



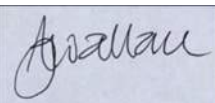
S P E E D E C
FOUNDATIONS LIMITED

Method Statement and Risk Assessment
SO509DN001 - Toynbee Road
Best Practice Guidance of conduct
to be followed by all staff

Installation of piled voided raft slab and drainage

2024

METHOD STATEMENT					
DOC REF:	SPD-RAMS-001	REV:	1	DATE:	18/06/2024
PROJECT:	SO509DN001 - Toynbee Road				
CLIENT	FOREMAN HOMES				
SITE: ADDRESS	SO509DN001 - Toynbee Road				
START DATE:	TBC				
SITE CONTACT:	TBC				
LOCATION OF WORK:	Working across the whole site				
WORK ACTIVITY:	Installation of piled voided raft slab on 50mm concrete working surface. Installation of internal drainage				

	COMPANY/ROLE	NAME	SIGNATURE	DATE
Witten by	Piling Contracts Manager	Gareth Jahn		18/06/2024
Approved by	SHEQ Manager	Adam Wallace		18/06/2024

Distribution

Principal Contractors [Project Manager]
SPEEDECK Connectteams

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	SIGN OFF SHEET BY FOREMAN HOMES AND OPERATIVES

1. Scope of Works

The scope of works for the project at SO509DN001 - Toynbee Road will consist of the following works:

- Concrete working surface (CWS) – blinding
- Installation of CFA piles (Southern Piling RAMS)
- Installation of drainage
- Installation of SD raft slab

Prior to works commencing SPEEDECK will issue a number of documents detailing the planning for each project. This method statement needs to be read in conjunction with all the documents below:

- Site set up plan.
- Works Access and Temporary Works Guidance
- Pre con meeting minutes
- Blinding Schedule
- Pour sequence
- Detailed programme of works

1.1 Site Set Up Plan

SPEEDECK works areas will be set up in accordance with the site set up plan. All SPEEDECK operatives will have access to the site set up plan on the SPEEDECK Connectteams app. All works areas will be segregated with barriers and signage.

- Piling set up including agitator and pump
- Material storage areas
- Bucket change areas
- SPEEDECK stores
- Concrete pump set up locations
- Concrete wash out skip
- Mains Water

1.2 Works Access and Temporary Works Guidance

This documents details the access requirements and temporary works guidance for SPEEDECK to deliver works on site. The information allows the production of the temporary works design briefs. The following temporary works elements are to be considered.

- Pedestrian access to work areas
- Pedestrian access to plots
- Water supply
- Piling agitator and pump set up
- Vehicle access for deliveries
- Working platform for piling rig
- Material lay down areas
- Concrete pump set up
- Concrete wash out area

2. Sequence of works

The works are intended to be carried out in the following sequence.

All SPEEDECK works areas will be segregated with barriers and signage, works will require close coordination from the site teams due to the amount of collaboration between work parties.

2.1 CFA piling (Southern Piling RAMS)

Southern Piling have been contracted to carry out the piling works on this project and they will work in accordance with their approved piling method statement.

2.2 Piling Attendance

During the piling operation an excavator will be in attendance to provide support to the piling rig and gang. The pile attendance duties will be:

- Assist in set up of the piling rig
- Lifting and placing of augers
- Removal of spoil during drilling operations
- Assisting in de mobilisation

2.3 Concrete Working Surface (CWS)

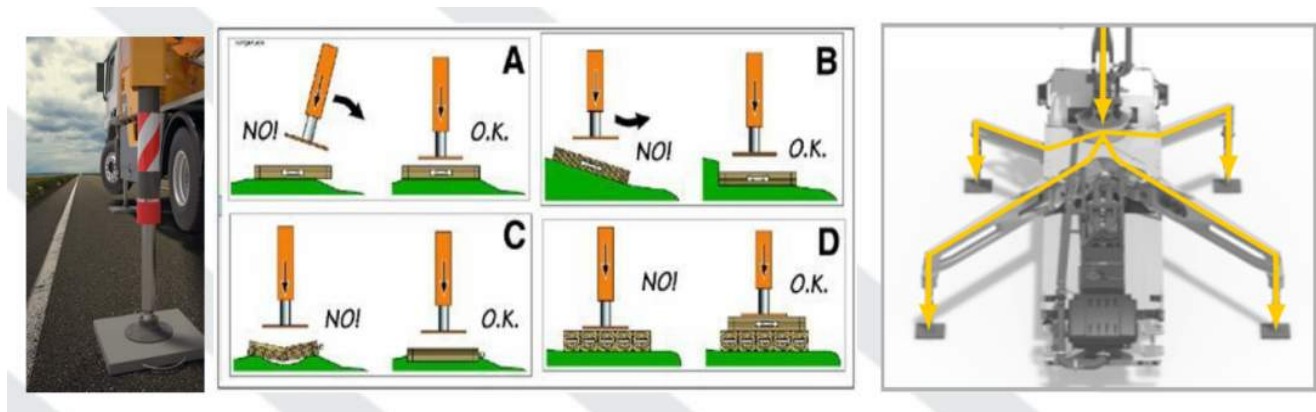
The formation will be tested by others to ensure it meets the SPEEDECK minimum CBR of 2%. CWS consists of 50mm thick concrete laid over the top of the formation. The CWS blinding will be installed in accordance with the blinding sequence issued, shown below:

- An engineer using a total station will clearly mark the slab edge line and set up a datum at structural slab level (SSL).
- The formation excavation to be checked by the SPEEDECK engineer and a checksheet will be completed.
- A concrete pump will be set up in the location shown in the SPEEDECK site set up plan in accordance with the concrete pumping section below.
- The pump set up pad will be installed by others.
- The concrete to be laid for the CWS will be supplied by the SPEEDECK nominated concrete supplier, all deliveries to be made with 6/8m concrete lorries.
- The site traffic management plan will be followed and the trucks will be spaced out to ensure that no vehicles are blocking site or the surrounding area.
- The concrete trucks to be reversed up to concrete pump by a banksman and the concrete poured into the pump hopper.
- The SPEEDECK concrete supervisor will manage the delivery of the concrete into the pump.
- The concrete will be pumped into the area and levelled using a rake, the level will be checked throughout the pour with a rotating laser.
- The concrete will then be finished with an extendable easi float to give a smooth finish.
- On completion the concrete pump will be washed out in an agreed location.
- The SPEEDECK engineer will check the line and level of the CWS for tolerance on completion.

2.4 Concrete Pumping – For CWS and Slab Pours

2.4.1 Set up

The size and sighting of the concrete pump shall be such that the boom length and height to which the concrete can be pumped shall be suitable for the installation, this will be shown on the SPEEDECK site set up plan. The SPEEDECK nominated specialist concrete pump supplier will assist in the selection and sighting of the pump. The pump set up location shall also allow for concrete wagons to discharge directly into the concrete pump hopper. The ground conditions at the pump position shall be level and capable of supporting the loads imposed by the machines stabilisers. Please be aware of underground services or structures, ie basements / manholes etc that can impact ground stability.



The concrete pump and boom shall be subject to a thorough competent examination within the last 12 months. The plant and equipment shall be subject to a daily and weekly inspection.

Be aware of overhead power lines as this will impact the boom operation and will need a safe method of working if present. Other plant working within the vicinity of the concrete pump and boom shall be excluded to prevent interference with operations.

2.4.2 Pumping Concrete

Lines of communication shall be maintained between the pump operator to the SPEEDECK concrete supervisor, who will be controlling the pour. The concrete pumps are remote controlled so the pump operator and concrete supervisor will be in close proximity to each other.

All staff involved in the operation of the concrete pump shall be suitably trained in its use and operation. No unskilled operators shall be allowed to use or direct the pumping equipment.

The pump operator shall guide the discharge hose of the pump boom. The height of the discharge pipe shall be maintained as low as possible to avoid splashing of the concrete as it is placed. Concrete pours shall be evenly distributed across the slab. Care should be taken not to place concrete in one single point load onto the formwork.

All staff shall remain clear of the discharge end of the pipe until concrete is flowing or if a blockage occurs a danger zone shall be placed around the discharge end of the pipe. The diameter of the danger zone shall be 2 times the length of the delivery hose.

2.4.3 Pipe Blockages –

Clearing pipeline blockages is particularly hazardous and all staff dealing with a blockage shall be suitably trained.

If a blockage occurs the pump operator shall follow the procedure below:-

- Stop Pumping immediately
- Reverse the pump until pressure is released (DO NOT increase the pressure to clear the blockage as an alternative to the following procedure)
- Locate the area of the blockage
- Establish an exclusion zone
- Disconnect the delivery pipeline at the safest point near to the blockage
- Clean out the blockage, re-prime and re-connect ensuring that safety pins and clips are in place.
- Recommence the pumping operation to ensure blockage is clear, if not repeat the procedure as above.

2.4.5 Clean up

A suitable clean out area shall also be designated to ensure waste concrete and wash out water is suitably contained and disposed of. A concrete washout skip lined with polythene will be sited close to the works area for excess concrete and waste water. The area will be isolated with barriers and signage. There shall be suitable water supply to the Concrete pump to allow wash down of the equipment. Care should be taken to exclude non-essential operatives from the wash out area to ensure that they do not get splashed during the procedure. The use of compressed air to clean the pumping line should only be used when there is not suitable alternative.

COSHH and SDS sheets on Connectteams are to be referred to for PPE requirements.

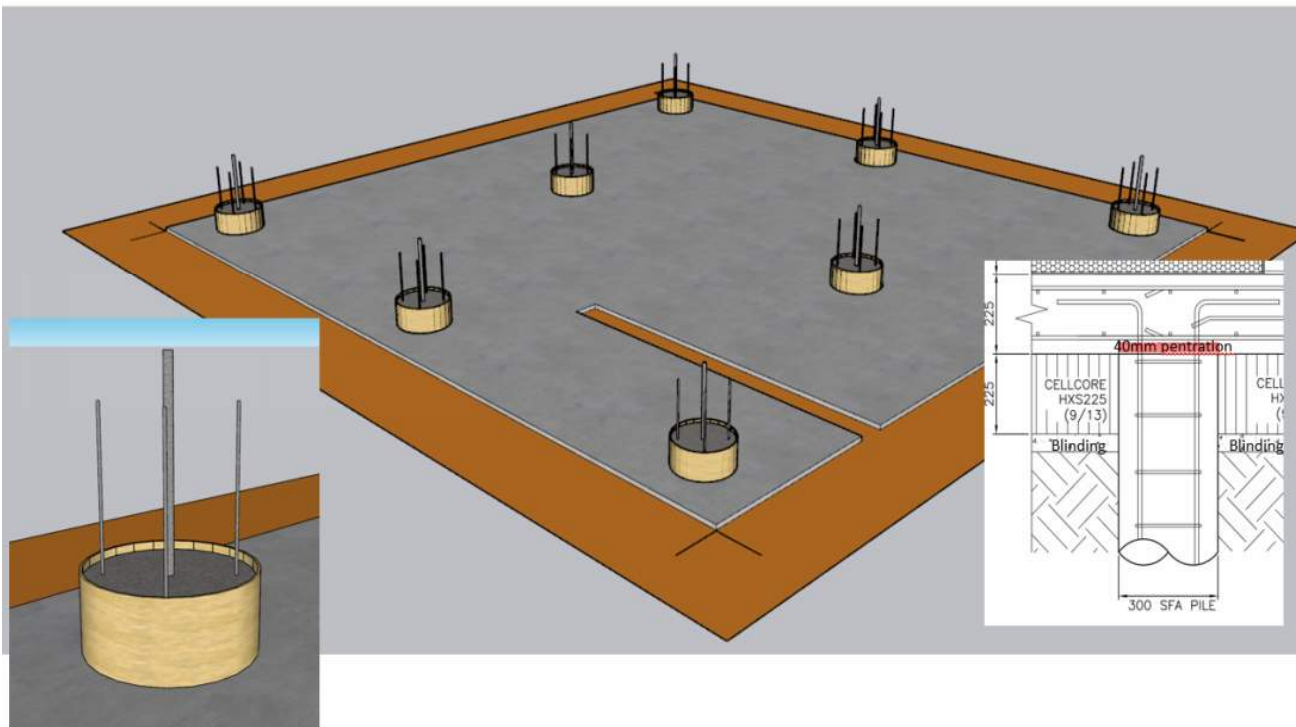
2.5 Raft Slab Installation

On completion of the drainage and blinding the slab will be cast.

Pile Dressing

All piles are to be dressed to the correct level to allow for the 40mm penetration into the slab.

- The SPEEDECK engineer will mark the cut off level on each pile.
- Using a dust suppressed grinder a 40mm cut will be made around each pile.
- The top of the pile will then be dressed using a low vibration hand breaker such as a Hilti TE1000 or similar.
- All trigger times for the cutting and breaking are to be monitored and recorded using the forms on Connecteams.
- On completion of pile dressing re bar mushroom caps are to be installed on all vertical bars.
- All piles will be integrity tested.



Below Slab Drainage and Utilities

- The engineer will set out drain/duct positions and drain/duct runs.
- An excavator mounted breaker will be used to break out the blinding to the width of the drainage run, where the runs are close together the blinding are broken out may be larger.
- The broken out concrete spoil will be moved to a pre agreed location by dumper
- An excavator, up to 6t in size will be used to dig out the trench to correct depth
- A 100mm shingle bed will be laid at the bottom of the trench to the falls shown on the design
- Straight drainage pipes, with connections were required are to be laid in the trenches.
- The 90 degree bend is to be concreted into position and checked by the SPEEDECK engineer.
- Air or water testing will be carried out and the ITP checksheet completed.
- The vertical pipe will then be installed with a red cap at the top to prevent any material entering the drainage.
- A polystyrene sleeve wrap will be



- Check pipe position and concrete bend to correct level, position and fall.
- Pipe will then be tested and ITP completed
- The pipe installation will thn be offered to building control / warranty provider to inspect pipes prior to back fill
- All trenches will then be back filled with shingle surround and as dug material back to CWS level.

Excavations Requiring Support

The depth of the drainage will be checked against the ground conditions and a temporary works assessment will be carried out to identify if temporary works are required.

SPEEDECKs preferred method is the step the excavation, thus reducing the height of the ground to be supported. The steps height of the steps will be generally be 500mm wide for every 1m high.

Pre-Start Checks

- Conduct a site survey to identify underground services (gas, water, electricity).
- Obtain necessary permits and approvals.
- Deliver toolbox talk to all operatives covering the method statement and risk assessment.

Site Preparation

- Set up safety barriers and warning signs around the excavation area.
- Engineer to mark out excavation

Excavation Procedure

- Excavate in layers to create steps, ensuring each step is no higher than 1m high and 500mm wide.
- Check each step for stability and ensure it is level.
- Continue excavation to the required depth, maintaining step integrity.

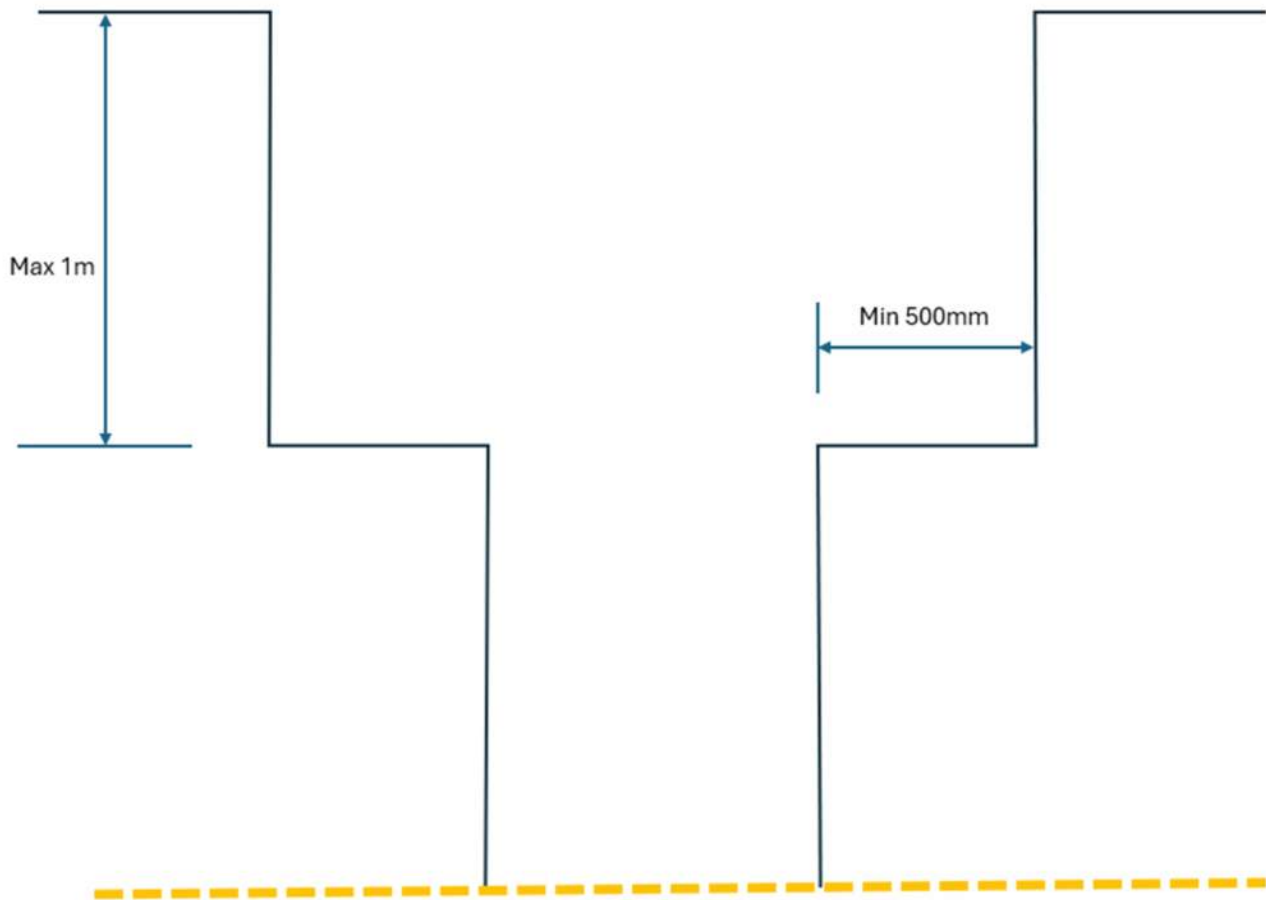
Spoil Management

- Transport excavated material to designated spoil heaps or disposal sites.
- Ensure spoil heaps are located a safe distance from the excavation edge to prevent collapse.

Inspection and Monitoring

- Regularly inspect the excavation for signs of instability.
- Use surveying equipment to check alignment and levels.
- Record inspections and findings in a site log.

Indicative cross section of stepped excavation for drainage



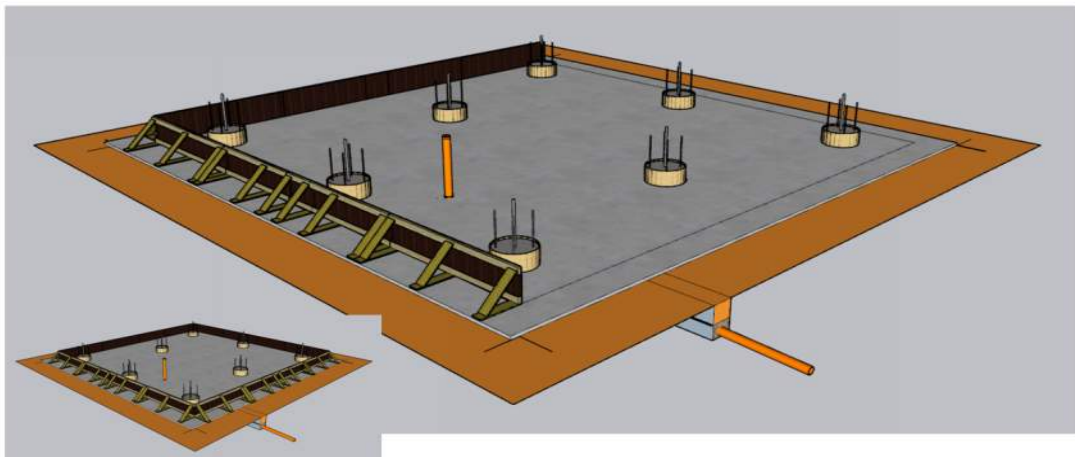
Slab Thickenings, Beams and Downstands

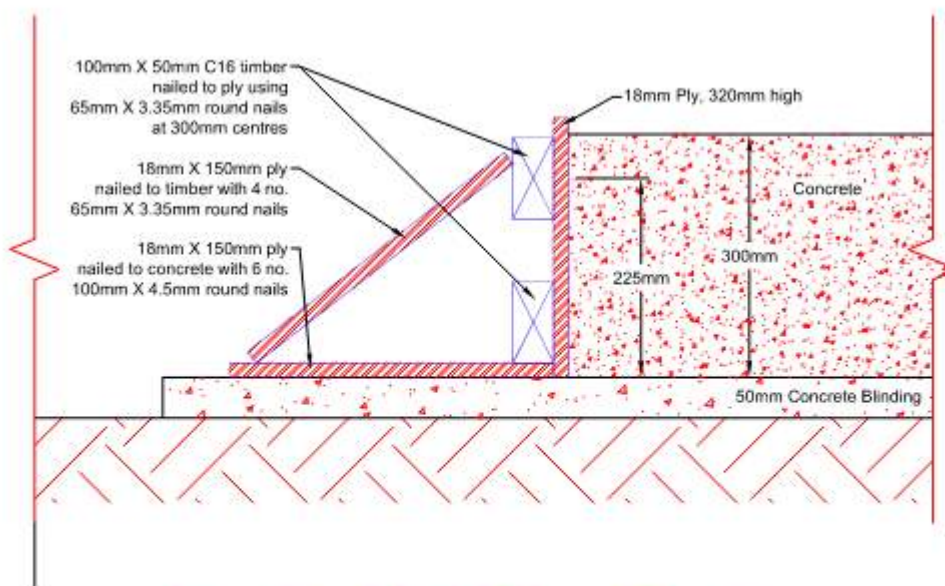
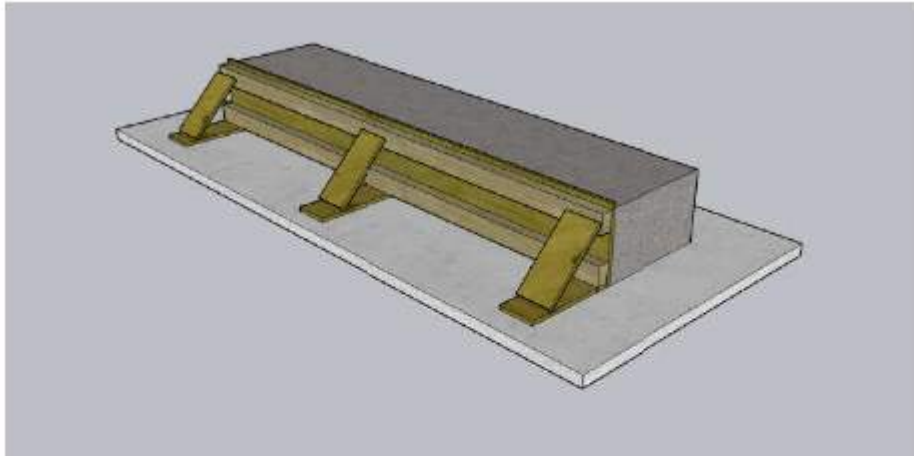
- The engineer will set out slab thickenings, beams or downstands.
- The area will be excavated to the underside of the concrete allowing enough working room.
- If required the vertical face of the formation will be back blinded using concrete.
- The reinforcement will be fixed insitu.
- The shuttering will be installed in accordance with the SPEEDECK temporary works design.
- The concrete will be poured to the level set out by the engineer.
- Shutters will then be struck and removed.



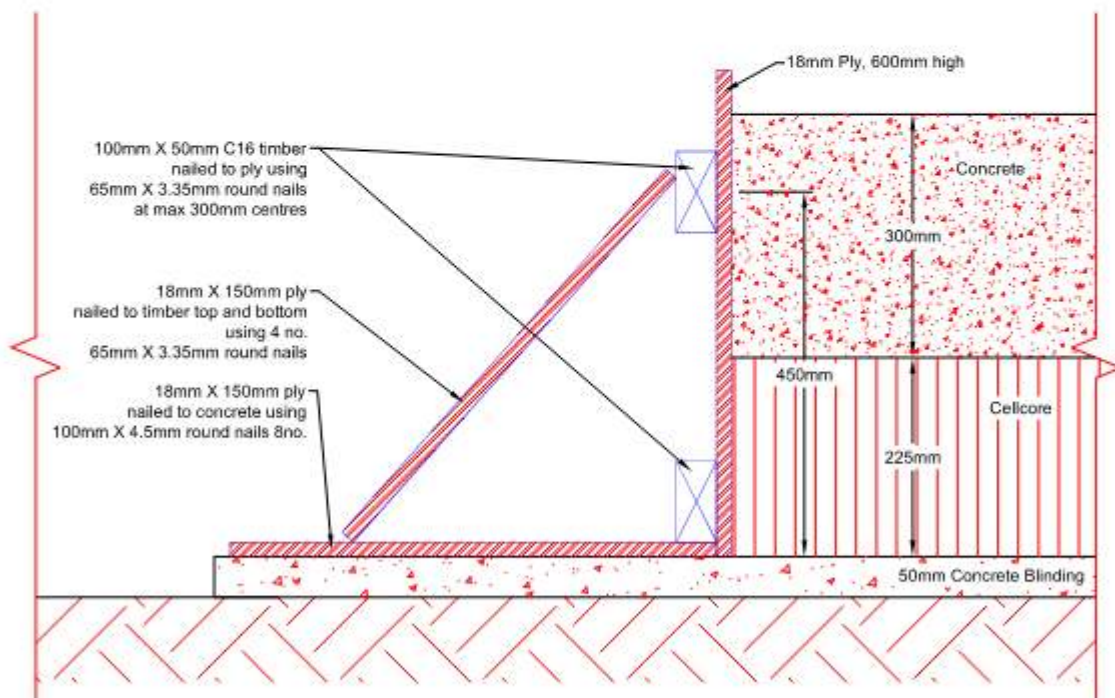
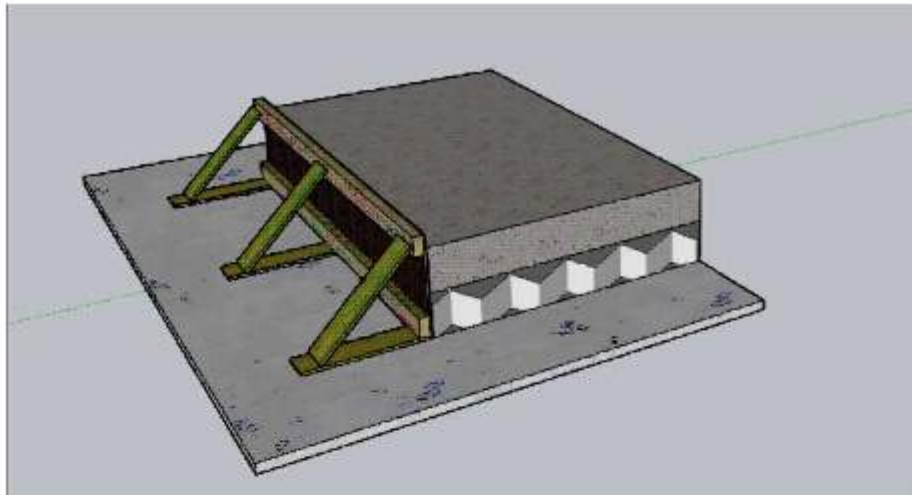
Slab Edge Shuttering

- The Engineer will set out extents of slab, marking the corners using spray paint and masonry nails.
- Timber shutters are prefabricated in the SPEEDECK yard and delivered to site using a flatbed lorry ready for installation. Plywood straps are also pre cut reducing the need for cutting on site.
- Reinforcement steel and void former will be delivered by the nominated supplier. Materials will be delivered and stored in the material lay down areas shown in the site set up plan.
- Unloading of shutters and materials will either be by mechanical means, either a site forklift or a lorry mounted Hi Ab.
- Edge protection will be in place to the rear of the lorry at all times.
- Construct 600mm high timber shuttering around to the edge of the slab as per temporary works design, using 18mm ply and 100 x 50mm timbers, nailed together with a 18mm plywood strap at a 45 degree angle in accordance with the sketches below.





Non Voided Edge Shutter Temporary Works Design



Voided Edge Shutter Temporary Works Design

Void Former (Cellcore) Installation

Void former will be installed on top of the blinding, the void former will be cut tight to piles and drain runs, all joints will be taped and any gaps will be filled. Installation guide is shown below:



Product Identification:

All Cellcore panels are clearly labelled, confirming the product type, depth, grade and dimensions.

Storage & Handling

- All products are delivered in a polythene wrapping and are clearly labelled. Both packs of Cellcore and individual panels can be manually handled and off loaded upon delivery, taking into account any site-manual handling
- Due to the relatively light nature of the product, all Cellcore packs / panels should be weighted down or secured should they be stored outside prior to installation. No further storage requirements are needed as the product is unaffected by both UV light and water.
- Cellcore panels must not be exposed to flame or ignition. Careful consideration should also be given to the management of fire risk when in storage: detailed guidance is given in the material safety data sheet packaged with the product.

INSTALLATION

General:

- Cellcore panels are to be installed as per the SPEEDECK design. The type of thickness of Cellcore to be used can be found on the general arrangement drawing.
- Heavy foot traffic directly on the Cellcore panels, particularly the edges, should be avoided or alternatively the use of walking boards should be.
- Cellcore panels are suitable for horizontal (flat) installation only and should not be installed vertically or on a sloping surface.
- Where the design indicates, it is permissible to 'double stack' i.e., install two layers of Cellcore panels. The upper layer of panels should be installed so that the joints are staggered and offset against the joints of the layer beneath.
- Where there is a requirement to cut the panels, this should be undertaken using a fine-toothed saw or blade. Cellcore panels should not be cut to a width less than 300mm to maintain stability.

Preparation:

- Cellcore panels should be placed upon a suitable firm and level surface. Typically, a layer of concrete blinding beneath the panels is recommended.

Procedure:

- Cellcore panels should be positioned with the white polypropylene board facing upward and the moulded EPS cellular structure below. Individual panels should be butted together, staggering the joints where possible, with taping of the joints using the Cordek Formwork Tape to avoid any grout loss between them.
- For piled raft slabs, the top of each pile should be trimmed so that it extends 60mm above the proposed underside of the ground beam.
- To allow the piles to pass through the Cellcore panels a hole is to be cut through the panel, the 10mm top is trimmed to form a circular hole, and the legs beneath broken away. The gap between the Cellcore HXS panel and pile is to be filled in. The gap can be filled either with filler foam, sharp sand, or covered with correx board and taped level with the top of the Cellcore.

Concrete Placement:

- Tric trak reinforcement spacers can be positioned directly upon the Cellcore panels.
- Reinforcement or other construction materials should not be stockpiled on top of the Cellcore panels.
- Care should be taken to ensure that concrete does not ingress beneath the Cellcore panels during pouring.
- Construction of columns, walls etc above the slab / ground beam / pile cap should not take place until the concrete has cured sufficiently to allow load transfer to the foundations below, to avoid surcharging the Cellcore panels and exceeding their stated safe load capacity.

Reinforcement Fixing

Install steel rebar to reinforcement drawing and in accordance with the information below.

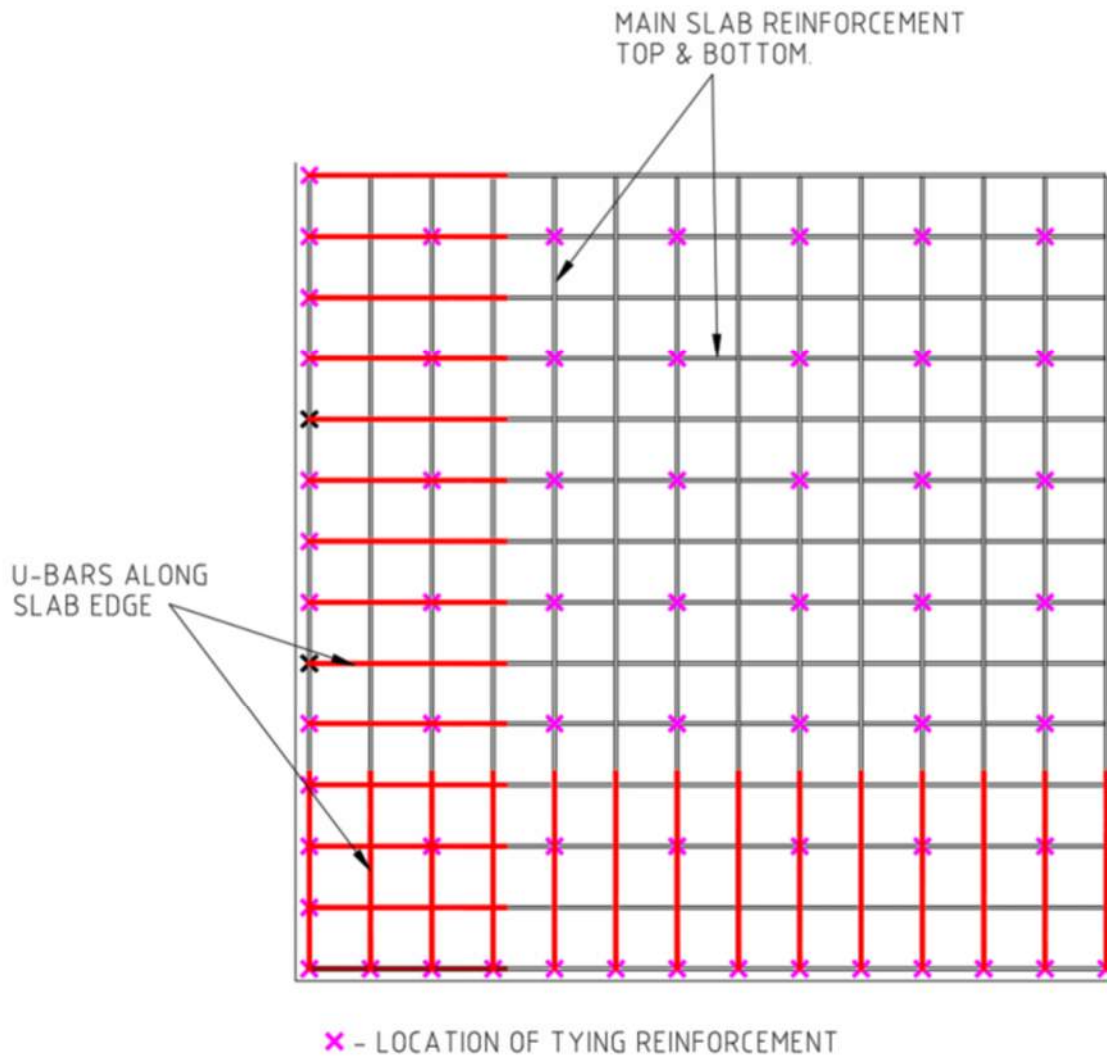
The following guidance is prepared in accordance with BS 7973-2:2001 to assist the site in identifying critical locations for tying top & bottom reinforcement. These rules apply not only for main layers but also for additional reinforcement, to ensure reinforcement is tied together to prevent displacement of bars prior to, and during the concrete pour.

In accordance with section 5.3 from BS 7973-2:2001, perimeter bars should be tied at every intersection. Going into the slab, every other intersection of top & bottom rebars should be tied. This will ensure the maximum spacing between two adjacent ties is 400mm for internal, and 200mm for perimeter bars – not accounting for additional reinforcement.

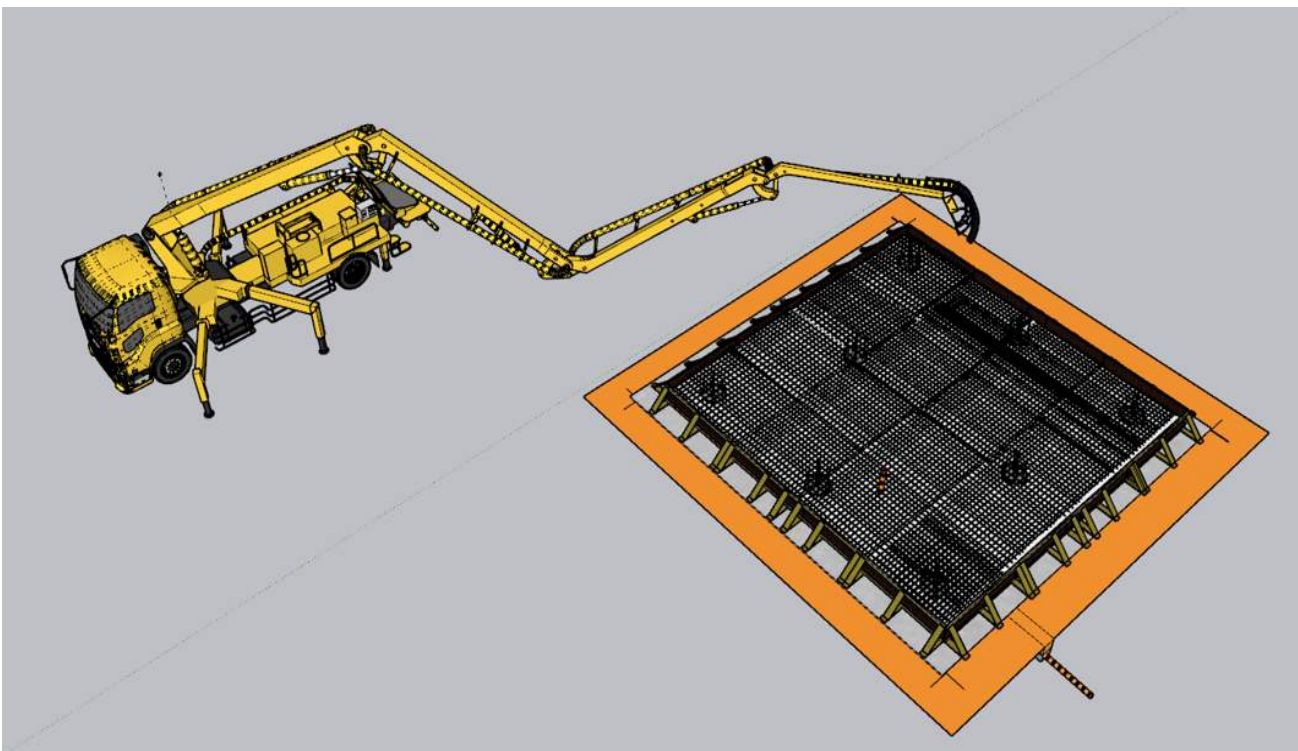
Tric-trac plastic spacers used to support bottom reinforcement and provide required concrete cover, are to be cut in pieces not longer than 350mm and be laid in staggered arrangement to allow easy flow of the concrete and avoid weak spots in the slab. Maximum spacing between two adjacent spacers should not exceed 500mm c/c which is the equivalent of 10d (see Figure 1 on page 3). For Speedeck slabs in general, the spacing should normally be twice the usual bars spacing or 400mm.

In addition, steel fixers need to ensure that our reinforcement will achieve a nominal cover of 40mm to the underside and 35mm elsewhere, and in any case should this be left below the critical minimum of 25mm.

Typical detail showing slab reinforcement tying locations



- Slabs to be checked by SPEEDECK Foundations engineer prior to pouring and checksheets completed
- Take delivery of RC35; 10 mm aggregate S3 slump concrete from concrete supplier, deliveries to be made with 6/8m concrete trucks.
- Concrete trucks to be reversed up to concrete pump and the concrete poured into the pump hopper. A qualified concrete pump driver to manage the delivery of the concrete into the pump.
- Using concrete pump, vibrating poker unit, rake, and paddle float, pump concrete to required area rake to level, vibrate concrete and float off, checking constantly with a rotating laser level.
- Levels to be checked constantly during the pour using a rotating laser level
- An easi float finish will be applied to the slab.
- On completion ensure pump washes out in agreed location and area is clear of rubbish and waste materials.
- Once cured shutters will be struck and removed from site and all waste materials placed in a skip for clearance from site.
- SPEEDECK Foundations Engineer to check the slab on completion and hand over to Foreman Homes.



3.0 General and scope of works

Prior to the work starting the SPEEDECK supervisor will brief the personnel on the work to be undertaken including measures taken to ensure a safe system of work. This will include a briefing of this method statement, and any associated Risk, COSHH and Manual Handling Assessments and the controls to be implemented. This briefing will be recorded using the SPEEDECK Connectteams app.

The briefing will be followed up with questions to confirm everyone has fully understood the briefing.

Working Hours

- Site Specific and to be briefed at the site induction
- 8am to 5pm Monday to Friday

4.0 Training

All personnel will be trained to standards as dictated by current legislation, in line with the mitigation procedures of the risk assessment and in accordance with Foreman Homes requirements. Evidence of training documentation for the working party will be retained on site and provided to the Foreman Homes at induction.

Personnel within the group will have undertaken the following training:

- Workers will have CSCS or equivalent to demonstrate basic safety competence
- CSCS all operatives plant master or CPCS or NPORS/ plant master or equivalent for plant operatives
- SMSTS/SSTS Site management
- Temporary works experience
- Abrasive wheels training
- Manual handling training
- Vibration awareness
- Silica dust awareness
- COSHH awareness
- DIISOCYANATES awareness

Copies of all training certificates will be held on the SPEEDECK Connectteams app.

5.0 Portable Tools

- 110v power tools and hand tools, bars hammers, etc.
- Hand tools
- Hand held cordless screw drivers and drills
- Insulated tools for hand digging
- Battery or 110V tools only
- Jet wash petrol
- Portable Power Saw (dust extraction integral to equipment)
- SDS drill

All tools to be in compliance with the 'Provision of Use of Working Equipment Regulations 1998'. All electrical tools to be PAT Tested.

6.0 Mechanical Plant

All mechanical plant will be inspected on a daily basis and the findings recorded on the SPEEDECK app.

- Petrol 110v generator
- Excavators – 6t and 3t
- Dumpers – 3t
- Vibrator Tools/Pokers
- Concrete pump

7.0 Materials

Please refer to COSHH assessment for full details of all materials to be used, *List not exhaustive*.

- Concrete
- Cellcore void former
- Reinforcement steel
- Shutter timber
- Expanding foam

8.0 Storage and handling of hazardous substances and materials

- All materials will be stored in designated areas as agreed with Foreman Homes
- Refer to COSHH and SDS when handling products

9.0 Working at Heights/Depth

- All excavations to be inspected at the start of each shift
- All excavations to have safe access, egress and edge protection

10.0 Work Permits and Licences

- Hot works permit for cutting with disc-cutter
- Permit to Dig

11.0 Temporary Lighting and Power

- Works will be completed in daylight hours
- 110v task lighting to be used in winter months as required.

12.0 Control of Substances Hazardous to Health (COSHH)

- Data sheets will be available on SPEEDECK Connectteams app
- General COSHH assessments will be available on SPEEDECK Connectteams app

13.0 First Aid

A first aid box must be on site at all times as will an eye wash station. An appointed person will take charge of first aid and emergency arrangements. All personnel shall be informed of who the first aider/ responsible person is and the location of the first aid box during the site pre-start induction/briefing.

14.0 Fire Prevention

- Hot works permit to be in place for cutting when requested by Foreman Homes
- The minimum fire point to be set up near to work site consists of: AFFF, CO2, Dry Powder and other
- All personnel will have been advised of fire procedures at the site induction

15.0 Excavations

Controls to be taken to prevent persons, vehicles, plant and equipment or any accumulation of earth or other materials from falling into an excavation (e.g.: barriers, removal of arisings, stop blocks etc).

- Excavation inspected by competent person:
 - At the start of each shift
 - After any event likely to affect the strength or stability of the excavation
 - After an accidental fall of rock, earth or other material
 - After suspected gas leak/other contaminate potential
- Permit to Dig required prior to any excavations to be issued by the SPEEDECK Supervisor
- Edge protection required on all deep excavation at all times

16.0 Personal Protective Equipment (PPE)

The following personal protective equipment (PPE) will be used:

SPEEDECK Mandatory PPE

Safety Footwear	BS EN345 or EN ISO 20345
High Visibility Jacket	BS EN471.2003
Safety Helmet	BS EN397
Gloves	BS EN374

Task Specific PPE

Safety Glasses	BS EN166 – to be worn as required
FFP3 MASK (face fitted)	When cutting materials that will cause dust
Ear defenders	BS EN 352 - for noisy operations
Protective Work Gloves	BS EN 388 – Handling of materials / waste

Ear Protection to be worn by operatives using power tools plant or provided safety literature states this may also apply to operatives that are working in a team.

17.0 Housekeeping

Works areas will be kept in orderly condition. Any debris that will be produced as a result of works shall be removed and taken to designated waste area.

SPEEDECK Supervisor to ensure that working areas are kept tidy and that access and egress routes are kept clear and tidy at all times.

18.0 Access and egress to site

Access and egress to site will be via approved site walkways in accordance with the SPEEDECK temporary works guidance and site set up plans.

19.0 Emergency Procedure

- As per the emergency procedures laid out in site induction by principal contractor and displayed on site
- All new personnel to the works area are to be informed of the evacuation procedures.
- SPEEDECK management to be contacted at first opportunity following an emergency.

20.0 Transportation

- Delivery times for plant and materials as specified in construction phase plan or main contractor's documentation
- Site Traffic Management Plan to be followed

Deliveries

- All large deliveries will be advised to the Principle Contractor giving 48 hours' notice where possible.
- All materials will be stored safely in the SPEEDECK material storage area in a controlled manner and maintain a high level of housekeeping

Loading & Unloading

- No access will be permitted onto the 'backs' of vehicles unless a means of fall prevention is in place (Will be controlled by company Supervisor)
- All materials will be stored in material lay down areas shown in the SPEEDECK site set up plan.

21.0 Systems/Codes of Practice

Relevant systems or code of practice will be followed. These include:

- HSE safe working Guides
- Approved codes of practice
- Manufactures recommendations
- British/European Standards
- Manufactures recommendations.

22.0 Statutory Records

The following Statutory Records will be maintained by the SPEEDECK Supervisor on the SPEEDECK Connectteams app.

- COSHH Assessments
- Method Statements
- Vibration records
- Site Diaries
- Record of Toolbox talks
- Statutory equipment maintenance and test records
- Chains and slings registers for crane

23.0 Noise and Vibration

- All records to be kept by foremen (when applicable) re: daily vibration levels
- Tool specific instruction and training will be given
- Tool rotation will be used so that daily exposure limits are not exceeded.
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- Tool specific instruction and training will be given
- Tool rotation will be used so that daily exposure limits are not exceeded.

24.0 Air Quality & Dust

Dust generation will be kept to a minimum and will only potentially occur when cutting materials and cleaning. This will not affect the general air quality due to all works being conducted externally and dust extraction/suppression must be fitted cutting and breaking equipment. FFP3 Dust masks will be provided when conducting operations that generate dust.

The supervisor will complete visual assessments and use the following the control measures to be taken during works will also include:

- Visual monitoring whilst works in progress
- Sealing of containers when not in use
- Use of vacuum extraction to remove contaminants
- Enclosure or ventilation of the process
- Switching off equipment when not in use

25.0 Dust

The supervisor will assess works areas and complete the following to ensure controls are in place

- Visual Monitoring
- Damping of surfaces
- Cleaning
- Vacuum extraction and water suppression
- Covering of spoil or gravel
- Sheeting of skips and lorries carrying spoil

We are fully aware of the advice in CPP on dust controls that include:-

- Damping down roads, stockpiles etc. with water
- Plan work to avoid double-handling
- Adopt careful handling of materials (eg when digging through soils keep bucket heights low)
- Traffic management
- Avoid tracking soil onto the highway
- Sweep hard standings to reduce dust build up

26.0 Waste Management

- Site waste to be segregated and carried to nearest waste management deposit
- Waste to be tracked and documented as per Foreman Homes environmental and site waste plan
- Ensure all skips are covered before they leave site

27.0 Traffic Management

- Site parking will be controlled by Foreman Homes SPEEDECK Supervisor,
- Vans will be used to bring in materials to complete works and store tools
- Parking is not to cause nuisance with local residence and comply with section 61 noise stipulations, or impede the general vehicular traffic flow

SITE ADDRESS SO509DN001 - Toynbee Road

FOREMAN HOMES: Foreman Homes

ASSESSOR Adam Wallace

POSITION SHEQ Manager

DATE 18/06/2024

DESCRIPTION OF ACTIVITIES Piled raft slab installation

Please refer to table below for explanation of 'Degree of Risk' and Residual Risk' computations. Determined values are at the discretion of the assessor.					
Severity ➤ Likelihood ▼	1 Negligible	2 Minor	3 Major	4 Critical	5 Catastrophic
1 Improbable	1 LOW	2 LOW	3 LOW	4 LOW	5 LOW
2 Remote	2 LOW	4 LOW	6 LOW	8 MEDIUM	10 MEDIUM
3 Occasional	3 LOW	6 LOW	9 MEDIUM	12 MEDIUM	15 HIGH
4 Regular	4 LOW	8 MEDIUM	12 MEDIUM	16 HIGH	20 HIGH
5 Probable	5 LOW	10 MEDIUM	15 HIGH	20 HIGH	25 HIGH

	HAZARD	CONSEQUENCE(S)	PERSONS AT RISK	DEGREE OF RISK			CONTROL MEASURE(S)	RESIDUAL RISK			RESPONSIBLE PERSONNEL
				L	S	R		L	S	R	
1.	Manual Handling.	Minor and major injury to operatives.	Operatives.	5	3	15	Manual handling assessment to be completed prior to works starting, considering physical capabilities of individuals and environmental conditions. Lifting equipment to be used wherever possible to eliminate the need for manual handling. All operatives to have manual handling training. Team lift where practical.	2	3	6	Operatives.
2.	Excavation	Minor and major injury to operatives.	Operatives	4	5	20	This RA should be read in conjunction with HSE acknowledged Task Specific Risk Assessment and Method Statement G003 Buried Services (APPENDIX L) All excavation work will be carried out under a permit to dig system. Area to be CAT scanned and all services traced and marked on the ground prior to any excavation taking place.	1	5	5	Operatives

	HAZARD	CONSEQUENCE(S)	PERSONS AT RISK	DEGREE OF RISK			CONTROL MEASURE(S)	RESIDUAL RISK			RESPONSIBLE PERSONNEL
				L	S	R		L	S	R	
							Excavation to be inspected by the supervisor - at the start and end of each shift. - After any event likely to affect the strength or stability of the excavation - After an accidental fall of rock, earth or other material. - suspected gas leak/other contaminate potential Prior to starting works all excavations will be checked to ensure they do not undermine other structures or effect traffic routes Ground conditions and any adjacent structures will be considered and if required temporary works will be considered for each excavation. Excavations will be protected with barriers and signage Spoil will be placed in an area shown on site set up plan this will be a minimum of 2 metres away from the side of the excavation to prevent surcharge. Provide a safe means for access and egress to all excavations. Ensure all statutory inspections are undertaken (HSE guidance CIS47).				
3.	Excavating adjacent to services	Electrocution / burns / death/ damage to infrastructure	All	4	5	20	Permit to dig to be in place prior to any excavation works taking place. Area to be CAT scanned and all services to be marked on the ground, operatives to be briefed on service marking. Hand dig only within 500mm of known service Stop works if any unidentified services are encountered and contact SPEEDECK supervisor.	1	5	5	Operatives and Supervisors.

	HAZARD	CONSEQUENCE(S)	PERSONS AT RISK	DEGREE OF RISK			CONTROL MEASURE(S)	RESIDUAL RISK			RESPONSIBLE PERSONNEL
				L	S	R		L	S	R	
							Do not stand on cables or use cables as a foot / hand hold when entering excavations No forks, picks pins or spiked tools to be used during excavation All hand tools to be insulated. Ducts and pipes are not to be pulled or moved by operatives. Any damaged to services to be reported to SPEEDECK Supervisor,				
4.	Use of Plant – excavators and dumpers	Physical Injury, Damage to Machinery, Damage to infrastructure.	Plant operators, banksman, operatives, All	4	5	20	All plant operatives will hold relevant qualification either NPORS /plant master/CPCS All plant and lifting equipment shall be used and maintained in accordance with PUWER and LOLER regulations. All plant shall have a valid legislative thorough examination certification and current up to date inspections shall be completed. Operative will be fully aware of potential risks associated with quick hitches and shall receive a tool box talk/safety briefing and, shall be issued a hand out on the need to take special care when using quick hitches. Personnel are not permitted to work beneath excavator buckets. Plant movement will be segregated from other work by a physical barrier, orange demarcation tape, or the use of a competent banks man or watcher. A competent banksman/traffic marshal shall ensure safe passage of all moving plant in and around the site by overseeing the movements and restricting other plant and pedestrian movements.	1	5	5	Plant operators and supervisors

	HAZARD	CONSEQUENCE(S)	PERSONS AT RISK	DEGREE OF RISK			CONTROL MEASURE(S)	RESIDUAL RISK			RESPONSIBLE PERSONNEL
				L	S	R		L	S	R	
							Machine speed and take off should be set to a low setting that allows for safe movements in compounds and loading zones. All plant with workers riding or working on them, are fitted with roll-over protective structures (ROPS) and seatbelts if there is a risk of overturning. Check all drivers are medically fit to drive; Driver should highlight any medical concerns to their supervisors Never allow passengers to ride on or in vehicle cabs unless they are sitting on a passenger seat in a safe position and cannot impede the driver, accidentally contact the machine controls, or obscure the driver's vision. . All plant will be inspected daily and findings recorded on Connectteams. Drivers and operatives to wear PPE detailed in site induction at all times when leaving vehicles. All plant operatives must wear seatbelts in the correct manner when driving or operating plant.				
5.	Lifting with Plant			3	4	12	Where possible use alternative means to complete lift operations (site forks or site crane) All lifting operations will be supervised by competent personnel. Where non-standard lifts required a specific lift plan by an AP or lift supervisor is required General lifts to follow standard lift plan guidance and all staff to be briefed. All plant and lifting equipment shall be used and maintained in accordance with PUWER and LOLER regulations.	1	4	4	Operatives and Supervisors.

	HAZARD	CONSEQUENCE(S)	PERSONS AT RISK	DEGREE OF RISK			CONTROL MEASURE(S)	RESIDUAL RISK			RESPONSIBLE PERSONNEL
				L	S	R		L	S	R	
							All slings and shackles to be certificated and proof held on site. Only approved lifting eyes to be used. Where possible use bow shackles for lifting Ensure all shackles or lift eyes are fully secured and tightened before lifts occur. Plan all lifts. If in doubt, do not lift. Re-assess works. When lifting manholes into location no operatives will be in a position to allow crushing to occur either internally or externally of the rings				
6.	Lifting and travelling with an excavator	Physical Injury, Damage to Machinery, Damage to infrastructure.	Operatives	3	5	15	Relevant test certificates or copies will be kept available for inspection, and be present before the work starts Excavator operators must hold a valid CPCS card with lifting ops. Slinger must include pick and carry duties All safe working limits of the equipment and accessories to be checked. All lifting equipment and accessories calibration and inspection dates to be checked prior to lifting. All lifting equipment and accessories to be visually inspected prior to use. All lifting equipment to hold a through examination certificate carried out within the last 12 months. All lifting accessories to hold a thorough examination certificate carried out within the last 6 months. Where possible use alternative means to complete lift operations (site forks or site crane) All lifting operations will be supervised by competent personnel.	1	5	5	Operatives and Supervisors.

	HAZARD	CONSEQUENCE(S)	PERSONS AT RISK	DEGREE OF RISK			CONTROL MEASURE(S)	RESIDUAL RISK			RESPONSIBLE PERSONNEL
				L	S	R		L	S	R	
							Where non-standard lifts required a specific lift plan by an AP or lift supervisor is required General lifts to follow standard lift plan guidance and all staff to be briefed. All plant and lifting equipment shall be used and maintained in accordance with PUWER and LOLER regulations. All slings and shackles to be certificated and proof held on site. Plan all lifts. If in doubt, do not lift. Re-assess works.				
7.	Dust and airborne particles.	Personal Injury Respiratory illnesses	Public, operatives	3	3	9	Dust extraction required for power tools. Water suppression required for all concrete cutting. All operatives to be face fitted and issued with FFP3 masks. Work areas will be protected by barriers where possible to protect workers from dusty works. Work areas will utilise water suppression when cutting or grinding. Maintain good personal hygiene. Water suppression to be used for sweeping.	1	3	3	All
8.	Slips, trips and falls at the same level.	Bruising, cuts and fractures.	All.	5	3	15	Maintain a clean and tidy works area. Site walkways to be followed at all times. Pre-determined designated areas will be allocated for storage facilities and redundant material. All operatives will be aware of the designated areas. All equipment will be secured and regularly inspected. Wear appropriate PPE (steel toe cap boots and gloves).	2	3	6	Operatives and Supervisors.

	HAZARD	CONSEQUENCE(S)	PERSONS AT RISK	DEGREE OF RISK			CONTROL MEASURE(S)	RESIDUAL RISK			RESPONSIBLE PERSONNEL
				L	S	R		L	S	R	
							Spillages to be cleaned up and reported immediately. Qualified first aiders and equipment on site. Excavations to be closed and protected prior to leaving them unattended. Excavations must be protected with barriers to prevent persons falling in. Avoid leaving tools, materials or other items lying on the ground when not in use.				
9.	Noise	Operatives and members of the Public	All.	5	3	15	Issue correct ear protection for equipment used, Ensure operators are wearing protection correctly, including other operatives in close proximity. Select correct tool for job. Exclusion zones to be in place for noisy works Signs to be in place for noisy works All operatives working in the vicinity of noisy work shall wear hearing protection and take regular breaks in a safe noise free zone. Hearing protection required in drilling areas, when using disc cutter, during jet washing or in attendance of piling. All operatives operating power tools that generate noises above 80bd will wear hearing protection. This will also apply to those assisting. A noise zone will be demarked by signage to warn operatives of risks when entering area. When using any tools where noise levels are between and over 87db and 95db, hearing protection required. A quick check on noise is if you cannot hear your work mates about 2 metres away then hearing protection required.	2	3	6	Operatives and Supervisors

	HAZARD	CONSEQUENCE(S)	PERSONS AT RISK	DEGREE OF RISK			CONTROL MEASURE(S)	RESIDUAL RISK			RESPONSIBLE PERSONNEL
				L	S	R		L	S	R	
10.	Interface with plant - vehicles	Injury to operatives and the public	Operatives	3	4	12	All vehicles and plant to be banked. Only certified and competent operatives to operate plant and machinery. Reversing assistants to be used. Site traffic management to be adhered to all times.	1	3	3	Supervisor and Operatives
11.	Working with excavators	Injury to operatives	Operatives	4	3	12	Only competent CPCS operators to operate excavator. All CPCS operators to have lifting ops Exclusion zone to be in place when excavator is working Daily checks to be carried out on all plant, any defects are to be reported to supervisor Follow banksman instructions at all times. All machine operations to be banked. Seat belts to be worn at all times. All lights and beacons must be operational and checked daily. Machine windows and mirror to be kept clean and in good condition to aid vision. Cab radios are not permitted to be used. Only access excavator using access steps. Maintain 3 points of contact at all times. Access steps to be kept clear of muck and non-slip.	1	3	3	Supervisor and Operatives
12.	Use of dumpers	Physical Injury, Damage to Machinery, Damage to infrastructure.	Operatives	4	4	16	Dumper operators to be CPCS or NPORS trained Dumper operators MUST always wear seat belts Banksman to control all dumper movements Dumper operators will not sit or stand on plant when it's being loaded and step away to a safe distance Site speed limits will be observed at all times Use flashing beacons to be fitted to all dumpers	1	4	4	Supervisor and Operatives

	HAZARD	CONSEQUENCE(S)	PERSONS AT RISK	DEGREE OF RISK			CONTROL MEASURE(S)	RESIDUAL RISK			RESPONSIBLE PERSONNEL
				L	S	R		L	S	R	
							Never leave dumpers unattended and running Remove and secure all keys when not in operation Daily dumper check form to be completed on Connectteams. All statutory inspections and maintenance to be completed.				
13.	Use of Hand Tools	Puncture wounds/ abrasions/cuts	Operatives	4	4	16	Always use correct tool for the job. Operatives to be trained to use tool. Check condition of tool before use. Ensure tools are tethered using draw cord when working at height. Hand tools should be visually inspected for defects, prior to use. Where necessary, defective hand tools should be replaced. Hand tools should only be used for the job they were designed to do, e.g., screwdrivers should not be used as chisels. Cut away from yourself where possible when using blades when required wear cut proof gloves.	1	4	4	Supervisor and Operatives
14.	Abrasive Wheels	Physical Injury, Damage to Machinery, Damage to infrastructure.	Operatives	3	4	12	All operatives using abrasive wheels/disk cutters will be trained and competent in both the use of operation of plant and in changing cutting wheels. Avoid steel cutting by following RC drawings and using correct bars marks Designated area with screens to be set up for repetitive cutting. Screens to be used to contain sparks when cutting on site. Wet cut where possible on all silica producing operations. Set up noise zones where required.	1	4	4	Operatives and Supervisors.

	HAZARD	CONSEQUENCE(S)	PERSONS AT RISK	DEGREE OF RISK			CONTROL MEASURE(S)	RESIDUAL RISK			RESPONSIBLE PERSONNEL
				L	S	R		L	S	R	
							Face fitted FFP3 masks to be worn when for cutting concrete.				
15.	Use of power tools	Physical Injury, Damage to Machinery, Damage to infrastructure.	Operatives	3	4	12	All tools are to be inspected prior to use. All tools to be PAT tested and register available and or a documented regime for inspection. All PPE as per manufacturers recommendations will be worn as required when using tools including eye, hand, and ear protection. If item has significant vibration levels operative to be made aware of risks and follows procedures laid out in section labelled HAV'S All operatives that use power tools that generate dusts will be face Fitted to FFP3 standards	1	4	4	Operatives and Supervisors.
16.	Hand Arm Vibration (HAVS)	Hand arm vibration	Operatives	4	4	16	Supervisor to ensure that all plant that arrives on site is of the lowest practical vibration level to perform the required task. All trigger levels are to be monitored and recorded using the SPEEDECK Connectteams app. Ensure that the vibrations levels are known for each item of plant. The operative is to be aware of exposure limits associated with the task and not exceed their daily exposure limit by recording trigger times that will be checked by the SPEEDECK Supervisor. Tool rotation to be followed to reduce exposure time of operatives exposed to vibration. Operatives to keep hands warm.	1	4	4	Operatives and Supervisors.
17.	Hot Works, using a disc cutter, welding activities	Personal Injury and damage from noise, sparks, heat and fire, exposure to	Operatives	3	3	9	No cutting, grinding or welding is allowed to start before a hot works permit has been issued by FLO Fire extinguishers must be kept to hand at all times. All hot works activities should have a dedicated 'fire watch' in place.	1	3	3	Supervisor and Operatives

	HAZARD	CONSEQUENCE(S)	PERSONS AT RISK	DEGREE OF RISK			CONTROL MEASURE(S)	RESIDUAL RISK			RESPONSIBLE PERSONNEL
				L	S	R		L	S	R	
		arc flash					Ensure impact goggles and ear protection is worn when using any abrasive wheels. Remove all flammable materials from the area or cut/grind elsewhere in a safe place. Hot Works Permits must be closed out and returned prior to the end of each shift.				
18.	Working with cementitious materials	Personal Injury	Operatives	5	3	15	All operatives shall be aware of overhead pump movements. Operative will be in constant communication with pump operators. Operatives to wear protective overalls and wellington boots when pouring concrete. Wash any concrete splashes from the skin with clean water immediately. Pump hose man to ensure he has stable platform or footing to always work off. Wash out will be completed in pre agreed location shown on SPEEDECK site set up plan.	1	3	3	Operatives and Supervisors.
19.	Refuelling	Personal Injury	Operatives	5	4	20	Only in designated areas Use drip trays. Clean up any spills with spill kits and place contaminated ground onto polythene sheeting for remove by licenced waste contractor. Do not over fill plant and dip test before and during filling. Avoid refuelling hot plant. Spill kits to be located around site in a prominent position with ease of access. Refer to spill response plan. Fire points to be located around the site with means of raising the alarm and suitable fire extinguishers	1	4	4	Operatives and Supervisors.

	HAZARD	CONSEQUENCE(S)	PERSONS AT RISK	DEGREE OF RISK			CONTROL MEASURE(S)	RESIDUAL RISK			RESPONSIBLE PERSONNEL
				L	S	R		L	S	R	
							that are to be checked by the SPEEDECK Supervisor at least weekly. The fuel bowser shall be located in an area away from moving plant and kept locked when not in use				
20.	Temporary Works	Injury to operatives, collapse of structure	Operatives	4	5	20	Temporary works to be installed in accordance with the approved temporary works drawings. Permit to load to be issued for all temporary works by the TWS Temporary works to be inspected by SPEEDECK supervisor at the start and end of each shift. Shutters must be supported at all times and must not be left standing without struts.	1	5	5	Supervisor and Operatives
21.	Access and Egress of Plant	Damage to workers/assets, crush injury, possible death	Operatives	4	5	20	SPEEDECK works will be Segregated using barriers. Plant only to be operated by trained and competent operators. Plant will be maintained and inspected All site traffic management plans will be followed Site to be set up in accordance with SPEEDECK site set up plan All work areas are to be prepared in accordance with SPEEDECK temporary works guidance. Trained and competent banksmen will be used for plant movements as required Operatives will never position themselves between a fixed object and moving plant	1	5	5	Supervisor and Operatives
22.	Hot works (cutting of reinforcement)	Fire, damage to equipment, serious injury or death to workers	Operatives	4	4	16	Hot works will only be undertaken using a permit to work system Remove all waste or flammable materials Check that areas well ventilated No smoking Set up fire point near works area	1	4	4	Supervisor and Operatives

	HAZARD	CONSEQUENCE(S)	PERSONS AT RISK	DEGREE OF RISK			CONTROL MEASURE(S)	RESIDUAL RISK			RESPONSIBLE PERSONNEL
				L	S	R		L	S	R	
							Ensure you are aware of where sparks will travel. Remove all fuels and flammables from works areas				
23.	Hazardous substances (COSHH)	Damage to skin, eyes, respiratory system	Operatives	4	4	16	All substances use will have a COSHH assessment and safety data sheet on the SPEEDECK Connectteams app. All COSHH advice on data sheets to be followed. Operatives will be given instruction, training and guidance on the use of the substances and the exposure limits and PPE that should be used	1	4	4	Supervisor and Operatives
24.	Loan Working – Setting Out	Physical Injury, Damage to Machinery, Damage to infrastructure.	Engineers	4	5	20	Engineers to call into office at the start of the shift. Calls are to be made into the office at regular intervals. If a call is not received, then steps must be taken to contact the engineer.	1	5	5	

PERSON UNDERTAKING RISK ASSESSMENT:	Adam Wallace	DATE OF ASSESSMENT:	Date
SIGNATURE:		DATE OF NEXT REVIEW	Date

RISK ASSESSMENT ACKNOWLEDGEMENT (I acknowledge that I have been briefed in the contents of this Risk Assessment and understand the requirements and conditions for conducting these work activities).

No:	NAME	SIGNATURE	EMPLOYER	DATE
1.				
2.				
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APPENDIX A

Manual Handling Assessment

Appendix A – MANUAL HANDLING ASSESSMENTS (Materials)

Manual Handling Assessment Sheet

Lifting Operation:	Lifting of materials / tools		
Assessment Completed By:	Adam Wallace	Job Title:	SHEQ Manager

1 INSTRUCTIONS

Can the manual handling operation be designed out? No

Can it be automated or mechanised? Not in all cases, where possible mechanical means will be used

If the manual handling operations is unavoidable assess the task against each of the criteria.

If the risk is high then a safe system of work must be documented and implemented.

2 THE TASK

RISK CATEGORY	Y/N
Does moving the load require an awkward posture?	Y
Is there any need to stoop, twist, or reach?	Y
Does the load require outstretched arms to handle?	Y
Will the load need to be carried?	Y
Will the handling operation need to be performed frequently?	Y
Will the load need to be handled without adequate rest pauses?	N
Does the load require more than one person to handle it?	Y
OVERALL RISK ASSESSMENT (H/M/L)	M

3 THE LOAD

RISK CATEGORY	Y/N
Is the load 25 kg or over?	Y
Is the load bulky or unwieldy? (1 or more dimensions > 75 cm)	Y
Is the load uneven or with the centre of gravity off centre?	N
Is the load unstable?	N
Is the load difficult to grip or handle?	N
Does the load require personal protective equipment?	Y
Does the load obstruct the handler's vision?	N
Is the load itself a safety hazard, e.g. hot, or with sharp edges?	Y
OVERALL RISK ASSESSMENT (H/M/L)	M

4 THE ENVIRONMENT

RISK CATEGORY	Y/N
Are there any space constraints for the handling operation?	Y
Are the floors uneven and/or slippery?	Y
Will the load need to be handled across several levels?	Y
Is the physical environment poor (hot/cold/windy)?	Y
Is the lighting adequate?	Y
OVERALL RISK ASSESSMENT (H/M/L)	M

5 THE INDIVIDUAL

RISK CATEGORY	Y/N
Does the operation require unusual physical capacity?	N
Does the operation require specialised knowledge?	N
Does the individual need training in lifting in this situation?	Y
OVERALL RISK ASSESSMENT (H/M/L)	L

6 OVERALL ASSESSMENT

RISK CATEGORY	
Score from the Task	M
Score from the Load	M
Score from the Environment	M
Score from the Individual	L
OVERALL RISK ASSESSMENT (H/M/L)	M

7 PROPOSED ACTION (Before Anyone is Placed at Risk)

Operatives to be briefed on Manual Handling / Lifting technique and regular toolbox talks to be given. Use site mechanical means where possible team lift / take regular breaks
Gloves BSEN 388 to be worn when handling material and equipment. Use barrows and trolleys where possible Individual manual handling assessments required if abnormal lifting required

APPENDIX B

Works Access and Temporary Works Guidance



S P E E D E C K

WORKS ACCESS AND TEMPORARY WORKS GUIDANACE
REV3

WORKS ACCESS AND TEMPORARY WORKS GUIDANACE

This documents details the access requirements and temporary works guidance for SPEEDECK to deliver works on site. The following temporary works elements are to be considered.

- Pedestrian access to work areas
- Pedestrian access to plots
- Water supply
- Piling agitator and pump set up
- Vehicle access for deliveries
- Working platform for piling rig
- Material lay down areas
- Concrete pump set up
- Concrete wash out area



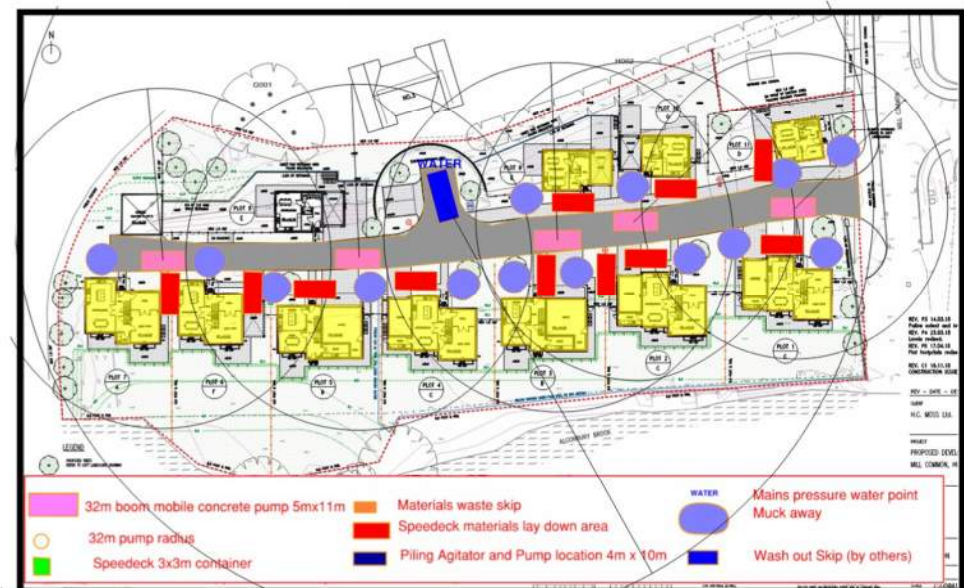
S P E E D E C K

Site Set Plan

SPEEDECK will issue a site set up plan for each project. The site set up plan will show the how SPEEDECK have planned to set the site up to deliver the works in a safe and efficient manner. The site set up will be planned using information available form site, such as the location of site gates for deliveries and haul roads.

Each site set up plan will include locations for the following:

- Location for piling agitator and pump
- Concrete pump set up location and pump radius
- SPEEDECK 3m x 3m container
- Materials waste skip requirements
- Concrete wash out areas
- Mains pressure water points
- Arisings muck away
- SPEEDECK material laydown areas



Example site set up plan

Pedestrian access to work areas and plot areas

Pedestrian access will need to be provided for operatives to around site. Pedestrian walkways are required around site and to give SPEEDECK operatives access to plot areas. Walkways need to be:

- Well compacted material and level walking surface
- Clear of debris and materials.
- Segregated from site vehicles with designated crossing points.
- Well lit, if required with clear signage



Water Supply

Mains pressure water supply and tap will be required :

- Water locations shown on site set up plan
- Water must be mains pressure with a tap connection.
- All pipework must either be lagged or buried underground to prevent freezing
- All pipe work must be adequately protected and located away from areas where machinery will be tracking.



Vehicle access for deliveries

Vehicle access will need to be provided for all SPEEDECK deliveries. Haul roads will need to be:

- Well compacted material and level and well drained.
- Regular inspected
- Suitable to accommodate multiple deliveries and collections from the vehicles listed below:



DELIVERY	VEHICLE	VEHICLE SIZE	LOAD SIZE	LOAD WEIGHT	TRANSPORT WEIGHT
Piling rig and pump	Arctic low loader:	17t – 17.5m long, 2.5m wide 4.5m high	Klemm 709 -2 piling rig: 9.8m long, 2.4m wide, 3.1m high Pump: 5.8m long, 2.0m wide, 2.4m high	Approx. 13.4t 4.3t	44t inc. low loader Max axle load 11t
Piling Agitator vehicle	Rigid plant lorry	22t - 12m long, 2.5m wide, 4.3m high	Agitator: 7.2m long, 2.9m wide, 3.8m high	6.5t 18tn Fully loaded	32t inc. wagon Max axle load 11t
SPEEDECK plant	Arctic low loader	17t – 17.5m long, 2.5m wide 4.5m high	3tn Exc: 4.1m long, 1.7m wide, 3.1m high 5tn Exc: 5.5m long, 1.9m wide, 2.6m high 3tn Dumper: 4.3m long, 1.5m wide, 3.1m high	2160Kg 5545Kg 3000Kg	44t inc. low loader Max axle load 11t
Concrete	Concrete wagon	9.15m long, 2.55m wide 3.75m High	n/a	8m ³ truck	32t inc. wagon Max axle load 11t
Cellcore (voided slab only)	Rigid lorry	20t - 8.5m long, 2.4m wide, 3m high	n/a	n/a	32t inc. wagon Max axle load 11t
Steel Reinforcement	Rigid lorry	20t - 8.5m long, 2.4m wide, 3m high	n/a	n/a	32t inc. wagon Max axle load 11t
SPEEDECK Consumables (container, shutters, tools, etc.)	Hiab lorry and trailer	18t 7.6m and 6m – 13.6m total length, 2.5m wide, 3m high	2.4m long, 2.2m wide, 2.3m high	Up to 1050Kg loaded	32t inc. wagon Max axle load 11t
Concrete Pump – 36m See page 11 for details		26t – 12m long, 2.8m wide, 4m		26t	26t

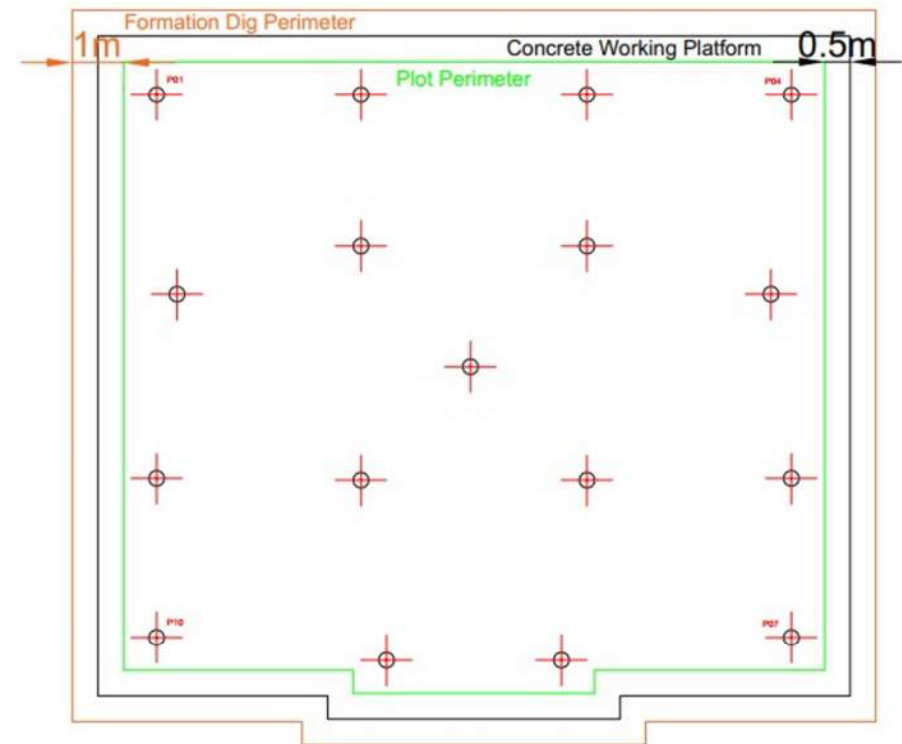
Working platform for piling rig

The piling rig will require a minimum of 50mm of C30 concrete to manoeuvre on.

The Concrete working platform will be poured to 0.5m past plot perimeter.

The Formations will need to be dug to 1m past the plot perimeter.

Formation should be lowered to a tolerance of -20mm below required level.



Agitator & Pump setup and access.

To support the piling works SPEEDECK will need an area to locate the agitator and pump set up. The area must be serviced by a suitable haul road for concrete deliveries.

The set up will include an agitator (8t), a concrete pump (1t) power pack and a lined concrete wash out skip.

- Level area a minimum 12m x 4m suitable to support the weights above
- Mains water supply located near agitator locations



Material lay down areas

SPEEDECK require designated lay down areas for storage of materials and plant, locations will be as per the site set up plan. SPEEDECK will provide signage and crowd barrier fencing to demark our lay down area. Lay down areas will need to be:

- Well compacted material and well drained.
- Large enough to accommodate materials
- Accessible to all delivery vehicles from site haul roads.



Concrete Wash Out Area

Concrete washout area needs to be provided. Safe concrete washout is vitally important to achieving sustainable construction and successful site waste management.

Concrete washout water contains extremely high levels of alkaline (pH 11 -13) which means it is as corrosive as oven cleaner and hugely damaging to vegetation and eco -systems, killing fish and other aquatics species.

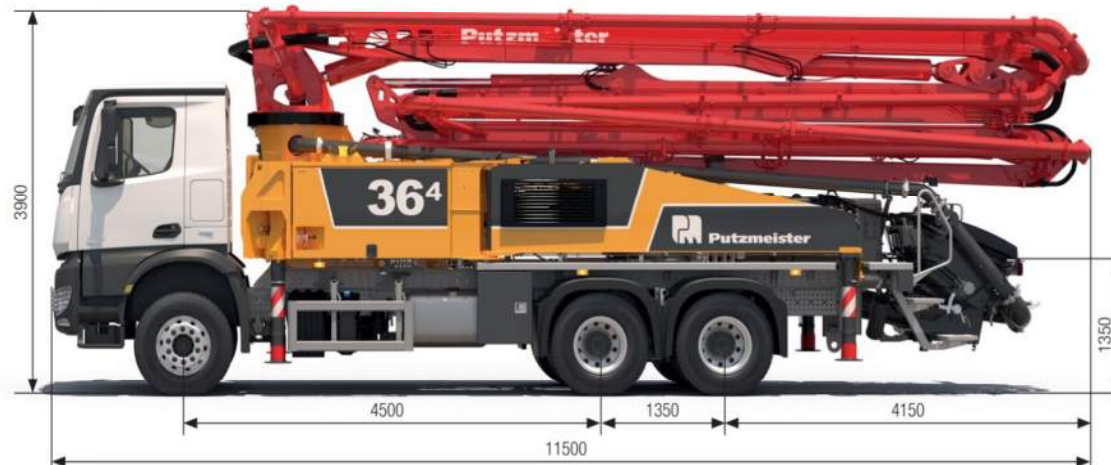
SPEEDECK require an area to washout for piling concrete, blinding and slab, typically this can be a washout system, lined skip or a designated bunded wash out area.



Concrete Pump Details

For RC slab and blinding pours, SPEEDECK will use a 36m boom lorry mounted concrete pump.

The pump will be set up on bearing pads 600mm x 600mm. The ground beneath the bearing pads will need to be prepared to allow for the pump to be set up.



Note: Standard version. Dimensions and weights depend on truck, pump model and equipment.
Dimensions in mm for MB-Actros 3243.

Technical Details:

Delivery Cylinder	230mm
Delivery Stroke	2100mm
Output	Max 170m ³ /h
Delivery pressure	85 Bar
Strokes per minute	31
Weight	26000Kg
Vertical reach	36m
Horizontal reach	31m
Front outrigger loading	180kN
Rear outrigger loading	185kN
Boom unfold height	8500mm
Length	11500mm approx.
Width	2800mm + wing mirrors
Width full rig front set up	5500mm
Width full rig rear set up	7000mm

Concrete pump set up

For RC slab and blinding pours, SPEEDECK will use a 36m boom lorry mounted concrete pump.

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