEARANCE (mm)
Side wall	71	79	600
Rear wall	86	88	250
Ceiling	60	87	
Floor	73	74	
Hearth	43	44	550

NOTE:

a) Modifications to standard Gillies Longburn to meet requirements of NZS7421:1985

1/ Air inlet control restricted to 50% of original.

2/ The 4mm air gap at the bottom of the door increased to 8mm.

3/ Extended path length for the combustion gases from the combustion chamber to the flue outlet, effected by fitting a stainless steel plate above the cast iron baffle plates.

b) The floor clearance above indicates the required extension of the hearth in front of the burner.

Tested by; Ken Fredericksen K.P. Fredericksen

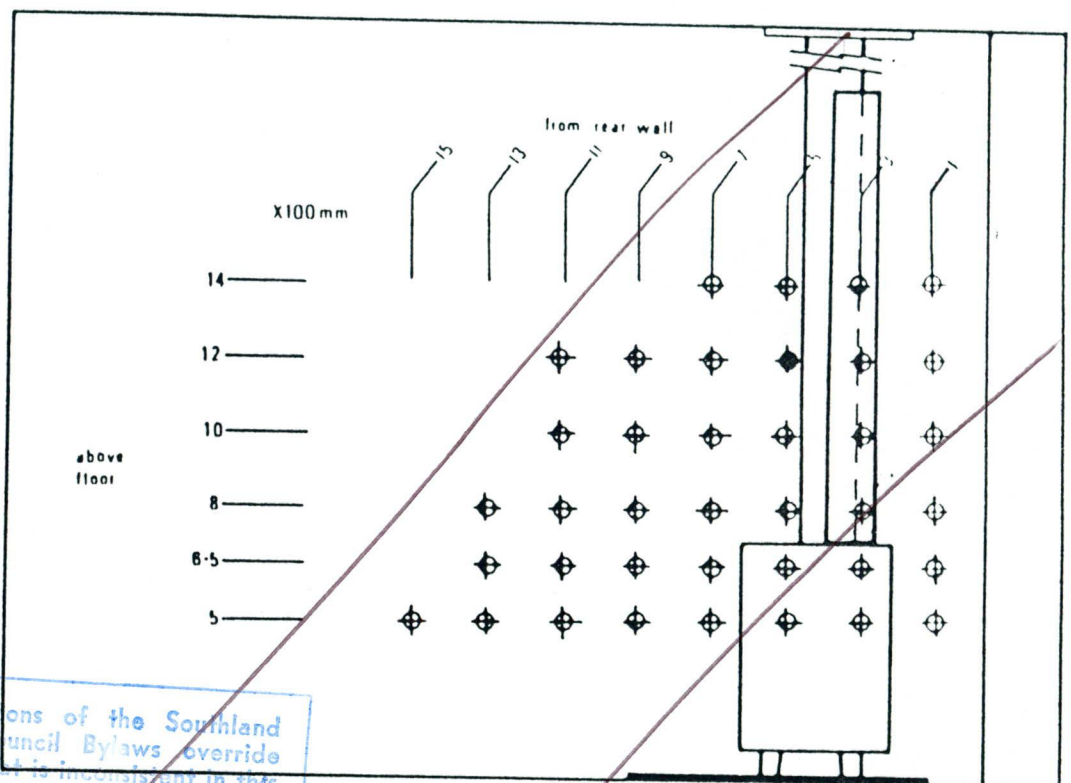
The provisions of the Southland District Council Bylaws override anything that is inconsistent in this Specification, and must be complied with.

Installation; Gillies/Longburn (modified)

⊕ Thermocouple locations

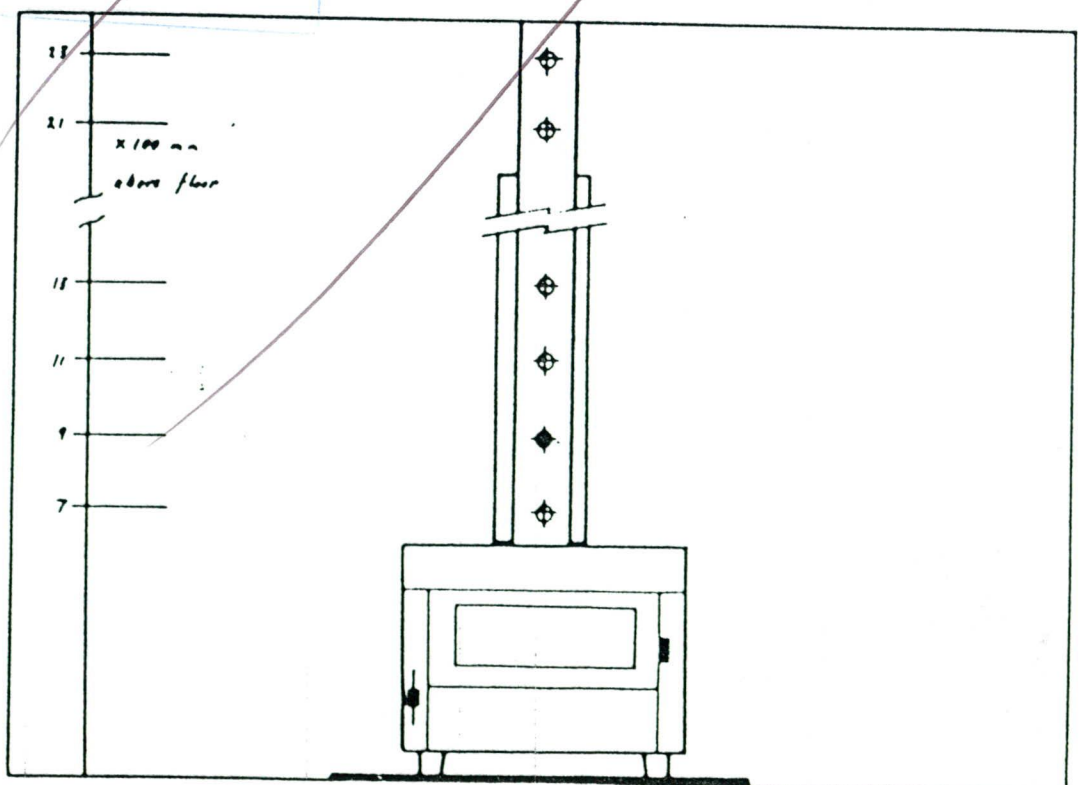
◆^M Max o/p Peak temperature
◆_F F-F Peak temperature

SIDE VIEW



The provisions of the Southland District Council Bylaws override anything that is inconsistent in this Specification, and must be complied with.

FRONT VIEW



similar permanent guard shall be fixed to ensure that a minimum clearance of 25 mm is maintained between the flue shield and the guard.

314

RADIATION SHIELDS FOR A VERTICAL FLUE PIPE

314.1

Vertical flue pipe, where passing through floor, ceiling, or roof opening, shall be surrounded by one or more radiation shields of galvanized steel at least 0.45 mm (26 BG) thick, or other equivalent corrosion resistant metal. Single shields shall be spaced not less than 50 mm from flue pipe surface, with a cooling air passage between. Minimum spacing for double shield shall be 25 mm apart, and 25 mm from the flue pipe surface.

314.2

The outside surface of a single shield shall not be in direct contact with heat sensitive material, there shall be a minimum 25 mm clearance which may be bridged by brackets or supports only, provided that:

- (a) Brackets are at least 60 degrees apart; and
- (b) The remaining space in the framed opening allows air circulation around brackets and timber frame.

314.3

The outside surface of a double shield may be in point or line contact with framed timber opening meeting it tangentially at four locations 90 degrees apart.

314.4

Except as allowed in 314.3, heat sensitive material, or insulation, shall not be placed within 25 mm of the outside surface of the shield(s).

314.5

The shield(s) shall extend over any part of the flue pipe where protection is required, except that a single shield shall not exceed 4 m in length below the roofline penetration and the upper end shall discharge outside the building. Means to exclude rain and wind-blown debris shall be provided by an overhanging shed or skirt. Soldered joints to the flue pipe are not permitted. Where a single shield commences within 1.2 m of the appliance, the maximum shield length shall be 2.4 m unless proved by test.

314.6

The top end of the shield, or shields, may terminate and discharge within the building, provided that:

- (a) A firestop is provided at the point of ceiling

penetration (see Appendix F), and

- (b) No heat sensitive material is located within 1500 mm vertically above the shield outlet, or 1250 mm radially as measured from the bare flue pipe
- (c) Where shield(s) have been terminated the unshielded flue shall be protected by a rigid metal screen with apertures not exceeding 6 mm in maximum dimension and having a minimum clearance of 50 mm from the flue.

314.7

The lower end of the shield(s) may be placed at various levels. The alternatives would include the following:

- (a) Below ceiling level, using a heat resistant ceiling plate; cooling air is drawn from the heated room and discharged outside the building (see fig. 5).
- (b) Resting on a firestop plate at the ceiling level with a secondary shield in line contact at four locations with timber frame opening; cooling air is drawn from upper space and may discharge inside or outside the building subject to 313.2 and 314.6 (see fig. 6).
- (c) For sloped ceilings, protection of heat sensitive materials shall be provided for by extending the flue shield(s) or enlargement of the ceiling plate or by the use of a suitable heat screen. (See fig. 8).
- (d) Any other location proven by tests to specifications in appendices A, B, and E to guarantee acceptable temperatures on nearby heat sensitive surfaces.

314.8

At the upper end the shield(s) shall discharge through an opening equal to the full annular area.

314.9

While effective for protection, the arrangement in fig. 5 tends to waste room heat, overcool the flue pipe, and it does not provide for adequate firestopping. The arrangement shown in fig. 6 and an alternative thermosiphon shield design is shown in Appendix F. Fig. F1 may overcome and minimize this heat loss.

314.10

Notwithstanding any of the above, other options for protection of heat sensitive materials which comply with 312.2 may be used.

315

THROTTLING OF COOLING AIR FLOW

315.1

Single and double shields discharging outside the building may cause overcooling. To prevent this it may be necessary to throttle the intake to a minimum of 8 000 sq.mm.

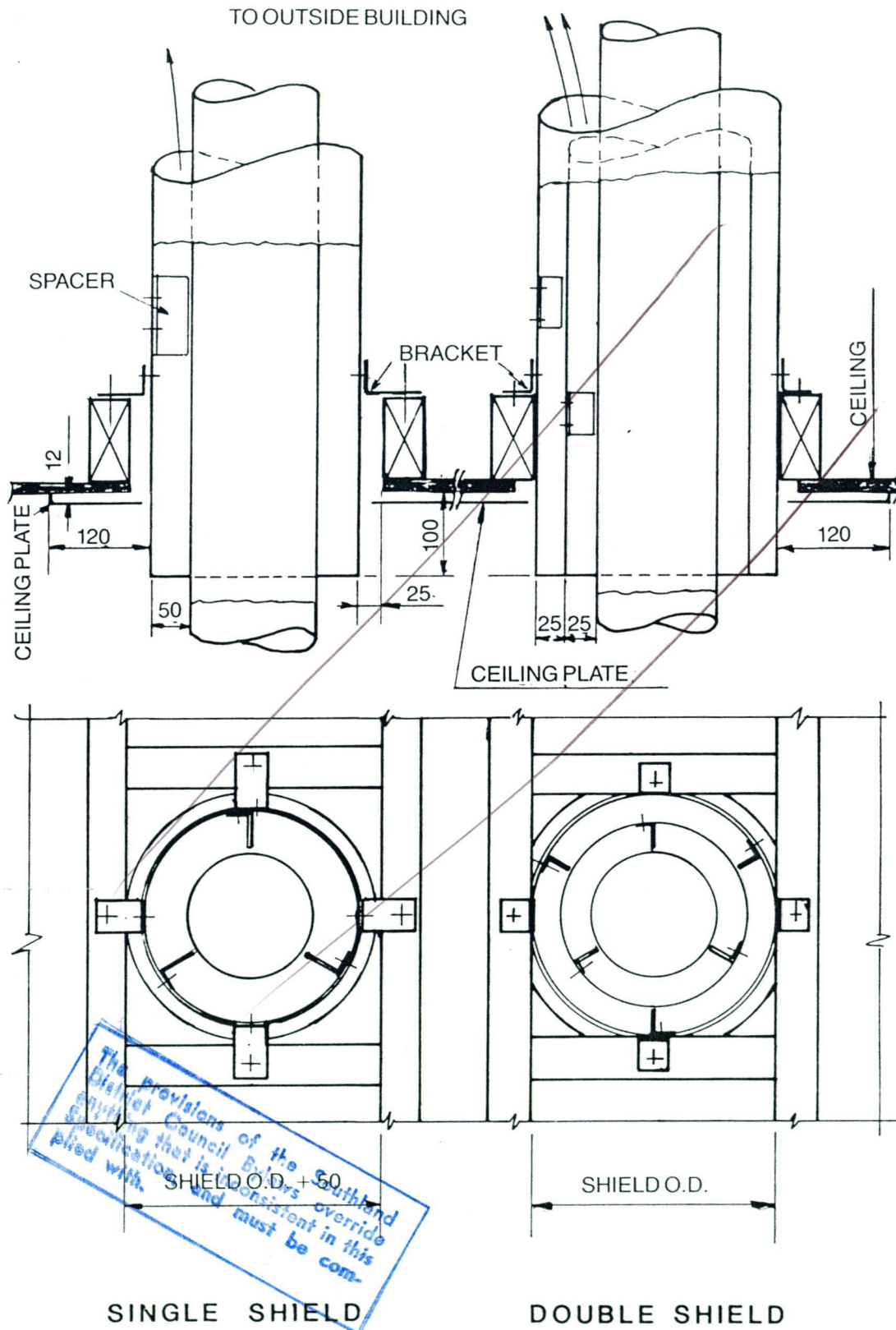


Fig. 5
SINGLE AND DOUBLE SHIELDS – COOLING AIR FROM THE HEATED ROOM



**YUNCA
WEGJ**

A division of Terry Young Ltd.

MAY 1991

INSTALLATION INSTRUCTIONS WOODFIRE FREESTANDING

TESTED TO NZS 7421 1990 + AS 2918—1990

- A. Manufacturer recommends all installation be carried out by competent trades persons e.g. (Space Heater Installer) to obtain maximum performance and maintenance free heating.
- B. A permit is normally required and we suggest you check with your local building inspectors as by-laws can vary from place to place. Also notify your Insurance Company that a space heater has been installed.
- C. Ash Hearth: 1. Must extend at least 200 mm in front of heater loading aperture.
2. Must extend at least 150 mm on each side of heater plinth.
3. Must be constructed of non combustible materials.
- D. Manufacturers recommended minimum clearances from combustible walls. In compliance with NZS 7421 1990 + AS 2918—1990

Rear Clearance (with Wegj flue guard fitted)	25 mm (Fig. No. 1-2-5)
Side Clearance (with Wegj flue guard fitted)	225 mm (Fig. No. 5)
Corner Clearance (with Wegj flue guard fitted)	40 mm (Fig. No. 3)
Minimum Ash Hearth Size (in front of heater loading aperture)	200 mm
Rear Clearance (without Wegj flue guard)	700 mm (Fig. No. 6)
Side Clearance (without Wegj flue guard)	800 mm (Fig. No. 6)
Corner Clearance (without Wegj flue guard)	200 mm (Fig. No. 3)

E. Flue Kit

1. Combined Burner in New Zealand consists of 4.2 m x 180 mm stainless steel flue.
2. 1 x weather cap assembly.
3. 1 x ceiling tile.
4. 2 x spider brackets.
5. 2.25 m x 275 mm galvanised liner.
6. 1 x insulation boundary shield.

F. Standard Flue Guard Kit

1. 1 x 1200 length back guard.
2. 1 x 1200 length perf. front guard.
3. 1 x 900 length adjustable back guard.

G. Accessory 1200 Flue Guard Kit

1. 1 x 1200 length back guard.
2. 1 x 1200 length perf. front guard.
3. 1 x Joining Collar.

Appln. No. 43062

Approved

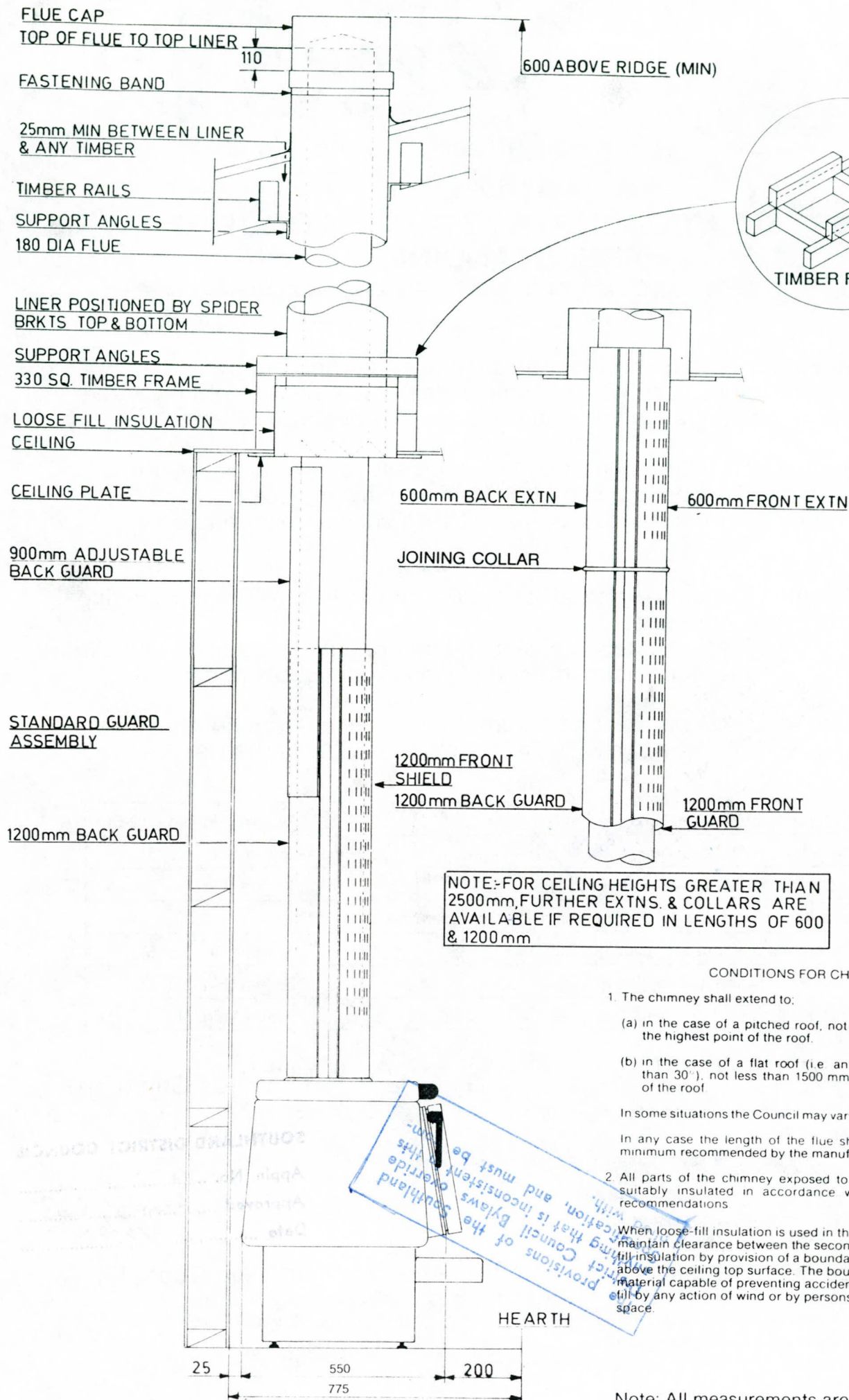
Date

17/3/92

H. Accessory 600 Flue Guard Kit

1. 1 x 600 length back guard.
2. 1 x 600 length perf. front guard.
3. 1 x Joining Collar.

TYPICAL FLUE INSTALLATION



CONDITIONS FOR CHIMNEYS

- The chimney shall extend to:
 - in the case of a pitched roof, not less than 600 mm above the highest point of the roof.
 - in the case of a flat roof (i.e. any roof with pitch of less than 30°), not less than 1500 mm above the highest point of the roof.

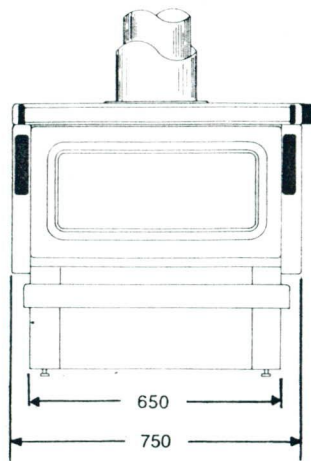
In some situations the Council may vary the above requirements

In any case the length of the flue shall not be less than the minimum recommended by the manufacturer.

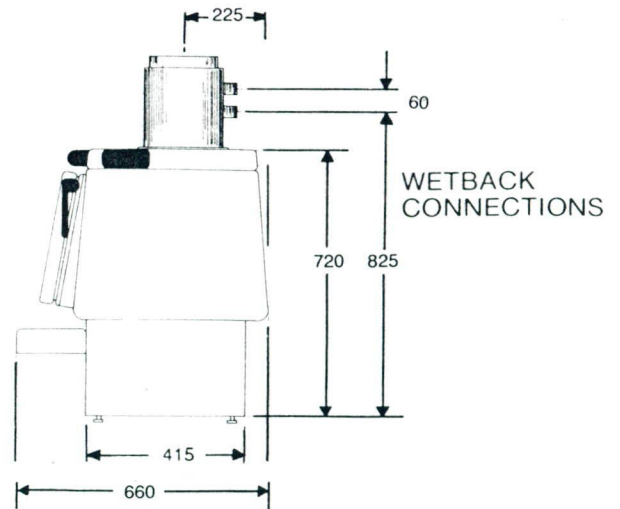
- All parts of the chimney exposed to the outside air shall be suitably insulated in accordance with the manufacturer's recommendations

When loose-fill insulation is used in the adjacent ceiling space, maintain clearance between the secondary shield and the loose-fill insulation by provision of a boundary extending 200 mm above the ceiling top surface. The boundary may be of any material capable of preventing accidental migration of the loose-fill by any action of wind or by persons moving in the ceiling space.

Note: All measurements are in millimetres.



FRONT



SIDE

HEATER POSITION

FIG. No. 1

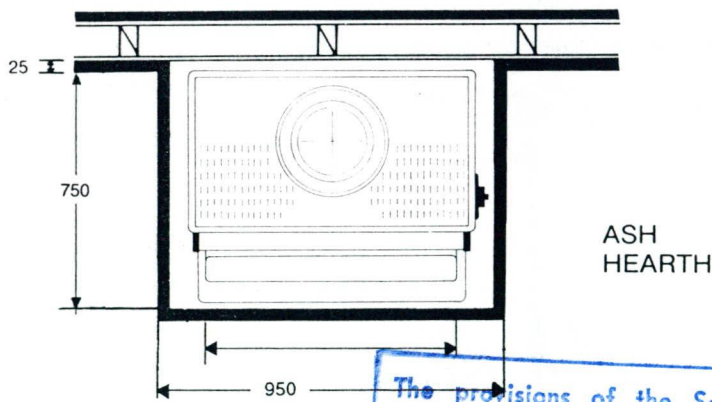


FIG. No. 2

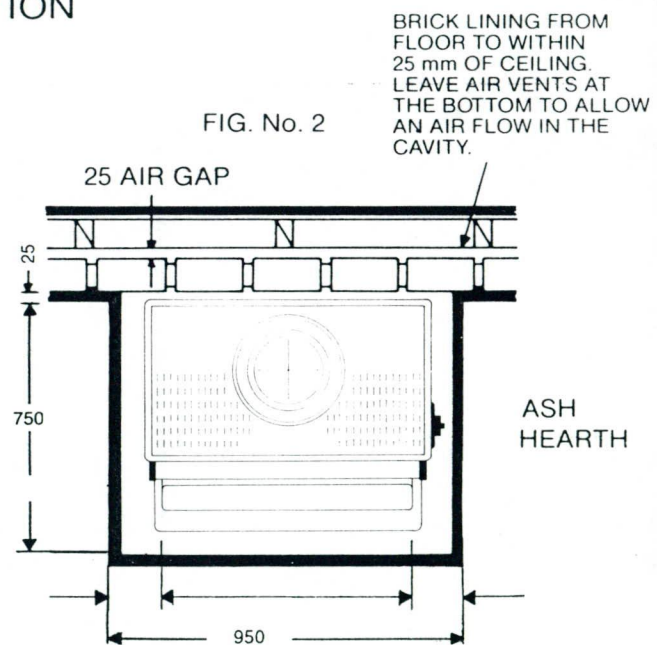


FIG. No. 3

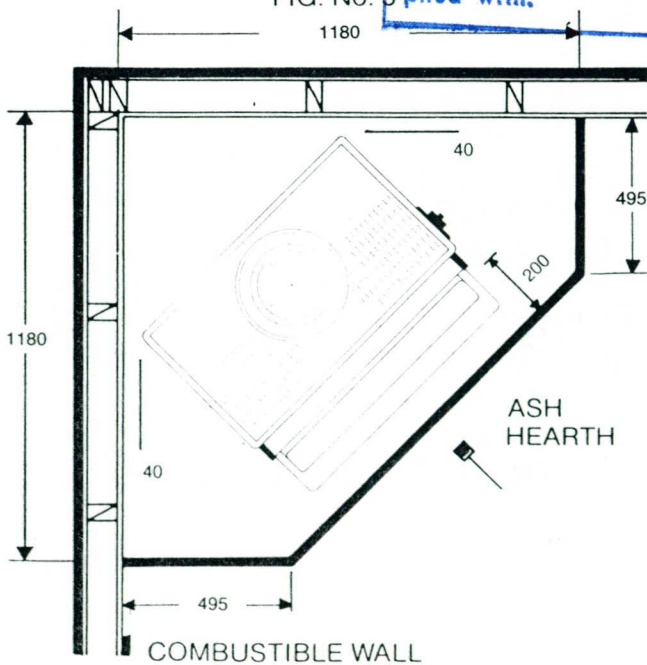
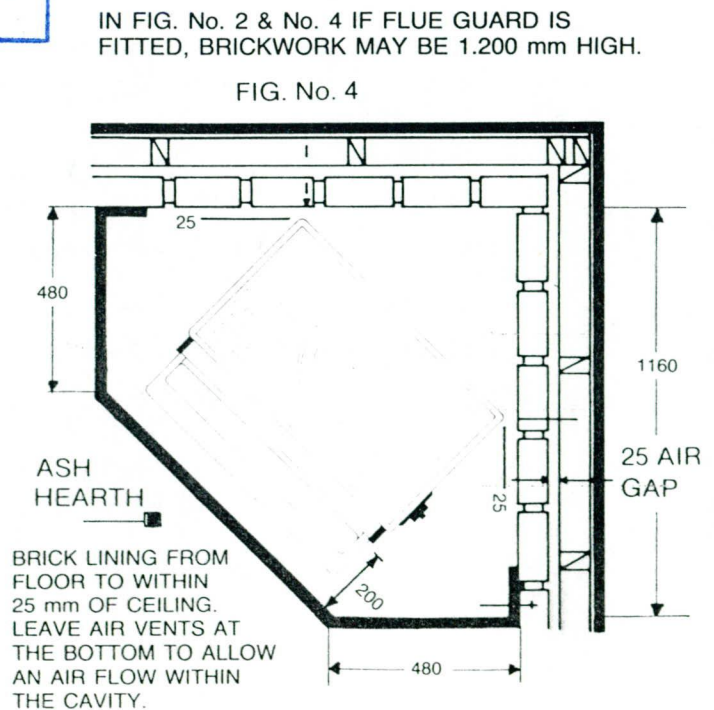


FIG. No. 4



The provisions of the Southland Bylaws override anything that is inconsistent in this Specification, and must be complied with.

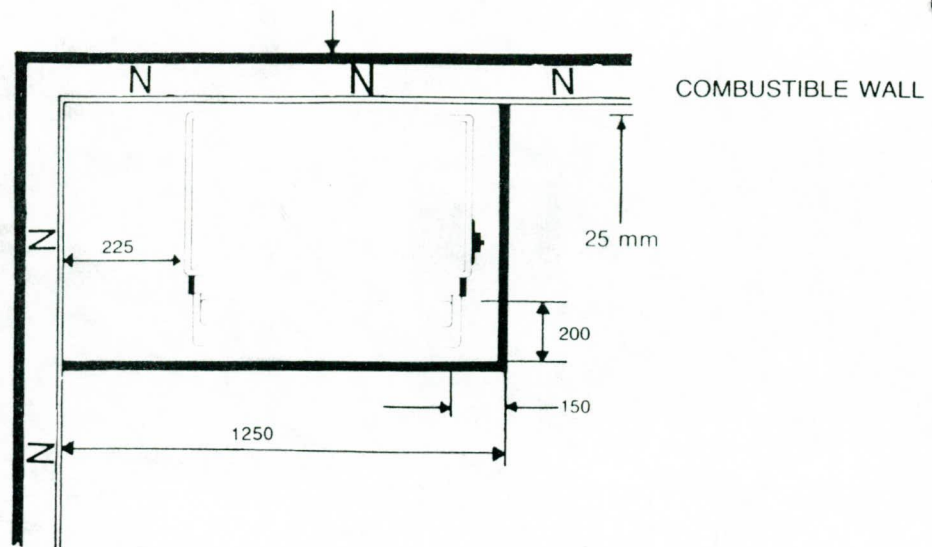
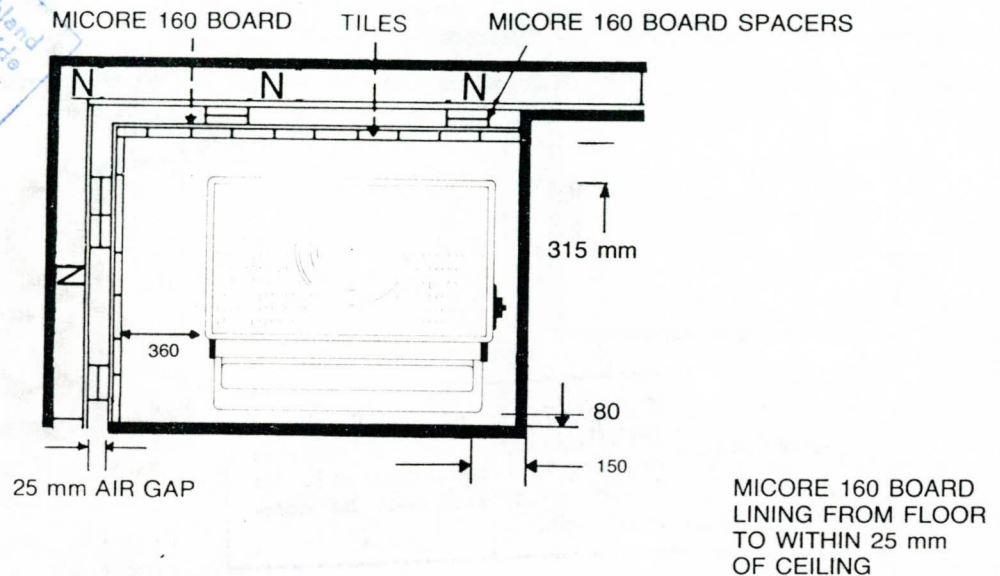


FIG. No. 6 WITHOUT FLUE GUARD FITTED



IF USING MICORE 160 BOARD OR SIMILAR AS A HEAT SHIELD, AND ASSUMING THE FREE AIR CLEARANCE TO A COMBUSTIBLE/ HEAT SENSITIVE WALL IS 225 mm (IF FULL FLUE GUARD FITTED) AND 800 mm (NO FLUE GUARD)

APPLY MANUFACTURER'S FACTOR FIGURES ACCORDINGLY.
EXAMPLE: A SINGLE THICKNESS OF MICORE 160 BOARD SPACED
25 mm OUT FROM WALL LINING = .45 (FACTOR) THEREFORE
HEATER WITHOUT FLUE GUARD FITTED = $800 \times .45 = 360$ mm.
360 mm IS THE DISTANCE BETWEEN THE MICORE 160 BOARD AND
THE HEATER AS IN FIG. No. 6.