

# WIND PROSPECT LTD

## METHOD STATEMENT



Project :	CROOK HILL WIND FARM		
Method Statement Title	Construction of Turbine Foundations		
Ref No:	ENVhs019	Date :	AUGUST 2013
Prepared by:	C Aimers		

### 1. Reference to Applicable Documentation

#### Contract Drawings:

- Site Plan
- WTG Gravity Foundation General Arrangement drawing
- WTG Gravity Foundation Detailed Drawing Sheets

#### Other items

- Turbine foundations: Bar bending schedule
- Construction Method Statement by Wind Prospect
- Contractor Site Safety Procedures
- CITB GE700
- Method Statement: Site Batching of Concrete
- Lift Plans: Reinforcement, Crane & skip operations, Lifting Pre-fabricated formwork
- Environment Agency Pollution Prevention Guidelines

### 2. Resources to be used in Operation (Labour, Plant & Equipment)

#### Proposed Plant

- Mobile Crane
- Concrete Mixer Trucks
- Concrete Pump
- Tracked Excavator
- Electric Vibrating pokers
- Pneumatic Vibrating pokers
- Compressor
- Hand tools (Shovels, floats)
- Survey Equipment

#### Proposed Labour

- Foreman (Lift supervisor)
- Setting out Engineer
- Joiners
- Ganger
- Mixer truck drivers
- Machine Operators: Crane driver
- Machine Operators: Pump operator

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### **3. Health, Safety and Environmental Items/Issues**

- 1 x First Aid kit (In Foreman's Vehicle)

In the event that the emergency services are required, contact can be made via the Construction Staff/WPL Engineers mobile phone.

If any unauthorised personnel (members of the public, employees of the client, or others) approach the works, then operations will be ceased until the persons are escorted to a safe distance from the work area.

#### **Personal Protective Equipment**

As a minimum this should include

- |                       |                                |
|-----------------------|--------------------------------|
| • Hard Hat            | • Hi Visibility Vest/Jacket    |
| • Ear Protection      | • Safety Footwear              |
| • Protective Overalls | • Goggles                      |
| • Gloves              | • Warm Clothes (if applicable) |

#### **Accident/Incident Reporting**

All accidents/incidents/near misses however minor will be reported to the Health and Safety Manager and entered in the accident book. Any dangerous occurrence or accidents which will be reported to HSE will be notified to the Project Manager.

#### **Unforeseen Hazards**

Should an unforeseen circumstance arise, that poses a risk to personnel or equipment, then the situation should firstly be made as safe as practicably possible and operations suspended until any remedial action has been implemented and the Project Manager, Health and Safety Manager and on site staff are satisfied that it is safe to proceed.

#### **Contaminated Land**

No special precautions for the 'GREEN' zone site are envisaged.

**Project specific Risk Assessments developed for the operations described herein are attached.**

**A copy of all risk assessments can be found in the Appendices of the Construction Plan for this Project.**

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### 4. Method of Construction (Work Instruction)

Item No.	Details	Inspection Code
	<p>This statement describes the construction operations required in construction of Reinforced concrete foundations for <b>Nordex Turbines</b>. Prior to work starting, the relevant personnel will be briefed on the details of this method statement and associated risk assessments.</p>	H
<b>4.1</b>	<b>Preparation</b>	
<b>4.1.1</b>	Level the formation with well graded rockfill and compact with heavy roller. Maintain sump in corner for ground water and surface run-off.	
<b>4.1.2</b>	Conduct Geotechnical inspection and perform tests (CBR or Plate bearing) to confirm condition of formation is suitable for supporting turbine foundations. Carry out any remedial work at the direction of the Geotechnical engineer. If required; repeat inspection and test to satisfaction of the engineer.	H
<b>4.2</b>	<b>Lower Base</b>	
<b>4.2.1</b>	Excavate track, install drainage	
<b>4.2.2</b>	Excavate track, install electrical ducting, backfill and compact.	
<b>4.2.3</b>	Set out corners of base, and set blinding pins. Erect screed rails on outer edge and inner deepening.	
<b>4.2.4</b>	Pour concrete blinding with excavator. Screed to level and apply finish. Refer to separate Method statement for batching of Concrete.	

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Item No.	Details	Inspection Code
4.2.5	Fabricate rebar cage to lower area and starter bars for upper area, in accordance with Drawing. Refer to separate Lift plan for detail of lifting of reinforcement.	H CONTRACTOR
4.2.6	Fit safety caps to projecting bars where starter bar project enough to cause a hazard.	SAFETY ISSUE
4.2.7	Erect steel formwork and support to outside of base	H ER
4.2.8	Pour concrete to lower base by concrete pump, vibrate and apply finish. Apply surface retarder to surface area of joint above kicker, and curing agent to sloping top surface. Sample concrete throughout pour, recording consistence and making cubes for testing in accordance with BS8110. In the event of failure of the pump, the pump shall be kept live using excavators loading concrete directly into the pour using a excavator bucket.  Refer to Method statement for Site batching of concrete.	
4.2.9	Strike formwork from lower part of base on day following pour and apply curing agent to exposed surfaces. Remove laitance from top surface of kicker, using pressure washer.	H CONTRACTOR
4.3	<b>Upstand</b>	
4.3.1	Set out location and lift Steel Can into position in centre of base, and jack up to level. Contractor Setting out engineer to check levels are within tolerance, +/- 6mm.	
4.3.2	Fix reinforcement to upstand of base.	CONTRACTOR
4.3.3	Fabricate and erect timber formwork and false work support.	
4.3.4	Erect working platform (scaffold battens on hop-up brackets, handrails and access ladders).	

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Item No.	Details	Inspection Code
4.3.6	Pour concrete to Upstand by pump or crane & skip. Refer to separate Lift Plan for pour if using crane & skip. Refer to Method statement for Site batching of concrete.	H
4.3.7	Backfill around base as required using rock fill, and compact in 300mm layers.	

### 5. Environmental Aspects (Risk Areas) Associated with Operation

The works outlined in this Method Statement are drawn up to comply with the specific guidance on Silt control measures set out in PPG5. From the Company's Environmental Risks Register, the following significant risks have been identified as having the potential to adversely impact on the environment:

Item No.	Details	Inspection Code
5.1	Fuel Storage: Fuel will be stored within approved containers as per Guidance note PPG 2.	
5.2	Waste: A Site Waste Management Plan will be prepared. Waste to be collected in covered skip and removed from site at regular intervals.	
5.3	Septic Tank: Welfare units will be supplied and emptied regularly.	

Measures which have been, or will be, established in order to mitigate the potential impact of the above noted aspects (risk areas) are detailed on the appropriate Site Environmental Aspect (Risk) Assessment. These can be found in the Appendices of the Construction Plan for this Project.

For tender stage an Outline Environmental Risk Assessment has been completed for the whole site.

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### **6. Relevant Regulations**

- Health and Safety at Work Act 1974.
- Manual Handling Operations Regulations 1992, amended 2002.
- Provision and Use of Work Equipment Regulations 1998 (PUWER). Safe use of work equipment.
- Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR).
- Personal Protective Equipment at Work Regulations 1992.
- Control of Substances Hazardous to Health Regulations 2002 (COSHH).
- Noise at Work Regulations 1989.
- British Standards and UK Best Practices.

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### Signature Page

I hereby confirm that I have read and understood this method statement and will adhere to its contents:

Name	Signature	Date

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