

# DELIVERY DAY & SHELL ERECTION - PROGRAMME AND ARRANGEMENTS

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## Site Preparation

The site should be prepared for the arrival of the timber frame and it is your responsibility (or that of your nominated main contractor or project manager) to provide the following:-

1. Clear access for the trailers, as well as for site machinery and plant.
2. Hardcore paths and walkways around the perimeter of the building, including parking and hard-standing areas suitable for crane and/or tele-handlers.
3. A pre-designated area for the positioning of the crane, taking into account the crane's outriggers. (As a guide a clear, flat hardcore area of 7m x 7m will be required to accommodate a minimum 25 ton crane, it maybe that a bigger crane will be needed, this will have different requirements in terms of ground stability).  
**Note:** Cranes cannot operate close to live electricity overhead cables or over shallow drains, pipework or old and fragile services. It is your responsibility to ensure that all checks are made.
4. 240V / 13amp electricity supply for the free use of the timber-frame erection team. (The shell erection team will supply its own transformers and leads).
5. A minimum of a 6 m skip for the safe and tidy disposal of rubbish accumulated during the shell erection. Should a skip not be provided in close proximity to the slab, the shell team will pile rubbish and off-cuts for you to dispose of.
6. WC and wash facilities for the shell erection team as well as for subsequent trades.

## Summary

Prior to delivery please ensure that you know your responsibilities as set out below :

- By the day of delivery of the building set, your site should be easily accessible.
- The site should be clear of all debris and other material.
- The scaffolding should be erected.
- Welfare and storage facilities should be in place.
- A skip should be available.
- Power should be available.
- Tarpaulins should be available for protection of materials and components.

## Delivery

Scandia-Hus building sets are delivered to site by articulated trailers or rigid flatbed lorries. Often, most of the structural elements of the building set are delivered on day one although, for larger structures, deliveries are phased. Roof trusses, windows and external doors often form a separate delivery as do boarding and insulation materials.

Standard articulated trailers measure 16m long, 2.5m wide and up to 5m high when fully loaded. Their width, including wing mirrors, is 3.1m and their overall turning circle is 16m. Rigid lorries can vary in size but measure approximately 10.5m long, 2.5m wide and up to 5m high. Typically their width over wing mirrors is 3.1m and their turning circle is 7.6m.

Should it prove impossible for either size vehicle to reach or access the site due to site restrictions, it is your responsibility to arrange for the delivery vehicles to be unloaded in a safe area away from the site. It will also be your responsibility to provide alternative delivery methods from this area to site, ensuring that the materials arrive on site safely for erection by the shell erection team on the specified day.

Prior to delivery we will have considered the access and delivery logistics and, in liaison with you or your builder, made necessary and appropriate arrangements. See Fact Sheet No. 18 – Pre-Delivery Requirements.

It is imperative that you and/or your main contractor or project manager is available for the shell erection process, as it is you who are responsible for the site throughout the construction period, including the shell erection.

## Fact Sheets

For further details please refer to the following Scandia-Hus Fact Sheets :-

No. 15 – Site Welfare

No. 16 – Materials – Delivery, Storage, Protection & Quantities

No. 17 – Scaffolding

No. 18 – Pre-Delivery Requirements

No. 19 – Site Security.

### Off-Loading – By Customer or by Scandia-Hus Manufacturing

Where off-loading, stacking and storing all materials and components is your responsibility, the Shell Team Foreman will direct you to off-load the items the team needs first of all. He will also offer general advice and help with regard to the organization of the off-loading, but it is not his responsibility to physically off-load the goods.

It is recommended that you off-load using an all-terrain telescopic handler with a 9 – 12 metre reach. These machines need to be operated by persons holding a valid operator certificate, and your hire specialist should be able to provide a driver as well as transportation of the machine to and from your site. The tele-handler will need to be available for work from 8 am on the delivery day. Depending on the size and complexity of the build, it may be required for 2 weeks to assist with off-loading and positioning of components on site. The cost of the plant hire will be your responsibility and you, your main contractor or project manager will need to liaise with the Shell Team Foreman with regard to the actual length of time the equipment will be required.

Each lorry has to be off-loaded within two hours of arrival on site, after which time extra charges may be levied. Typically, there will be two lorries and, in addition to a tele-handler, you should provide one or two persons to assist the tele-handler operator. These people will also be able to stack, store and protect the off-loaded materials and components.

In rare circumstances a crane may provide the only practical means of off-loading. In such an event, you will need to provide a crane with a lifting capacity of 30 tonnes. The crane hire firm will supply an operator, and 6 meter long nylon slings will be required as well. In these special situations our Contracts Manager will discuss the preferred methodology for receiving and off-loading the materials with you or your builder prior to delivery.

In very rare circumstances where, due to site restrictions, it is not possible to use any form of mechanical aid on a site, it will be your responsibility to provide a minimum of 6 men for the off-loading and also for general site assistance throughout the shell erection period.

Once the empty lorries have left site, some re-organizing of materials may be necessary. Stacks of timber and wall panels may need to be moved, and the erectors may ask for certain materials to be placed on the scaffolding or at

certain locations around the building. Such operations are easy when a tele-handler is used, but very demanding when there are just pairs of hands. This is also the time to sort, store and protect your valuable goods.

For an agreed sum, Scandia-Hus Manufacturing will undertake all the above 'off-load' operations, leaving dry store stacking and material protection to be done by you.

Prior to delivery you will have been asked by Scandia-Hus to provide written confirmation that the substructure is accurate and in accordance with issued drawings, details and tolerances. If your substructure is not level, the erectors may need to insert sole plate packing, and it will be your responsibility to supply this and subsequently fully fill any voids with dry packed mortar. See Fact Sheets no. 13 – Shell Erection Schedule and no. 18 – Pre-Delivery Requirements.

The erectors will set out the sole plates in accordance with an issued 'sole plate layout drawing' and get a 'best fit' on your substructure. Should tolerances exceed those stipulated by the organisations carrying out building regulation and warranty inspections in respect of your new home, it will be your responsibility to inform these organisations. Scandia-Hus cannot be held liable for any non-compliance. Should the levels be found to fall outside acceptable tolerances and the shell erection team be forced to abandon the shell erection and leave site, additional costs incurred in re-scheduling a return visit to site will be charged to you

Provided all is well, our shell erectors will carry on with their work and will largely be self-sufficient. They will liaise with you on day to day matters of site organization, scaffolding, etc. and will communicate directly with Scandia-Hus' personnel with regard to any other queries regarding the building set.

### **Checking Off the Delivery**

Each trailer or lorry is loaded at the Scandia-Hus factory with great care and loaded items should correspond with a loading list. The List as well as a set of drawings will be found in the 'fixing box' which is one of the first items to be off-loaded. A check of 'builder' materials delivered to site will be undertaken by our Contracts Manager during the subsequent Handover Inspection. (See below).

### **Shell Erection Period**

Erection periods vary between one and three weeks, depending upon the size of the building, complexity of design, site constraints, weather conditions, hours of daylight, etc. While our erectors are on site you remain responsible for the day to day organisation and management of the site, and Health & Safety regulations demand that supervisory staff are on hand.

Windows and external doors are delivered after the completion of the shell erection. If contracted so to do, Scandia-Hus Manufacturing arrange the 'off load' and fitting.

### **Handover Inspection**

When the shell erection has been virtually completed, but prior to the shell team leaving the site, a Handover Inspection will be carried out by our Contracts Manager. The inspection can take 1 - 3 hours, depending on the size and complexity of the building. Following his detailed inspection, the Contracts Manager will ask the erection team to complete any snags. The Contracts Manager will also check that all the materials required for the completion of the structure are on site. He will then go through with you the various materials and help identify and specify their use and will also advice on storage and protection of the materials on site. He will also spend time with you and your builder running through the sequence of work following the departure of the shell erection team and answer any questions you may have. This visit can be of great value to you and will save you considerable amounts of time and aggravation in the weeks to come. So do make full use of it!

As mentioned above, you will need to provide one or more skips for use by the erectors and there should therefore be little rubbish left lying around on completion of the shell erection. However, there are many timber and boarding off-cuts, which after de-nailing can be usefully utilized for support bearers and/or a multitude of other purposes. Many customers or builders prefer our erectors to put all waste-timber in heaps, where protruding nails do not present a danger, rather than filling up the skips with these. They can then draw pieces of timber from these as building works progress. Clearly, plastics have to be disposed of via skips. Burning of rubbish is generally frowned upon by Environmental Health Departments, and the sight of black smoke is guaranteed to attract a visit from one of their officers!

**Subsequent Deliveries**

Some non-structural materials will be delivered direct from the suppliers to your site. These include items like chipboard, insulation materials and plasterboard. Orders for these items are placed by Scandia-Hus Manufacturing and copies will be sent to you as they are placed. You will need to contact each supplier to call off the materials as and when they are required on site.

Orders for other direct delivery items are placed by Scandia-Hus at their Felcourt offices. These include internal doors, staircases, kitchens, ventilation & vacuum systems, underfloor heating systems, woodblock flooring, garage doors, rainwater goods, etc. as applicable. Copies of these orders may be found in the Scandia-Hus Project Management Manual - under the section 'Specialist Supply' items - which will be sent to you approximately 2 weeks prior to delivery of the building set to site.

**Scandia-Hus Manufacturing Contracts Department**

Should you have any problems or queries with regard to the delivery and/or shell erection programme and arrangements, please do not hesitate to contact your appointed Contracts Manager. For other matters please contact your Scandia-Hus Project Manager at Felcourt.