

FLOORSPAN CONTRACTS

TECHNICAL SPECIFICATION AND TERMS AND CONDITIONS FOR
THE SUPPLY ONLY AND SUPPLY AND INSTALLATION OF PRECAST BEAMS,
WIDESLAB PLANKS AND STAIRS.



GENERAL

1. This document details Floorspan Contracts Ltd. (Floorspans) assumptions expectations requirements and conditions applicable when submitting a quotation or tender for the supply only or supply and installation of precast concrete beams, planks and stairs and the acceptance of any order resulting therefrom. No client or contractor conditions of enquiry or order shall override these assumptions, expectations, requirements and conditions unless specifically agreed in writing.

This document is to be read in conjunction with the following documents issued by the Pre-cast Flooring Federation – copies attached:-

- a) Construction Design and Management Regulations 1994 Ref PFF/HS – CDMI January 1997.
- b) Standard Health Safety and Welfare Attendances required on Sub Contracts for the Supply and Fixing of Pre-cast Concrete Flooring and components. Ref PFF/HS – A3 April 2001.
- c) Manual Handling During the Safe Erection of Pre-cast Concrete Flooring Ref PFF/HS-MH2 April 1998.

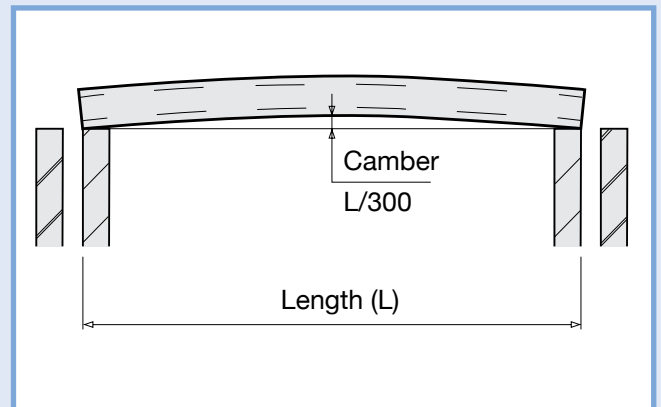
2. FLOORSPAN CONTRACTS PRE CAST COMPONENTS

- 2.1 Floorspan pre-cast planks and beams are wet cast in steel moulds using concrete with a strength of 40N/mm² at transfer and 60N/mm² at 28 days.

Customers are invited to inspect our products prior to placing an order to evaluate the level of finish etc. generally provided. No claim resulting from a failure to do so will be entertained.

- 2.2 Prestressed units have an inherent upward camber and some variation in thickness between adjacent units may occur as a consequence of the manufacturing process. Due allowance should be made in any finishes to cater for both particularly where a rigid insulation board or a floating timber floor is to be placed onto the top of the floor units. In these situations a levelling screed may need to be applied by the customer prior to the laying of the finish.
- 2.3 Differential camber between adjacent units should be within the tolerances set out in BS 8110, except for areas of floor where the adjacent spans of the units are of different lengths or where large holes are to be formed within the middle third of the unit.
- 2.4 Consideration must also be given to both floor and ceiling finishes where floor spans are perpendicular as steps will occur between units.

- 2.5 The camber of Floorspan units will generally comply with the recommendations of BS 8100 and are predicted to be approximately 1/300th of the span.



3.0 LOADINGS

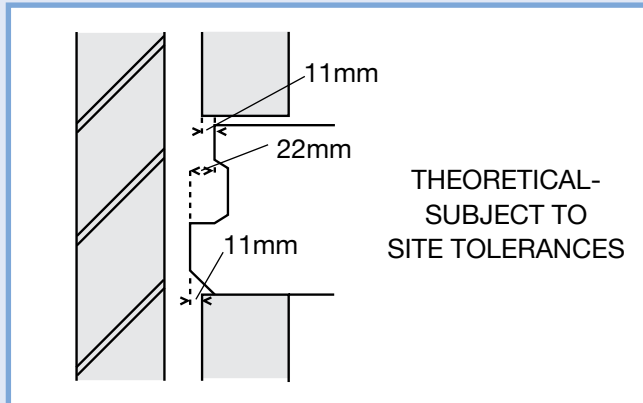
- 3.1 The floor unit layout drawings and calculations detail the loads for which the floor has been designed. Care should be taken to ensure that during construction and during the life of the building both the design loads are not exceeded and that additional holes are not introduced without the approval of Floorspan Contracts Ltd. No further partitions other than those shown on the drawings should be built off the floor units, again without prior consultation with Floorspan.

4.0 SITE DIMENSIONS

- 4.1 Our quotation is based upon drawings supplied. For supply only contracts it is the customers responsibility to check all drawings including our layout drawing and ensure that the sizes thereon are compatible with the physical dimensions of the structure as built on site.
- 4.2 For supply and fix contracts Floorspan Contracts will visit site and check physical measurements where possible. Where the structure is not built or it is not possible to check sizes on site the customer is to be responsible for confirming our drawings are compatible with the physical dimensions of the structure as built.

5.0 EDGE/KEY DETAIL - PLANKS

Floorspan planks are manufactured with a keying detail to the long sides as standard. Where planks are required to sit on a cavity wall parallel to the span it may be necessary for the plank to protrude into the cavity slightly and/or for a reduced bearing for the subsequent blockwork to be left. The contractor should satisfy himself as to the acceptability of this detail **before** delivery of the components. Floorspan Contracts will not be liable for costs associated with abortive or remedial works as a result of the customer failing to satisfy himself in this respect.



6.0 SAFETY AND WELFARE

6.1 Manual Handling Regulations

- 6.1.1 Floor planks should be lifted the right way up. When slung using chains or slings, these should be positioned no more than 500 mm from the ends, but having due regard for cut outs and other features that may affect slinging. Generally they should not be moved by forklift as this may result in cracking of the units.
- 6.1.2 It may be possible to move T beams of short to medium length with a forklift or similar. However, care must be taken when moving longer beams around site in this manner as cracking may occur. Due regard should be had for the requirements of the Manual Handling Regulations when planning the installation of floors and mechanical means of lifting and placing beams should always be a first consideration – see guidance notes attached.

6.2 Protection of personnel not engaged in the installation of the floor

The Work Area associated with the installation of the precast concrete units should be designated a prohibited area to all persons, other than those engaged in the installation. Precast concrete units should not be hoisted over areas where other persons are working.

6.3 Working at Heights

- 6.3.1 When working at heights, where there is a potential of falls, (e.g. upper floors and /or floors over basements), passive fall protection must be provided during installation of all precast concrete floors.
- 6.3.2 Protection can be achieved by using working platforms, staging, crash decks, safety nets or air bags, and the chosen measure should protect the whole of the upper-level work area.
- 6.3.3 Only in situations where Passive fall arrest is impractical should Active methods such as safety harnesses, lanyards and anchor points be considered.
- 6.3.4 **Scaffold and Edge Protection** Scaffolds and Working platforms should be positioned no more than 900mm below the bearing level of the precast concrete units by the customer.
- 6.3.5 **Stairwells** Passive fall protection must be provided by the customer in all stairwells whilst the precast floors are being installed. This passive fall protection should only be removed just prior to installing the stair units.

Handrails and edge protection to the stairs and stair openings must be erected by the customer immediately after the stair units have been placed and before the stairs are used as a safe means of access.

For multi-storey buildings, the customer must remove any obstructions and install Youngman's or scaffold boards over any openings in the stairwell to provide support for staging, crash decks or airbags, providing passive fall protection prior to installing the next floor level.

6.4 Welfare

- 6.4.1 All welfare facilities are to be provided by the main contractor by way of attendance at no cost to ourselves.

7. ACCESS AND HARDSTANDING

- 7.1 Delivery of floor planks will generally be on articulated vehicles unless specifically agreed otherwise in advance. Where our quotation is based upon artic vehicles and site constraints require rigid vehicles an extra cost may be charged.
- 7.2 Delivery of beams will generally, but not always, be on rigid vehicles. Where delivery has been provided for on artics an additional charge may be levied if site constraints require rigid vehicles.
- 7.3 The Customer shall provide and maintain hard roads, standing and stacking areas, entirely suitable for the operations and for the safe passage and working of personnel and plant including leveling if necessary. Maintenance of the same should take into account deterioration due to adverse weather, continued use, etc. The hardstanding for the crane must be maintained within the radius of the crane size specified in our quotation. Access roads and hardstanding shall be free from metal and sharp objects that are occasionally found in low grade, re-claimed hardcores. Any damage, including punctures, caused as a consequence of such items to our vehicles and plant will be charged for.
- 7.4 The Customer shall provide and maintain any access on to site off the public highway, entirely suitable for the safe passage of lorries and cranes. Should road signs, bollards, etc., or police permission be required in connection with such access, then the provision of, or application for them, as the case may be, shall be the responsibility of the Customer.
- 7.5 Where erection operations are to be carried out from the public highway, all road signs, traffic control and the like, and necessary permissions, shall be the responsibility of the Customer.
- 7.6 Where craneage or any other type of lifting appliance is to be provided by the Customer, it must be adequate for the purpose and Floorspan shall be afforded unrestricted use whenever required, including the use of a trained operator and signaler where applicable.
- 7.7 Where craneage is working the Customer must consider the work area to be a prohibited area and ensure that adequate precautions are taken to protect other trades and members of the public.

8. AERIAL OBSTRUCTIONS

- 8.1 The Customer shall be responsible for the re-routing, removal and/or making safe prior to the arrival on site of Floorspan of any aerial obstructions (including parts of the structure e.g. purlins, cross-bracing) which are likely to foul or hinder a crane boom or suspended load, and also for their subsequent replacement. He shall be responsible also for the protection of power lines or other services and, where applicable, the issue of notifications to third parties.
- 8.2 Where permission is required to operate within the air space of third parties, appropriate authority shall be obtained by the Customer.

9. INSTALLATION OF THE COMPONENTS

- 9.1 When designing bearings, considerations must be given to the standard methods of fixing precast concrete components, which may involve twisting or tilting, and the method of final alignment which includes barring.

Construction load forces may be more onerous than the final working conditions – all supports and bearings should be designed for robustness in order to accommodate these temporary installation forces.

- 9.2 Sufficient hardening time must be allowed for supporting load-bearing walls to achieve adequate strength.
- 9.3 Masonry bearings must be true to line and level and be robust enough to withstand the normal erection procedures – which can include barring, as well as the design loadings.
- 9.4 Where temporary props or other means of enhancement are required prior to placing the precast units, these are to be provided and installed by the Customer at no cost to Floorspan.
- 9.5 Where units bear onto fairfaced walls the Customer must provide protection to minimise the effects of spalling.
- 9.6 Lintels shall be designed to safely carry the precast floor units during the construction phase, and have adequate bearings. Where necessary (e.g. where there is insufficient masonry to counterbalance the floor loads during the construction phase,) temporary props should be provided by the Customer prior to installing the precast floors.
- 9.7 Hollowcore planks do not have transverse reinforcement, therefore to comply with BS 8110, additional bearings, (provided by others,) may be required to support the planks, where they are notched to fit around stanchions or other obstructions.

9.8 Where the floors units are supported on steelwork, consideration should be given to prevent unequal loading of the steel beams. Propping may be required (provided by the Customer) prior to the floor units being placed, to prevent twisting.

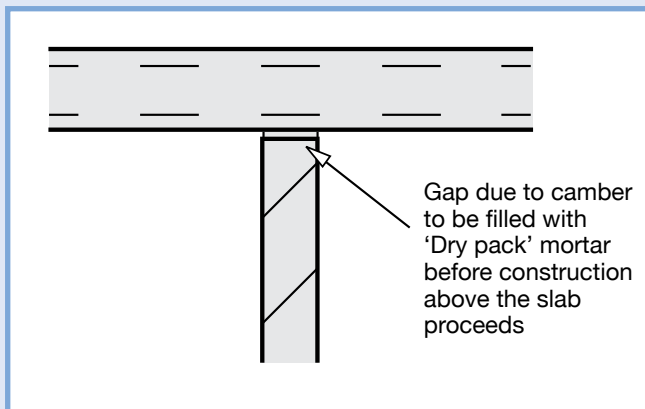
9.9 Steel beams on masonry must be properly fixed to the structure, prior to the floor units being installed.

9.10 To maximise the stability of cavity walls, the outer skin must be built up to within 225mm of the inner skin prior to placing the precast components.

The following clauses in this section refer to precast planks

9.11 If Floorspan's layout drawings indicate, or the specification requires, that units are to be bedded, the Main Contractor shall provide as an attendance, bricklayers and materials to undertake this work as the units are laid. otherwise units will be laid "dry" direct onto bearings as left by the customer/contractor.

9.12 Where prestressed planks cover a load bearing wall parallel to the span, the Customer shall provide a continuous mortar pack to take up the camber.



9.13 Where indicated on Floorspan's drawing or where deemed necessary on site, make up areas may be formed using insitu strips, prestressed "T" beams, concrete infill blocks, or reduced width units.

9.14 The layout drawings will indicate the theoretical size of the reduced width units and may be smaller than the theoretical size.

9.15 Final floor unit layout drawings will be based upon normal tolerances. Adjustment of the joint widths or insitu concrete make up may be required between floor units to complete the floor area; the erectors shall carry out this work.

9.16 Where make up areas occur, care should be taken to ensure that service holes are correctly positioned.

9.17 Floors supported on steel frameworks may require insitu concrete make up strips, by the Customer, adjacent to steel beams within the floor depth, and to service holes and column notches.

10.0 GROUTING

10.1 The purpose of grouting the floor is to provide an effective shear key for the transmittal of the loads between adjacent units.

10.2 Standard Hollowcore planks are manufactured with a profiled edge, which forms a permanent shutter for the grouting material. Any infill to the bottom of the joint or dubbing out of the soffit of the plank is not structural, and where required is to be carried out by the Customer.

10.3 The grouting material shall be either 20N/mm² concrete with a 20mm max. aggregate, or as specified by the Engineer. The floor units should be wetted prior to placing the grouting material, which should be compacted into the joints from the top.

10.4 Joints will not be filled with grout in situations where a structural topping is required. (E.g. composite floors).

11. INSPECTION OF FINISHED WORKS

11.1 The Contractor should ensure that our products and workmanship are to the satisfaction of all concerned whilst our men are on site. Liability will not be accepted for defects not notified to us within three days of erection.

11.2 In the event of any aspect of our work requiring alteration or correction Floorspan Contracts must be notified of these alterations/corrections in writing (within three days as above). Thereafter we will require up to seven days to arrange a return visit during which time the customer/contractor must not undertake any work in the area of the alteration/correction that will inhibit our own works.

11.3 In any event Floorspan will only be liable for the direct cost of the alteration/correction as it was at the time of installation and no responsibility is accepted for consequential costs, lost and expense by third parties.

12. SUPPLY ONLY CONTRACTS

In addition to the requirements of clauses 7:-

- 12.1 In the case of planks two hours are allowed for the unloading of each lorry by the customer. In the event that unloading takes longer an additional charge per half hour or part thereof will be made to the contractor/customer.
- 12.2 In the case of T beams 45 minutes is allowed for the unloading of each lorry by our own driver. In the event that unloading takes longer an additional charge per half hour or part thereof will be made to the contractor/customer.

13. HEALTH AND SAFETY FILE INFORMATION

- 13.1 Floorspan Contracts Ltd. Will provide "As installed" drawings and calculations upon completion of the installation and upon settlement of our invoice for account customers. These will include any changes from the original floor layout. The Customer will be responsible for recording any amendment to the installed drawings thereafter.

14. GENERAL

- 14.1 Acceptance of our offer constitutes acceptance of these conditions, which form an integral part of our offer. Variations may apply only if by mutual agreement and confirmed by exchange of correspondence before work commences. In the event of any variance between the customer's conditions and these terms, these conditions shall take precedence.
- 14.2 In the absence of other written agreement, **admission** of the company's employees or subcontractors to the site constitutes acceptance of the offer.
- 14.3 **Acceptance** of the customer's order is conditional upon the funds being available to meet our applications for payment. We reserve the right to decline orders where credit enquires determine such action is appropriate.
- 14.4 Our proposal is open for **acceptance** for one month from the date of submission, after which it is subject to review or confirmation.
- 14.5 **Commencement** dates are given in good faith but are subject to variations without penalty.
- 14.6 Payment Terms are as stated in our offer letter. Whether stated or not in the offer all prices exclude VAT which is to be added to payments at the prevailing rate.

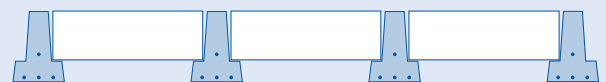
- 14.7 **Retentions and Liquidated and Ascertained Damages** have not been provided for in the offer sum, and **are not accepted** unless specifically agreed by mutual correspondence in advance of the order being placed. In any event no responsibility is accepted for the first four weeks of programme in excess of our estimated duration and full account must be taken of extras, variations, design changes, local authority or other statutory requirements, and all day works and claims for additional time, all of which shall be added to the contract programme.

- 14.8 The **ownership of the works** and the title to all goods and equipment supplied shall remain with Floorspan Contracts Ltd. until all applications for payment associated with the contract have been settled in full.

- 14.9 A summary of the company's **insurances** is available upon request. All policies are subject to the respective insurers terms, conditions and limitations. Indemnity levels are assumed to be acceptable to the customer unless specifically stated otherwise before the order is placed. No claims will be accepted for losses not covered by the policies, nor in excess of their indemnity levels. Extended cover may be available but will be subject to additional premiums, brokers commission and an arrangement fee.

- 14.10 Changes in the rate of VAT, IPT, Landfill Tax or the introduction of any **new tax or levy** will be added to our account and paid by the customer at the rate prevailing at the date of the valuation or invoice.

- 14.11 All or any additional works required by the customer shall be negotiated only with the company. The customer shall not enter into contracts or agreements or place orders for works or variations direct with the company's employees or sub contractors. Any such arrangements made without the company's knowledge and agreement shall constitute a breach of this and or any other contract applying to the project.



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