

FASTBEAM® Foundations

# **A** CHARCON

# **FASTBEAM®** Foundations

# A flexible construction system that allows the fast delivery of buildings

FASTBEAM® is a precast ground beam system which eliminates traditional formwork and wet concreting methods.

### System

FASTBEAM® can be supplied along with Charcon beam & block or hollowcore flooring allowing foundations and ground floor in one single procurement package.

### **Key Points**

- Beam to beam connections reduce pile numbers compared to other systems
- 2. Compatible with any pile type
- 3. No pile cap required
- 4. Totally flexible layouts
- 5. Stepped levels
- 6. Drainage and service ducts
- 7. Fewer vehicle movements
- 8. Vastly improved program times
- 9. Nationwide service

### Design

Fully designed and engineered solutions are produced by our qualified and experienced in-house design team.

As each project is individually tailored the unique benefits of FASTBEAM® are utilised to ensure the most cost effective solution.

### Manufacture

- Casting in factory conditions to tight tolerences
- Manufacturing facilities accredited to ISO 9001, 14001and OHAS 18001.

### Site Investigation

Surveys are required to establish the suitability of a site as well as to gather information needed for building design. Factors such as access, orientation and potential problems and obstacles need to be considered.

- Load bearing capability
- Soil testing
- Topography
- Underground structures



# **Process**

### 1 - Piling

The piling operation commences and pile positions are carefully monitored. Their positions are relayed back to the design office to ensure ground beams are manufactured to accommodate installed positions.

### 2 - Cropping & Preparation

Whether using driven or CFA piles, both are prepared using industry standard methods but neither require anything more elaborate than a simple projecting dowel bar, eliminating expensive pile caps and time consuming insitu details.

### 3 - Beam Placement

Each beam is uniquely marked for quick identification so that they can be rapidly offloaded and placed into position.

Designed by our experienced engineers, each project is programmed to be installed in the most efficient sequence to ensure speedy assembly. Cast in grout tubes and joints are filled using high-strength non-shrink grout and the installation is complete.



Pile positions are relayed to the design office to ensure accuracy



Pile head



Rapid offloading and placing into position

# Rustrated sample of a regular level site foundation Benefits

## 4, 5 & 6 - Completion

The foundation is now ready for follow on trades. FASTBEAM® can eliminate substructure block work and accommodate drainage and service requirements via cast in ducts. Where flooring is being supplied as part of the package, it can be installed directly onto the ground beams. This eliminates the requirement for bricklaying which would break the sequence and continuity of Charcon's involvement on site.

### Installation

- Rapid beam installation with approximately five pairs of semidetached houses completed a day
- Non-weather dependent
- No wet trades
- No post tensioning
- Precast ground floors can be installed directly onto ground beam -
- No sub structure walls required

All of the above features are brought together to provide a cost effective and rapid service.

**Charcon FASTBEAM**® is an Aggregate Industries Company, one of the UK's leading building material manufacturers and suppliers.

Read more at: www.charconcs.com/fastbeam/



Stepped levels and service holes can be incorporated



Beams are fitted around lift and stair shaft foundations



Joints filled using non-shrink grout

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