

# BUILDING CONTROL

- **Commencement Notice**
  - Is it required? – A3 Handout
  - If required...
    - Layouts - road & drainage long sections -crossfalls
    - Construction Drgs & Spec
    - Provisional BER – Realistic
    - Relevant “Acceptable Construction Details”
    - Opt Out – 1 Unit - 1 Site – 1 PP – Owner-only
    - Opt In – Inspection Schedule
  - Start within the 28 days

# BUILDING CONTROL INSPECTIONS

- Anything - Extensions, Material Alterations & Material Change of Use.
- We will only communicate with the **Owner** through the **BCMS** and **Registered Mail**
- Typical (not common) issues...

# FORMATIONS & FOUNDATIONS

- Generally good glacially consolidated marl
- Caution for land adjoining small streams
- Frost damage to strip foundations



# RIISING WALLS



Service openings adequately supported



Mortar bonding

# HARDCORE

Certified T2



Interconnecting Pipework  
Gaps in Internal Walls



# RADON BARRIER



Taped

# WALL TIES



Every course at Opes

# PRE-CAST CONCRETE LINTELS

## DESIGN AND LOAD ASSUMPTION

### Timber floor loads:

This design method is suitable for domestic dwellings with timber floors up to three storeys high.

Lintels supporting concrete floors are not covered by this guidance.

In drawing up these design tables the following assumptions have been made:

	Timber floor loads without partition	Timber floor loads with partition
Self weight of floor	0.30 kN/m <sup>2</sup>	0.30 kN/m <sup>2</sup>
Imposed load	1.50 kN/m <sup>2</sup>	2.50 kN/m <sup>2</sup>
Total floor load	1.80 kN/m <sup>2</sup>	2.80 kN/m <sup>2</sup>

The applied load in Table 1 below has been derived by multiplying the total floor load by half the floor span, e.g. The applied floor load for a span of 6m is:

(6 m÷2) x 1.8 kN/m<sup>2</sup> = 5.4 kN/m (without partition)  
or  
(6 m÷2) x 2.8 kN/m<sup>2</sup> = 8.4 kN/m (with partition)

*6m x 8.4kN/m*

Span of floor	Load on lintel kN/m without partition	Load on lintel kN/m with partition
2 m	1.8	2.8
3 m	2.7	4.2
4 m	3.6	5.6
5 m	4.5	7.0
6 m	5.4	8.4

### Pitched roof loads

This design method is suitable for domestic roofs of simple plan form up to three storeys in height.

### Roof construction

Modern roof construction with timber trusses spreads all the roof load to the outside supporting walls. Table 2 has been prepared for this arrangement.

In traditional or cut roof construction some of the load is spread through purlins and struts onto the internal walls. Where this occurs the loads given in Table 2 may be reduced by one third to allow for this. Where there are no purlins no reduction can be made.

In assessing dead and imposed loads in roof construction the following assumptions were made:

**Dead load on slope:**  
Self weight-concrete tile roof: 0.68 kN/m<sup>2</sup>  
Self weight-fibre cement slate roof: 0.25 kN/m<sup>2</sup>

**Dead load on plan:**  
Ceiling ties 0.25 kN/m<sup>2</sup>

**Imposed load on plan:**  
Roof pitch 0° to 30° 0.75 kN/m<sup>2</sup>  
Roof pitch 30° to 45° 0.75 to 0.0 kN/m<sup>2</sup>

The increase in dead load of the roof with increasing pitch is sufficiently balanced by the decreasing imposed load to allow the roof loads to be simplified to 2.0 kN/m<sup>2</sup> for concrete tiled roofs and 1.6 kN/m<sup>2</sup> for fibre cement slated roofs up to 45° pitch.

### Note:

The applied load in Table 2 has been derived by multiplying the appropriate roof load by half the span, e.g. where a roof with a 20° pitch and concrete tile finish spans 8 m, the applied load on the lintel is 2.0 kN/m<sup>2</sup> x 4 m (half roof span) = 8 kN/m (as per Table 2 below).

*6m x 8.4kN/m*

Roof span on plan	Concrete tiles	Fibre cement slates
3 m	3.0	2.4
4 m	4.0	3.2
5 m	5.0	4.0
6 m	6.0	4.8
7 m	7.0	5.6
8 m	8.0	6.4
9 m	9.0	7.2

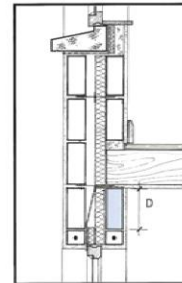
## COMPOSITE LINTELS OF MASONRY IN CAVITY WALLS

Table 3

Composite depth (D) in mm of 100 mm thick block or brick masonry												
Clear span of lintel in metres	Applied load on lintel from Table 1 and/or 2 (kN/m)											
	1	2	3	4	5	6	7	8	9	10	11	12
0.5	75	75	75	75	75	75	75	75	75	150	150	150
1.0	75	75	75	150	150	150	225	225	225	300	300	300
1.5	75	75	75	150	225	225	300	300	375	375	450	450
2.0	150	150	225	225	300	375	375	450	-	-	-	-
2.5	150	150	300	300	375	450	-	-	-	-	-	-

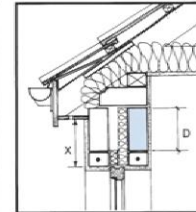
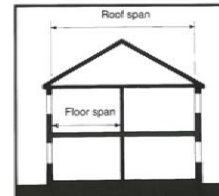
### Note:

- Only solid concrete blocks or bricks may be used in the area of composite action.
- Joists, joist hangers, dpc's or flashings must not be built into the zone of composite action of the lintel.



Ground floor window head

Use Table 1 to calculate applied floor load on lintel and Table 3 to calculate depth of composite blockwork D.



First floor window head

Use Table 2 to calculate applied roof load on lintel and Table 3 to calculate depth of composite blockwork D.

**Note:** The solid block cavity closer may be included in the composite depth D.

**Note:** In exposed conditions or if dimension X exceeds 1 m, use a stepped dpc in this location. Such dpc to be used in all brickwork construction.

**Example:** Calculate the depth of composite blockwork at (1) ground floor window head and (2) first floor window head, for a dwelling with a roof span of 8 m, concrete tile roof finish, 30° roof pitch, floor span 4 m without partition cavity wall construction and lintels with a maximum clear span of 2 m

- Ground floor window head: floor span 4 m. So, from Table 1:  
Applied floor load on lintel = 3.6 kN/m;  $\rightarrow$  Table 3  
Lintel span 2 m. So, from Table 3 composite depth (D) = 225 mm.
- First floor window head: roof span 8 m, roof pitch 30°, concrete tile roof finish: So, from Table 2:  
Applied roof load on lintel = 8.0 kN/m  $\rightarrow$  Table 3  
Lintel span 2 m. So, from Table 3, composite depth (D) = 450 mm.  $\rightarrow$  Table 3

# PRE-CAST CONCRETE LINTELS



Not an “Intended Use”

# FIRST FLOOR JOISTS



Packed onto Party Wall & Services

# STEEL BEAMS

Padstones  
Lateral Support

Fire Protection



# WALL STRAPS



Spacing

# FIRE

Wire reinforced at Eaves



Smoke alarms in Bedrooms



Hinges at Windows

# COMPLETION CERTS

- Certificates of Compliance on Completion
  - Will not be Validated
    - Outstanding issues
    - Statement that “built in accordance..”
    - Inspection Plan as Completed
    - Final BER Cert for Public Buildings incl Social Hsing
    - Ancillary Certs – specialist - electrics, plumbing, design, roofing, windows, radon
    - Declaration of Performance for materials
    - Taking in Charge information uploaded to BCMS