

Welcome to the second webinar in the series
OFF SITE MANUFACTURE, ON SITE PILING

www.roger-bullivant.co.uk

✉ Info@roger-bullivant.co.uk

☎ 0845 838 1801

in @rogerbullivantlimited



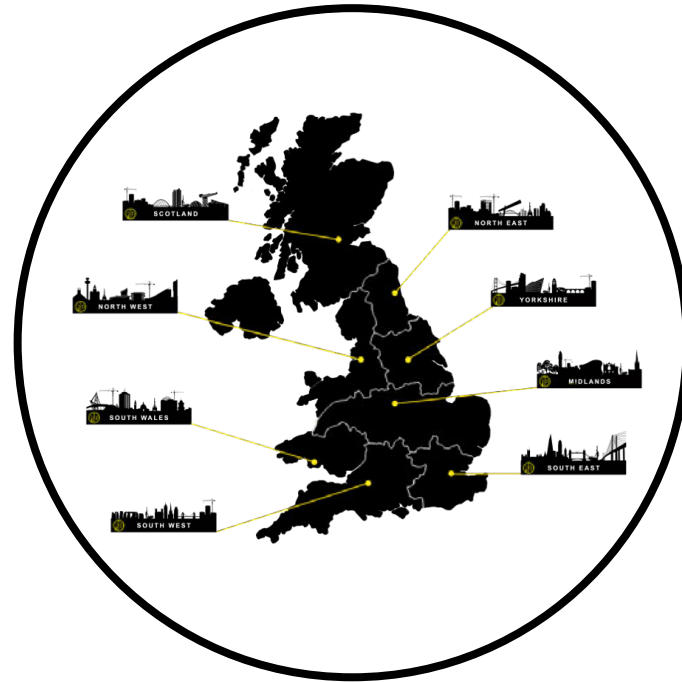
Construction Phase – Manufacturing the foundations offsite and installation of piles

Jamie Brotherhood
Manufacturing Supervisor

Matt Walpole MEng MBA CEng MICE
Area Manager – South East



About



01

Manufacturing the foundations off site

Jamie Brotherhood
Manufacturing Supervisor



The Facility

Roger Bullivant moved to its current location in **Swadlincote** in 2016 with the capability to produce Pre Cast Piles and RBeam on fully automated machinery.



Piles and Beams:

- 200mm - 250mm - 300mm Precast Concrete Piles
- 2m – 6m segmental lengths
- Ground beams, tie beams, RBeam and pile caps



The Batch

- 630 tonnes of concrete produced per day consisting of:-
- 6 lorry loads of sand
- 10 lorry loads of gravel
- 4 lorry loads of cement
- 900L of concrete additive



The Machinery

- Quadra Difal – 2m, 3m and 4m pile sections
 - 210 moulds produced per day
 - Around 2,500m of pile per day
- Quadra Optimal – 6m piles and RBeam
 - 35 moulds produced per day
 - Around 790m of pile per day
 - 44 RBeam moulds produced per day
 - Around 253m of RBeam per day



The Yard

— Holds 120,000m of Pile product

— 14,000m Beam product



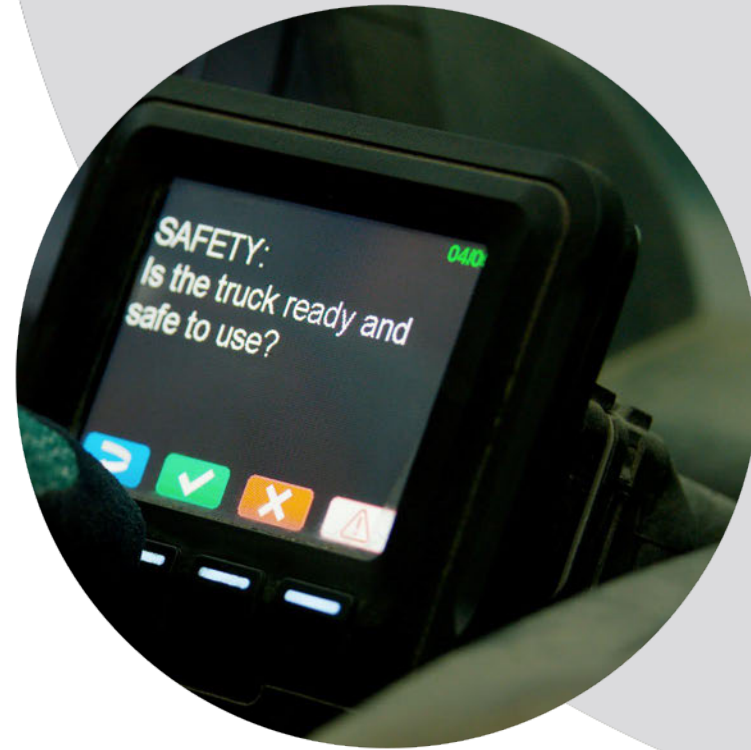
Quality Control

- Samples of concrete are taken from product moulds
And tested onsite in our test room
- Piles have a 14 day cure time and Beams have a 7 day
Cure time before being released to site
-



Sustainability

- Electric forklift and combi trucks
- Solar panels on factory roof
- Upgraded air compressors



Manufacturing Video



01

On Site Installation

Matt Walpole
South East Area Manager

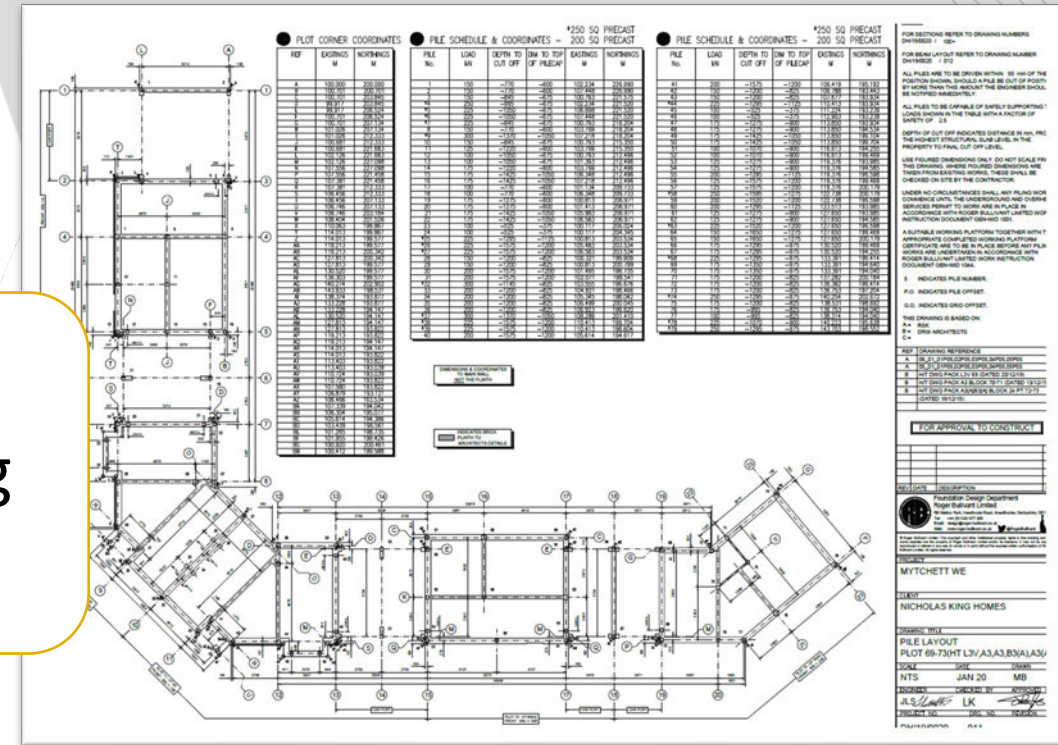


From Design to Reality

Design
Development

Pile Layout
and Loadings

Pile Design
and Driving
Criteria



Pre commencement:

- Pre-start meeting
- Site Access
- Project Specific Constraints
- Safe Systems of Work
- Approval of designs
- Permits required



Site Mobilisation:

- Rig movements by internal haulage
- Flexibility to suit project constraints
- Self Erecting Rigs
- Delivery of product
- Setting out of piles



Installation of Piles – The Process

- Setting up on pile position
- Moving product to the pile position
- Driving segmental sections
- Achieve required set (or depth)



Installation of Piles – Quality Control

- Pile logs
- Digital pile driving records
- Positional as-built of piles
- Check driving resistance

www.roger-bullivant.co.uk

DRIVEN PILE RECORD SHEET Report No. 131022

Project No: *Dolphor* Project Name: *Mytchett Hill* Pile Type: *pc* Date: *13/03/20*
 Hammer Weight: *5.5t* Rig No.: *5500* Foreman's Name: *asp/robert*

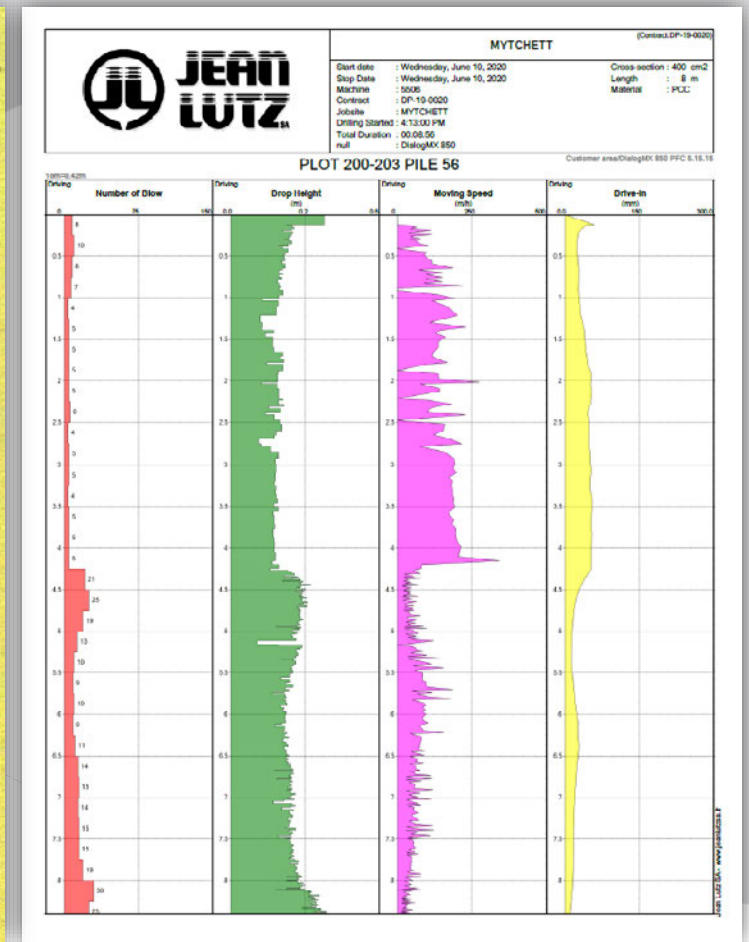
No.	Pile No.	Working Lead	Pile Size	Drive	Pile Size	Depth	Set End of Drive	Set Rec.	Drop at Set	Comments	Standing Time	Time Taken to Drive
		m				m	mm	mm	mm		min	min
1	29	125	10	9.2	↑	7.9	79	300	---			
2	30	125	10	9.2		6.7	67	---	---			
3	91	275			9	8.4	67	---	---			
4	92	300			9	8.2	68	---	---			
5	93	275			9	8.2	67	---	---			
6	25	350			9	8.6	61	---	---			
7	76	325			9	8.6	61	---	---			
8	29	350			9	8.8	64	---	---			
9	30	325			9	8.6	65	---	---			
10	24	200	9	8.8		7.2	7	---	---			
11	22	A1			8	7.8				Abuse Pile		
12	"	A2			8	7.8				"		
13	"	A3	102-105		8	7.8				"		
14	"	A4			8	7.8				"		
15	20	A1			8	7.7				Abuse Pile		
16	"	A2			8	7.7				"		
17	"	A3	106-123		8	7.7				"		
18	"	A4			8	7.7				"		
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
Daily Total		29	27.2	127	121.9	No. and Type of Packers used: 2/ pc						
Previous Total												
Running Total												

Signed as Correct Record by the Client:
 Client: *asp/robert* Name: *D. Reed* Sign: *[Signature]* Date: *13/03/20*

Client Engineer: _____ Name: _____ Sign: _____ Date: _____

The above works have been inspected and are satisfactory (or as remarked upon).
 RBL Foreman: *asp/robert* Name: *[Signature]* Sign: *[Signature]* Date: *13/03/20*

RBL Project Engineer: _____ Name: _____ Sign: _____ Date: _____



Validation Testing - Dynamic

- Carried out typically on 3% of piles
- Short duration test
- Predicts pile capacity



Validation Testing - Static

- Tested to 1.5 x SWL
- Application of actual load
- Undertaken on 1% of Piles
- Requires sacrificial anchors
- Typical 24hr test duration



Site Installation Video



Thank you for listening. We will now do the Q&A, followed by a short questionnaire.

www.roger-bullivant.co.uk

✉ Info@roger-bullivant.co.uk

☎ 0845 838 1801

in [@rogerbullivantlimited](https://www.linkedin.com/company/rogerbullivantlimited)

