

**VISTALITE CONSERVATORIES.**

**DESIGN AND CONSTRUCTION NOTES.**

**(1) GENERAL:**

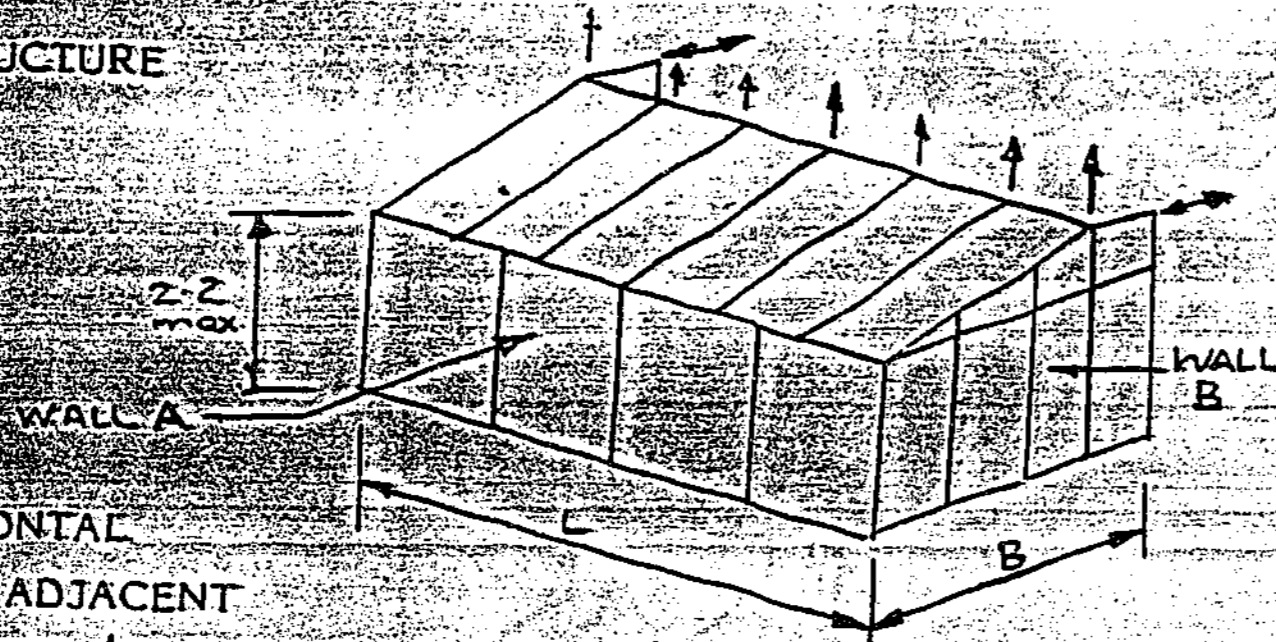
IN MOST CASES WIND LOADING WILL DETERMINE THE REQUIRED MEMBER SIZE NECESSARY TO MEET CODE LOADING REQUIREMENTS. IT MAY ALSO PLACE A RESTRAINT ON THE LOCATION OR SIZE OF LATERAL BRACING OF THE CONSERVATORY.

IT IS THEREFORE NECESSARY TO DETERMINE THE SITING OF THE PROPOSED STRUCTURE AND ITS DEGREE OF EXPOSURE TO THE WIND BEFORE THE MEMBER SIZES AND FIXINGS ARE DETERMINED.

NOTE: Graphs do not allow for snow loading.

**(2) CONFIGURATION OF CONSERVATORY:**

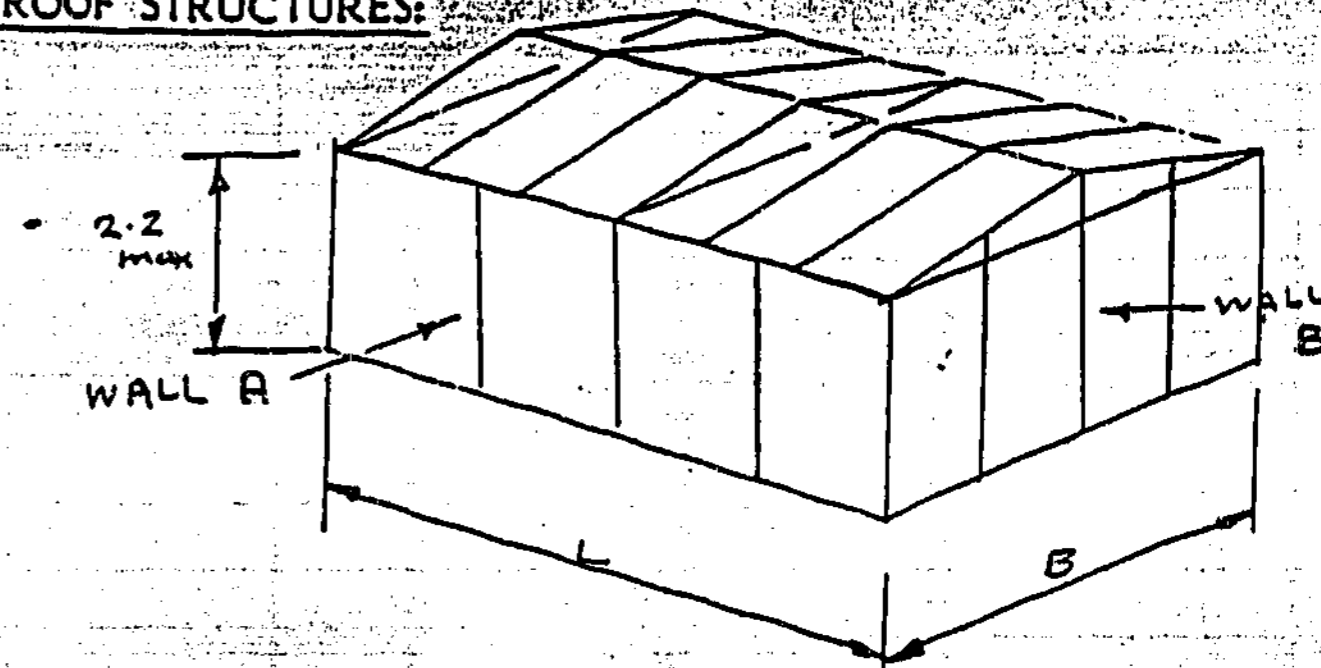
**(A) LEAN-TO STRUCTURE**



VERT AND HORIZONTAL SUPPORT BY THE ADJACENT BUILDING IS SHOWN ↑ AND →

THERE IS NO RESTRICTION TO OPENINGS IN WALL B. THE MINIMUM LENGTH OF FIXED GLAZING IN WALL A IS  $1.4 \times P \times B$  AND NOT LESS THAN  $L + Z$ .  
 P IS (THE WIND PRESSURE FROM TABLE No.1)  $\pm 1000$   
 B IS THE WIDTH OF THE CONSERVATORY IN METRES.  
 L IS THE LENGTH OF WALL A IN METRES.

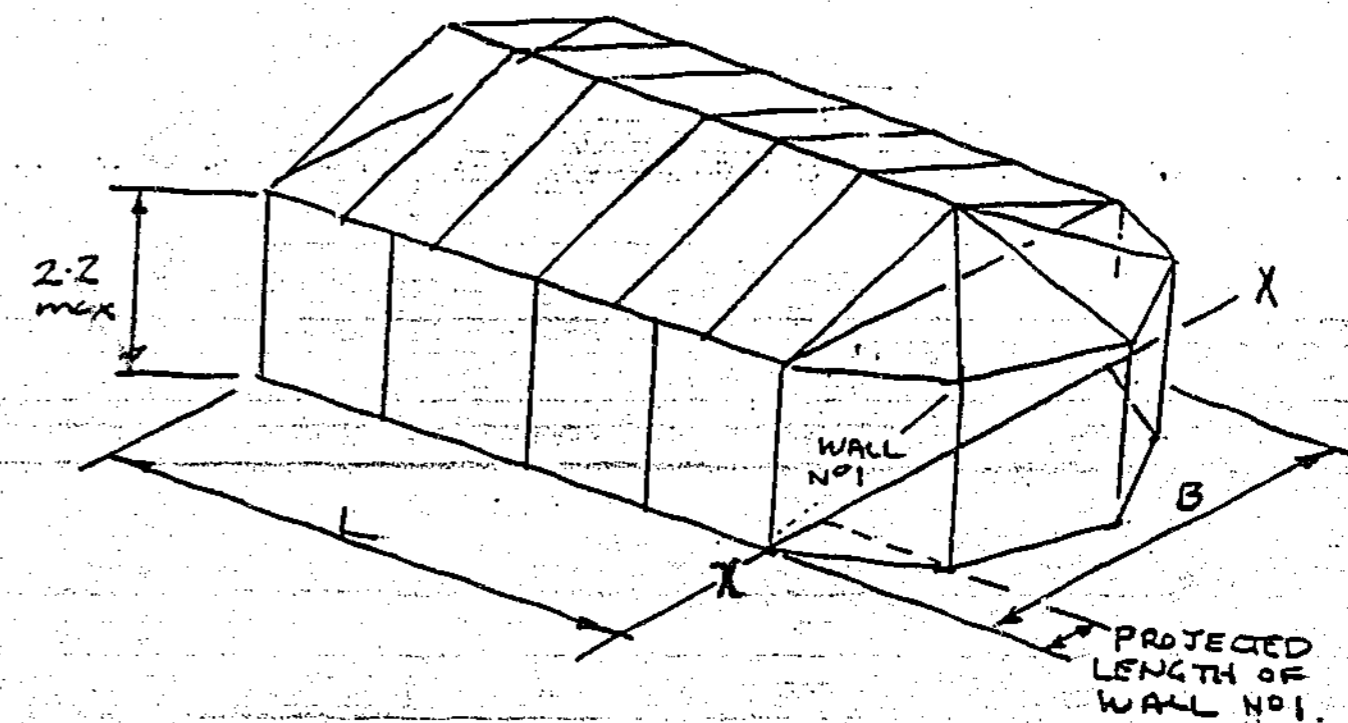
**(B) PITCHED ROOF STRUCTURES:**



THE MINIMUM LENGTH OF FIXED GLAZING IN WALL B IS  $1.4 \times P \times L$  METRES. THIS MAY DETERMINE THE MAXIMUM LENGTH OF THE CONSERVATORY BETWEEN INTERNAL CROSS WALLS.

THE MINIMUM LENGTH OF FIXED GLAZING IN WALL A IS  $1.4 \times P \times B$  METRES.

P IS (THE WIND PRESSURE FROM TABLE No.1)  $\pm 1000$ .



"GAZEBO" END ON PITCHED ROOF STRUCTURE.

THE MINIMUM LENGTH OF FIXED GLAZING IN THE GAZEBO END PROJECTED ON TO THE LINE X-X IS  $1.4 \times P \times L$ .

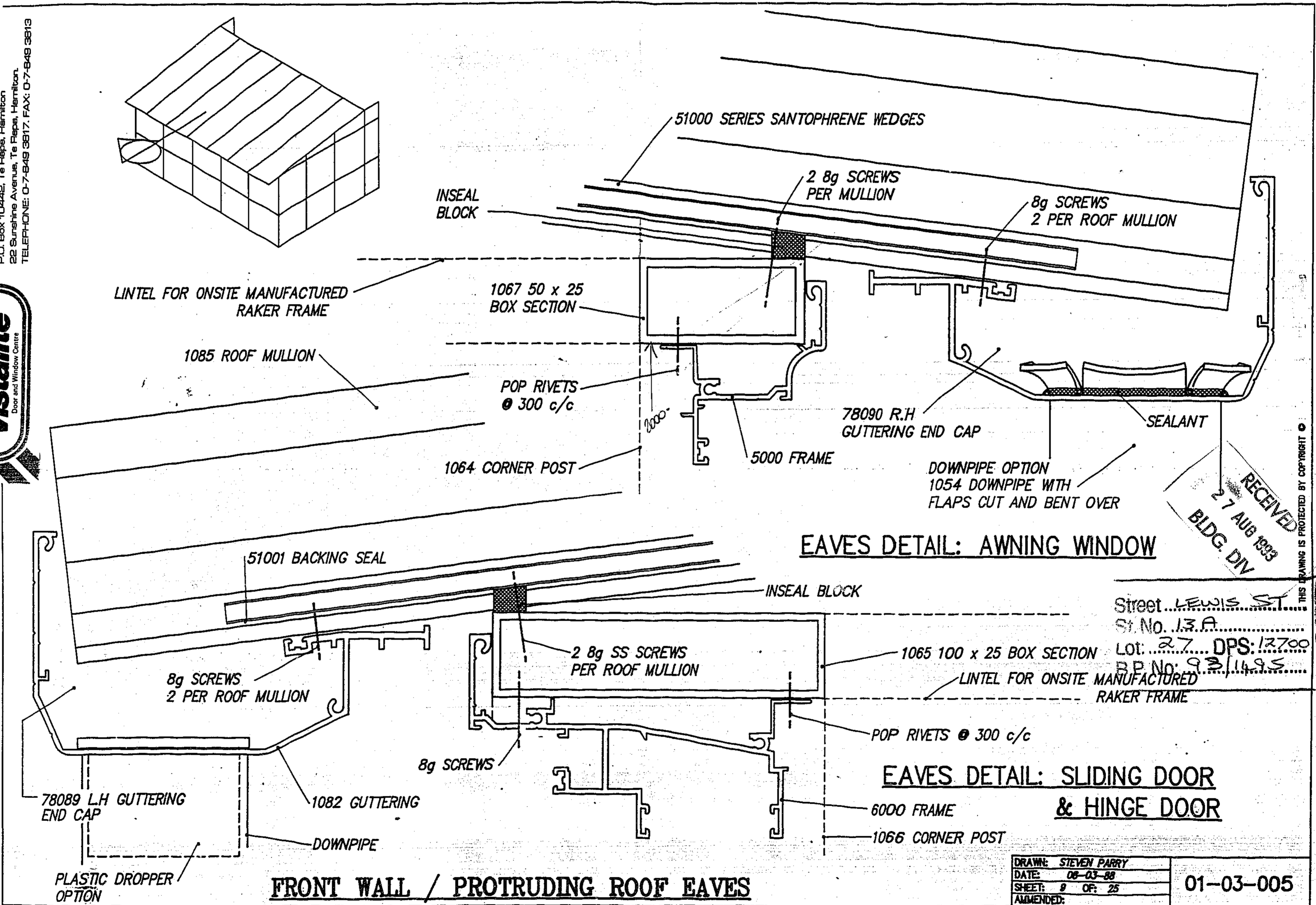
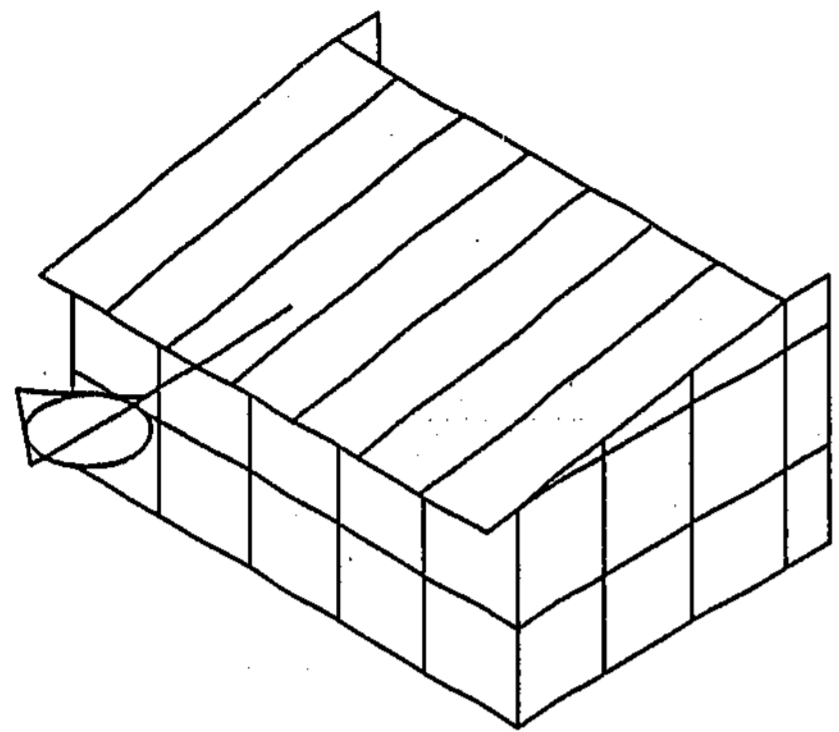
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SHEET 2 OF 25 01-03-005

5

Street LEWIS ST  
 St No 13A  
 Lot: 27 DPS: 12700  
 B.P. No: 93/1495  
 CONSERVATORY

VISTALITE ALUMINIUM - HAMILTON  
 A DIVISION OF MICRIFILMS ALUMINIUM LTD  
 P.O. Box 10442, Te Rapa, Hamilton  
 22 Sunshine Avenue, Te Rapa, Hamilton.  
 TELEPHONE: 0-7-849 3817. FAX: 0-7-849 3813



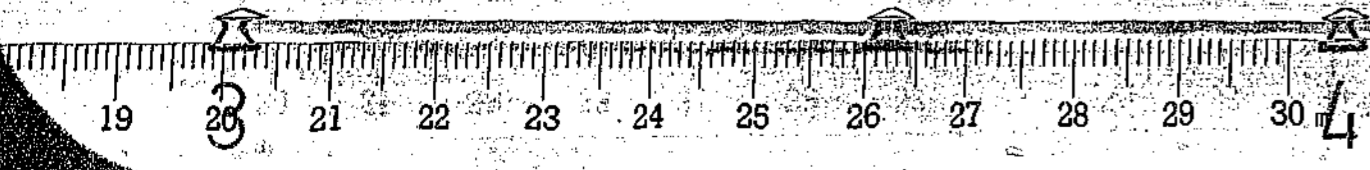
**EAVES DETAIL: AWNING WINDOW**

**EAVES DETAIL: SLIDING DOOR & HINGE DOOR**

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Street... LEWIS ST  
 St. No. 13A  
 Lot: 27 DPS: 12700  
 R.P. No: 92/1495

DRAWN: STEVEN PARRY	01-03-005
DATE: 08-03-88	
SHEET: 9 OF: 25	
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MICROBOX

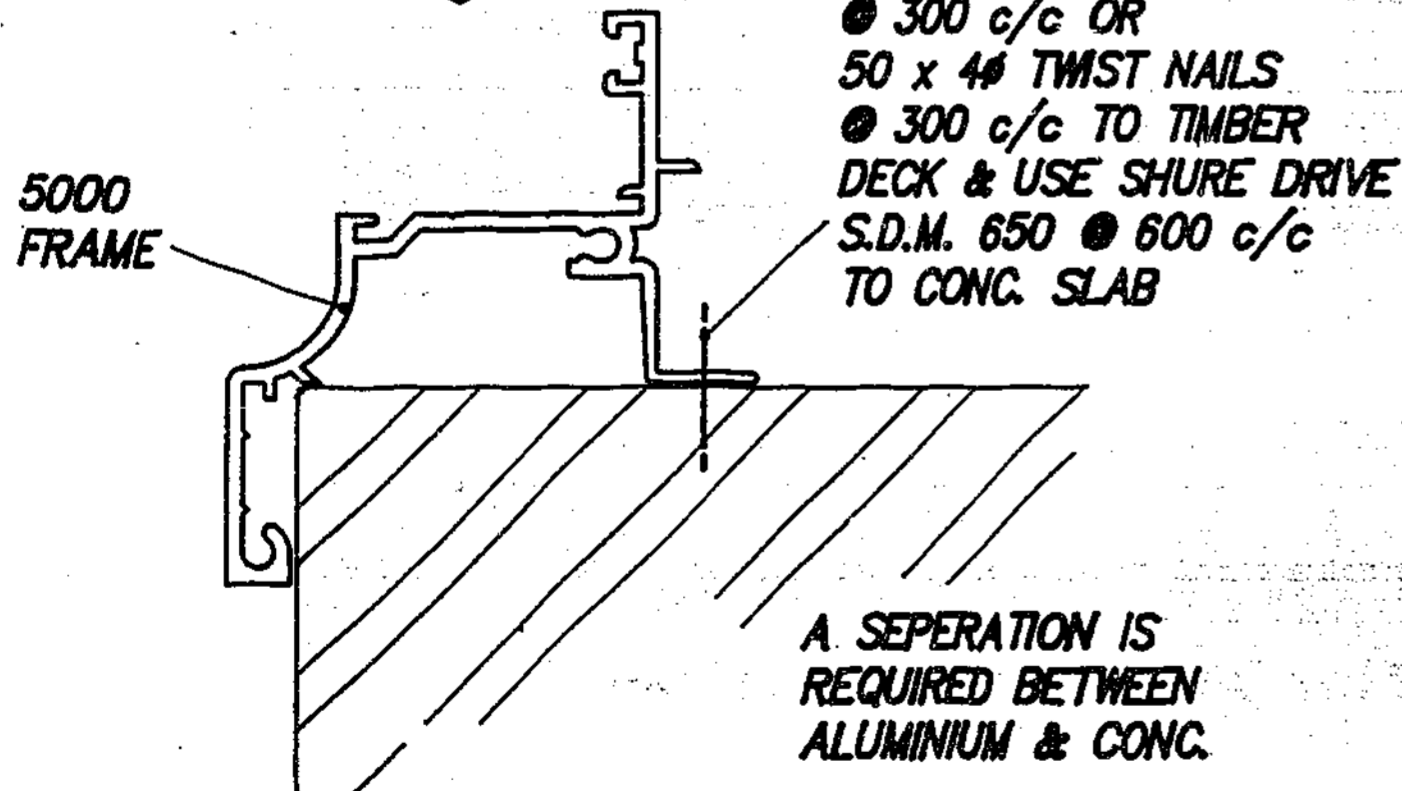
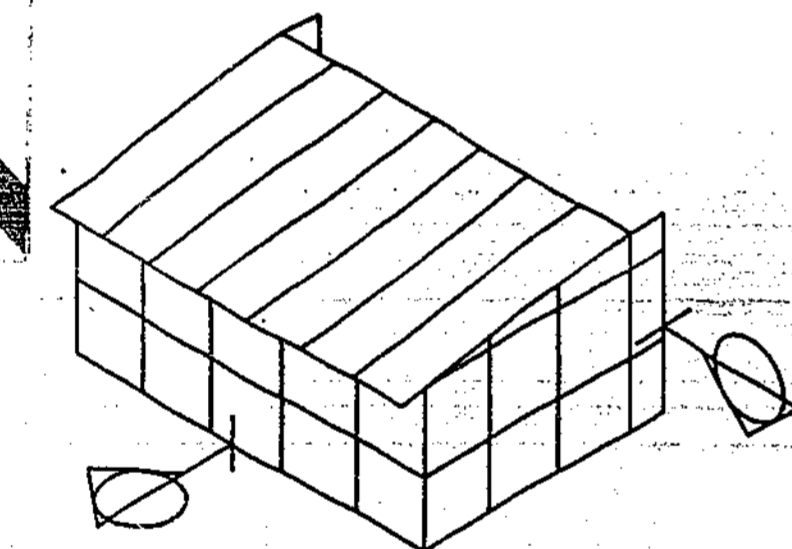
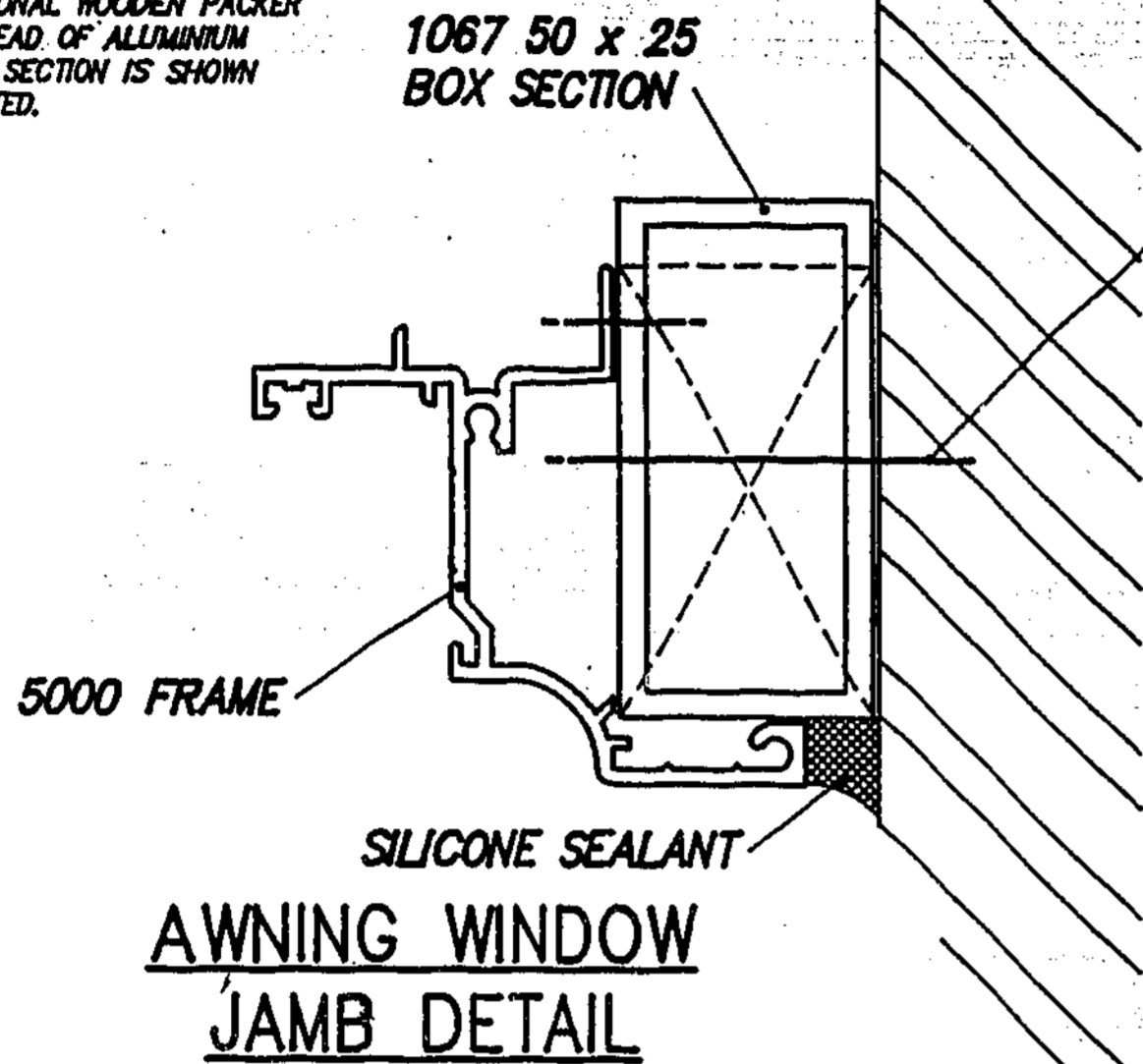
MICROFILM RECORDS (WAIKATO) LTD HAMILTON

VISTALITE ALUMINIUM — HAMILTON  
 (A DIVISION OF MCFRS ALUMINIUM LTD)  
 P.O. Box 10442, Te Papa, Hamilton  
 22 Sunning Avenue, Te Papa, Hamilton.  
 TELEPHONE: 0-7-848 3817. FAX: 0-7-848 3813

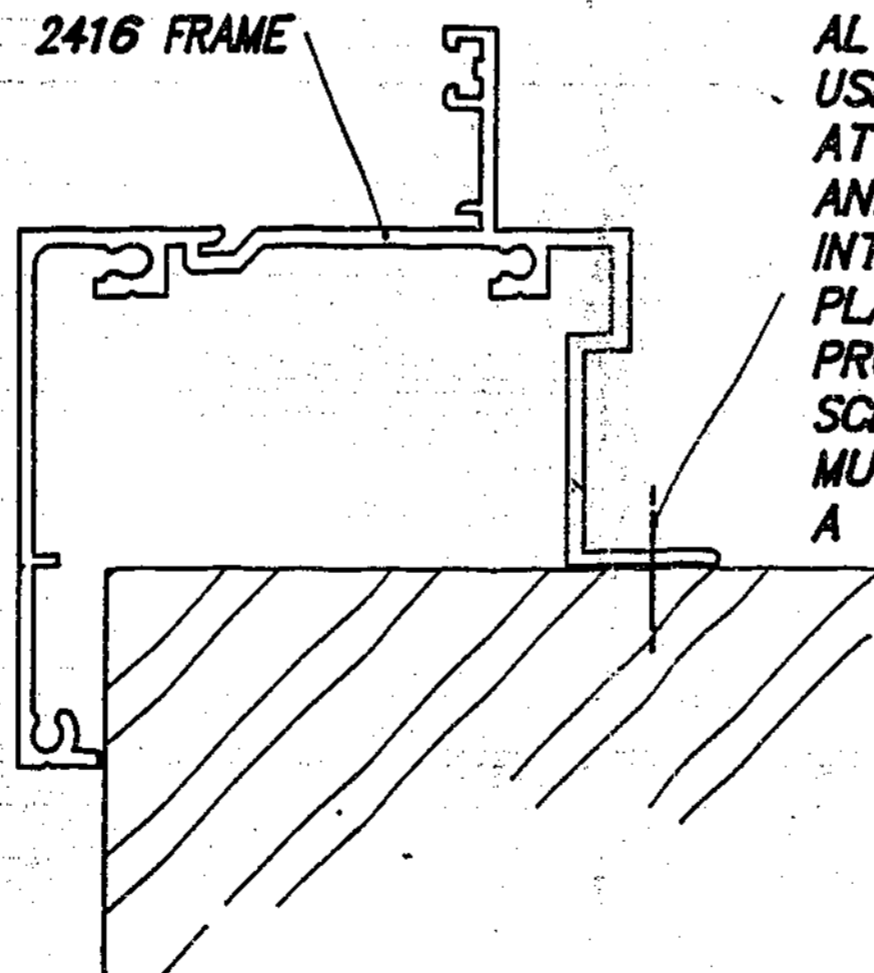
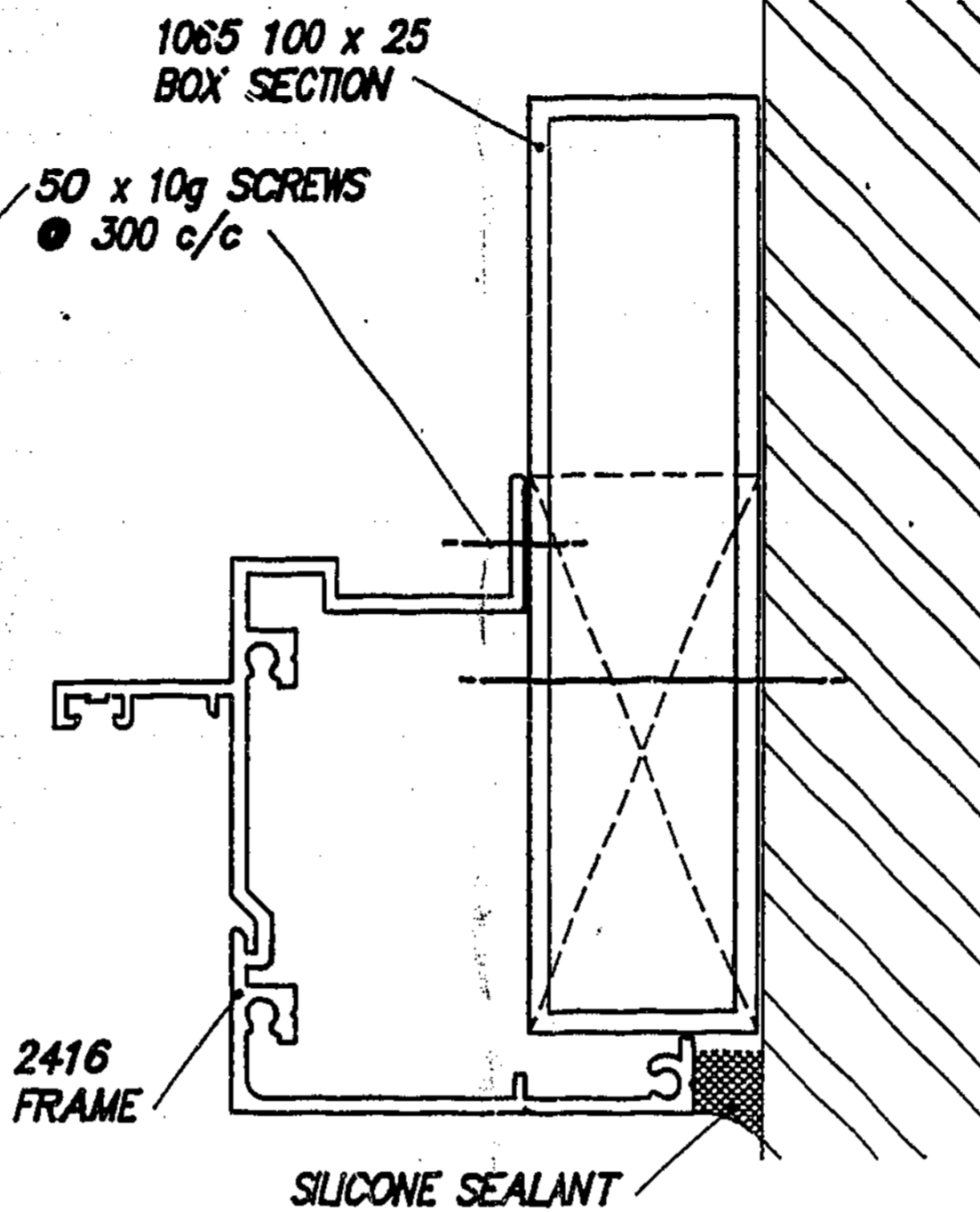


Street...L. E. W. I. S. ST.....  
 St. No. ...13A.....  
 Lot. ...27... DPS: 12700.....  
 B.P. No: ...93/1495.....

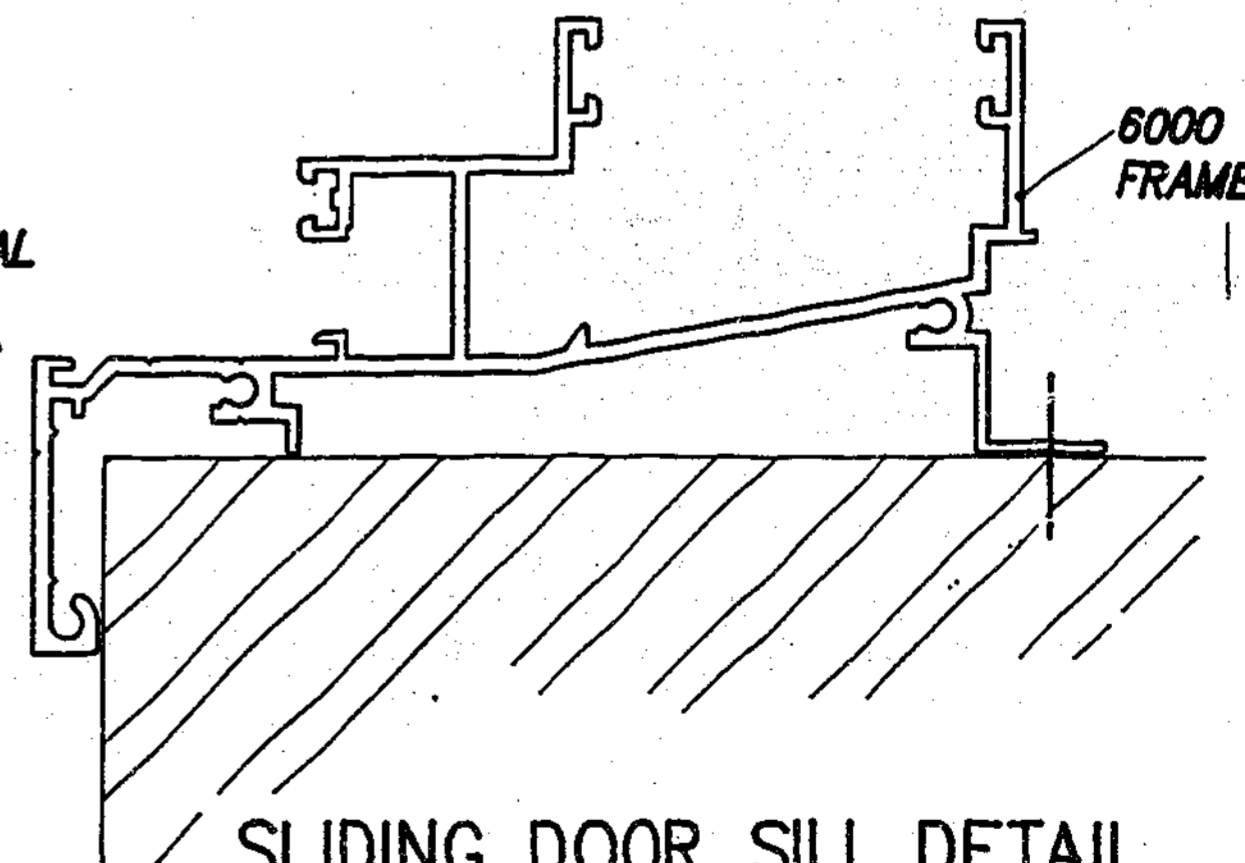
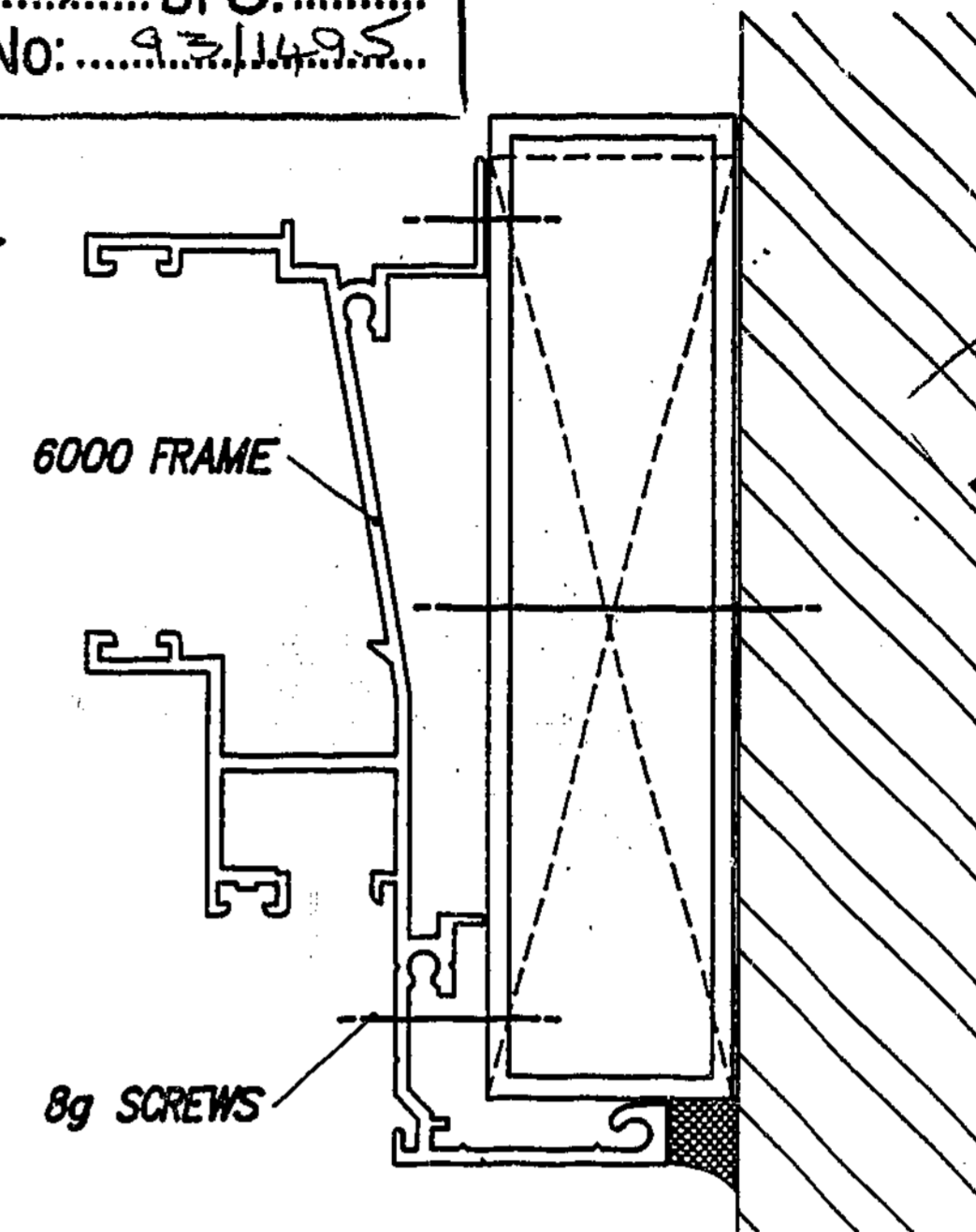
OPTIONAL WOODEN PACKER  
 INSTEAD OF ALUMINIUM  
 BOX SECTION IS SHOWN  
 DOTTED.



AWNING WINDOW SILL DETAIL



HINGE DOOR SILL DETAIL  
JAMB AND SILL DETAILS



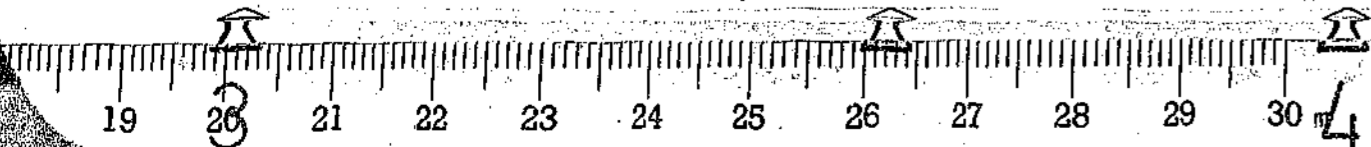
SLIDING DOOR SILL DETAIL

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MICROBOX

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Fig 1. MAP SHOWING BASIC WIND SPEEDS (METRES PER SECOND)

These are maximum 3 second gust speeds with return speed of 50 years.

Basic Wind Speeds and Wind Areas for some New Zealand Towns and Cities

Locality	Basic Wind Speed (m/s)	Wind Area*
Ashburton	40	M
Auckland	38	M
Blenheim	38	M
Bluff	49	H
Christchurch	40	M
Dannevirke	45	H
Dunedin	40	M
Gisborne	35	L
Hamilton	33	L
Hokitika	40	M
Invercargill	45	H
Kaikoura	51	H
Kaitia	48	H
Kerikeri	44	H
Levin	42	H
Masterton	46	H
Napier	38	M
Nelson	35	L
New Plymouth	41	H
Ohakune	38	M
Palmerston North	43	H
Picton	46	H
Queenstown	34	L
Rotorua	34	L
Tauranga	33	L
Turangi	35	L
Waiouru	48	H
Wanganui	44	H
Wellington	50	H
Westport	38	M
Whakatane	33	L
Whangarei	42	H

\* H = High wind area  
M = Medium wind area  
L = Low wind area

There is insufficient wind-speed data available to enable to predict 50 year return windspeeds in this area.

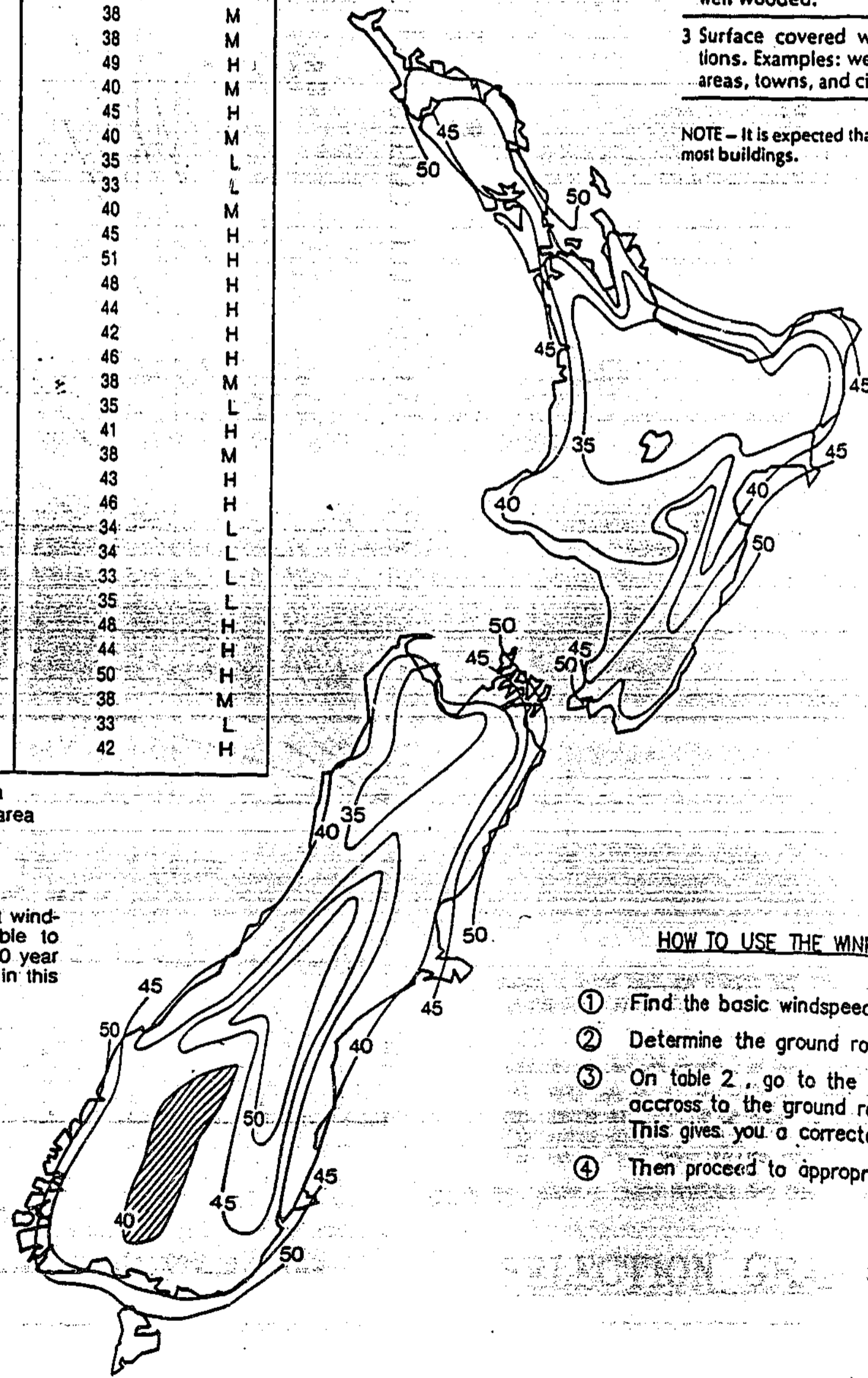


Table 1. GROUND ROUGHNESS CATEGORIES

- CATEGORY**
- 1 Open stretches of level or nearly level country with no shelter. Examples: flat coastal fringes, airfield, and swamps.
  - 2 Flat or undulating country with obstructions such as hedges or walls around fields, scattered windbreaks, occasional buildings. Examples: wasteland and most agricultural land that is not well wooded.
  - 3 Surface covered with numerous large obstructions. Examples: well wooded farmland and forest areas, towns, and cities.

NOTE - It is expected that ground roughness 3 will apply to most buildings.

Table 2. TOTAL PRESSURE IN Pa FOR  $C_{pi} + C_{pe} = 1.0$

Basic wind speed (m/s) (use for locations)	Maximum glazing height (m)	Ground roughness		
		1	2	3
32	3	433	325	257
	5	486	392	307
	10	628	543	382
33	3	460	346	273
	5	517	417	327
	10	667	577	406
34	3	488	367	290
	5	549	442	347
	10	709	613	431
35	3	517	389	307
	5	581	469	368
	10	751	649	457
36	3	547	412	325
	5	615	496	389
	10	795	687	483
37	3	578	435	344
	5	650	524	405
	10	839	726	511
38	3	610	459	363
	5	685	553	440
	10	885	765	539
39	3	642	483	382
	5	722	582	457
	10	933	807	567
40	3	676	509	402
	5	759	612	481
	10	981	848	597
41	3	710	534	422
	5	798	643	505
	10	1031	891	627
42	3	745	561	443
	5	837	675	530
	10	1081	935	658
44	3	817	615	486
	5	919	741	581
	10	1187	1027	722
46	3	893	673	531
	5	1005	809	635
	10	1297	1122	789
48	3	973	732	579
	5	1094	881	692
	10	1413	1221	859
50	3	1056	795	627
	5	1187	935	751
	10	1533	1325	933

HOW TO USE THE WINDLOAD SELECTION CHARTS

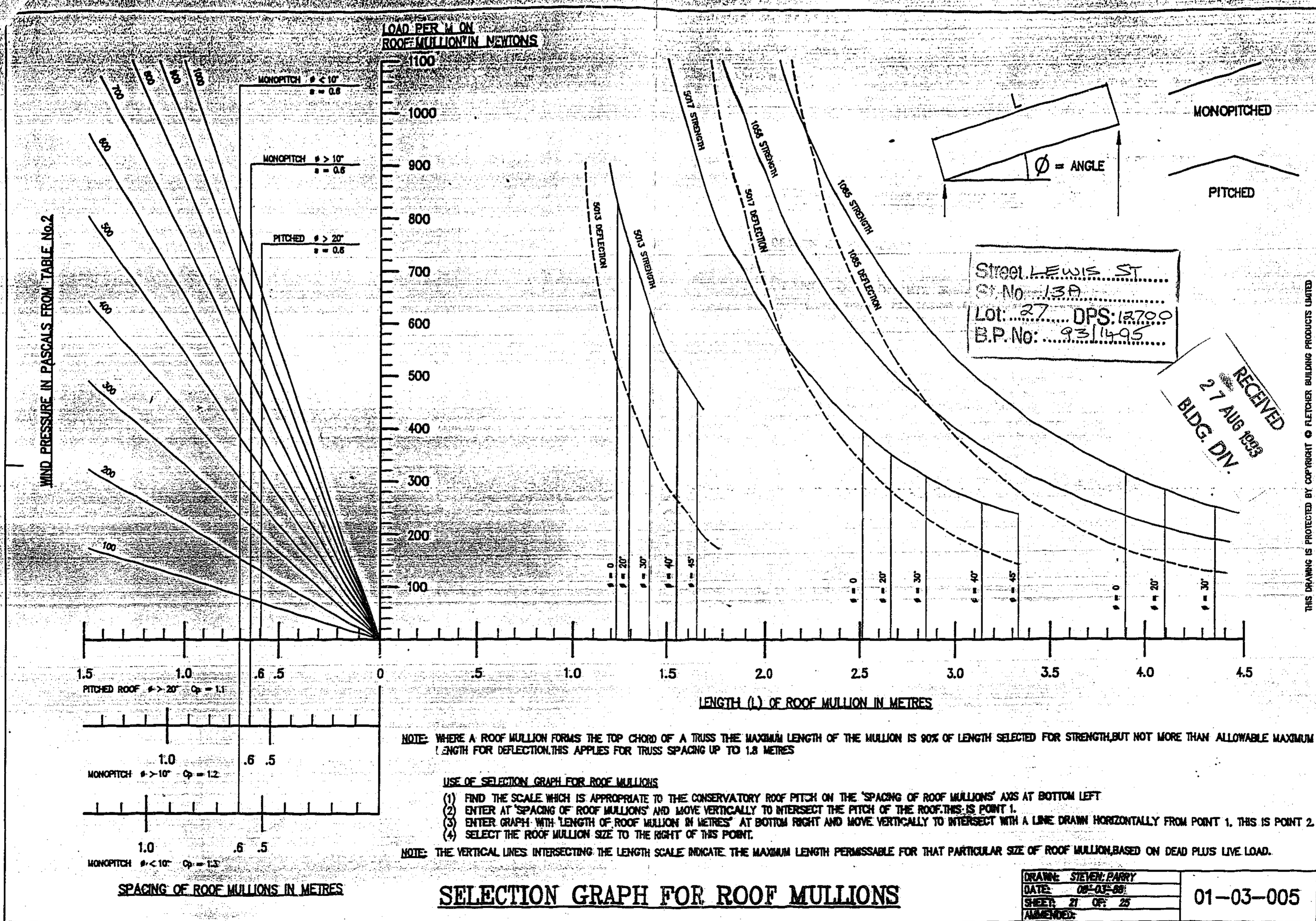
- 1 Find the basic windspeed for your area from fig 1.
- 2 Determine the ground roughness from table 1.
- 3 On table 2, go to the selected windspeed, height above ground and across to the ground roughness category. This gives you a corrected wind pressure for sloped glazing.
- 4 Then proceed to appropriate graph and follow instructions.

Street LEWIS ST  
St. No. 13A  
Lot: 27 DPS: 12700  
B.P. No: 9/11/95

Tables 1 & 2 are from NZS 4223:1985

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NOTE: WHERE A ROOF MULLION FORMS THE TOP CHORD OF A TRUSS THE MAXIMUM LENGTH OF THE MULLION IS 90% OF LENGTH SELECTED FOR STRENGTH, BUT NOT MORE THAN ALLOWABLE MAXIMUM LENGTH FOR DEFLECTION. THIS APPLIES FOR TRUSS SPACING UP TO 1.8 METRES

**USE OF SELECTION GRAPH FOR ROOF MULLIONS**

- (1) FIND THE SCALE WHICH IS APPROPRIATE TO THE CONSERVATORY ROOF PITCH ON THE 'SPACING OF ROOF MULLIONS' AXIS AT BOTTOM LEFT
- (2) ENTER AT 'SPACING OF ROOF MULLIONS' AND MOVE VERTICALLY TO INTERSECT THE PITCH OF THE ROOF. THIS IS POINT 1.
- (3) ENTER GRAPH WITH 'LENGTH OF ROOF MULLION IN METRES' AT BOTTOM RIGHT AND MOVE VERTICALLY TO INTERSECT WITH A LINE DRAWN HORIZONTALLY FROM POINT 1. THIS IS POINT 2.
- (4) SELECT THE ROOF MULLION SIZE TO THE RIGHT OF THIS POINT.

NOTE: THE VERTICAL LINES INTERSECTING THE LENGTH SCALE INDICATE THE MAXIMUM LENGTH PERMISSABLE FOR THAT PARTICULAR SIZE OF ROOF MULLION, BASED ON DEAD PLUS LIVE LOAD.

**SELECTION GRAPH FOR ROOF MULLIONS**

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