

PROJECT MANAGEMENT PLAN

PMP SECTION 5 – W/P 2; De-rig augers; (SF50 with Ext. Only)

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Rock & Alluvium 

Contract Title: 100, Woodside Avenue. N10 3JA	Contract No:	MS Reference:
Work Package: De-Rig Augers	9761	MS 01
Author: ND / WL	Date Produced: 09/11/2023	

Scope of Works	The safe removal of flights from the extension (in an un-locked/extended position) on a Soilmec SF50
Significant HS&E Risks	Refer to Full Risk Assessments, and COSHH Register (FM-HSS-H02-02) COSHH Assessments (FM-HSS-H02-01)
Personnel No. Competency level / qualification	Rig Driver/Foreman, Pump Operator, Piling Operatives (1or 2)
Plant, equipment and material required	Soilmec hydraulic Piling rig Trailer mounted concrete pump Concrete agitator Compressor. Bunded Vented Fuel bowser Storage container (normally 10ft/3m) Low Loader Hi-ab (rigid) delivery wagons.

	Key: R = Review, I = Inspect, H = Hold	Inspection	Responsible
	<i>The safe operating procedure for removing the flights from the extension (in an un-locked/extended position) on a Soilmec SF50</i>		
1	Locate safe position agreed by Principal Contractor and R&A to position flight in the ground	I	Rig Driver
2	Set rig over position and proceed to drill auger into the ground until the top 6m auger section coupling is accessible from ground level.		
3	Lower motors and unlock extension		
4	Raise motors	H	Banksman
5	Remove retaining pins from the lower coupling on the top 6m section		
6	Lift motors to separate top section and extension from auger string drilled in the ground.		
7	Track rig to safe position for removing auger section		
8	Lower auger to the floor for pin removal		
9	Gain access to the top section joint (6m) using a MEWP and remove pins. Rotate auger to enable pin removal if necessary (pins can only be driven out from one direction).		
10	Raise collar chain up to operative using the auxiliary winch. Choke auger with collar chain and re connect to auxiliary winch. Take slack out of auxiliary winch and collar chain		
11	Raise motors to separate 6m section from unlocked extension. Lower section of flight to floor using auxiliary winch and remove collar chain taking care to avoid drop hose.		
12	Re-position rig over auger already drilled into the ground and re-connect augers with retaining pins	I	Banksman
13	Extract and back screw auger clear of bore		
14	Ensure that the open bore is backfilled, compacted and cordoned off in case of any settlement.		
15	Move machine to safe position to remove remaining augers		

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16	Proceed to remove auger starting with cutting head		
17	Auger lowered to the ground		
18	Rotate auger so that the pins can be removed from the cutting head (can only be removed in one direction).		
19	Remove pins using punch and club hammer		
20	Choke cutting head with collar chain and connect to auxiliary winch using collar chain		
21	Take slack out of auxiliary winch and collar chain, lift augers to part cutting head from lower auger section and lower cutting head to floor using auxiliary winch		
22	Lower auger to floor to enable the pins to be removed from the next coupling joint (at height of 6m)		
23	Gain access to the first coupled joint (6m) using a MEWP and remove pins. Rotate auger to enable pin removal if necessary (pins can only be driven out from one direction).		
24	Raise collar chain up to operative using the auxiliary winch.		
25	Choke auger with collar chain and re-connect to auxiliary winch		
26	Take slack out of auxiliary winch and collar chain		
27	Lift auger to separate 6m section from remaining auger section and attached extension		
28	Lower section of flight to floor using auxiliary winch and remove collar chain taking care to avoid drop hose.		
29	Repeat process items 22-28 to remove last auger section from extension.		
30	Lower auger extension with motors to the floor.		
31	Run motors down auger extension but not completely to the stops of the mast.		
32	Move the rig to plumb the extension and guide pole to vertical		
33	Remove location pin on guide pole		
34	Using MEWP attach auxiliary winch to guide pole and remove and set down on ground		
35	Spill concrete hose at joint		
36	Access top of extension using MEWP and attach auxiliary winch to lifting point on back of swan neck ensuring that the winch is positioned correctly between main winch ropes.		
37	Take off slack in auxiliary winch, lower motor to mast stops and lift extension through rotary table and lower to ground. Care to be taken when lifting extension to ensure it is clear of rotary table and winch ropes		
38	De-rig machine as per Soilmec Use and Maintenance manual and R&A document PMP Section 5 – W/P _; Erection & De-rigging SF50.		
NB: If site constraints dictate that the auger cannot be drilled into the platform then the auger must only be rotated forward to ensure that the locking mechanism on the extension pole remains locked.			
Please also note that the backfilling of any residual void left from the above de-rigging procedure must be carried out in accordance with section 24 of the CFA risk assessment; document reference FM-HSS-H03-03.			

PROJECT MANAGEMENT PLAN

RIGGING AND DE-RIGGING RISK ASSESSMENT

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Business Unit	Rock & Alluvium	Site Address	100, Woodside Avenue. N10 3JA	Principal Contractor	Formation Design & Build Ltd	Con. No:	9761
HS&S Assessor	William Longhurst	Operation	RIGGING & DE-RIGGING OF PILING RIG	Date:	09/11/2023	Ref. No:	Revision v4.3

This Risk Assessment relates to Method Statements MS-00, MS-01, MS-02 and MS-03.
The Rigging and de-rigging procedures must be adhered to at all times.

HAZARDS	PERSONS AFFECTED	RISK			CONTROL MEASURES (List control measures that are provided and those required)	RISK		
		L	S	R		L	S	R
Site Specific Hazards: (additional site specific hazards identified below, if any)								
Thames Water Assets					Information appertaining to the assets are detailed within this document, ensure that we rig-up / de-rig outside of any easement zones.			
Please see next page								

PROJECT MANAGEMENT PLAN

RIGGING AND DE-RIGGING RISK ASSESSMENT

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Section	HAZARDS	PERSONS AFFECTED	RISK			CONTROL MEASURES (List control measures that are provided and those required)	RISK		
			L	S	R		L	S	R
1	Instability of ground	Rig team	2	4	M	Rig to be rigged and de-rigged on suitable piling mat, copy of the working platform certificate to be signed and design must be available on site prior to commencement of rigging.	1	4	L
2	Rig failure due to mechanical or operator error	Rig team	3	4	H	Operators to be qualified and competent; equipment to be checked and certified regularly. Rigging and de-rigging procedure to be followed.	1	4	L
3	Rig Instability	Rig team	2	3	L	Mast not to be fully erected beyond 45 degrees until track extension pins inserted	1	3	L
4	Use of MEWP (CFA rigs)	Refer to Main Site Risk Assessment where this is covered							
5	Fitting Augers	Rig team	2	4	M	Augers to be slung using spare line and fitting pins inserted into each joint before next section added. Procedures outlined in section 5.1 Rigging and de-rigging to be followed.	1	4	L
6	Ladder slipping	Ladder user	2	3	L	Ladder to be footed at all times in use; most duties that require the use of a ladder (ensuring that '3points of contact' are maintained) will be carried out by using the MEWP.			
7	Rig may slip off low loader during loading / off-loading	Rig team and low-loader operators	3	3	M	Use ramps and stand clear of the low loader bed during the operation. If on public highway ensure public is kept clear of the operation; PC should provide suitable loading / off-loading area with appropriate traffic management.	2	3	L
'LIVE RISKS' TO BE RECORDED BELOW									

High Risk Operation NO	Temporary Works NO If Yes – refer to STD-HSS-T01	The above control measures have been implemented (If not signed on briefing record)
Workplace Manager		Date

PROJECT MANAGEMENT PLAN

RIGGING AND DE-RIGGING RISK ASSESSMENT

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Amendment Log

Revision	By	Amendment	Date
4	PC	Issue 09 (BMS2).	01/02/22
4.1	ND	No amendments to this document.	08/04/22
4.2	ND	No amendments to this document.	06/10/22
4.3	ND	No amendments to this document.	29/08/23

PROJECT MANAGEMENT PLAN

RIGGING AND DE-RIGGING RISK ASSESSMENT

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	HAZARD SEVERITY (S)				
	1 Negligible Negligible injury, no absence from work	2 Slight Minor injury requiring first aid treatment	3 Moderate Injury leading to a lost time accident	4 High Involving a single persons serious injury/death	5 Very High Multiple serious injuries/death
RISK RATING = Likelihood (L) x Severity (S)					
1 Very Unlikely A freak combination of factors would be required for an incident / accident to result	LOW	LOW	LOW	LOW	LOW
2 Unlikely A rare combination of factors would be required for an incident / accident to result	LOW	LOW	LOW	MEDIUM	MEDIUM
3 Possible Could happen when accidental factors are present but otherwise unlikely	LOW	LOW	MEDIUM	HIGH	HIGH
4 Likely Not certain to happen but an additional factor may result in an incident/accident	LOW	MEDIUM	HIGH	HIGH	HIGH
5 Very Likely Almost inevitable that an incident / accident would result	LOW	MEDIUM	HIGH	HIGH	HIGH

LOW RISK (Score 1-6)	May be acceptable, however, review task to see if risk can be reduced further
MEDIUM RISK (Score 8-10)	Task should only proceed with appropriate consultation with specialist personnel and HS&E team. Where possible the task should be refined to take account of the hazards involved or the risks should be reduced further prior to task commencement
HIGH RISK (Score 12-25)	Task must not proceed. It should be refined further control measures put in place to reduce risk. The controls should be reassessed for adequacy prior to work commencement.

Likelihood

How often could the hazard occur? Consider the task, frequency, duration, method of work, employees involved.

Severity

How serious would the hazard's effects be if realised? Consider the type of hazard, biological, ergonomic, physical and chemical.

Risk = Likelihood x Severity

E.g. Likelihood (4) X Severity (3) = 12 **HIGH RISK**

Pile Load Testing and Integrity Testing

Guidance for Formation Design & Build Ltd

1 Pile Load Testing

Introduction

The piling work on this site may include one or more pile load tests. These tests can be one of two types:

- **Preliminary Tests:** This is a test carried out in advance of the main piling work. The pile is usually tested until it fails and the results are used to refine the design of the subsequent working piles. If a test can be left for a long period of time (4-5 weeks) better results will be obtained.
- **Working Pile Test:** This is a test on a working pile and the test load is usually limited to 50% over the design load to avoid overstressing the pile or ground. This test is to check that the piles are capable of bearing the loads imposed on them. It is not intended as a check on workmanship, but on design.

The piles and anchorages for the test will be installed by Rock and Alluvium Ltd. The loading test will be carried out by a specialist subcontractor from our Approved List. After installation, the piles are left for a minimum period of 14 days or longer to enable the concrete to gain sufficient strength (minimum period subject to 7 day cube results).

Pile Protection between Installation and Testing

Between installation and testing, the test pile and anchors must be protected from damage and interference, specifically:

- The anchor piles are reinforced with “Dywidag bars” which protrude from the piles to allow connection to the test beams. The bars are formed from high grade steel which can be damaged by heat or bending. The test area must therefore be **barriered off** from plant movement and no hot work allowed in the vicinity. In the unfortunate event of a bar being bent, it must never be straightened, but we should be informed so we can re-end the bar.
- No excavations must take place around the anchors as these have been designed assuming ground level remains undisturbed. Excavations or loosening of the ground can cause the anchors to pull out, stopping the test. A repeat test will severely disrupt your program

Pile Test

The test contractor will need road access from the public road to the test location for his lorry which contains his test beams and data-logging cabin. The lorry needs to be able to park adjacent to the test pile to enable the data cables run from the data cabin to the test assembly without interference. The lorry will also need to be able to park a safe distance from the pile test assembly under load.

The area around the test must be made suitable for the technician to safely work, i.e. levelled, hard-cored and without trip hazards or excavations.

During the test, the area about 2m from the beam will need to have a barrier around it. This zone becomes a no-go area for all personnel, except those directly involved with the testing procedure.

During the test, no work that could cause vibration should be carried out adjacent to the test as the settlement of the pile under load is measured by accurate electronic instrumentation that is easily disrupted.

Formation Design & Build Ltd can usually mitigate the disruptive effects of complying with the above requirements by careful selection of the pile(s) to be tested.

Overnight Unmanned - Static Pile Load Testing

The Engineer's Specification for the load testing requires the load to be maintained with measurements taken continuously from the commencement through to the completion of the test; over a period of approximately 19 hours for a working test pile and a period of approximately 27 hours for a Preliminary or Expendable test pile. This will invariably mean that automatic monitoring will continue overnight. This type of testing is monitored remotely at our Sub-Contractors office. Should any problems arise during out of hours an alarm will notify the office and the test will be terminated.

All relevant Method Statements and Risk Assessments shall be issued to Formation Design & Build Ltd prior to mobilisation of the testing Sub-Contractor; please note that it is the responsibility of Formation Design & Build Ltd to induct the technician prior to allowing testing to commence.

2 Integrity Testing

It is normal practice to carry out a test on the integrity of the piles after they have been trimmed to cut-off level. To enable this test to be carried out, Formation Design & Build Ltd needs to note:

- The pile need to be trimmed down to cut-off level.
- A safe access needs to be provided for the test technician to gain access to the head of each pile.
- The pile cap/ground beam excavations must be clear of any standing water.
- The pile cap or ground beam reinforcement must not be in place.
- Although a thin layer of blinding can be in place around the pile, it must neither cover the pile nor be greater than 75mm thick.

Relevant Method Statements and Risk Assessments shall be issued prior to the first visit; it is the responsibility of Formation Design & Build Ltd to ensure that technician is inducted prior to allowing works to commence.

Notes:

- Integrity testing of wall piles is not required.
- At least **FIVE** working days' notice is required to book the testing technician.
- Please e-mail testing@rockal.com to book your integrity testing.

**Please note: Five clear days' notice is required for
Integrity Testing.
Testing to be booked via e-mail at
Testing@rockal.com.**

PROJECT MANAGEMENT PLAN

PMP SECTION 7 – Inspection & Test Plan (CFA)



Appendix 6

Inspection and Test Plan CFA Piling

Key: W – Work available to be witnessed; R – Review Documents; I – Implement Test or Inspection; A – Approval Granted

No	Construction Stage	Spec / Standard Ref	Inspection or Test	Acceptance criteria	Frequency	Procedure Ref / Method of testing	Person Responsible	Type of Record	RA Inspection	Remarks
A Preliminary										
A1	Subcontractor approval	BS 4449 BS EN206 / BS8500	Check approved subcontractors and suppliers list	On list	Prior to commencement		Buyer	Correspondence	R	
A2	Steel-fixing s/c start up		Check operative's competency	CPCS/CSCS Card	Prior to commencement		Foreman	Inspect	R	
A3	Approval of material suppliers		Check approved subcontractors and suppliers list	On list	Prior to commencement		Buyer	Correspondence and Certificates	R	Steel to be from CARES Approved Supplier; Concrete to be from QSRMC Approved Depot
A4	Approval of testing laboratory	ICE B21.8	UKAS Accredited	On list	Prior to commencement		Buyer	Correspondence and Certificates	R	Test Lab to be UKAS Registered
A5	Concrete mix	Contract Spec / ICE B21.3	QSRMC Certificate	Clients Engineer to not disapprove	Prior to commencement of main works		Buyer	QSRMC Certificate from supplier		Mix Design to be Approved Prior to Commencing the Works
B Site Start up										
B1	Check for services and utilities		Check Service Drawings and Scan Area	Permit to Work to be received from P/C	Prior to commencement		Principal Contractor / Client	Permit to work / dig	R	PC/Client to issue Permit to Work
B2	Platform	FPS Guidance Notes / BRE 470	Check Platform has been Constructed Correctly for Relevant Plant	Firm and Level and Designed to withstand bearing pressures of rig - provided	Daily informal inspection, minimum weekly sign off on FPS cert.		R & A Foreman	Working Platform Certificate	R	Piling Platform to be Designed and Installed correctly and Working Platform Certificate must be signed prior to commencing work
B3	Setting out	ICE B1.8.1	Engineering check	Within +/- 10mm, tagged with pile no.	Each pile		Engineer / Surveyor	As-built survey / Surveying book	A	Calibration Certificate for Instrument to be obtained
C Site Construction										

PROJECT MANAGEMENT PLAN

PMP SECTION 7 – Inspection & Test Plan (CFA)



No	Construction Stage	Spec / Standard Ref	Inspection or Test	Acceptance criteria	Frequency	Procedure Ref / Method of testing	Person Responsible	Type of Record	RA Inspection	Remarks
C1	Positioning rig	ICE B1.8	Check vertically and position of rig mast	ICE table B1.4	Each pile		Front Man		I	Position and vertically to be corrected until within tolerance
C2	Sequence of work	ICE B1.13.3	Ensuring not boring near a recently cast pile	No damage to adjacent piles	Each structure / part of structure		Foreman		I	Nearby piles to be monitored during pile construction.
C3	Pile Positioning	ICE B1.8	Check Auger Position	Within 25mm	Each Pile	Use of Reference Pegs	Banksman		R	Position to be corrected until within tolerance.
C4	Depth at toe	ICE B4.4.1, B4.4.5 & B4.5.1	Pile depth to be checked at completion of boring	Toe level to be at or below target depth	Each pile	Rig Instrumentation	Rig Driver	Pile Log / Electronic Rig Printout	I	Checked against pile schedule
C5	Concrete delivery	ICE B21.6	Check delivery ticket before acceptance.	Correct mix	Each delivery		Pump man	Delivery Ticket	R	If nonconforming reject
C6	Workability	ICE B4.4.6.1	Visual inspection (Flow/slump tests can be carried out by supplier upon request)	BS 8500-1 table B.1 (180mm +/- 30mm)	Each delivery		Pump Man (NOTE: Contract Supervisor to arrange testing)		I	If nonconforming reject
C7	Delivery or Assembly of pile cages	ICE B21.9	Visual inspection	Steel not excessively rusted. Cage sturdily constructed	Each batch		RA Foreman	Delivery Ticket	I	Cages checked against Technical Package / Cage Drawings
C8	Cage type		Dimensional check, length, bar diameter, no. bars, helical, pitch, debonding	Compliance with Technical Package / Cage Drawings	Each cage		Banksman		I	Check pile schedule
C9	Spacers / cage formers	ICE B21.9.4	Visual inspection	min 4 no every 4m	Each cage		Front man		I	If possible, use 1No spacer per vertical bar and additional spacers at the top
C10	Cage installation	ICE B4.4.8, B11.4.4 & B12.4.4	Check cage has been installed at the correct level (PPL) and is centralised.	+150/-50mm	Each pile		R & A Foreman	Pile Log	I	Check pile schedules, cages placed to Ground level (PPL critical)
D	Concrete Sampling and Testing									

PROJECT MANAGEMENT PLAN

PMP SECTION 7 – Inspection & Test Plan (CFA)



No	Construction Stage	Spec / Standard Ref	Inspection or Test	Acceptance criteria	Frequency	Procedure Ref / Method of testing	Person Responsible	Type of Record	RA Inspection	Remarks
D1	Strength	ICE B21.8 (BS EN206 & BS 8500-1 and 2)	QSRMC Certificate	BS EN206 & Complimentary codes BS 8500-1 and 2	Each batching plant used		Buyer	QSRMC Certificate	R	QSRMC Certificate is the mark of product conformity for ready mixed concrete and is applicable to all specifications / ie confirms that the batching plant(s) meet the requirements of the concrete specification.
D2	Concrete temp. (Concrete placed in air temp <2°C)	ICE B21.7	Concrete temperature at start of discharge to be not less than 5°C. Constituents used in mix shall be free from Ice, Frost & Snow.	Concrete temperature to be ≥5°C	Each delivery where air temperature is <2°C.	Measure temperature of concrete at start of discharge with a probe thermometer.	R&A Foreman	Note / recorded in diary.	I	BS8110 is intended for the casting of concrete above ground level utilising shuttering, piling requirements are covered by ICE B21.7. Potential slight effect on early strength gain, any frost damaged concrete will be removed when pile broken down.
E Instrumentation										
E1	Depth Indicator	ICE B4.4.10	Ensure rig regularly serviced OR Manual check with tape, and/or check against mast increments	Rig service record OR at full auger length +/- 100mm	Start of each contract		Foreman		I	
E2	Concrete Flow	ICE B4.4.10	Compare daily delivered concrete to on-board computer OR Pass a known volume through the system	+/- 5%	Once during contract (on setup / change plant)		Foreman, Supervisor		I	

PROJECT MANAGEMENT PLAN

PMP SECTION 7 – Inspection & Test Plan (CFA)



No	Construction Stage	Spec / Standard Ref	Inspection or Test	Acceptance criteria	Frequency	Procedure Ref / Method of testing	Person Responsible	Type of Record	RA Inspection	Remarks
E3	Instrumentation - failure	ICE B4.4.10.2	In case of Instrument failure, pile to be completed if concreting has commenced, otherwise aborted and auger backscrewed out of ground. Supervisor to be contacted and instructions sought		Every instrument breakdown		Foreman		I/S	Pile construction not to commence if electronic instrumentation is not working
F Post Construction										
F1	All piles cast	Drawings and Pile Schedule	Check all piles have been constructed	Drawing/Schedule	End of piling		Foreman	Note in diary and on pile logs		
F2	Post Construction Survey	As-built Pile Layout drawing & survey.	Resurvey of pile positions	Within Tolerance (normally 75mm)	Once piles have been exposed		Principal Contractor	As built Schedule		Copy to be sent to Client for O&M Manual
F3	After piles trimmed	ICE B15	Integrity Testing	No defects	Each pile	As NDT Procedure	Principal Contractor responsible for arranging R&A	Integrity Test Report		Copy to be sent to Client for O&M Manual
G Load testing (working & preliminary)										
G1	Anchor Construction	Anchor Layout Drawing	Piles to be constructed to correct depth. Correct, cage, Dwyldag bars to be installed	As per layout drawing and technical pack	Each Pile		Foreman			Anchor and test piles to be left a minimum of 14 days before loading. This may be superseded by the strength requirement
H Screw Jointed Bars										
H1	Use of screw jointed anchor bars	R&A RAMS, Section 4 – Works Procedure 1.1 (CFA Piling)	Bar joint to be inspected for tightness	No further movement between sections	Each bar joint	Wrench	Banksman		I	

PROJECT MANAGEMENT PLAN

PMP SECTION 7 – Inspection & Test Plan (CFA)



No	Construction Stage	Spec / Standard Ref	Inspection or Test	Acceptance criteria	Frequency	Procedure Ref / Method of testing	Person Responsible	Type of Record	RA Inspection	Remarks
KEY										
W	Work available to be Witnessed									
R	Review documents									
I	Implement Test or Inspection									
A	Approval (authorise)									

Roles and Responsibilities

Foreman's Responsibilities

Form Number	Form Title	Completed by	Comments
Start of project:			
FM-HSS-P01-01	Plant checklist and authorised user	Rig foreman/competent person when non-R&A plant is brought onto site	
Daily:			
RA-FM-01-082	Morning Brief (TBT)	Rig Foreman	To include everybody that is included in piling activities
RA-FM-P01-03	Mobile Plant daily checklist – Rig / MEWP	Plant Operator	
CBAB SBD Register	Safety Behavioural Discussions	Rig Foreman	Ops and management to complete on site visits.
Weekly:			
WPC (FPS)	Piling Platform Regular Check	Client	Weekly as a minimum.
RA-FM-01-082	Toolbox Talk	Rig Foreman	1No Environ. Toolbox Talk every 4 weeks.
FM-HSS-L02-04	Lifting Equipment inspection	Rig Foreman	Can delegate to competent person but remains ultimately the foreman's responsibility
RA-FM-P01-RA1	Mobile Plant and equipment inspection form	Rig Foreman	Can delegate to competent person but remains ultimately the foreman's responsibility
FM-HSS-P01-07	Work Equipment Inspection	Rig Foreman	Can delegate to competent person but remains ultimately the foreman's responsibility
FM-HSS-W03-06	Harness Inspection	Rig Foreman	Can delegate to competent person but remains ultimately the foreman's responsibility
Monthly:			
HS&S-FRM-F0-RA (page 1)	The First Aid Check sheet	Rig Foreman	Can delegate to competent person but remains ultimately the foreman's responsibility
HS&S-FRM-F0-RA (page 2)	Spill Kit check	Rig Foreman	Can delegate to competent person but remains ultimately the foreman's responsibility
HS&S-FRM-F0-RA (page 3)	Fire Extinguisher Check	Rig Foreman	Can delegate to competent person but remains ultimately the foreman's responsibility

Supervisors Responsibilities

Form Number	Form Title	Completed by	Comments
Start of project:			
FM-HSS-H03-02	Project Management Plan (incorporating Method Statement)	R&A operations supervisor and R&A rig foreman	Reviewed and accepted by client.
FM-HSS-P04-02	Project Environmental Plan	Client and R&A	Client to sign
WPC (FPS)	Platform Certificate	Client	See above; page 2 must be signed at minimum, weekly to confirm piling platform is being checked and maintained if required.
RA-FM-07-032	Permit to Work	Client and R&A	To be signed off by Client and R&A Contract Supervisor, Foreman.
FM-HSS-H03-03	Risk Assessments	R&A	To be signed off by R&A Contract Supervisor.
FM-HSS-T03-01	Record of HS&S briefing	To be signed by R&A operatives, steel fixers, engineers, attendant excavator and dumper operators etc	

PMP SECTION 9 - Record of HS&S Briefing

Business Unit:	Rock & Alluvium	Contract Number:	9761
Contract Name:	100, Woodside Avenue. N10 3JA		
Briefings Reviewed:	Method Statements for Works Packages, Risk Assessments, Spill Response Plan, Roles and Responsibilities; Inspection and Test Plan and Safe Interaction Between Plant & Operatives;		
Other (Please State):			
Briefing Title(s) / References(s):	Project Management Plan (inc. Risk Assessment) and Safe Interaction Between Plant & Operatives (PMP section 4.6)		
Briefing Delivered By:			

[illegible]

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PMP SECTION 9 - Record of HS&S Briefing

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PROJECT MANAGEMENT PLAN

SITE (Piling) RISK ASSESSMENT and SPILL RESPONSE

v4.3



Business Unit	Rock & Alluvium	Site Address	100, Woodside Avenue. N10 3JA	Principal Contractor	Formation Design & Build Ltd	Con. No:	9761
HS&S Assessor	William Longhurst	Operation	PILING	Date:	09/11/2023	Ref. No:	Revision v4.3

Notes: If any of the following situations apply, append the relevant Risk Assessment.
Adjacent to Rail: No Contaminated Ground: No

HAZARDS	PERSONS AFFECTED	RISK			CONTROL MEASURES (List control measures that are provided and those required)	RISK		
		L	S	R		L	S	R
Site Specific Hazards: (additional site-specific hazards identified below, if any)								
Thames Water Assets					Information appertaining to the assets are outlined within this document, we must ensure that working practices are in line with the requirements of the Thames Water guidance and we observe correct working practices with regards to the easement zones.			
<i>Please see next page</i>								

PROJECT MANAGEMENT PLAN

SITE (Piling) RISK ASSESSMENT and SPILL RESPONSE

v4.3



Section	HAZARDS	PERSONS AFFECTED	RISK			CONTROL MEASURES (List control measures that are provided and those required)	RISK		
			L	S	R		L	S	R
1	Site Access / Egress	Piling Crew, visitors and other operatives on site	3	4	H	Formation Design & Build Ltd to erect suitable pedestrian barriers to reduce the interaction between vehicles / plant and any site operatives and/or the general public. Employees to conform to site segregation rules and not block walkways. R&A operatives to Supervise and direct the piling rig and piling equipment delivery vehicles across public footpaths and access routes; Formation Design & Build Ltd to provide Traffic Marshals. Formation Design & Build Ltd to provide security at site entrance to prevent unauthorised persons gaining access to the site and supervise delivery vehicles entering and leaving the site. Security Container to be positioned away from traffic routes. HSS Standard H01 is to be complied with in full.	1	4	L
2	Congested Working	Piling Crew, visitors and other operatives on site	2	4	M	Equipment that is not required for current piling operations is to be stored outside of the piling area. Where spoil is to be loaded away, this is to be moved away from the piling rig before loading vehicles.	1	4	L
3	Use of Mobile phones or other mobile devices causing a distraction from site hazards	Piling Crew, visitors and other operatives on site	2	2	L	Foreman who uses mobile phone are only to do so in a place of safety and when safe to do so. Mobile phones must not be used when engaged in activities where distraction could pose a risk, e.g., rig manoeuvring. When using a Mobile phone, all operatives should move to a place of safety, such as a designated area.	1	2	L
4	Storage and Security	Piling Crew, visitors and other operatives on site	3	3	M	R&A operatives to stack piling equipment & materials in such a way as to not become unstable when moved / used. Formation Design & Build Ltd to provide a secure site with lockable gate and provide, erect & maintain suitable boundary fencing (hoarding) to prevent unauthorised access at all times. Formation Design & Build Ltd to provide site security to guard against loss/theft of property and machinery. HSS Standard S01 is to be complied with in full.	2	3	L

PROJECT MANAGEMENT PLAN

SITE (Piling) RISK ASSESSMENT and SPILL RESPONSE

v4.3



Section	HAZARDS	PERSONS AFFECTED	RISK			CONTROL MEASURES (List control measures that are provided and those required)	RISK		
			L	S	R		L	S	R
5	Storage of pile cages: Cages falling, crushing / striking personnel.	Piling crew / Steel fixers.	3	3	M	Cage storage to be agreed prior to placement between Principal Contractor and Foreman/Supervisor. Cages to be stored away from access/egress routes. Cages to be stored on firm level ground. Cages to be stored on timber. When cages are stored on ground, wedges to be used to prevent movement. Cages to be stacked no more than 1.5m.	2	3	L
6	Striking services, electric cables, gas mains, telecoms, water supply and drainage.	Piling crew, visitors and other operatives on site Nearby residents if gas main	2	4	M	Formation Design & Build Ltd to review service drawings. Formation Design & Build Ltd to scan for, locate, expose, divert, protect as necessary all existing underground services prior to the start of any piling operations and issue "Permit to Dig". R&A to notify Formation Design & Build Ltd of any pressure loss / anomalies whilst drilling / injecting piles. All works to cease if electric cable strike suspected – Rig operator to stay in cab or Jump well clear,	1	4	L
7	Slips, trips and falls	Piling Crew, visitors and other operatives on site	2	3	L	Site and all walkways to be kept clear and tidy, with particular attention to designated pedestrian routes. Materials to be stacked and stored properly. Formation Design & Build Ltd to provide background safety lighting in periods of darkness in areas used by R&A, including walkways and access routes	1	3	L
8	Drowning when working near deep water	Piling Crew, visitors and other operatives on site	2	4	M	Formation Design & Build Ltd to provide, install and maintain suitable fencing and/or guard rails to prevent R&A operatives from falling into adjacent water. Formation Design & Build Ltd to provide life jackets and rescue plan. HSS Standard W04 is to be complied with in full.	1	4	L