



Stoneshollow - Pile Installation Method

This document is to be read in conjunction with the Construction Environmental Management Plan prepped by Avian Ecology, or the superseded noise report approved under Condition 15, attached to Decision Notice Ref. 21/01395/FUL.

This document covers the Pile Installation Method Statement and the Noise Management from the piles.

It should be noted that JBM propose motorized pile installation as opposed to hammer pile driven poles.

Contract No:	Stoneshollow_001 (TBC when EPC appointed)	Client Ref:	TBC with appointed contractor	
Site Location:	Stoneshollow, Barlestone, Leicestershire			
Scope of Work:	Pile Installation			
Date:	14/08/2023			
	Name	Position	Signature	Date
Prepared By:	Norome Campanile	Junior Development Project Manager	Norome Campanile	13 June 2023
Checked By:	Daniel Corcoran	Development Project Manager	Daniel Corcoran	14 August 2023
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Revisions:				
To be reviewed when contractor is appointed				

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Stoneshollow - Pile Installation Method

Issue	Date	Revision Details
A	14/08/2023	First Document Issue



TABLE OF CONTENTS

SECTION	TITLE
1	Scope of Work • Detail • Start Time • Duration • Permits • Notification of Statutory Bodies
2	Assessments of Significant Risks and Controls • Identify and attach to Risk / COSHH Assessments
3	Method Statement
4	Personal Protective Equipment Requirements
5	Public Interface / Third Party / Client
6	Environmental Protection Arrangements:
7	Emergency Arrangements • Rescue • First Aid Requirements • Environment
8	Monitoring and Compliance
9	Resources Required • Personnel • Supervision • Plant / Equipment • Materials • Training requirements
10	Communication • Refer to Method Statement Briefing before Commencement of works on site



This specific method statement should be used in conjunction with the Risk Assessment (RA) as stated below.

These will also be available within the operative's site safety manual located within the company van.

Risk Assessments:

Pile Installation RA TBC by appointed contractor

Hazardous Material (COSHH) Assessments:

1141690 Copper Grease

1141961 Diesel

1141694 Hydraulic Oil HLP 46

1141696 petrol

Further assessments TBC with appointed contractor

Section 1	Scope of Work
Detail	Pile installation at selected locations.
Start Time	TBC by contractor
Duration	TBC by contractor
Permits	Permit to dig
Notification of Statutory Bodies	None
Related Documentation	Utilities Report COSHH documentation Noise document - Ref. 21/01395/FUL

Section 2: Assessments of Significant Risks and Controls

Identify specific Risk and COSHH Assessments:

- Pile Installation
- COSHH Folder (digital copy on phones/ tablets)



Stoneshollow - Pile Installation Method Statement

Section 3: Sequence of Works

Pre-Works Preparation

Health and safety on the site will be controlled by Principal Contractor appointed by JBM. All contractors will comply with safety rules and the health and safety systems detailed within the RAMS and ERP.

The works shall be managed by the Principal Contractor site manager who shall arrange access permissions with the landowner and Client.

Before works begin:

- Complete NPC induction
- Sign RA/method statement
- Complete Remote working form
- Daily briefing
- Plant checks – drill rig
- Identify work area and access route
- Track to area
- Walkover with plant operator to outline route to pile locations
- All piling/drilling locations will be CAT scanned before breaking ground for pile installation.
- Permit to dig will be issued to the lead driller at every piling location by the site manager prior to any pile installing.

Pile Installation:

- Each pile location will be marked out by site engineer
- Drive drill rig and support plant to the work location
- Secure hydraulic ground jacks to stabilise rig
- Install test pile (steel profile) by driving it into the ground to specified depth using a drill rig/ sonic drill rig
 - Monitor verticality of pile continuously through the duration of pile driving procedure
 - Check the head of driven profile for damage regularly
 - Record feed pressure and sonic input to outline ideal parameters
- Once required pile depth is achieved, record the following details:
 - Pile verticality and any lean (N-S and E-W). Acceptable tolerance is to be agreed with the appointed contractor
 - Any observed changes to ground around driven pile
 - Angle of twist of the pile
 - Total time spent driving each profile
- Prepare position for the vertical and horizontal load tests
- Drive drill rig to next pile position for pile installation



Stoneshollow - Pile Installation Method Statement

Section 3: Sequence of Works
PPE including hard hats, hi vis clothing, and appropriate safety boots must be worn when driving piles in/ removing piles. Hearing protection, safety gloves and safety glasses will also be worn during specific tasks.
NOTE: All required Permits as per section 1 will be in place prior to starting work by a competent person external from the works being carried out.
General Safety Rules: • Site Access Control from public road – remain vigilant, drive to road conditions, be courteous to locals, do not block access at any time; • Soft ground and ditches present a hazard; • Equipment theft: Ensure equipment is stored in a secure area. • Do not conduct any work without the appropriate RA.

Section 4: Personal Protective Equipment Requirements
Hard hat, Hi-visibility clothing, safety footwear, gloves and glasses as standard. Other PPE and safety equipment required is:
• Lace up ankle high boots • Emergency grab bag for working in remote locations • High Visibility Clothing • GPS and Maps • Radio

Section 5: Public Interface / Third Party / Client
• HSE may visit site at any point; • For public: always keep minimal profile; • Be polite to public; • Report any suspicious behaviour or security issues to site manager immediately;

Section 6: Environmental Protection Arrangements
Environmental Emergency Procedures: Measures that must be taken in the event of an emergency will be prepared and displayed on site noticeboard.



Stoneshollow - Pile Installation Method

Spill Kits	Carried in all NPC 4x4's and rig
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Section 7: Emergency Arrangements	
Include Clients/Third Party Emergency Arrangements	
Specified Routes for Emergency Services	Gloucestershire Royal HospitalGreat Western Road Gloucester Gloucestershire GL1 3NN
Emergency Rescue Procedures	Call 999 inform them of what has happened and your location.
	Any injured person will be made safe / comfortable by designated first aider at no risk to his own safety.
	Then inform your site manager / supervisor who in turn will escalate the information to relevant personnel.
	In case of major injury or incident do not disturb scene until you have spoken to the Site Manager from the Principal Contractor
First Aid Requirements	There will be a designated first aider on site at all times.
Environmental Emergency Requirements	Control any spillage, when safe to do so, and clean up with supplied spill kits.
	Dispose of spill kits as hazardous waste through Principal Contractor facilities.

Section 8: Monitoring and Compliance	
Supervision, Inspections and Checks to ensure this Safe System of Work is adhered to	
	<i>There are a number of forms which need to be completed whilst on site these include but not limited to: Daily check sheets, daily briefing, site sign in register</i>
	<i>Site inspections will be carried out by the Principal Contractor Site Manager on regular basis.</i>
	JBM advisor may visit site at anytime to carry out audits/inspections



Stoneshollow - Pile Installation Method

Section 9: Resources Required	
Personnel:	Details of contractors to be provided and shared prior to commencement on site
Supervision:	Principal Contractor Site Manager to be appointed and their details shared
Plant / Equipment:	1 x tracked excavator (or similar) 1 x Fraste PL rig (or similar) 1 x Fraste Sonic rig (or similar) 1 x Support Hagglund(or similar)3 x 4x4s (or similar)
Training Requirements	• First Aid • BORDA 4x4 • CSCS • NPORS • Drilling NVQ • Any other qualifications required by the Principal Contractor Site Manager
Welfare	• Welfare cabin provided on site
Materials:	• Diesel • Lubricating oils and greases



Stoneshollow - Pile Installation Method

Section 10: Communication log TBC with contractor

I the undersigned confirm that I have read and understood this method statement, the risk assessments and COSHH assessments contained herein, and agree to work in accordance with their provisions. I will notify the relevant supervisor / manager of any non-compliant work practices or defective plant and equipment. This will allow for any change to the working procedure to ensure the system of work remains safe.

NAME	SIGNATURE	DATE

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Proposed Solar Farm, Land at Stoneshollow, Barlestone, Leicester
JBM Solar Projects 26 Ltd

Construction Environmental Management Plan

Noise Management

Introduction

Planning permission for the construction and operation of a solar farm on land at Church Farm, Washpit Lane, Leicester has been granted by Hinkley and Bosworth Borough Council under application 21/01395/FUL.

Condition 15 of the planning permission requires a Construction Management Plan to be submitted and approved, which should include details of the method of driving / piling and any necessary mitigation measures.

This document provides details of the proposed construction / piling methods and advises on measures which will be adopted during the construction phase to ensure potential adverse noise impacts upon occupants of surrounding properties are minimised.

Applicable Noise Guidance and Criteria

British Standard BS 5228-1¹ provides guidance for assessing noise during the construction. The standard describes procedures for estimating noise levels from construction activities, including piling operations. It also provides guidance on minimising potential impacts through the use of mitigation and the adoption of Best Practicable Means (BPM) or Best Available Techniques Not Entailing Excessive Cost (BATNEEC).

BPM or BATNEEC both seek to ensure that the contractors adopt best practice measures to reduce noise and vibration from site activities. The use of BPM to control emissions constitutes a ground of defence against charges that a nuisance is being caused under Part III of the Environmental Protection Act.

¹ British Standards Institution. Code of Practice for Noise and Vibration Control on Construction and Open Sites – Part 1: Noise. BS 5228-1:2009+A1:2014.

Construction Programme

It is anticipated that the construction of the solar farm will take approximately 6 months to complete.

Working hours will be between 08:00 – 18:00 Mondays to Fridays and 08:00 – 13:00 hours on Saturdays.

General construction operations within the site would require minimal plant and equipment, with typically front end JCB's required or telehandlers, which would generate an equivalent noise level to farm machinery working in the surrounding area.

The installation of the solar panels would be carried out by hand, using hand tools, which generate low levels of noise.

Typically, there would be up to 6 deliveries to the site per day. Given the low numbers of delivery vehicles, it is not anticipated that these would result in any potential for adverse impacts.

Noise levels attributable to the general construction operations would therefore be low at the surrounding properties.

The highest noise levels during the construction would be attributable to the installation of the foundations for the solar panels. It is proposed to use of Fraste piling rigs (or similar), and/or Fraste Sonic rigs (or similar) to install the foundations. These are small portable piling rigs, similar to those indicated below:



Rotary Rig



Sonic Rig

The piling rigs require minimal additional plant, with the main additional vehicle being an off road support vehicle, which would transport the piles to the working area.

Calculation and Assessment of Noise Levels During Piling

As indicated above, it is proposed to use small rotary piling rigs, and/or small sonic rigs, to install the foundations for the solar panels. This plant typically generates noise levels of between 80 - 85 dB L_{Aeq} at a distance of 10 metres.

The piling operations would be progressive across the site during the construction period, with the plant only operating in each area of the site for a short period, as the works progress. The piling rigs would be operational in separate areas of the site, with only one rig operating in close proximity to the neighbouring properties, to ensure noise levels were minimised.

General Site Controls

Appropriate management and control measures will be implemented to ensure that noise levels during the construction of the site were minimised.

Measures to be adopted include:

- Adopt Best Practicable Means to Reduce Noise Levels;
- All plant to be fitted with effective silencers;
- Regular inspection of the plant and equipment. Any defective plant to be taken out of use until repaired;
- Plant to be switched off when not in use;
- Where possible, when operating close to neighbouring properties, plant to be orientated to minimise noise levels at the properties;
- Regular liaison with residents during periods of construction close to properties.

In the event that the noise levels are found to be above the appropriate noise limits, action will be taken without delay. The remedial action will be related to the meteorological conditions and the high sensitivity receptors. The following remedial action may be appropriate: -

- Relocate plant and equipment to less sensitive locations;
- Construct or erect temporary acoustic barriers;
- Replace noisy plant and equipment with quieter models;
- Undertake maintenance on equipment that will reduce noise levels.

Each complaint would be logged using the complaints form provided in Appendix B (or equivalent), which will include:

- The results of inspections and monitoring carried out by installation personnel;
- Wind speed and direction;
- Problems including date, time, duration, prevailing weather conditions and cause of the problem;
- Complaints received including address of complainant;
- Details on the corrective action taken, and any subsequent changes to operational procedures; and
- An evaluation of the effectiveness of the techniques used.

The complaints log will be held within the Site Managers Office and made available to the Local Authority upon request.

Appendix A
Noise Monitoring Forms

NOISE MONITORING RECORD SHEET
STONESHOLLOW SOLAR FARM

Date of monitoring visit:

Name and Company of person undertaking monitoring:

Type of equipment used:

Weather conditions:

Monitoring Location	Time	Noise level recorded (dB)			Action Level exceeded?	Source / Observations
		L _{Aeq,T}	L _{Amax,F}	L _{A90}		

EVALUATION (to be completed during every monitoring session)

Have any complaints been received?

Y / N

Is action needed to mitigate noise?

Y / N

REMEDIAL ACTION (to be completed if action is required)

Discussion

Has action been satisfactorily implemented?

Comments:

Appendix B
Complaint Reporting Form

STONESHOLLOW Solar Farm

Noise Complaint Report Form	Date:	Ref. No.
Name and address of complainant		
Tel no. of complainant		
Time and date of complaint		
Date, time and duration of offending noise		
Weather conditions (e.g., dry, rain, fog, snow)		
Wind strength and direction (e.g. light, steady, strong, gusting)		
Complainant's description of noise (e.g., hiss, hum, rumble, continuous, intermittent)		
Has complainant any other comments about the offending noise?		
Any other relevant information		
Potential noise sources that could give rise to the complaint		
Operating conditions at the time offending noise occurred		
Action taken:		
Final outcome:		
Form completed by		
	Signed	