GABLE END RACKING VERGE
OVERHANG OPTIONS

- Covers raking verge using standard purlin overhang options.
- Covers up to 750mm overhang using standard verge outriggers.
- Covers up to 1200mm overhang using verge outrigger/purlin combination.
OVERHANG OPTIONS

→ All gable end loading parameters are based on the edge considerations used in NZS 3604:2011 and cover heavy roof weight, extra high wind load and snow load $S_g$ of up to 1.0kPa.

→ All live load considerations as per AS/NZS 1170.

→ All timber to be minimum grade SG8 as defined in NZS 3604:2011.

CANTILEVER PURLIN OPTION

![Diagram of cantilever purlin option]

TABLE 1

<table>
<thead>
<tr>
<th>Purlin Size &amp; Orientation</th>
<th>Max. Cantilever length (mm)</th>
<th>Purlin Centres (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>45x45</td>
<td>200</td>
<td>400</td>
</tr>
<tr>
<td>70x45</td>
<td>300</td>
<td>900</td>
</tr>
<tr>
<td>90x45</td>
<td>450</td>
<td>900</td>
</tr>
</tbody>
</table>

CANTILEVER OUTRIGGER OPTION

(NOTE: MAXIMUM SIDEWALL OVERHANG OF 750MM - SEE DETAILS ON NEXT PAGE)

TABLE 2

<table>
<thead>
<tr>
<th>Purlin Size &amp; Orientation</th>
<th>Max. Cantilever length (mm)</th>
<th>Purlin Centres (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>45x45</td>
<td>750</td>
<td>600</td>
</tr>
<tr>
<td></td>
<td>600</td>
<td>900</td>
</tr>
<tr>
<td>70x45</td>
<td>750</td>
<td>900</td>
</tr>
<tr>
<td></td>
<td>600</td>
<td>1200</td>
</tr>
<tr>
<td>90x45</td>
<td>750</td>
<td>400</td>
</tr>
<tr>
<td></td>
<td>600</td>
<td>600</td>
</tr>
</tbody>
</table>

CANTILEVER OUTRIGGER/PURLIN COMBINATION OPTION

(NOTE: MAXIMUM SIDEWALL OVERHANG OF 1200MM - SEE DETAILS ON LAST PAGE)

TABLE 3

<table>
<thead>
<tr>
<th>Purlin Size &amp; Orientation</th>
<th>Max. Cantilever length (mm)</th>
<th>Purlin Centres (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>45x45 Purlin, 90x45 Outrigger</td>
<td>1200</td>
<td>450</td>
</tr>
<tr>
<td>70x45 Purlin, 90x45 Outrigger</td>
<td>1200</td>
<td>700</td>
</tr>
<tr>
<td>90x45 Purlin, 90x45 Outrigger</td>
<td>1200</td>
<td>900</td>
</tr>
</tbody>
</table>
CONSTRUCTION DETAILS FOR CANTILEVER OUTRIGGER OPTION  
(SPANS & CENTRES AS PER TABLE 2)

Intermediate block to support purlin where purlin/batten required within overhang section.

Fix each end with 3/90mm nails

90x45 back block fixed to truss/rafter overhang and fly rafter with 1/ LUMBERLOK CPC80 fixed with 4/ 14g screws per flange each end

Max. overhang 750mm

Outrigger always located over outside wall top plate

CROSS SECTION

Top dropped gable end truss/rafter

LUMBERLOK CT200 fully nailed with 30 x 3.15mm or Wire Dog fixing plus 2/ 90mm skew driven nails

Standard purlins

Top dropped gable end truss/rafter

3/90mm nails (typical)

Standard trusses/rafters

Outrigger number 4

Dwang to support purlin. Same depth as outrigger

Top drop on gable end same depth as outrigger

Fly rafter min. 90x45

Cantilever length max. 750mm

Dwang to support purlins

Outrigger

Minimum 900mm spacing

CPC80 to outrigger

LUMBERLOK CT200

Fix first fly rafter at each outrigger with 3/90mm nails up to outrigger number 4. Fix outer fly rafter to first fly rafter with 90mm nails @ 150mm crs. staggered

Outrigger always located over outside wall top plate

Purlin outline

3/ 90mm nails

LUMBERLOK Multigrip fully nailed with 30 x 3.15mm nails

LUMBERLOK CT200

CPC80

Standard trusses/rafters

Intermediate block to support purlin where purlin/batten required within overhang section. Fix each end with 3/ 90mm nails

LAYOUT

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CONSTRUCTION DETAILS FOR CANTILEVER OUTRIGGER/PURLIN OPTION
(SPANS & CENTRES AS PER TABLE 3)

Fix first fly rafter at each purlin/outrigger with 4/ 90mm nails up to purlin number 4. Fix outer fly rafter to first fly rafter with 90mm nails @ 150mm crs. staggered

Double standard rafter/truss
or special design

Min. 2/ 90mm nails to rafter/truss plus LUMBERLOK Joist Hanger JH47x90 fully nailed with 30 x 3.15mm

LUMBERLOK CT200 both sides fully nailed with 30 x 3.15mm plus 2/ 90mm skew driven nails

Purlin directly over outrigger. Fix with 90mm nails @ 50mm crs. LUMBERLOK Joist Hanger JH47x90 fully nailed with 30 x 3.15mm

Fly rafter to be at least same size as outrigger combinations ie. minimum 140x45

Minimum dimension
1.5 times the cantilever length

Top dropped gable end truss/rafter

Note: Ceiling Joists as per NZS 3604:2011

Fix purlins to outrigger with 90mm nails @ 50mm crs.

Outrigger lined up directly below each purlin. See Table 3 for size and orientation

First outrigger combination to be directly over end wall

Packer @1000mm crs.

LUMBERLOK Strap Nail each side

90x45 dwang

LUMBERLOK CPC80 fixed with 4/ 14g screws per flange to back block and truss rafters and fly rafter

Cantilever length 760mm to max. 1200mm

90x45 outrigger