



ACN 008 287 223
ABN 80 752 110 403

BOX GUTTER & GUTTER SUMP DESIGN

DATE:

6 December 2017

40 FRANKLIN STREET
ADELAIDE 5000
SOUTH AUSTRALIA

SITE:

**4 Redwood Street
ROSTREVOR**

TELEPHONE:
(08) 8212 7966

CLIENT:

Paul Coscia

FAX:
(08) 8212 4911

REFERENCE NO:

170248

EMAIL:
engineering@leliobibbo.com.au

WEB:
www.leliobibbo.com.au

- From AS/NZS 3500 Plumbing and drainage
 - Select 100yr ARI $100 \frac{1}{5} = 180 \text{ mm/hr}$
 - Refer architectural drawings for roof dimensions and gutter layout.

- Dwellings 1 & 2 - Northern Box Gutter

$$A_c = 30 \text{ m}^2 \rightarrow \text{Adopt } A_c = 40 \text{ m}^2$$

$$Q \approx 2.1 \text{ l/s}$$

Nominated box gutter dimensions

300 wide x 150 deep \rightarrow consider satisfactory

Gutter Sump - with side overflow device

For $Q = 2.1 \text{ l/s}$ and $\phi 90$ downpipe

- Depth of sump (h_s) : Adopt 40mm

$t_{oc} = 20 \text{ mm min.}$

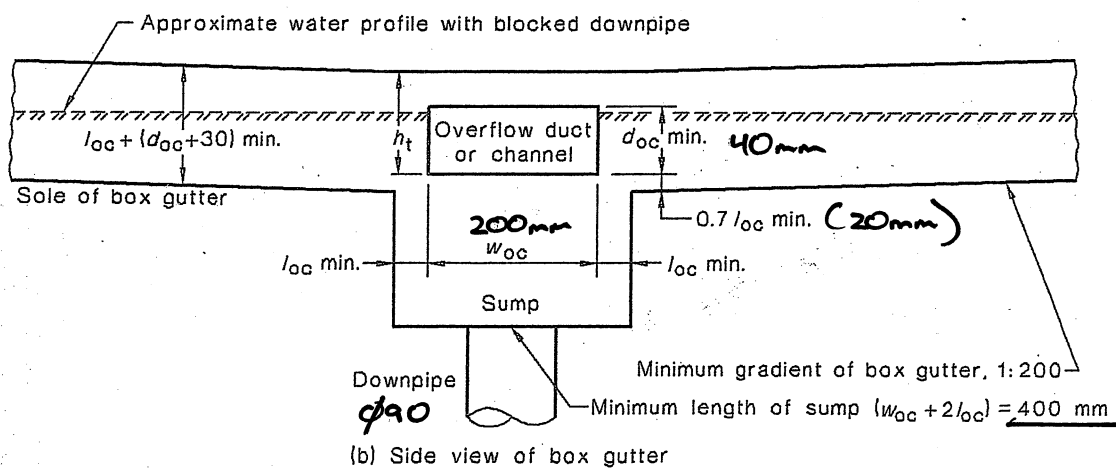
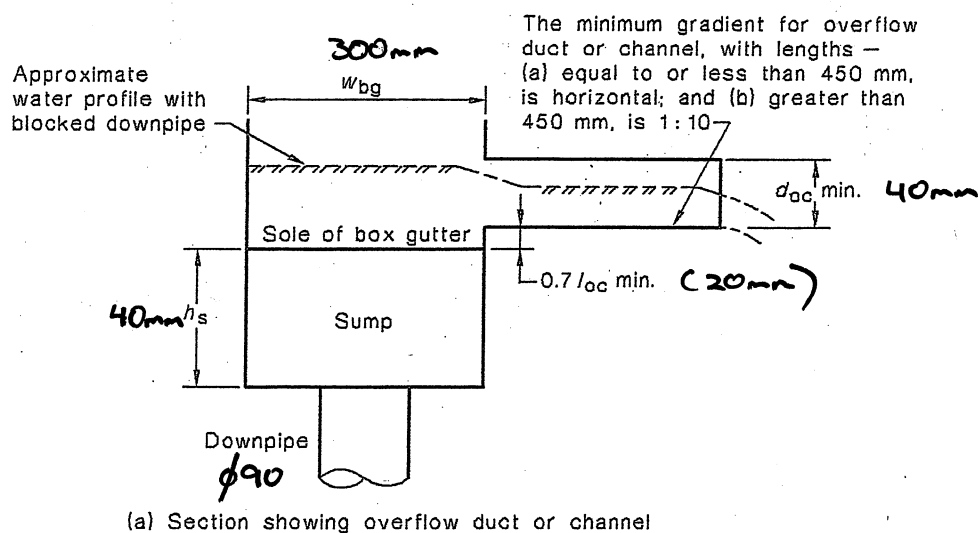
width of overflow channel (w_{oc}) : 200 mm

Minimum depth of overflow channel (d_{oc}) : 40mm

Adopt minimum length of sump = 400mm

Refer sketch SK1 & SK2 Fig (b)

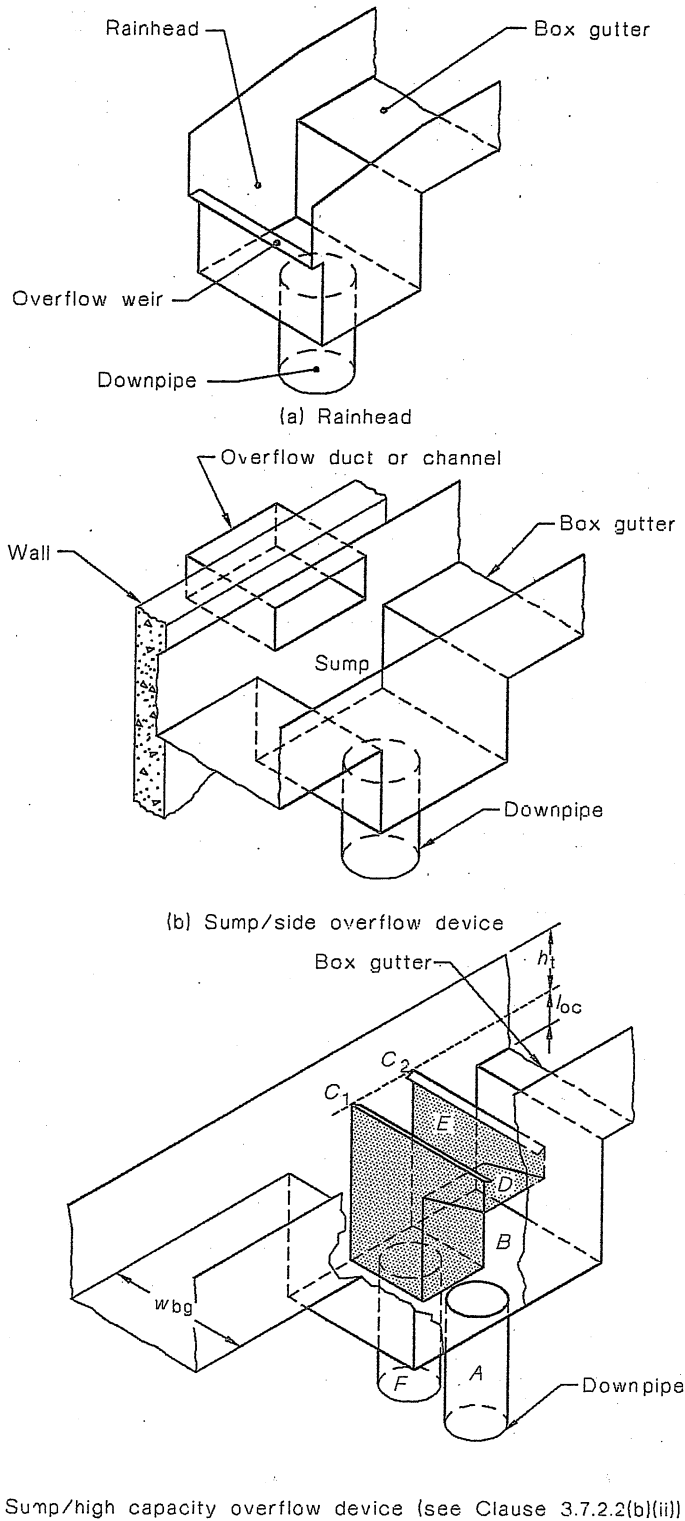
NOTE: Adopt same arrangement for all box gutters discharging to gutter sumps



NOTE: The sump and overflow channel to be fully sealed to the box gutter.

DIMENSIONS IN MILLIMETRES

FIGURE 15 SUMP/SIDE OVERFLOW DEVICE



NOTES:

- 1 Layout of sump/side overflow device may have to be varied due to constraints (see Figure 3.7(b)).
- 2 Where desired, the sides of the sump/high-capacity overflow device may be perforated to flush the downpipe (F) (see Figure 3.7(c)).
- 3 The normal outlet may be moved longitudinally to enable better inspection and maintenance access (see Clause 3.7.4 (f)) (see Figure 3.7 (c)).
- 4 For criteria for overflow devices see Clause 3.7.5.

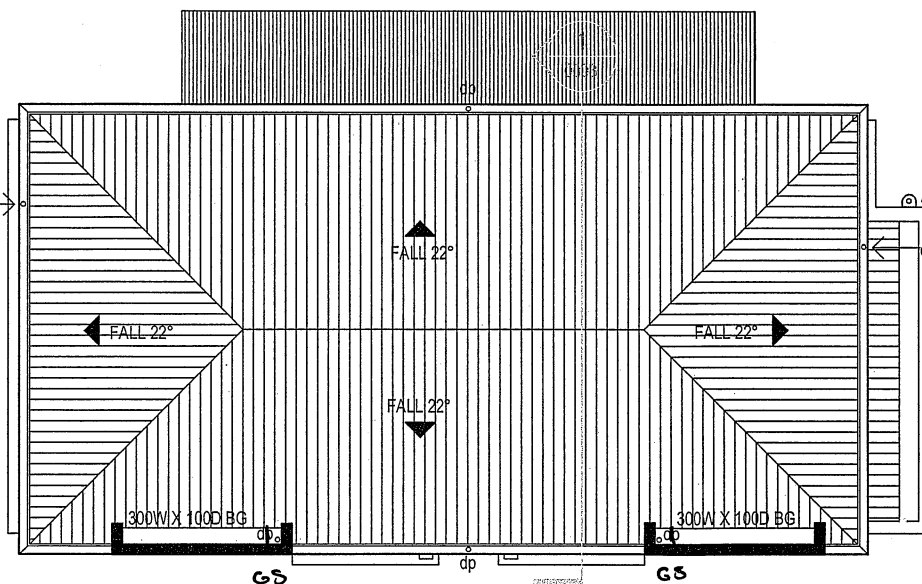
FIGURE 3.7 OVERFLOW DEVICES—BOX GUTTERS

COPYRIGHT

Sk2

dp + SPREADER TO
LOWER ROOF

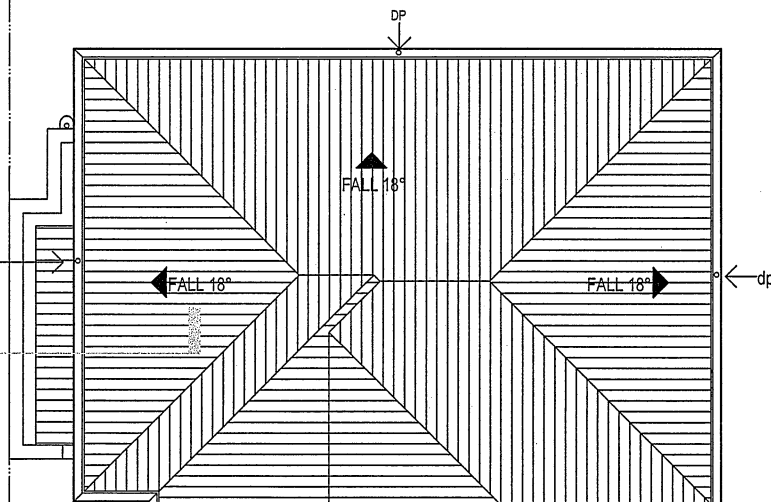
dp + SPREADER TO
LOWER ROOF



dp + SPREADER TO
LOWER ROOF

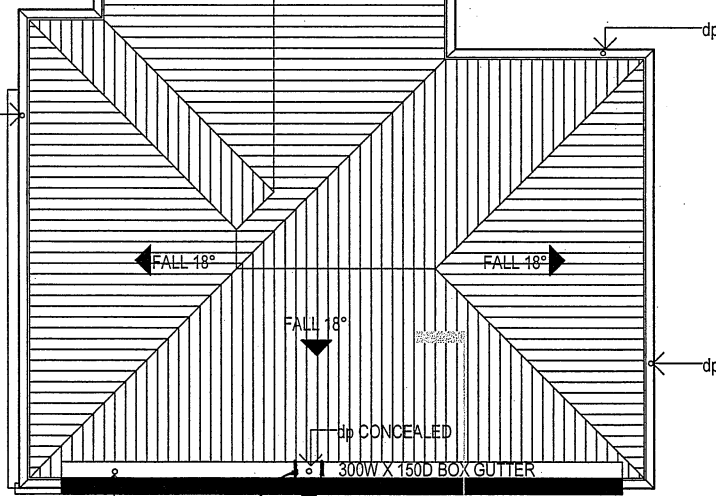
dp

2
0003



dp + SPREADER TO
LOWER ROOF

dp



GUTTER SUMP
REFER SK 1

3
0003

0-5° PITCH ROOF EXTENTS
PROPOSED ROOF DECKING
FIELDERS KINGKLIP 700 DE
& ASSOCIATED FLASHINGS
COLOURBOND 'MONUMENT'

18° & 22° PITCH ROOF EXTE
PROPOSED ROOF DECKING
CUSTOM ORB DECKING
& ASSOCIATED FLASHINGS
COLOURBOND 'MONUMENT'

90mm DIAMETER UPVC DOV
& ASSOCIATED SPREADERS
COLOUR: COLOURBOND SL
COLOUR: COLOURBOND SU

FASCIA GUTTER: 150 DIAM.
FASCIA GUTTER ON TIMBER
COLOURBOND 'MONUMENT'

ENSURE ADDITIONAL BOX C
AT 450CTRS FOR FULL EXTE

ENSURE DOMED LEAF GUAI
DOWNPIPE / SUMP LOCATIC

ENSURE SELECTED EAVES
GUTTERS FRONT FACE
IS 20MM LOWER THEN BACK
FACE TO ENSURE OVERFLO
CAPABILITIES WITH CONTRI
BACK GAP.