

BUILDING CONSENT AUTHORITY BC CIRCULATION SHEET

OWNER: Battaglione
 AGENT: —

CONSENT NO: 080936

FORMALLY RECEIVED DATE		PLANNING REVIEW COMPLETE	BUILDING CONSENT ON HOLD FOR F.I.	BUILDING CONSENT OK TO ISSUE	BUILDING CONSENT DECLINED	AUDIT
<u>2/7/08</u>	DEADLINE DATE			<u>18-7-08</u>		
	INITIAL & DATE OF DECISION			<u>16-7-08</u>		<u>12</u>

TYPE OF WORK:
 INTENDED USE
 (if changed from PIM):

Solid fuel heater

ALLOCATED TO: SL
 ALLOCATED BY: VB CATEGORY: 1

AREA/ROOM:	LEVEL:	PURPOSE GROUP:	FHC:	OCCUPANT LOAD:	INFORMATION FROM:

PREVIEWED BY:	INITIAL & DATE
	<u>VS 2/7/08</u>
LOADED BY:	<u>VJ 10.7.08</u>
BC COPIED & COMPILED BY:	<u>DJ 24.7.08</u>

ATTACHMENTS TO BE INCLUDED:		THIS PROJECT REQUIRES A COMPLIANCE SCHEDULE: YES / NO EXISTING / NEW
AMENDMENT TO COMPLIANCE SCHEDULE FORM		COMPLIANCE SCHEDULE NO:
CODE COMPLIANCE CERTIFICATE APPLICATION FORM	✓	COMPLIANCE SCHEDULE SYSTEMS / FEATURES LIST:
OTHER: <u>PS3</u>	✓	

COPY OF DOCUMENTS SENT TO OTHER AGENCIES FOR ASSESSMENT

AGENCY	PEER REVIEW OR ASSESSMENT OF:	DATE SENT:	DATE RECEIVED:	COSTS ADD TO CHARGE SHEET:
NZ FIRE SERVICE				
FOOD & HEALTH STANDARDS				
TRUSS DESIGN	TRUSS DESIGN ACKNOWLEDGEMENT			

CHECKSHEET, FURTHER INFORMATION & FILE NOTES TO BE ATTACHED TO THIS PAGE.

Solid Fuel Heater (Wet/Dry) Processing Sheet BAM114

Property File Information Considered:	YES / NO
PIM Information Considered:	YES / NO
EQ: <u>B</u> SNOW: <u>0.45</u> WIND: <u>44</u>	CORROSION: <u>2</u> ALTITUDE: <u>60</u>
BC No. <u>080936</u>	

Clause	Non Compliant	Compliant	N/A	Means of compliance	Comments
HB New Zealand Building Code Handbook					Heating - Natures Flame Enviro EFS Evolution freestanding pellet fire
A1 Classified Use					
B1 Structure					
Solid Fuel Heater		✓			seismic restraints
Hearth/Slab		✓			
Chimney			✓		
B2 Durability		✓			As per Natures Flame specifications
Durability applications		✓			+ installation instructions
Generic materials			✓		
C1 Outbreak of Fire		✓			
Heat transfer		✓			
C2 Means of Escape		✓			
Escape Path Lengths.(24m max)		✓		As1	
C3 Spread of Fire			✓		
C4 Structural...			✓		
D1 Access Routes			✓		
D2 Mechanical...			✓		
E1 Surface Water			✓		
E2 External		✓			
Chimney flashings		✓		As1	butynol
E3 Internal Moisture			✓		
F1 Hazardous...			✓		
F2 Hazardous...			✓		
F3 Hazardous...			✓		
F4 Safety from...			✓		
F5 Construction			✓		
F6 Lighting...			✓		
F7 Warning Systems		✓			
Location		✓		As1	Smoke alarms to be installed to AS1670.6
F8 Signs			✓		
G1 Personal			✓		
G2 Laundering			✓		
G3 Food Prep...			✓		
G4 Ventilation			✓		

Property File Information Considered:				YES / NO	
PIM Information Considered:				YES / NO	
EQ:	SNOW:	WIND:	CORROSION:	ALTITUDE:	
BC No. 080936					
Clause	Non Compliant	Compliant	N/A	Means of compliance	Comments
G5 Interior...			✓		
Temperature Control					
G6 Airborne...			✓		
G7 Natural Light			✓		
G8 Artificial Light			✓		
G9 Electricity			✓		
G10 Piped Services			✓		
G11 Gas...			✓		
G12 Water Supply (Wet Back)			✓		no wetback
Requirements for hot water system					
Materials and installation					
G13 Foul Water			✓		
G14 Industrial			✓		
G15 Solid Waste			✓		
H1 Energy Efficiency (Wet Back)			✓		
Insulation Wet back					
Hot water system					

Any additional comments should be recorded on the Additional Comments form (BAM 120), which complements the BAM 100 series of processing sheets. Sufficient detail must be given on the Additional Comments form to enable cross-reference between this processing sheet and the additional comment provided, including the date, building consent number and clause item referred to.

If extra pages are used to record additional comments, state the number of extra pages here: _____

☐

Ok to proceed with further information requested

signed:/ /

☒

Ok to proceed with issuing building consent

signed: 16/7/08



Residential PIM / Building Consent
Application Checklist (BAM 002-R)
(in conjunction with Building Consent Application Form)

PROJECT NO:

DATE RECEIVED:

Project address: _____

	Supplied	N/A	Council
NB The following is required on application in sufficient detail to show compliance with all aspects of the District Plan and the New Zealand Building Code. Please complete this Checklist in FULL. Additional information may be requested during processing of the application.			
PIM			
Application form COMPLETED & signed including Building Code Assessment			
Application fee:- \$200.00 for PIM Only / \$400.00 for Combined PIM and Building Consent (GST Incl.)			
Certificate of Title: Recent search copy less than 6 months old, plus a sale & purchase agreement if not in the applicant's name. A subdivision scheme plan is required for a new site where Title is not yet available.			
Site Plan – showing:			
– All new & existing buildings, swimming pools			
– Any heritage buildings / trees or archaeological site information known			
– Legal & notional boundaries (existing & proposed), easements, waterways, shared access ways / other areas with building setbacks dimensioned			
– Building & site areas (including floor areas (m ²) for all floors)			
– Vehicle access, crossing location, manoeuvre, and parking area			
– Street trees, poles, sumps, manholes, traffic islands outside the property			
– Any hard-standing (sealed or concrete) areas with proposed drainage			
– Landscaped areas required by District Plan indicated			
– Any significant trees on the site			
– All activities on a site indicated			
– Proposed & existing site & floor levels			
– Existing & proposed contours, drive gradients and building heights (for hill or sloping sites)			
– Intentions for the disposal of stormwater & sewer			
– Storage location and capacity of Hazardous Substances (ie LPG, diesel, home heating oil etc)			
Outline Floor plans (for all floors)			
Outline Elevations			
Outline Cross Sections – (if required to show recession plane / daylight plane & height compliance)			

STOP HERE IF THIS IS A PIM ONLY APPLICATION

BUILDING CONSENT (in addition to the above)			
Project Information Memorandum (if already issued) plus all attached forms			
Foundation Plans (timber or concrete slab) including all details			
Drainage Plans - full design details including both Sewer & Stormwater and any disposal methods			
Detailed Floor Plans - fully dimensioned and notated, including location of Smoke Alarms			
Detailed Elevations - including door & windows showing opening sashes			
Cross Sections - to show all relevant construction, especially through difficult areas of the building and changes in building form			
Timber Treatment - the species, grading & treatment of all timber specific to the project is to be specified on the drawings, ideally on the cross section			
Insulation – R-values on drawings, method of compliance identified (Schedule / Calculation / Modeling)			
Framing Details - including floor joist layout plans if applicable			
Construction Details - with all materials, fixings etc noted			
Weathertightness Details - including a risk assessment matrix for all walls & all flashings			
Internal Waterproofing Details - including all wet areas & surface finishes			
Plumbing Details - including layout plan / schematic & water supply details			
Specifications - relevant to the project			
Heating Appliance – installation details including clearances, flue installation and flashings for Solid Fuel and Liquid Fuel Appliances			
Bracing Design - calculations, schedule and layout plans			
Roof Truss Design - including layout plan, fixings and specific design for lintels where required			
Ground Conditions report - this will be either a report to show why it is assumed that the ground is "good ground" using Section 3 of NZS 3604:1999, or a specific ground assessment & foundation design by a suitably qualified & experienced engineer			
Engineers Details, Producer Statement & Design Calculations - where any specific design has been carried out (e.g. steel beams)			
Approvals from Other Authorities – Approvals for discharges to land, air, or water from Ecan, or the like.			

For BCA Use Only:-

This application is accepted / declined as all relevant information has / has not been supplied - signed:-

PIM / Building Consent Residential Checklist

FORM BAM 002-R-v1.0.3

Page 1 of 1



SCANNED

080702027

BUILDING CONSENT / PIM APPLICATION

UNDER THE BUILDING ACT 2004

180936 + P

Private Bag 1, Leeston | Telephone (03) 324 5839 | Fax (03) 324 3531 | Web Site www.selwyn.govt.nz

THE BUILDING

NOTE:- ONLY COMPLETE ITEMS IN SHADED PANELS THAT ARE APPLICABLE TO YOUR PROJECT.

(refer to your Rates Account for details)

1. Site Address: 42 A GEORGE ST
ROLLESTON Street / Road

Rapid Number: _____
(Applies to Rural Properties Only)

2. Legal description: LOT 2 DP 359723 BLK
111 LEESTON SD

(This could include all or any of the following:- Lot, DP, Section, Block, or Township, etc.)

Valuation Roll Number: 2405133601

3. Building Name: _____
(Eg: Universities, etc where buildings have Official Names)

4. Location of Building within Site: _____
(Only Applicable to Sites such as Universities, Schools, etc)

5. Number of Levels: _____ 6. Level/Unit No: _____

7. Total Floor Area for New Work Only:- _____ m²
Site coverage will be assessed by planning staff.

8. Current Lawfully Established Use: (Eg. Use on any Previous Consent for the existing building)

9. Year Building First Constructed: _____
(Only Applicable to Existing Buildings, Approximate Date is Acceptable Eg., 1920s or 1960-1970).

THE OWNER

10. Owner's Name: Angela & Daryl Battaglione
(Company or organizational name)

11. Contact Person: Angela Battaglione (nee Williams)
(If Owner is not an Individual)

12. Mailing Address: 42a George St, Rolleston
Canterbury

13. Street Address / Registered Office: as above

14. Phone Numbers: Mobile: 021437873
Daytime: 3473125 After Hours: _____

15. Fax: 3473125

16. Email: _____

17. Website: _____

18. The following evidence of ownership is attached to this application:

- ☒ Current Certificate of Title
☐ Current Sale and Purchase Agreement

AGENT / APPLICANT

(Contact Details MUST be in New Zealand)

19. Name of Agent: _____

20. Contact Person: _____

21. Mailing/Billing Address: _____

22. Street Address / Registered Office: _____

23. Phone Numbers: Mobile: _____
Daytime: _____ After Hours: _____

24. Fax: _____

25. Email: _____

26. Website: _____

27. ☐ Authorisation from Owner Attached.
(Authorisation from the owner confirming authority)

28. Note: The Agent will be the first point of contact for communications with the Council / Building Consent Authority regarding this Application / Building Work and will receive all correspondence including all invoices.

APPLICATION

For Office Use Only

29. I Request that a:
- ☐ Project Information Memorandum Only (PIM)
☐ Building Consent for PIM No: _____
☒ Building Consent (including Project Information Memorandum)

be issued for the Building Work Described in this Application.

THE PROJECT

30. Type of Building Work: (eg dwelling, commercial, farm shed, garage, etc)

installation of pellet fire

31. Will the Building Work Result in a Change of Use of the Building: ☐ Yes ☒ No

32. If 'Yes', Provide Details of the New Intended Use:
(Eg domestic use, shop, implement shed, garage to bedroom)

33. Intended Life of the Building:

- ☒ Indefinite but not less than 50 years
☐ Or Specified as _____ years

34. List Building Consents Previously Issued for This Building (If Any): (ie., Is this project being constructed in stages?, Is this consent for a Relocated or Transportable Building?)

35. Estimated Value (Inc GST) \$ 4000 —
(ie., the estimated aggregate of the values of all goods and services to be supplied for the building work and includes GST).

PROJECT INFORMATION MEMORANDUM

(This Section must be completed if you are applying for a PIM. DO NOT Complete this section if the Application is for a Building Consent Only)

36. The following matters are involved in the project: (Tick appropriate boxes that apply to your project)

- | | |
|---|---|
| ☐ Subdivision | ☐ Alterations to land contours |
| ☐ New or altered connections to public utilities | ☐ New or altered locations and/or external dimensions of buildings |
| ☐ New or altered access for vehicles | ☐ Disposal of stormwater and wastewater |
| ☐ Building work over or adjacent to any road or public place | ☐ Other matters known to the applicant that may require authorisations from the Territorial Authority (Eg. Planning Approvals, other Licenses) |
| ☐ Building work over any existing drains or in close proximity to wells or water mains | |

(Specify): _____

The following documents are attached to this application:-

- ☐ Site Plan, Floor Plans, and Elevations of the proposed building.
☐ Application Fee of \$200.00. (Refer (a) on Back Page of this Form)

BUILDING CONSENT

(DO NOT Complete this section if the Application is for a Project Information Memorandum Only)

37. The following documents are attached to this application:-

- ☒ A Schedule of all the plans, specifications, and other documentation supplied with this application is attached.
☒ Two copies of Plans and Specifications for the Project. (NOTE:- THREE Copies will be required for Commercial Projects)
☐ Project Information Memorandum.
☐ Development Contribution Notice. (If Applicable)
☐ Certificate attached to Project Information Memorandum. (Resource Management Act)
☐ Specific arrangements for multiple or unusual Inspections documented.
☐ Application Deposit Fee of \$200.00. (Refer (b) on Back Page of this Form)

38. ☐ A Schedule as a separate document confirming the Building Work will comply with the Building Code set out as follows:

Clause
(list relevant Clause
numbers of Building Code)

Means of Compliance
(refer to relevant compliance document(s) or detail
of alternative solution in the plans and specification)

Waiver/Modification Required
(state nature of waiver or modification of
Building Code required)

NOTE:- ONLY COMPLETE ITEMS IN SHADED PANELS THAT ARE APPLICABLE TO YOUR PROJECT.

Building Consent

080936

Section 51, Building Act 2004

Street address of building: 42A GEORGE STREET, ROLLESTON
Legal description: LOT 2 DP 359723 BLK III LEESTON SD
Valuation number: 2405133601
Rapid number:
Building name:
Building location on site:
Level/unit number:

Name of Owner: D J BATTAGLENE & A J WILLIAMS

Applicant/Agent: D J BATTAGLENE & A J WILLIAMS
Contact person:
Mailing address: 42A GEORGE STREET, ROLLESTON
Street address/registered office:
Phone number:
 Landline: 021 437 873
 Mobile: 347 3125
 Daytime:
 After hours:
Facsimile number: 347 3125
Email address:
Website:

The following building work is authorised by this building consent:

Description: SOLID FUEL HEATER
Intended Use: Heating - Natures Flame Enviro EF5 Evolution
freestanding Pellet Fire
Estimated Value: \$4,000

Building Consent

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

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

This Building consent is invalid unless work has commenced within 12 months from the date of granting.

The Code Compliance Certificate must be applied for within 24 months of the date of granting.

Note:- Where conflict may occur between plan/specification information and/or any other specific instruction in application documentation, the applicant and/or designer is to note that the Schedule confirming the method of compliance with the NZ Building Code **will always be the prime default control for Council.**

Any amendment to this Approved Building Consent will require approval prior to the work being carried out. This will require an Amended Building Consent application to be made.

Booking Inspections

1. The Building Consent Authority, is to be advised that the work is ready for inspection at least 1 clear working day before that inspection is required. Please note this may not guarantee an inspection at the desired time if an inspector is not available at that time.
2. All inspections are to be booked by phoning 03 347 2848 between the hours of 8:30am and 5:00pm.
3. The complete set of Approved Building Consent documents (including stamped plans and specifications) **MUST** be available on site for the Officer carrying out the inspection. No inspection will be undertaken if the approved documentation is not available.

This building consent is granted subject to the conditions specified below.
Selwyn District Council Building Consent Authority Officers will carry out the following inspections:

☐ **Inspection 1**

Inspection following application for Code Compliance Certificate. (The cost of the Code Compliance Certificate is invoiced separately).

Smoke alarm installation.

Flue clearances, hearth and fire place fixing down.

Note:

A Producer Statement Construction (PS3) from an Approved Installer for the installation of the solid fuel appliance shall be forwarded to the Selwyn District Council with the application for Code Compliance Certificate upon completion of the work.

Compliance schedule

A compliance schedule is not required for this project.

Attachments

Code Compliance Certificate Application Form.

Producer Statement Construction (PS3) for Solid Fuel Heater

Signature



Date of Granting

24 JUL 2008

Selwyn District Council Building Consent Authority Signatory

Position

On behalf of: Selwyn District Council

Issue Date: 16/07/08



ROLLESTON DRIVE
PO BOX 90, ROLLESTON 7643
PH: (03) 347 2800 FAX: (03) 347 2799

D J BATTAGLENE & A J WILLIAMS
42A GEORGE STREET
ROLLESTON 7614

GST Number: 53-113-451
Invoice Date: 23/07/08
Customer No: BC080936

Tax Invoice 63116

Quantity	Description	Rate	Amount
	080936 : 42A GEORGE STREET, ROLLESTON SOLID FUEL HEATER Owner: D J BATTAGLENE & A J WILLIAMS		
	ADMINISTRATION/PROCESSING/ISSUE FEE		143.74 *
	INSPECTIONS (INCL. TRAVEL)		56.26 *
			\$200.00
	(* Incl GST \$22.22)		
	Cash Received		200.00CR

Total incl. GST 0.00

Once we have received the balance of the fees owing on this
consent, it may then be uplifted or mailed as requested.
Building consent is not valid until fees are paid in full.

(Please detach and return this portion with your payment)

REMITTANCE ADVICE

D J BATTAGLENE & A J WILLIAMS
42A GEORGE STREET
ROLLESTON 7614

Customer No.: BC080936
Invoice No.: 63116
Total Due: 0.00

Amount Enclosed:

SERVICE
CENTRES:

LEESTON
HIGH STREET, LEESTON
PH: (03) 347-2820

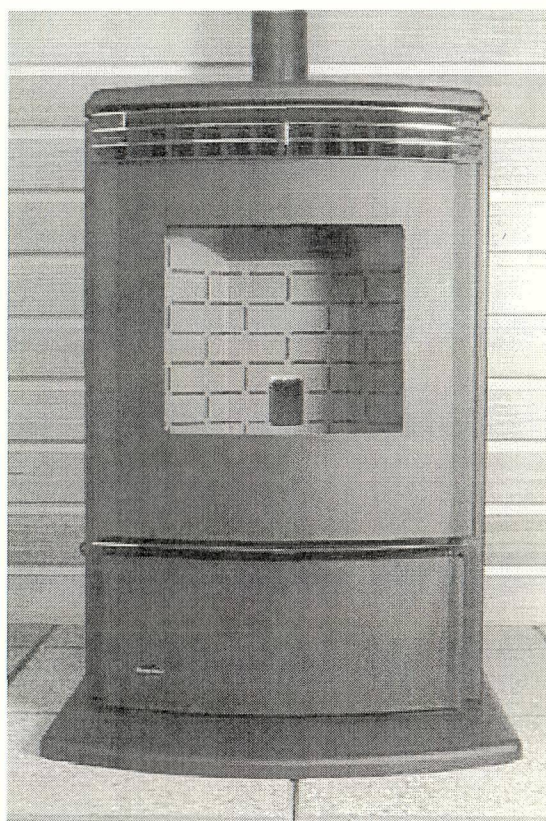
DARFIELD
SOUTH TERRACE, DARFIELD
PH: (03) 318-8338

LINCOLN
GERALD STREET, LINCOLN
PH: (03) 347-2875




nature's flame
Renewable fuel from Solid Energy

Enviro EF5 Evolution FS CB



Evolution Pellet Stove Installation Specifications

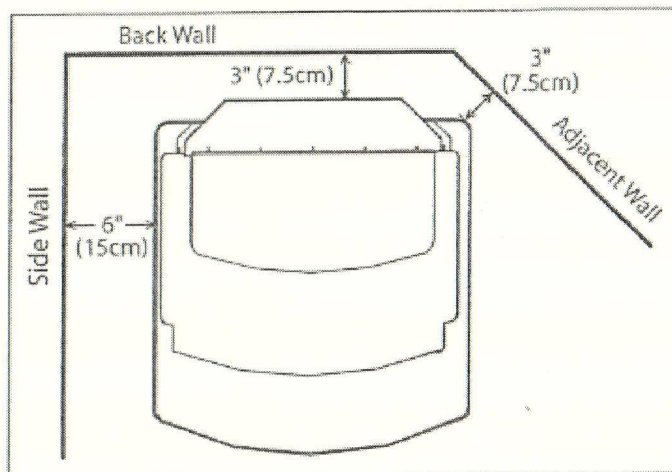
Safety testing of the EF5 Evolution Pellet Burning Heater to
AS/NZS 05/1183 Emissions: 07/1664
Flue Kit Testing to AS/NZS 2918 AppF: 05/1185

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Clearances to Combustibles

This unit can be installed on a combustible floor due to the built in pedestal hearth pad (for example linoleum, hardwood flooring). If this unit is to be installed onto a carpeted surface, a hearth pad must be used for stability.



These dimensions are minimum clearances but it is recommended that you ensure sufficient room for servicing, routine cleaning and maintenance.

Side wall to unit	6 inches (15cm)
Back wall to unit	3 inches (7.5cm)
Corner to unit	3 inches (7.5cm)

Figure 2 EF5 Clearance to Combustibles

Alcove Clearances

This unit may be installed in an alcove. Maintain these clearances.

Minimum Alcove width	48 inches (122cm)
Minimum Alcove height	48 inches (122cm)
Minimum Alcove depth	48 inches (122cm)

Install vent at clearances specified by the vent manufacturer.

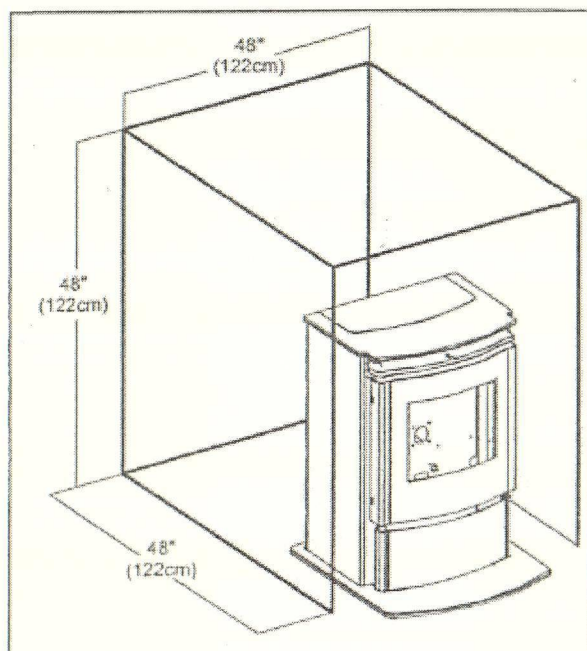


Figure 3 EF5 Minimum Alcove Size

Vent Termination Requirements:

IT IS RECOMMENDED THAT AN AUTHORISED DEALER/INSTALLER INSTALL YOUR PELLET STOVE.

Letter	Minimum Clearance	Description
A	24in (61cm)	Above grass, top of plants, wood, or any other combustible materials
B	48in (122 cm)	From beside/ below any door or window that may be opened
C	24in (61cm)	From above any door or window that may be opened
D	24in (61cm)	To any adjacent building, fences and protruding parts of the structure
E	24in (61cm)	Below any eave or rood overhang
F	12in (30cm)	To outside corner
G	12in (30cm)	To inside corner, combustible wall (vertical and horizontal terminations)
H	3ft (91cm) within a height of 15ft (4.5m) above the meter/ regulator assembly	To each side of center line extended above natural gas or propane meter/ regulator assembly or mechanical vent
I	3ft (91cm)	From any forced air intake of other appliance
J	12in (30cm)	Clearance to non- mechanical air supply inlet to building, or the combustion air inlet to any appliance
K	24in (61cm)	Clearance above roof line for vertical terminations
L	7ft (2.13m)	Clearance above paved sidewalk or paved driveway located on public property

Table 1 Use in conjunction with Figure15 for allowable exterior vent termination locations

- Do not terminate the vent in any enclosed or semi-enclosed areas such as a car port, garage, attic, crawlspace, narrow walkway, closely fenced area, under a sundeck or porch, or any location that can build up a concentration of fumes such as stairwells, covered breezeway, etc.

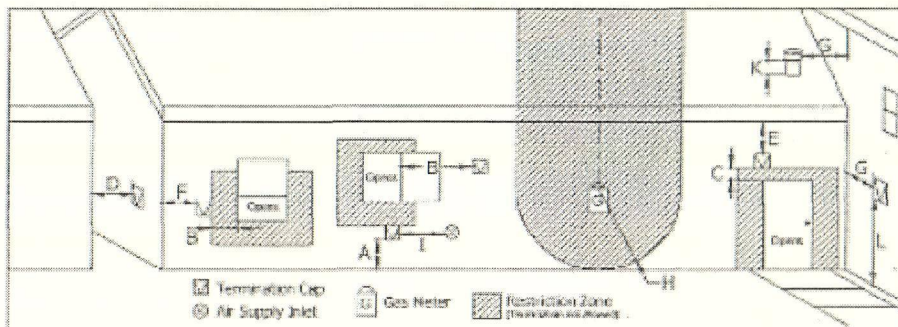


Figure 4 Use in conjunction with Table 1 for allowable exterior vent termination locations

- Vent surfaces can become hot enough to cause burns if touched by children. Non-combustible shielding or guards may be required.
- Termination must exhaust above the inlet elevation. It is recommended that at least five feet or vertical pipe be installed outside when the appliance is vented directly through a wall, to create some natural draft to prevent the possibility of smoke or odor during appliance shut down or power failure. This will keep exhaust from causing a nuisance or hazard from exposing people or shrubs to high temperatures. In any case, the safest and preferred venting method is to extend the vent through the roof vertically.

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4. Distance from the bottom of the termination and grade is 12" (30cm) minimum. This is conditional upon the plants and nature of grade surface. The exhaust gases are hot enough to ignite grass, plants and shrubs located in the vicinity of termination. The grade surface must not be lawn.
5. If the unit is incorrectly vented or the air to fuel mixture is out of balance, a slight discoloration of the exterior of the house might occur. Since these factors are beyond the control of Sherwood Industries Ltd, we grant no guarantee against such incidents.
6. When installing an FPI the chimney must be fully lined. Unless the chimney's inside diameter is less than 6 " (15cm) around or has a cross section area of 28 inches (180.6cm), we strongly recommend lining all masonry chimneys.

NOTE: Venting terminals shall not be recessed into walls or siding

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Installation

Appliance Dimensions

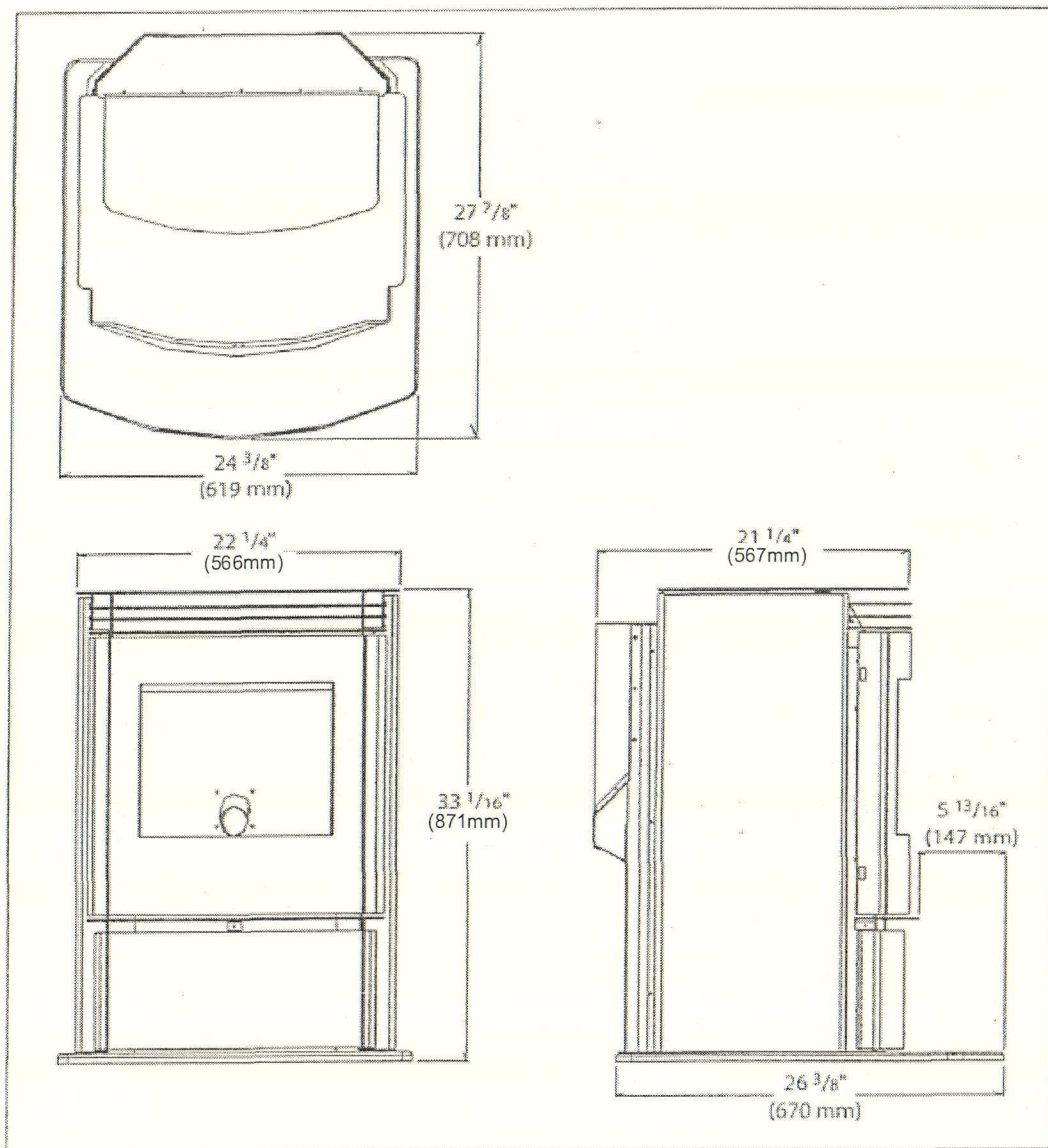


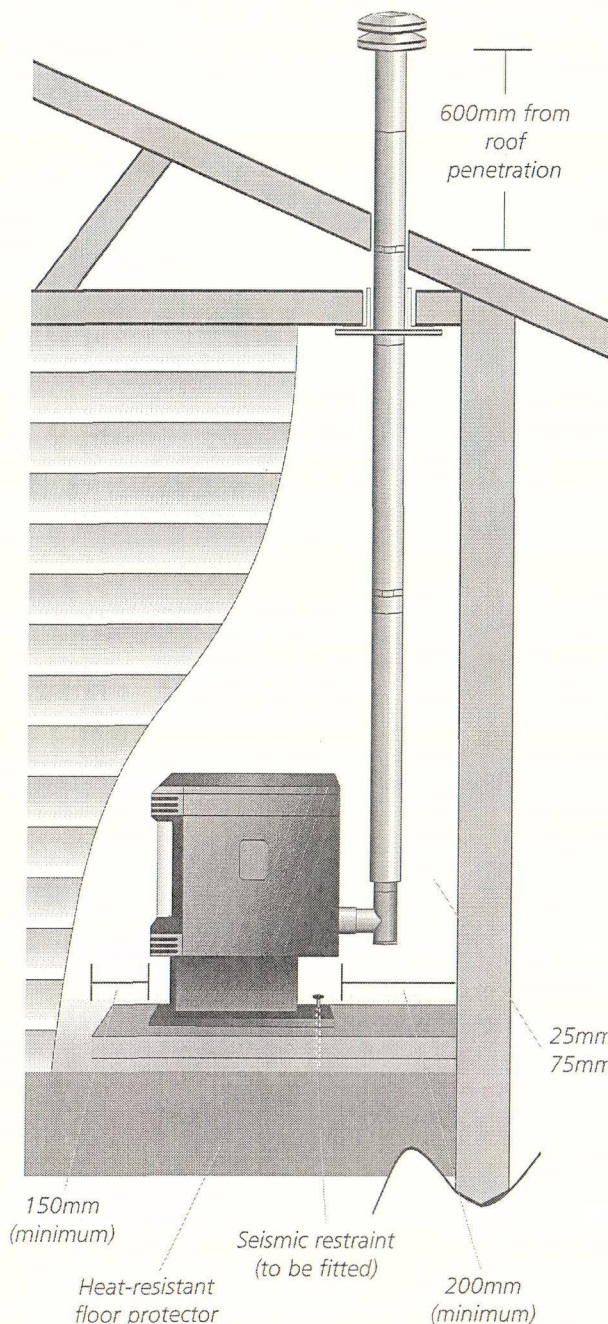
Figure 1 Dimensions of EF5

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50 Internal Standard Flue Kit

This flue kit may be used in new and replacement applications in rooms with stud height of 2.4m. The overall height of the flue is 3.6m. The visible flue is finished in black and the ceiling plate is white. The support angles for securing the liner to the ceiling are not shown. Kit is supplied in a carton.



Each 50 Internal Standard Flue Kit contains:-

Part No	Description	Quantity
1	Galvanised outer liner ø100mm x 900mm long	1
2	Stainless steel inner liner ø75mm x 900mm long	4
4a	Black p/coat outer liner ø100mm x 900mm long	3
5	Inner/outer flue liner spacer	2
6c	Ceiling thimble ø107mm hole	1
7c	Ceiling decor plate ø107mm hole – white	1
8	Rain cap 75mm	1
9	Rain Cap 100mm	1
10b	Elbow 45° – ø75mm stainless – black (painted)	1
12b	T-adaptor/cleanout – ø75mm – black (painted)	1
23	Support angle 950mm long – 50mm x 50mm sides	2

Note: The Davin 50 Internal Standard Flue Kit complies with AS/NZS 2918:2001 as per Applied Research Test Report 05/1185, dated 15 September 2005.

All fires must be installed by a qualified installer as per the manufacturer's instructions and AS/NZS2918:2001.



P.O. Box 687, NELSON,
NEW ZEALAND

PHONE (03) 547 7347
FAX (03) 547 2909
EMAIL: applied@ts.co.nz
WEB: www.appliedresearch.co.nz

**Opinion on Recommended Roof Penetration and Flashing
for Envirofire Wood Pellet Burning Heaters**

Customer: Natures Flame
Solid Energy Renewable Fuels Ltd.
P.O. Box 11-259
CHRISTCHURCH

Report 04/1076

080936 October 2004

FILE COPY



P.O. Box 687, NELSON,
NEW ZEALAND

PHONE (03) 547 7347
FAX (03) 547 2909
EMAIL: applied@rs.co.nz
WEB: www.appliedresearch.co.nz

Report 04/1076

October 7th, 2004

Page 1/3

Customer: Natures Flame
Solid Energy Renewable Fuels Ltd.
P.O. Box 11-259
CHRISTCHURCH

Attention: Trevor Hale

**Opinion on Recommended Roof Penetration and Flashing
for Envirofire Wood Pellet Burning Heaters**

Natures Flame has asked for our opinion on the suitability of butynol flashing for use as a roof penetration sealant for the Envirofire range of wood pellet burning heaters.

Testing of the Windsor, EFII, EFIII and EFV heaters by us has shown that flue temperatures under maximum output conditions (maximum fuel feed rate) were no higher than approximately 200°C when measured at a height of 2m above the floor. Surface temperatures of the fluepipe itself were never high enough to require combustible walls beneath the ceiling to be any further away than 50mm to comply with the temperature requirements of AS/NZS2918 (65°C maximum).

When using a shielded roof penetration system as recommended by Natures Flame (100mm outer around the 75mm fluepipe) significant cooling will occur due to both the insulating effect of the outer shield and the cooling air flow generated inside the shielded system.

Based on the safe clearance results for this range of heaters and the cooling effect of the shielded flue system, it is our opinion that it will be safe to use a butynol flashing material to seal the flue system to the outer roof for the Envirofire range of heaters. We would expect the surface temperature of the 100mm outer shield to be significantly lower than the quoted limits for butynol (rated to as high as 100°C and for continuous use at 70°C).

Any modification to the heaters as tested may invalidate these opinions.

Prepared By: C.J. Mildon

A handwritten signature in dark ink, appearing to read 'CJ Mildon', written over a horizontal line.

Approved By: C.J. Mildon

A handwritten signature in dark ink, appearing to read 'CJ Mildon', written over a horizontal line.

Release Date:

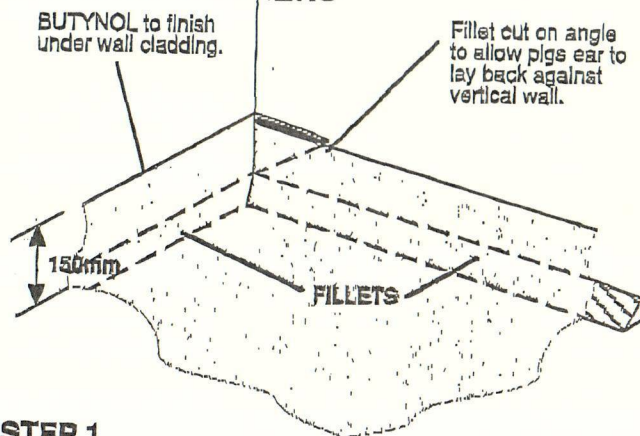
A handwritten date '07-10-04' in dark ink, written over a horizontal line.

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INTERNAL CORNERS



STEP 1

Without cutting BUTYNOL simply fold a 'pig's ear' corner as shown. the angle fold should be behind the main sheet.

NOTE: Fillets must be used on all internal corners.

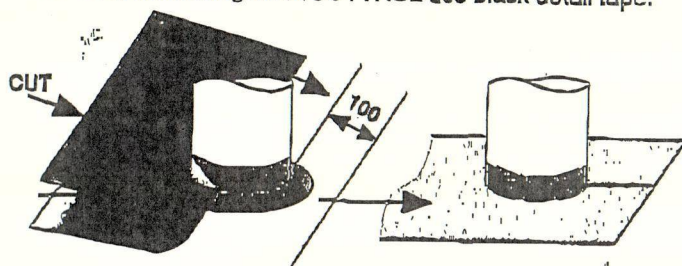
FLASHING - EXISTING PIPE

STEP 1

Under flash pipe with 100mm BUTYNOL flashing tape.

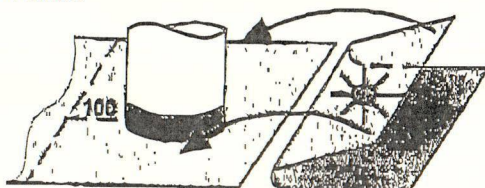
STEP 2

Bond BUTYNOL to 100mm past pipe. N.B. When flashing black BUTYNOL use black detail tape.



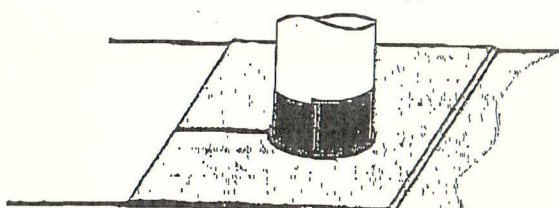
STEP 3

Bond continuation of BUTYNOL to overlap base sheet and beyond pipe 100mm.



STEP 4

Apply another collar of flashing tape, then bond final 70mm cover strip. DO NOT STRETCH STRIP.



N.B. Flashing tape **MUST NOT** be left exposed. Cover strip must be BUTYNOL. When detail tape is used a cover strip of BUTYNOL is not required.

FLASHING - NEW PIPE OR FLUES

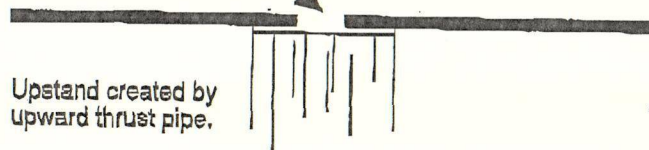
BUTYNOL APERTURE



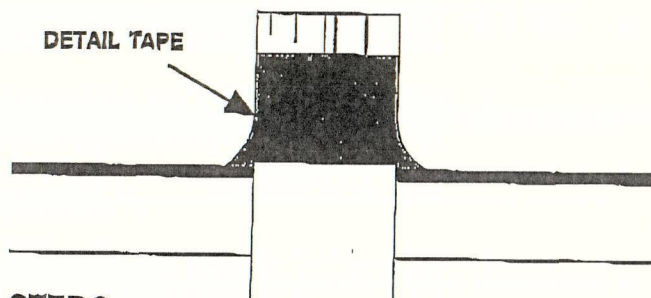
STEP 1

Pipe is raised through smaller diameter hole in BUTYNOL, forcing edge upwards to create upstand

BUTYNOL APERTURE



DETAIL TAPE

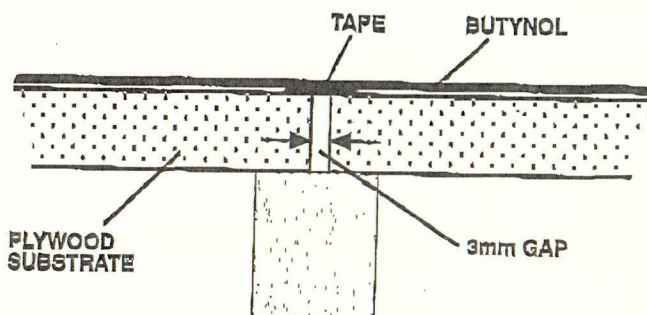


STEP 2

After pulling pipe down approximately 1 cm to sharpen corner, tape upstanding BUTYNOL to pipe using WA98 adhesive and detail tape. Upstand may be mechanically secured using a steel band.

N.B. If flashing tape is used it **MUST NOT** be left exposed. A cover strip of BUTYNOL must be applied over the flashing tape to finish.

TAPING SUBSTRATE SHEETS



All joints between substrate sheets of Ply should be taped to prevent stressing of the BUTYNOL in case of marked timber movement.

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ENGINEERED SOLUTIONS
FOR TILING, FLOORING & WATERPROOFING

BUTYNOL TEMPERATURE RESISTANCE

Butynol is a vulcanised rubber membrane produced from Butyl rubber.

Butyl rubber has, due to its unique chemical make up, both excellent weatherability and heat resistance.

Butynol is used extensively outdoors in waterproofing and management systems. It regularly reaches temperatures in roofing applications of 60 to 80 deg C and in some parts of the world more extreme temperatures.

Butynol, provided it is not stressed, has a temperature range from -30 deg C to as high as 100 deg C. and will tolerate continuous use up to a maximum of 70 deg C.

A.F. Macdonald
Manufacturing Manager (Ardex NZ Ltd.)



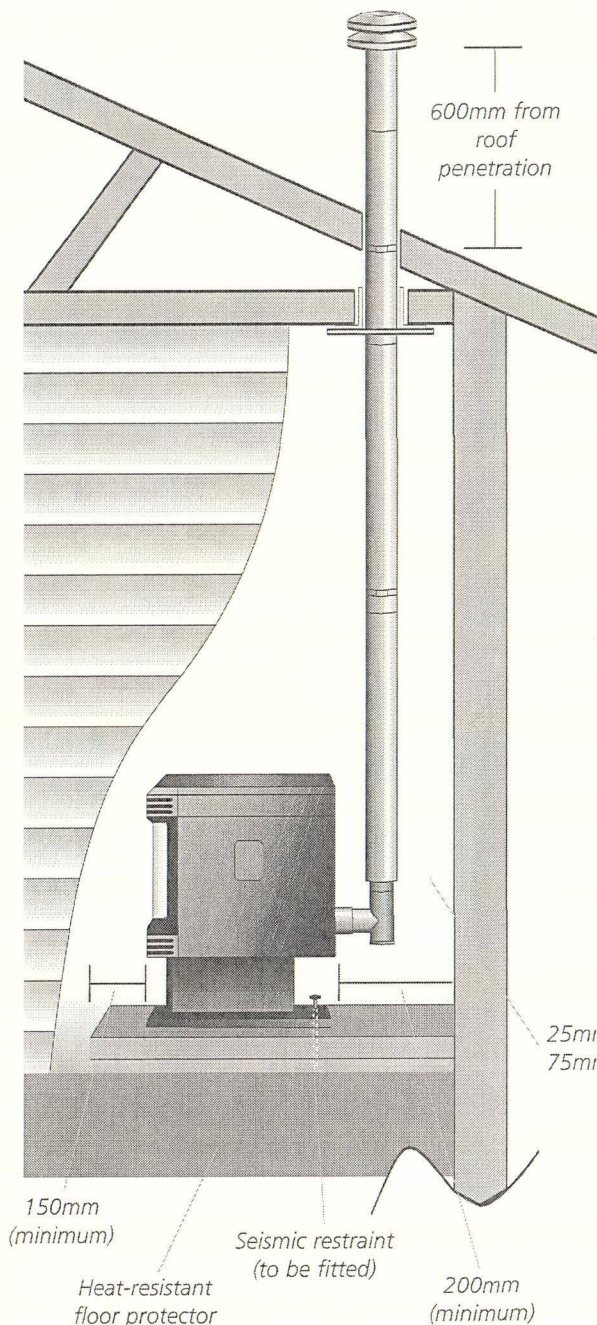
Ardex New Zealand Limited

Head Office - Sales Branch: 32 Lane Street, PO Box 19549, Woolston, Christchurch, New Zealand Telephone (03) 384 3029 Facsimile (03) 384 9779
Sales Branch: Unit 7, Cain Park, Cain Road, PO Box 112044, Penrose, Auckland, New Zealand Telephone (09) 580 0005 Facsimile (09) 579 9963
Sales Branch: 7 Hutt Road, PO Box 38571, Petone, Wellington, New Zealand Telephone (04) 568 5949 Facsimile (04) 568 6376



50 Internal Standard Flue Kit

This flue kit may be used in new and replacement applications in rooms with stud height of 2.4m. The overall height of the flue is 3.6m. The visible flue is finished in black and the ceiling plate is white. The support angles for securing the liner to the ceiling are not shown. Kit is supplied in a carton.

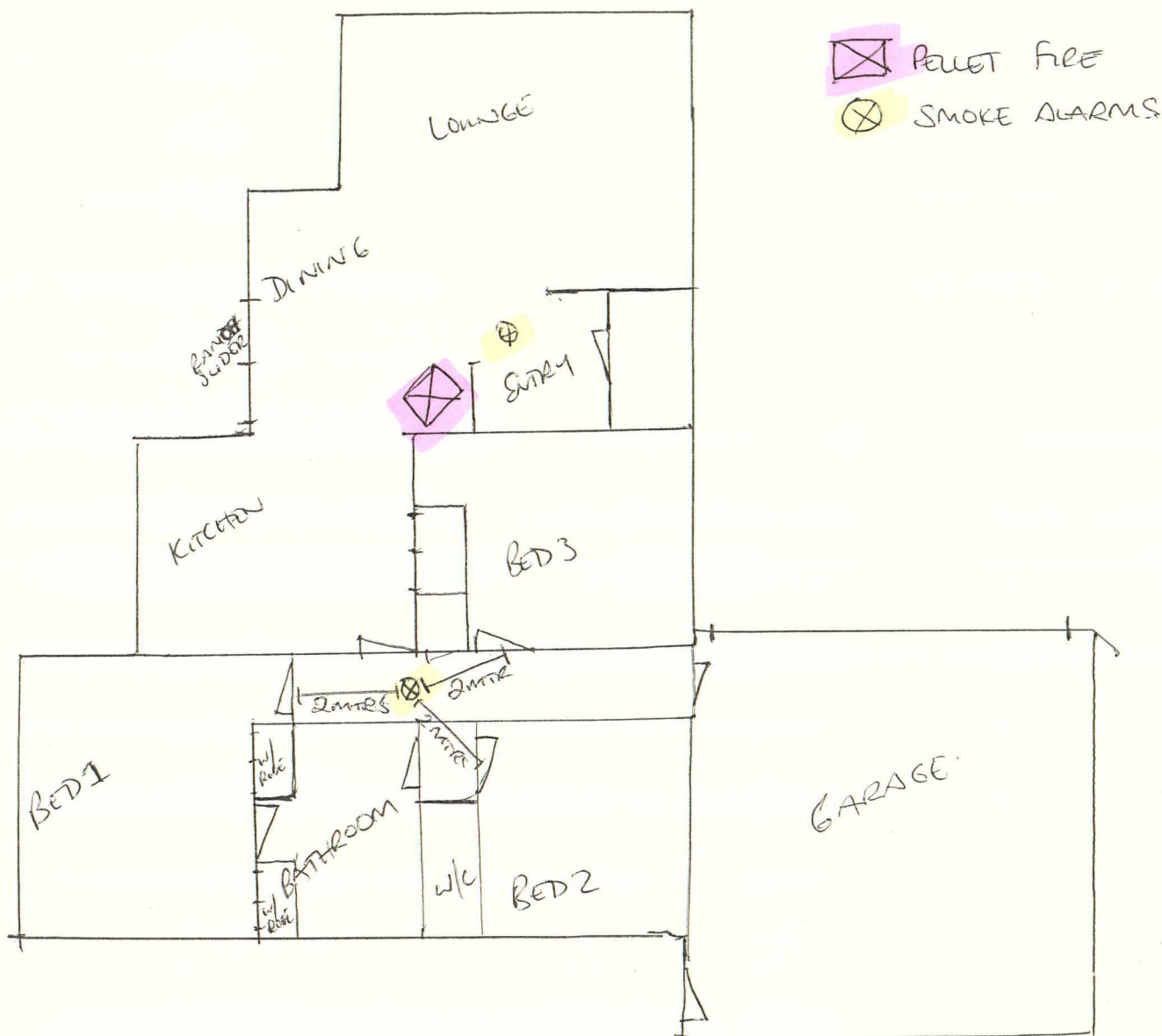


Each 50 Internal Standard Flue Kit contains:-

Part No	Description	Quantity
1	Galvanised outer liner ø100mm x 900mm long	1
2	Stainless steel inner liner ø75mm x 900mm long	4
4a	Black p/coat outer liner ø100mm x 900mm long	3
5	Inner/outer flue liner spacer	2
6c	Ceiling thimble ø107mm hole	1
7c	Ceiling decor plate ø107mm hole – white	1
8	Rain cap 75mm	1
9	Rain Cap 100mm	1
10b	Elbow 45° – ø75mm stainless – black (<i>painted</i>)	1
12b	T-adaptor/cleanout – ø75mm – black (<i>painted</i>)	1
23	Support angle 950mm long – 50mm x 50mm sides	2

Note: The Davin 50 Internal Standard Flue Kit complies with AS/NZS 2918:2001 as per Applied Research Test Report 05/1185, dated 15 September 2005.

All fires must be installed by a qualified installer as per the manufacturer's instructions and AS/NZS2918:2001.



42A GEORGE ST
ROLLESTON

Smoke Alarm

To be installed to AS1670.6 requirements. Equipment to comply with one of UL217, ULC5531, AS3786, BS5446 Pt 1

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COMPLIANCE SCHEDULE

(DO NOT Complete this section if the Application is for a Project Information Memorandum Only)

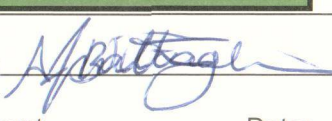
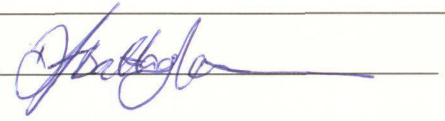
39. ☐ The specified systems for the building are as follows:

40. ☐ The following specified systems are being altered, added to, or removed in the course of the building work (Specify):

41. ☐ There are no specified items in the building.

SIGNATORY

Signed by or for and on behalf of the Owner/Applicant



Owner



or Agent/Applicant

Date: _____

Note: if acting "for and on behalf", please read the following declaration before signing:- "I hereby declare that I am authorised to act as Agent of the Applicant".

NOTES BY APPLICANT

Other notes or comments which you as the applicant may wish to add

NOTE:- ONLY COMPLETE ITEMS IN SHADED PANELS THAT ARE APPLICABLE TO YOUR PROJECT.

APPLICATION INFORMATION

(a) Project Information Memorandum (PIM)

A Project Information Memorandum will be issued within a maximum allowable time of 20 working days provided all the information required has been supplied. Insufficient information will result in your application being returned.

A fixed fee of \$200.00 is required to accompany your PIM application.

(b) Building Consent (BC)

A Building Consent will be processed within a maximum allowable time of 20 working days provided all the information required has been supplied. Processing time is stopped whenever further information is required and starts again when the information is received.

A deposit fee of \$200.00 is required to begin processing your application.

Once the building consent has been processed, you will receive notification which will include where appropriate an invoice for the balance of the fees payable.

Once the fees are paid in full your Building Consent will be granted.

(c) Combined Project Information Memorandum & Building Consent Applications

Applications for a combined PIM / BC will only be accepted when sufficient information is provided to permit the Building Consent to be processed. If insufficient information is provided the application will be returned. Combined applications must be accompanied by a deposit of \$400.00.

INSPECTIONS

A minimum of 48 hours notice of commencement of the building work is required to be given to the Building Consent Authority.

During the process of construction, inspections will be necessary to confirm all work complies. The Building Consent Authority requires at least 1 working days notice prior to inspection. However this notification will not guarantee an inspection will be available at the requested time. All work for inspection must be fully completed prior to the inspection visit being made.

The inspections required will be set out in the Building Consent documentation issued by the Building Consent Authority. Failure to have a prescribed inspection carried out and to be provided with confirmation that the work has been approved by the Inspecting Authority will put the issue of the Code Compliance Certificate for the work at risk.

RESOURCE CONSENTS

Your application will be assessed by the Planning Department of the Council to determine whether your project complies with the relevant District Plan requirements.

If your application does not comply with any District Plan requirements you will need to either amend your proposal to comply or apply for a Resource Consent. A Certificate will be attached to your Project Information Memorandum to notify that a resource consent is required prior to building work commencing. It is recommended that you contact the Planning Department to determine the process from there. Telephone 324 5868.

CODE COMPLIANCE

A building consent is not completed until it has been issued with a Code Compliance Certificate. The Owner is required to complete a separate application form to apply for a Code Compliance Certificate as soon as practicable after the building work is completed but in any event no later than 2 years after the granting of the Building Consent. A Code Compliance Certificate will be issued within a maximum allowable time of 20 working days provided all the information required has been supplied. Note:- Certificates will be required from all trades involved in the project.

In the event that no application for Code Compliance is made, the Building Consent Authority will within the 2 year period issue a Notice To Fix.

BUILDING CONSENT COSTINGS

Note:- DBH & BRANZ Levies are calculated automatically in the NCS system based on the Estimated Value of the project.

ADMINISTRATION

	UNITS	RATE/UNIT
Processing Consent	5	
Issue, photocopy & administer consent CCC ³ + 3	10	
Inspection recording (Inspections x 3)	1	
ADMINISTRATION UNITS SUB-TOTAL	6	X 4.50 \$5.40 \$72-00

PROCESSING

Processing Building Consent	6	
Further Information		
Truss Sign Off (BN03)		
Sign Off / Audit Approval	2	
PROCESSING UNITS SUB-TOTAL	8	X 6.975 \$8.00 \$55-80

INSPECTIONS

1	110.01, 100.06, 80.12	5	
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14		5	
Inspections	X	Travel Time	2 = 2
		Subtotal	7
			X 6.975 \$8.00 \$48-82
Inspections	X	Distance	12 = 12
			X 0.70 \$7-44

123.80
rounded to
143.74

56-26

BUILDING NOTES

BN32.

CONSULTANTS

Certificate of Title	\$	Other (List):	\$
Producer Statement	\$		\$
Water Connection Fee	\$		\$
Planning Check x \$11.25	\$		\$

LESS DEPOSIT \$200-00

INVOICE NUMBER:- 63116 TOTAL CHARGES FOR CONSENT \$200-00

BUILDING CONSENT RECORD

LEGAL

DESCRIPTION: Lot 2 DP 359723

VALUATION NO: 24051 - 336 - 01

PROPERTY

ADDRESS: 42A George St, Rolleston

CONSENT NO: 080936

OWNER:

Battaglione

PROJECT

DESCRIPTION: SFH

AGENT:

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