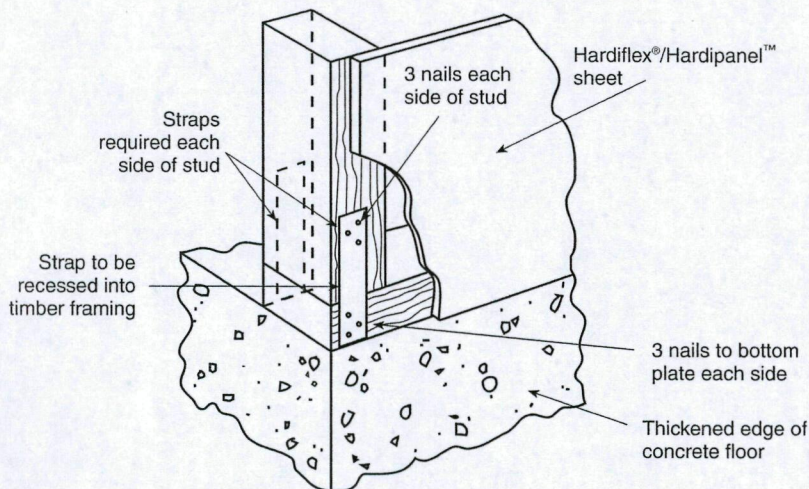


Table 5: Bracing ratings for Hardiflex® 6mm and 7.5mm thick and Hardipanel™ 6.5mm and 7.5mm

System number	Bracing element length (mm)	End straps	Bracing details	NZS 3604:1990 rating in bracing units per metre of element length	
				Wind	Earthquake
HF1/HP1	1200-1800	Not required	Refer Figs 30 or 31	90	75
HF2/HP2	1800-2400			95	80
HF3/HP3	2400 or more			105	90
HF4/HP4	900-1200	Required (refer Figs 37 or 41)	Refer Figs 32 and 33	120	96
HF5/HP5	1200 or more			132	96
HF6/HP6	900-1200	Required (refer Fig. 37)	Refer Fig. 34	120	110
HF7/HP7	1200 or more	Not required	Refer Fig. 34	145	118
HF8/HP8	900-1200	Required (refer Fig. 41)	Refer Figs 35 and 36	115	92
HF9/HP9	1200-2400	Not required	Refer Figs 35 and 36	130	105
HF10/HP10	2400 or more			135	115
HF11/HP11	600	Required (refer Figs 42 and 43)	Refer Figs 38, 39 and 40	93	98
HF12/HP12				93	98
HF13B/HP13B	900 or more	Not required	Refer Fig. 45 Use coach screws to joists Braceline on inside face Hardiflex® or Hardipanel™ on outside face	191	168
HF14B/HP14B	900 or more	Not required	Refer Fig. 46 Use HD bolts to concrete floor Braceline on inside face Hardiflex® or Hardipanel™ on outside face	191	168
HF15B/HP15B	2400 or more	Not required	Refer Fig. 47 Braceline on inside face Hardiflex® or Hardipanel™ on outside face	190	162
HF16B/HP16B	2400 or more	Not required	Refer Fig. 48 Use HD bolts to concrete floor Braceline on inside face Hardiflex® or Hardipanel™ on outside face	190	162
HF17B/HP17B	3200 or more (specialised shaped window panel)	Not required	Refer Figs 49, 50 and 51 HD bolts or screws required Braceline on inside face Hardiflex® or Hardipanel™ on outside face	75	63
HF18B/HP18B	3200 or more (specialised shaped window panel)	Not required	Refer Figs 49, 50 and 51 Braceline on inside face Hardiflex® or Hardipanel™ on outside face	75	63

Fig. 41 END FIXING STRAP TO BOTTOM PLATE ON CONCRETE FLOOR



Notes:

1. The 2 straps combined must be capable of carrying a tension force of 6KN (capacity load as defined in NZS 3604). This is achieved by a 25mm x 1mm strap each side, each of 3KN capacity. (3 nails each end of a 25mm x 1mm strap give 3KN capacity and 6 nails each end of strap give 6KN capacity.)
2. Strap nails must be 40 x 2.5mm diameter galvanised.

Fig. 42 END FIXING STRAP DETAIL FOR CONCRETE AND TIMBER FLOORS – 600MM-WIDE PANEL

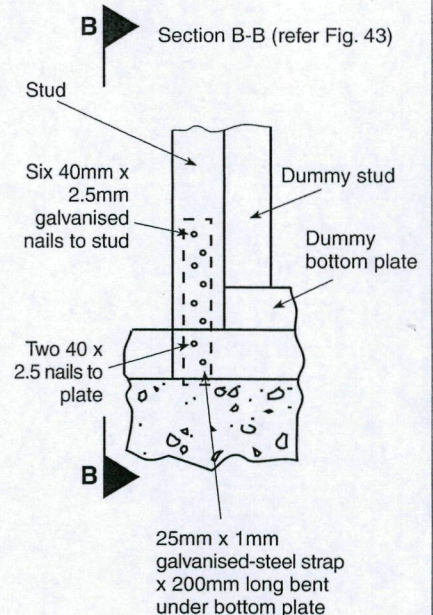


Fig. 43 SECTION B-B

For timber floor: 12mm diam. coach screw hot-dipped galvanised to penetrate 120mm into floor and joists. 50mm x 50mm x 3mm galvanised washer.

For concrete floor: HD bolts must be M12 hot-dipped galvanised with 50mm x 50mm x 3mm galvanised washers. Fix as shown in Fig. 4.17 NZS 3604:1990.

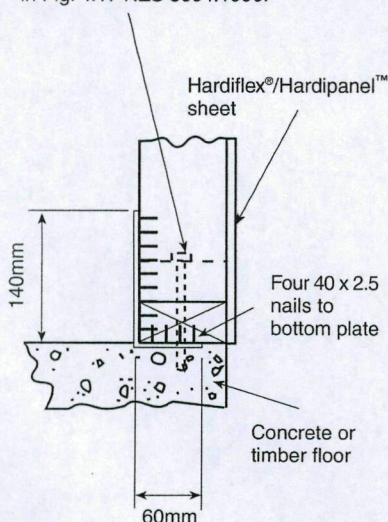
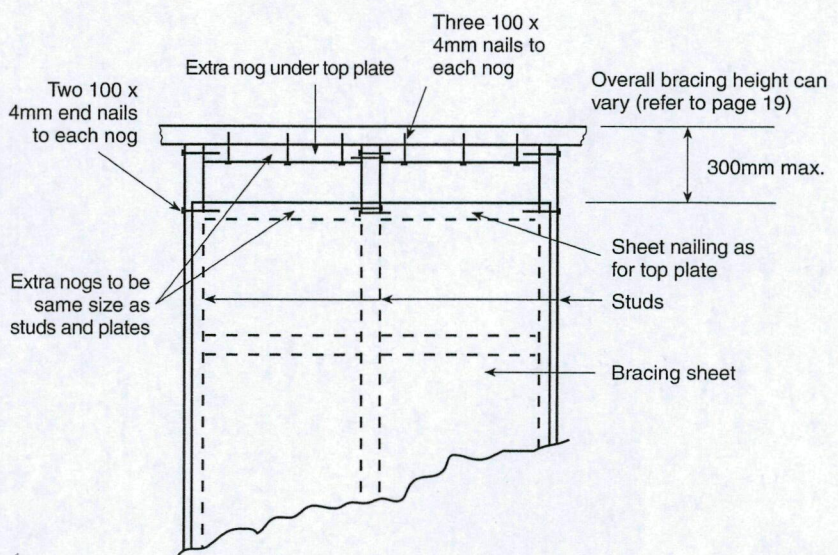


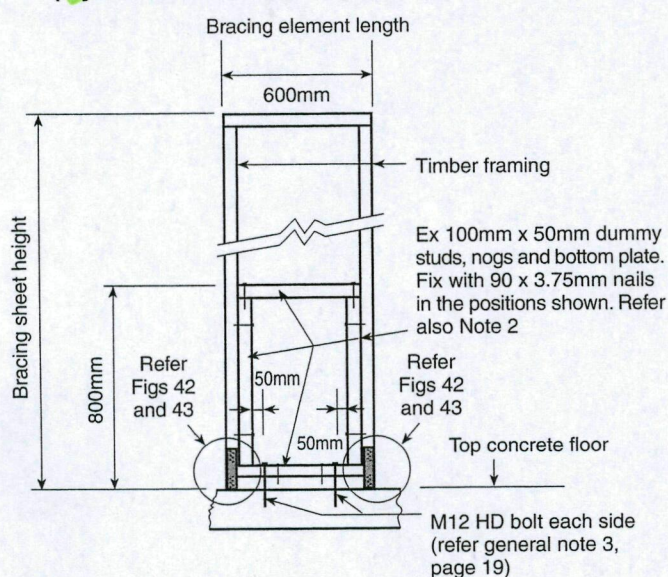
Fig. 44 DETAIL WHEN BRACING SHEET STOPPED BELOW TOP PLATE



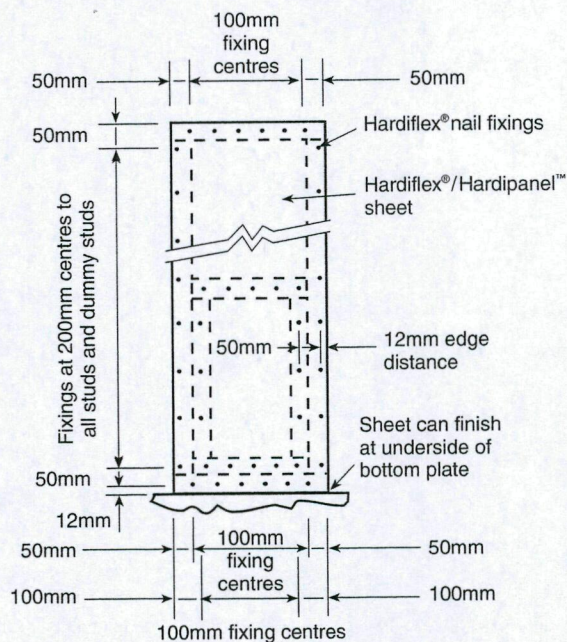
Notes:

1. All sheet nails must be as shown for the various bracing systems.
2. The full bracing values for full-height sheets for each system can be used when this detail is followed.
3. This detail must be used instead of the detail shown in Fig. K1, NZS 3604:1990.

**Fig. 39 600MM-WIDE HARDIFLEX®/HARDIPANEL™ TO CONCRETE FLOOR
(Systems HF12/HP12)**



Frame-fixing and holding-down elevation

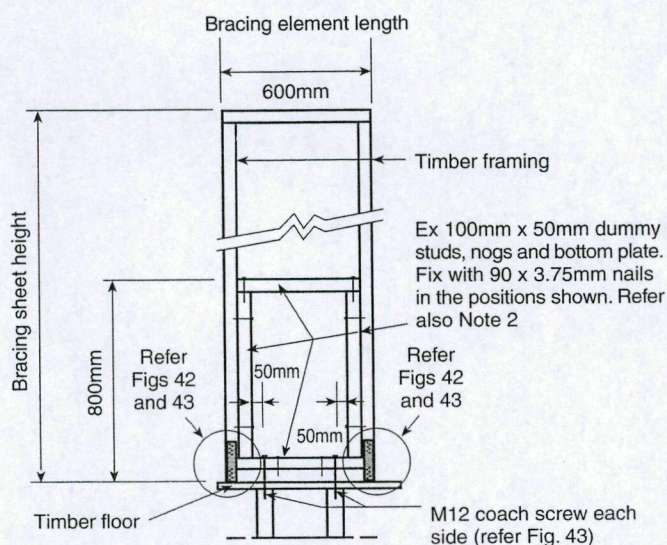


Sheet-fixing elevation

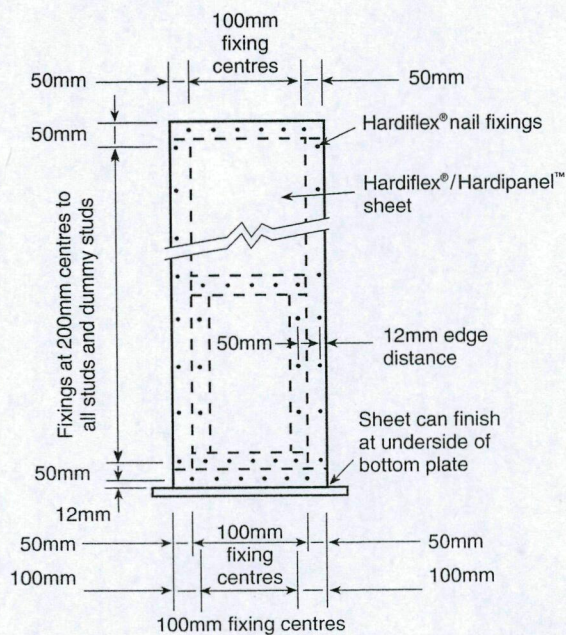
Notes:

1. Galvanised-steel end fixing straps must be as detailed in Figs 42 and 43.
2. The dummy studs are nailed to the main studs with 3 horizontal 90 x 3.75 nails per dummy stud, and the dummy nogs nailed with two 90 x 3.75 nails to the dummy studs and the dummy bottom plate nailed to the bottom plate with two 90 x 3.75 nails between the coach bolts.
3. The sheet must overlap the concrete floor by 50mm when weathering overlap is required on an external wall. (Refer Fig. 36.)

**Fig. 40 600MM-WIDE HARDIFLEX®/HARDIPANEL™ TO TIMBER FLOOR
(Systems HF12/HP12)**



Frame-fixing and holding-down elevation



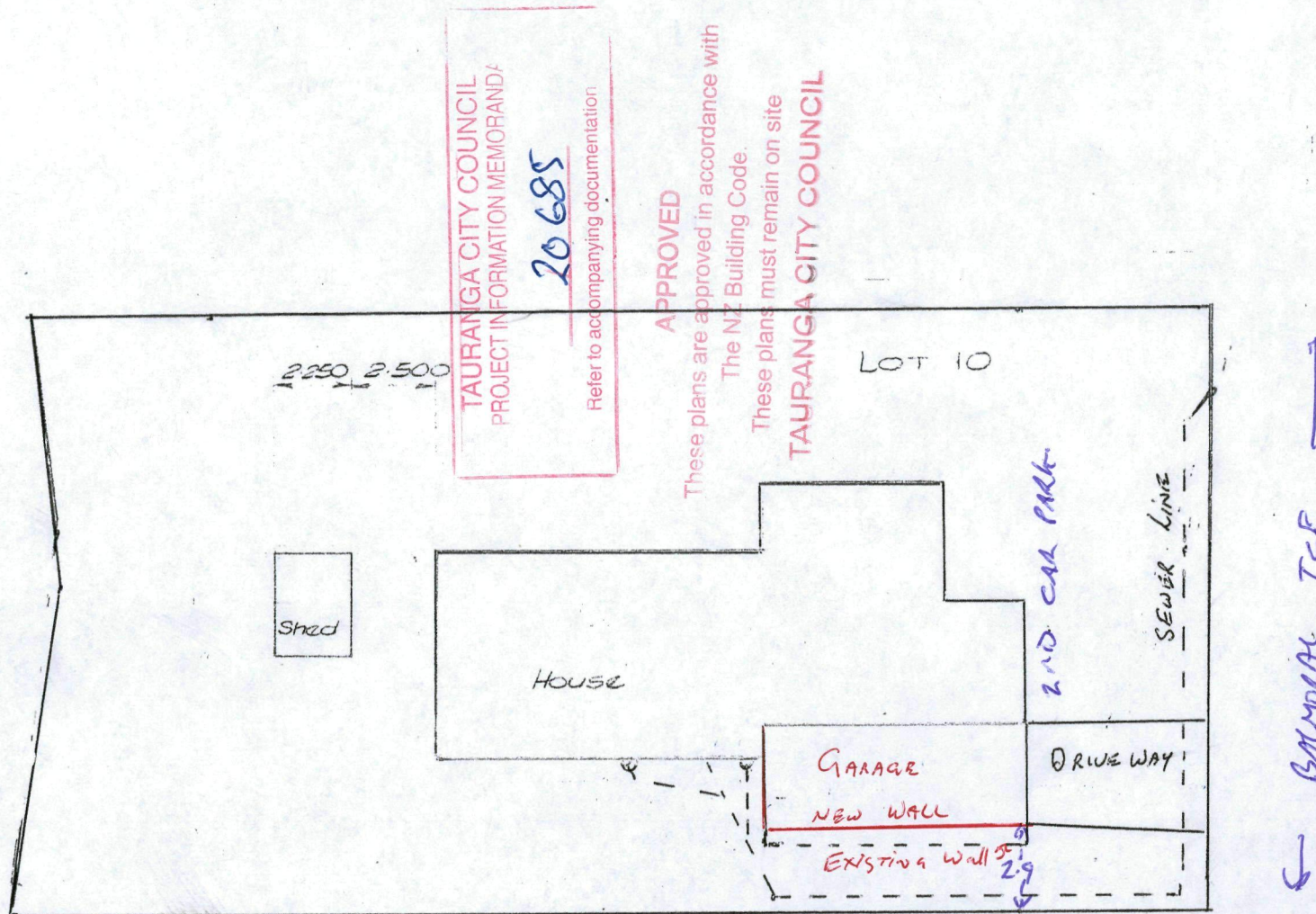
Sheet-fixing elevation

Notes:

1. Galvanised-steel end fixing straps must be as detailed in Figs 42 and 43.
2. The dummy studs are nailed to the main studs with 3 horizontal 90 x 3.75 nails per dummy stud, and the dummy nogs nailed with two 90 x 3.75 nails to the dummy studs and the dummy bottom plate nailed to the bottom plate with two 90 x 3.75 nails between the coach bolts.

NORTH

Stone retaining wall tapering from 800mm at shed.



LOCALITY PLAN

(1:200)

26 BAL MORAL TCE.

BOUNDARY

B →

2.700

EXISTING WALL + ROOF
TO BE REMOVED

HF12
-6

NEW WALL

HF12
-6

GARAGE

DINING

KITCHEN

frig

Cupd unit

LOUNGE

LAUNDRY

W.C.

BATH

BEDROOM 1

HALL 1700 mm 2

BEDROOM 3

BEDROOM 2

Secure overhang against wind uplift.
CONC TERRACE

post

200x100 mm beam

A →

100

100

100

100

75

100

100

1.900

5.500

1.050

3.325

575

575

3.625

2.000

5.700

9.600

2.900
1001
1001
1001
3.050
1001
1001
3.350
1001
000.7

1001

575

1001

1001

1001

APPROVED

These plans are approved in accordance with
The NZ Building Code.

These plans must remain on site

TAURANGA CITY COUNCIL

1:100 FLOOR PLAN