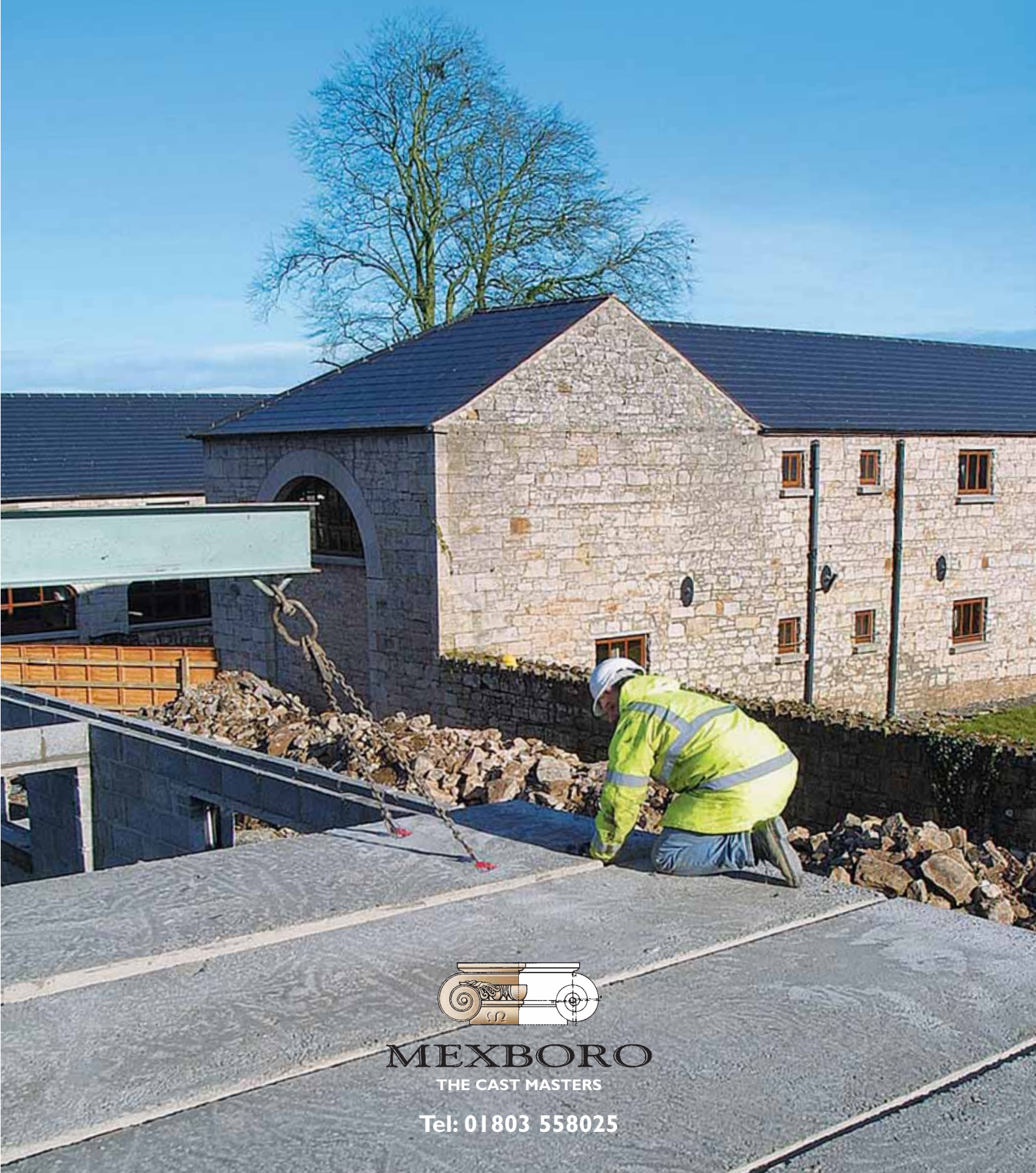


**MEXBORO CONCRETE LIMITED**

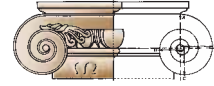
# PLANK FLOORING

*'Manufacturers of Architectural & Structural Concrete'*



**MEXBORO**  
THE CAST MASTERS

Tel: 01803 558025



## MEXBORO

THE CAST MASTERS

For over thirty years Mexboro has specialized in the manufacture of structural precast concrete and high quality architectural cast stone and it is now one of the largest precast specialists in the South West of England.

Our portfolio of products spans the building industry from quality architectural stonework to precision structural concrete and from individually designed one-off units to an extensive range of standard lines.

Mexboro is proud to have been associated with the supply of precast concrete products to numerous prestigious developments including projects for English Heritage, The National Trust, P.S.A. and the Ministry of Defence.

### Benefits of utilising Mexboro Plank Floors

**Speed of installation** - irrelevant of most weather conditions creates savings in labour costs.

**Early working Platforms** - when planks are laid and grouted, the floor can be used as an immediate working platform.

**Savings in Foundations** - Internal partition walls can often be carried by the planks.

**No Props** - Precast Plank floors have excellent span load capabilities and rarely require propping.

**Site services** - being precast within our factory, service voids can be incorporated within the slab and therefore avoid the labour intensive and costly shuttering on site.

**Accurate costings** - can be made from the design stage.

**Fire Resistance** - Standard Mexboro Planks have a fire resistance of 1 hour minimum. The application of various finishes may increase this figure.

**Sound Resistance** - Mexboro Plank floors offer excellent resistance to the passage of sound whether impact or airborne. (See further details enclosed.)



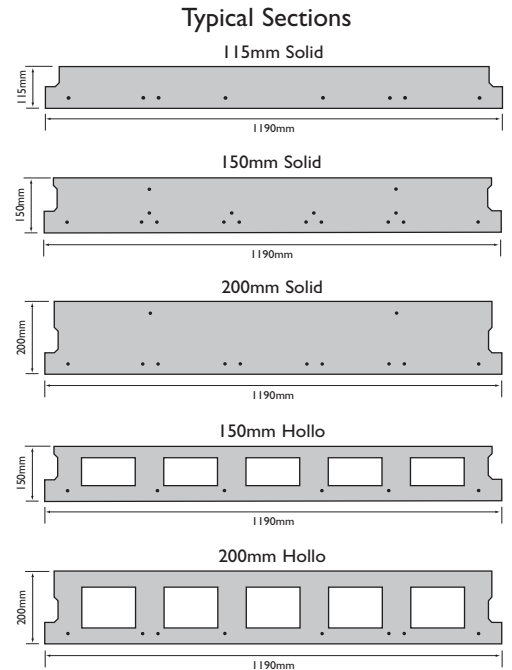
**Design**

Mexboro Plank Floors have been designed in accordance with the following British Standards:

- BS8100:1:1997 - Structural use of Concrete: Code of practice for design and construction.
- BS8110:2:1985 - Structural use of Concrete: Code of practice for special circumstances.
- BS5896:1980 - Specification for high tensile steel wire and strand for the pre-stressing of concrete.

Mexboro pre-stressed units are designed as class 2 to BS8110.

Furthermore, Planks are checked for compliance on each specific job undertaken and the utilisation of autocad software for the design/detailing ensures excellent accuracy.



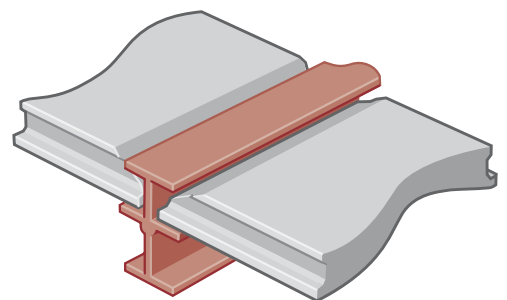
**Quality Control**

Mexboro precast floors are manufactured in an internal factory environment under controlled conditions ensuring an excellent uniformity of finish. The computer controlled weigh batch and mixing facility provides for a consistent quality of concrete. Mexboro operates its own NAMAS calibrated testing equipment and cubes are cured and crushed to ensure the concrete is at the desired strength. Dimensional checks are carried out, both at the time of setting out the pre-stressed casting beds and upon marking up and storage in our yard, prior to transportation.

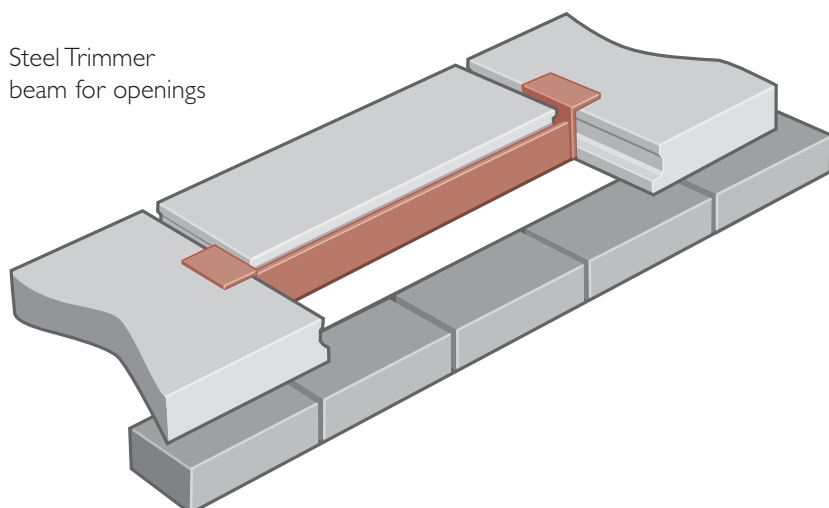


**Bearings (See Illustrations below)**

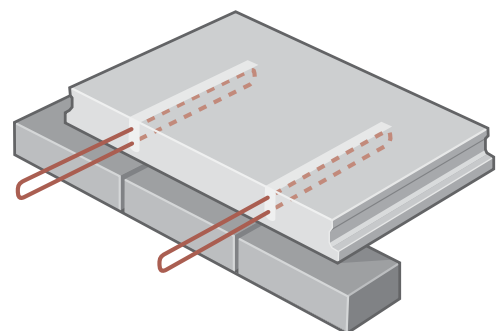
The recommendations regarding bearings can be found in clause 5.2,3 of BS8110:1:1997. In general minimum bearings of 100mm on masonry and 75mm on steelwork are recommended. Mexboro Plank floors can be manufactured to accommodate various different end details for example, the inclusion of continuity reinforcement through notching. Tapering of ends for seating on reduced depth shelf angles or, the inclusion of steel trimmer beams where an opening is required. Trimmer beams are mild steel and due allowance should be made by the contractor for protection.



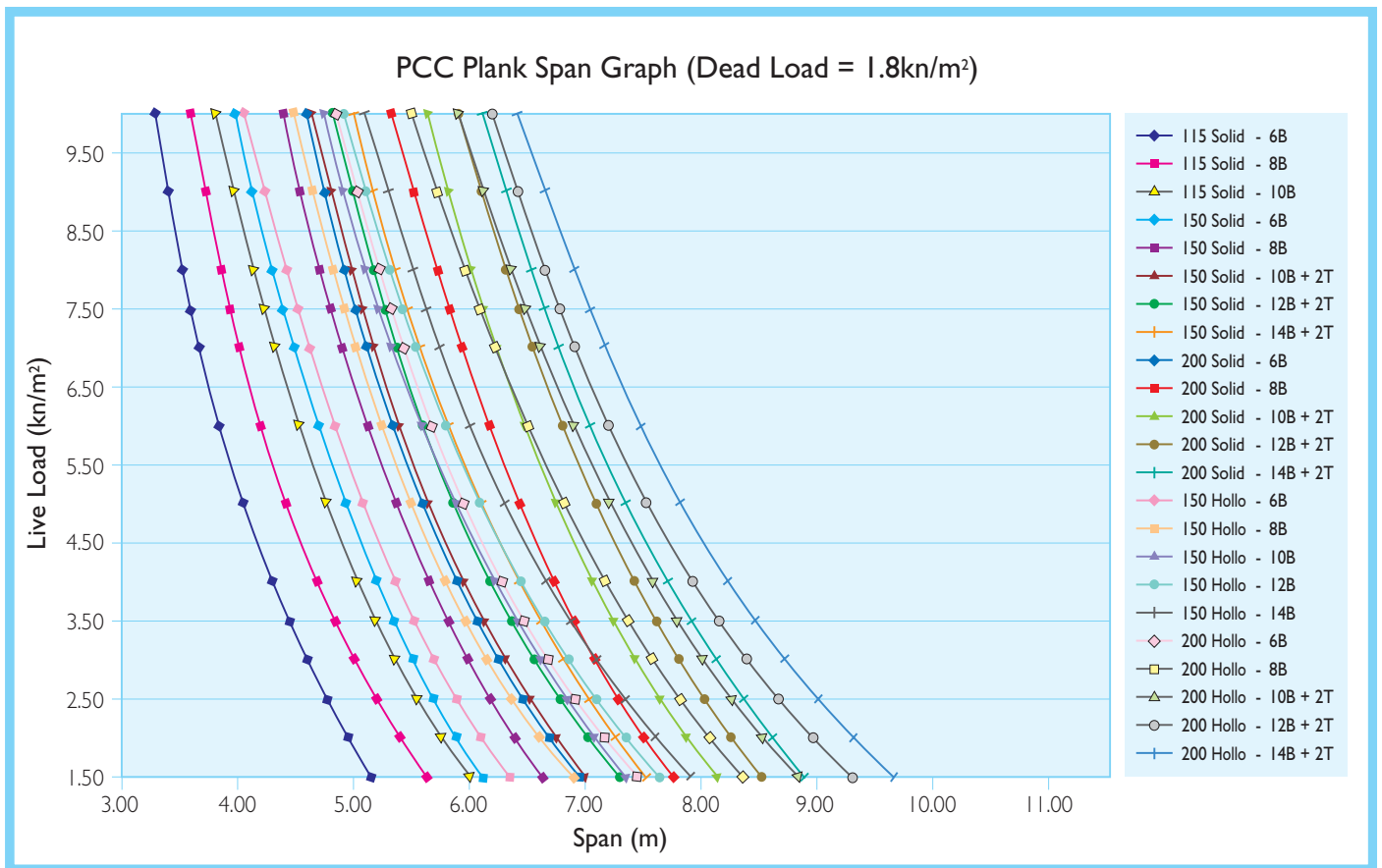
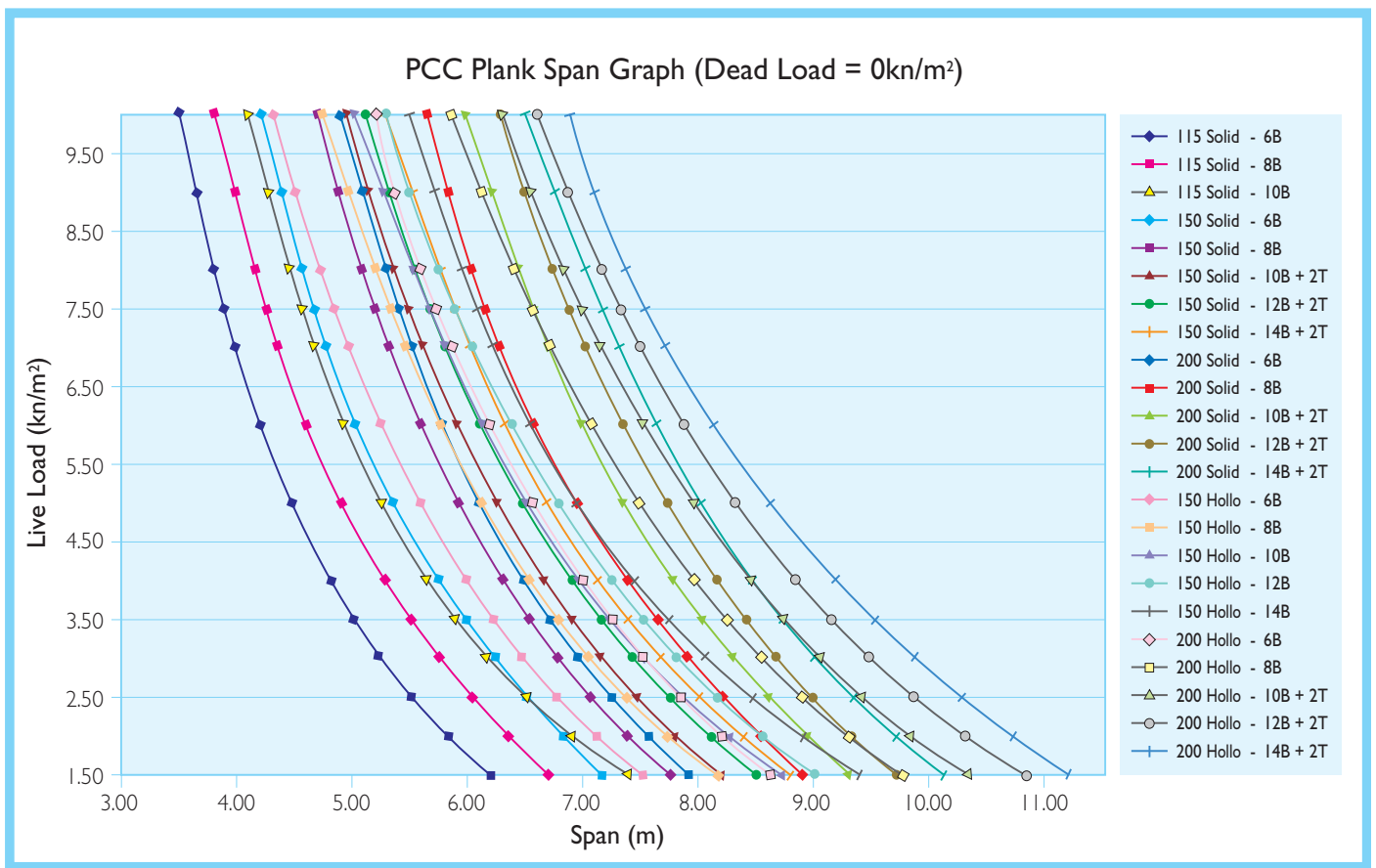
Tapering ends for shelf angles



Steel Trimmer beam for openings



Continuity notches for longitudinal ties

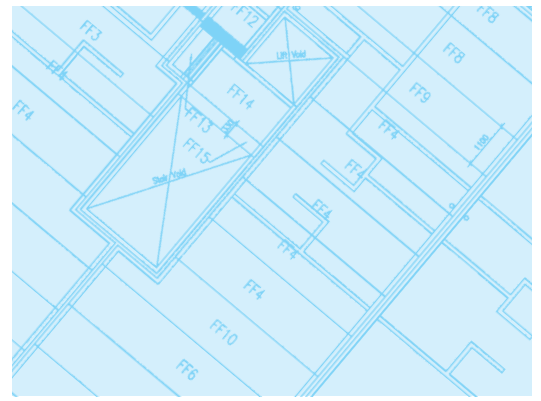


Graphs show maximum clear spans for indicated live loads.

The planks have been designed in accordance with the following British Standards:

1. BS 8110:1:1997      Structural Use of Concrete: Code of practice for design and construction.
2. BS 8110:2:1985      Structural Use of Concrete: Code of practice for special circumstances.
3. BS 5896:1980      Specification for high tensile steel wire and strand for the pre-stressing of concrete.

	I15 SOLID - 6B		I15 SOLID - 8B		I15 SOLID - 10B	
	Self Weight Only	75mm Concrete	Self Weight Only	75mm Concrete	Self Weight Only	75mm Concrete
1.50	6.19	5.16	6.73	5.62	7.20	6.01
2.00	5.84	4.95	6.36	5.39	6.80	5.77
2.50	5.55	4.77	6.04	5.19	6.46	5.55
3.00	5.30	4.60	5.77	5.01	6.17	5.36
3.50	5.07	4.45	5.52	4.85	5.91	5.19
4.00	4.88	4.32	5.31	4.70	5.68	5.03
5.00	4.54	4.08	4.95	4.44	5.29	4.75
6.00	4.27	3.87	4.65	4.22	4.97	4.52
7.00	4.04	3.70	4.40	4.03	4.70	4.31
7.50	3.93	3.62	4.28	3.94	4.58	4.22
8.00	3.84	3.54	4.18	3.86	4.47	4.13
9.00	3.66	3.40	3.99	3.71	4.27	3.97
10.00	3.51	3.28	3.83	3.58	4.10	3.83



	150 SOLID - 6B		150 SOLID - 8B		150 SOLID - 10B + 2T		150 SOLID - 12B + 2T		150 SOLID - 14B + 2T	
	Self Weight Only	75mm Concrete	Self Weight Only	75mm Concrete	Self Weight Only	75mm Concrete	Self Weight Only	75mm Concrete	Self Weight Only	75mm Concrete
1.50	7.15	6.11	7.76	6.64	8.18	7.00	8.50	7.27	8.80	7.53
2.00	6.81	5.90	7.39	6.40	7.79	6.75	8.10	7.02	8.39	7.26
2.50	6.52	5.70	7.07	6.19	7.46	6.53	7.75	6.79	8.02	7.02
3.00	6.24	5.52	6.79	6.00	7.16	6.32	7.44	6.57	7.70	6.81
3.50	6.00	5.36	6.54	5.82	6.89	6.14	7.17	6.38	7.42	6.61
4.00	5.78	5.21	6.31	5.66	6.66	5.97	6.92	6.21	7.16	6.42
5.00	5.40	4.93	5.92	5.37	6.25	5.67	6.50	5.89	6.72	6.10
6.00	5.09	4.69	5.60	5.12	5.90	5.40	6.14	5.62	6.35	5.82
7.00	4.82	4.48	5.32	4.91	5.61	5.18	5.83	5.38	6.04	5.57
7.50	4.70	4.38	5.20	4.81	5.48	5.07	5.70	5.27	5.90	5.46
8.00	4.59	4.29	5.08	4.72	5.36	4.97	5.57	5.17	5.77	5.35
9.00	4.40	4.13	4.87	4.54	5.13	4.79	5.34	4.98	5.53	5.16
10.00	4.22	3.98	4.68	4.39	4.94	4.63	5.13	4.81	5.31	4.99

	200 SOLID - 6B		200 SOLID - 8B		200 SOLID - 10B + 2T		200 SOLID - 12B + 2T		200 SOLID - 14B + 2T	
	Self Weight Only	75mm Concrete	Self Weight Only	75mm Concrete	Self Weight Only	75mm Concrete	Self Weight Only	75mm Concrete	Self Weight Only	75mm Concrete
1.50	7.87	6.94	8.85	7.77	9.28	8.15	9.70	8.52	10.10	8.87
2.00	7.54	6.70	8.50	7.53	8.92	7.90	9.33	8.26	9.71	8.60
2.50	7.24	6.49	8.20	7.31	8.60	7.67	8.99	8.03	9.36	8.35
3.00	6.97	6.30	7.92	7.11	8.31	7.47	8.69	7.81	9.04	8.12
3.50	6.74	6.12	7.67	6.93	8.05	7.27	8.42	7.61	8.76	7.91
4.00	6.52	5.95	7.44	6.76	7.81	7.09	8.17	7.42	8.50	7.72
5.00	6.14	5.66	7.04	6.45	7.39	6.77	7.73	7.08	8.04	7.37
6.00	5.83	5.41	6.68	6.18	7.03	6.49	7.35	6.79	7.65	7.06
7.00	5.55	5.19	6.37	5.95	6.71	6.24	7.02	6.53	7.30	6.79
7.50	5.43	5.09	6.23	5.83	6.57	6.12	6.87	6.41	7.15	6.67
8.00	5.31	4.99	6.09	5.72	6.44	6.02	6.73	6.29	7.01	6.55
9.00	5.10	4.81	5.85	5.52	6.19	5.81	6.48	6.08	6.74	6.33
10.00	4.91	4.65	5.64	5.34	5.97	5.63	6.25	5.89	6.50	6.13

	150 HOLLO - 6B		150 HOLLO - 8B		150 HOLLO - 10B		150 HOLLO - 12B		150 HOLLO - 14B	
	Self Weight Only	75mm Concrete	Self Weight Only	75mm Concrete	Self Weight Only	75mm Concrete	Self Weight Only	75mm Concrete	Self Weight Only	75mm Concrete
1.50	7.55	6.35	8.19	6.89	8.75	7.36	9.08	7.64	9.38	7.89
2.00	7.15	6.11	7.76	6.63	8.29	7.08	8.60	7.35	8.89	7.59
2.50	6.81	5.89	7.39	6.39	7.89	6.82	8.19	7.08	8.46	7.32
3.00	6.51	5.69	7.07	6.18	7.55	6.60	7.83	6.85	8.09	7.08
3.50	6.25	5.51	6.78	5.98	7.24	6.39	7.52	6.63	7.77	6.86
4.00	6.02	5.35	6.53	5.81	6.97	6.20	7.24	6.44	7.48	6.65
5.00	5.60	5.06	6.10	5.50	6.51	5.87	6.76	6.09	6.99	6.30
6.00	5.25	4.82	5.74	5.23	6.13	5.58	6.36	5.80	6.58	5.99
7.00	4.97	4.59	5.44	5.00	5.81	5.34	6.03	5.54	6.23	5.73
7.50	4.84	4.49	5.31	4.89	5.67	5.22	5.88	5.42	6.08	5.61
8.00	4.72	4.40	5.18	4.79	5.53	5.12	5.74	5.31	5.94	5.49
9.00	4.51	4.22	4.95	4.61	5.29	4.93	5.49	5.11	5.68	5.29
10.00	4.32	4.07	4.75	4.45	5.08	4.75	5.27	4.93	5.45	5.10

	200 HOLLO - 6B		200 HOLLO - 8B		200 HOLLO - 10B + 2T		200 HOLLO - 12B + 2T		200 HOLLO - 14B + 2T	
	Self Weight Only	75mm Concrete	Self Weight Only	75mm Concrete	Self Weight Only	75mm Concrete	Self Weight Only	75mm Concrete	Self Weight Only	75mm Concrete
1.50	8.65	7.46	9.76	8.37	10.34	8.87	10.82	9.28	11.25	9.65
2.00	8.21	7.17	9.31	8.08	9.86	8.56	10.32	8.96	10.73	9.32
2.50	7.84	6.92	8.91	7.82	9.45	8.29	9.88	8.67	10.28	9.02
3.00	7.51	6.68	8.56	7.58	9.08	8.03	9.50	8.40	9.87	8.74
3.50	7.21	6.47	8.25	7.36	8.75	7.80	9.15	8.16	9.52	8.49
4.00	6.95	6.28	7.97	7.16	8.45	7.59	8.84	7.94	9.19	8.25
5.00	6.50	5.95	7.47	6.80	7.94	7.21	8.30	7.54	8.64	7.84
6.00	6.13	5.66	7.04	6.49	7.51	6.88	7.85	7.20	8.17	7.49
7.00	5.82	5.40	6.68	6.21	7.14	6.59	7.47	6.90	7.77	7.17
7.50	5.68	5.29	6.52	6.08	6.97	6.46	7.30	6.76	7.59	7.03
8.00	5.55	5.18	6.37	5.95	6.82	6.34	7.13	6.63	7.42	6.90
9.00	5.31	4.99	6.09	5.73	6.54	6.11	6.84	6.39	7.11	6.65
10.00	5.10	4.81	5.85	5.53	6.29	5.90	6.58	6.18	6.84	6.42

The tables are based on service class 2 (serviceability classification). Minimum bearing lengths are as follows: 1) Masonry - 100mm 2) Steel - 75mm.



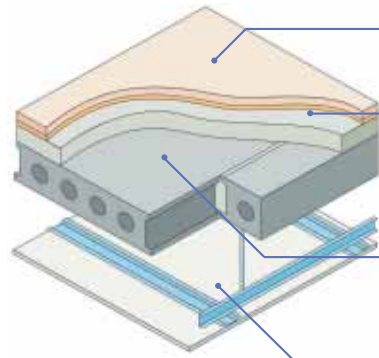
## Sound Resistance (See Illustrations below)

The following extracts E-FC-1, E-FC-3 and E-FC-4 issued by Robust Details Ltd show methods of floor construction and finish which, if constructed in accordance with their Handbook, may be used in completely new build attached dwellings as an alternative means of complying with building regulations (England and Wales) Part E, Requirement E1. For further information regarding the Part E Robust Details scheme, please contact Robust Details Ltd at [www.robustdetails.com](http://www.robustdetails.com)

### Separating Floor - Concrete

#### E-FC-1

- Precast concrete plank ■
- Screed ■



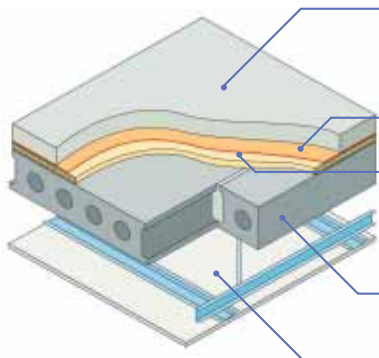
- Floating floor** - Please refer to the Robust Details Part E Handbook for details
- Screed** - 40mm (min) screed directly applied to plank  
- cement:sand or proprietary screed nominal 80 kg/m<sup>2</sup> mass per unit area
- Structural floor** - 150mm (min) precast concrete floor plank  
- 300 kg/m<sup>2</sup> (min) mass per unit area
- Ceiling** - Please refer to the Robust Details Part E Handbook for details

Sketch shows FFT5 type floating floor treatment and CT1 type ceiling treatment

### Separating Floor - Concrete

#### E-FC-3

- Precast concrete plank ■
- Screed laid on resilient layers ■

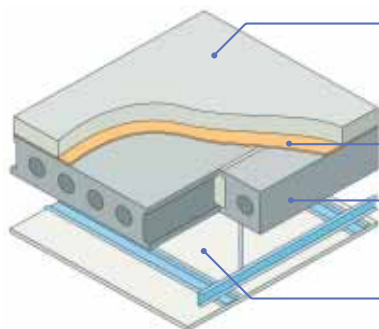


- Screed** 65mm (min) sand cement screed or 40mm proprietary screed, nominal 80 kg/m<sup>2</sup> mass per unit area
- Resilient layer (1)** 5mm foamed polyethylene layer 30-36 kg/m<sup>3</sup>
- Resilient layer (2)** 25mm mineral wool batt 140 kg/m<sup>3</sup> (min) or 25mm expanded (SD grade) or extruded polystyrene insulation board
- Structural floor** 150mm (min) precast concrete floor plank 300 kg/m<sup>2</sup> (min) mass per unit area
- Ceiling** Ceiling treatment is dependent on floor plank depth and supporting wall density. Please refer to the Robust Details Part E Handbook for details

### Separating Floor - Concrete

#### E-FC-4

- Precast concrete plank ■
- Screed laid on IsoRubber resilient layer ■

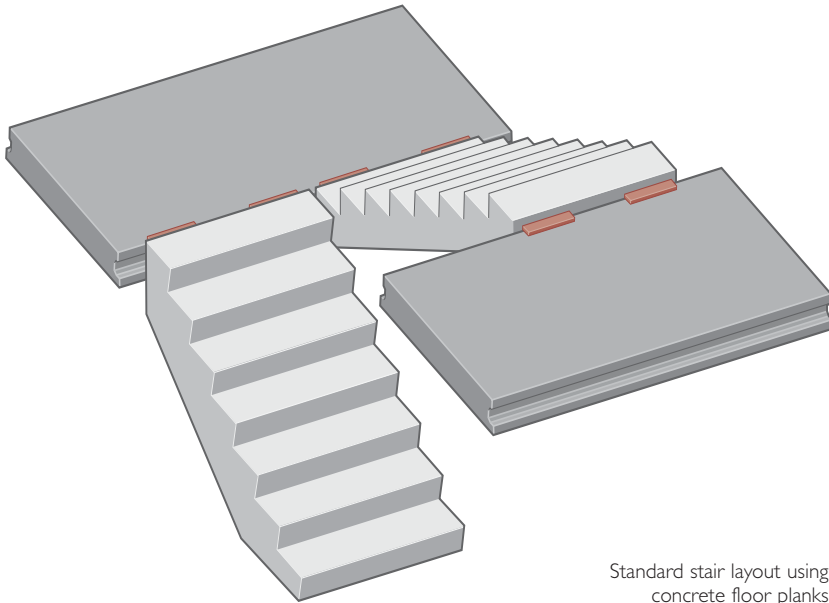


- Screed** 65mm (min) cement:sand screed or 40mm (min) proprietary screed of nominal 80 kg/m<sup>2</sup> mass per unit area
- Resilient layer** 6mm IsoRubber layer with IsoEdge flanking strip
- Structural floor** - 150mm (min) precast concrete floor plank  
- 300 kg/m<sup>2</sup> (min) mass per unit area
- Ceiling** Ceiling treatment is dependent on floor plank depth and supporting wall density. Please refer to the Robust Details Part E Handbook for details

Sketch shows CT0 type ceiling treatment

## Precast Stairflights

Mexboro Concrete has over 30 years experience in the production of high quality precast concrete staircase components and systems. The Company produces a standard range of stairflights which, when combined with solid plank or beam and block landings will cope with most situations. If, however, a bespoke stairflight is required then this will be easily catered for by our experienced mould making and casting department.

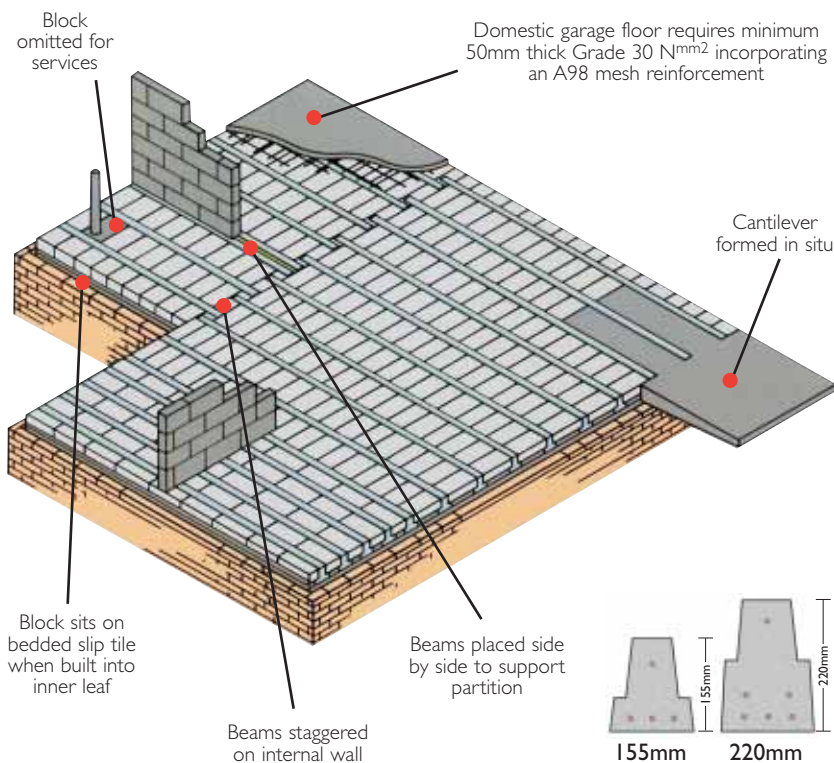


Standard stair layout using concrete floor planks

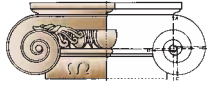


## Precast Beam & Block Floors

Mexboro can supply both a 155mm and 220mm Beam flooring system for use with infill blocks where appropriate. As with the wide slab planks, floor beams are designed in accordance with BS8110:1985 and are checked for compliance on each specific job undertaken.



For further information on any of the above - Please contact our sales office on 01803 558025 and ask for technical advice, request a brochure or visit our website [www.mexboroconcrete.co.uk](http://www.mexboroconcrete.co.uk)

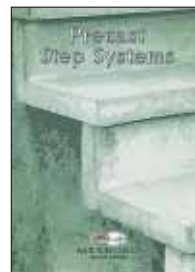


# MEXBORO

THE CAST MASTERS



Mexboro is a full member of the Concrete Society.



For further information or brochures on any of the above products please contact us or visit our website.

The Company's continual development of new products means that the information in this brochure is subject to change without prior notification. Colours shown are only for illustration due to the printing process involved.

## MEXBORO CONCRETE LIMITED

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