

Surface Water and Foul Water Operation and Maintenance Manual

SeAH Monopile Facility, Teesport



L05858-CLK-ZZ-EX.ZZ-RP-C-0001

SeAH Wind Ltd.

Report No.

SeAH-CLK-ZZ-EX.ZZ-RP-C-0001

Date.

08/04/22

Project

SeAH Monopile Facility

Client Name

SeAH Wind Ltd.

Issue Date/ Number

Status

Description of Amendments

08/04/2022

S2

First Issue

Report Prepared by:

Justin Horsley
Civil Engineer



Approved for Issue by:

Samuel Ihle
Associate Director



Issuing Office

The Cocoa House, 129 Cumberland Road, Bristol, BS1 6UY
Tel: +44 (0)117 929 2244

GF Suite, Bickleigh House, Park Five Business Centre, Exeter, EX2 7HU
Tel: +44 (0)1392 369098

X

7 Hatchers Mews, Bermondsey, London SE1 3GS
Tel: +44(0)20 7939 0959

Contents

Contents	i
1 Introduction	1
2 Parties to the Maintenance	2
2.1 The Parties Responsible for the Maintenance of the Surface Water and Foul Water System ..	2
2.2 The Roles and Responsibilities of the Parties.....	2
2.3 Health and Safety Considerations	2
3 Inspections	3
3.1 Nature of Inspections.....	3
4 Maintenance	3
4.1 General.....	3
4.2 Manhole Chambers	3
4.3 Foul Package Pump Station (FP01).....	4
4.4 Petrol Interceptors	4
4.5 Grease Trap	4
5 APPENDIX.....	5

1 Introduction

- 1.1.1 SeAH Wind Ltd. will develop a Monopile Manufacturing Facility in Teesport, North Yorkshire, United Kingdom.
- 1.1.2 This report defines the roles of the various parties to the development in relation to the drainage storage structures and provides a guide for their operation and maintenance.
- 1.1.3 Maintenance is to be undertaken by suitably qualified and experienced personnel as indicated in section 4. This activity will be undertaken by a managing agent, selected and contracted by SeAH Wind Ltd.. The management company may employ outside contractors at their discretion. Full contact details for the managing agent will be provided once appointed.
- 1.1.4 All arising's, whether vegetative or silt based, or other debris, are to be disposed of off-site to suitably licensed tips or other appropriate facilities in order to reduce possible odour and other nuisance to the occupants of the residential development.
- 1.1.5 Where high pressure water jetting of underground drainage systems is required this is to be undertaken in accordance with the "Code of Practice for the use of High-Pressure Water Jetting Equipment".
- 1.1.6 All personnel employed to maintain the drainage system shall be suitably trained with their credentials and qualifications checked by the management company and shall operate in accordance with a detailed briefing and approved method statement. Lone working will be prohibited, and confined space entry will be limited to those operatives so trained. The drainage has been designed with CDM regulations in mind and where practical and risk has been engineered out or minimised.

2 Parties to the Maintenance

2.1 The Parties Responsible for the Maintenance of the Surface Water and Foul

Water System

2.1.1 The following organisations are parties to the operation and maintenance of the drainage in the Development:

- SeAH Wind Ltd.
- An appointed or created management company
- A Managing Agent

2.2 The Roles and Responsibilities of the Parties

2.2.1 SeAH Wind Ltd. will enter into a contractual relationship with the Management Company who will take on the responsibility for maintenance of the drainage network within their site curtilage.

2.2.2 The selected Managing Agent will provide management of the maintenance of all drainage elements in the development compound. Investigation of any incident of flooding within the drainage system will be the responsibility of the Managing Agent.

2.3 Health and Safety Considerations

2.3.1 The health and safety of operatives and members of the public are paramount when undertaking maintenance of the drainage system. Particular attention must be paid to the following:

- Operatives must be made aware of the possibility of contracting Leptospirosis when working in water.
- Manholes are confined spaces. No one is to enter any manhole without first undertaking the appropriate safety measures.
- Manhole accesses must be guarded when open.
- Manhole chambers will often have water stored immediately following storm events.

3 Inspections

3.1 Nature of Inspections

- 3.1.1 Inspections of the drainage system, storage structures and ancillary aspects of the systems should be undertaken by the relevant parties named in section 2 and should follow two distinct patterns:
- 3.1.2 Regular inspections at given times of year, as described in the following specific sub-sections.
- 3.1.3 Reactive inspections following any greater than a 1 in 100 year + 30% climate change rainfall event rainfall events (applies only to developers approved management company).

4 Maintenance

4.1 General

- 4.1.1 Maintenance of the drainage system and storage structures should follow two distinct patterns:
- A regime for seasonal and annual maintenance.
 - Reactive maintenance found necessary by the inspections described in Section 3.

4.2 Manhole Chambers

4.2.1 Seasonal and Annual Maintenance

- 4.2.1.1 All vegetation local to any chamber should be cleared annually at the end of the summer period – ideally once bird nesting is complete.
- 4.2.1.2 The manhole covers and frames should be serviced to ensure they are operable with ease in an emergency.
- 4.2.1.3 Silt build-up within the chambers sumps or pipes should be removed to compost or other disposal area off site with the necessary licences obtained to complete that operation by the maintenance contractor.

4.2.2 Reactive Maintenance

- 4.2.2.1 The above planned operations should be repeated, at other times of year, as part of the reactive maintenance programme whenever warranted by the results of the inspections.

4.3 Foul Package Pump Station (FP01)

- 4.5.1 Maintenance regime to comply with manufacturers guidance.
- 4.4.2 All vegetation local to chamber should be cleared annually at the end of the summer period – ideally once bird nesting is complete.
- 4.4.3 The chamber cover and frame should be serviced to ensure they are operable with ease in an emergency.
- 4.4.4 Pump chamber should be cleaned, where necessary, using high volume water jetting equipment. Chamber cleaning should be undertaken in accordance with the “Code of Practice for the use of High Pressure Water Jetting Equipment”.

4.4 Petrol Interceptors

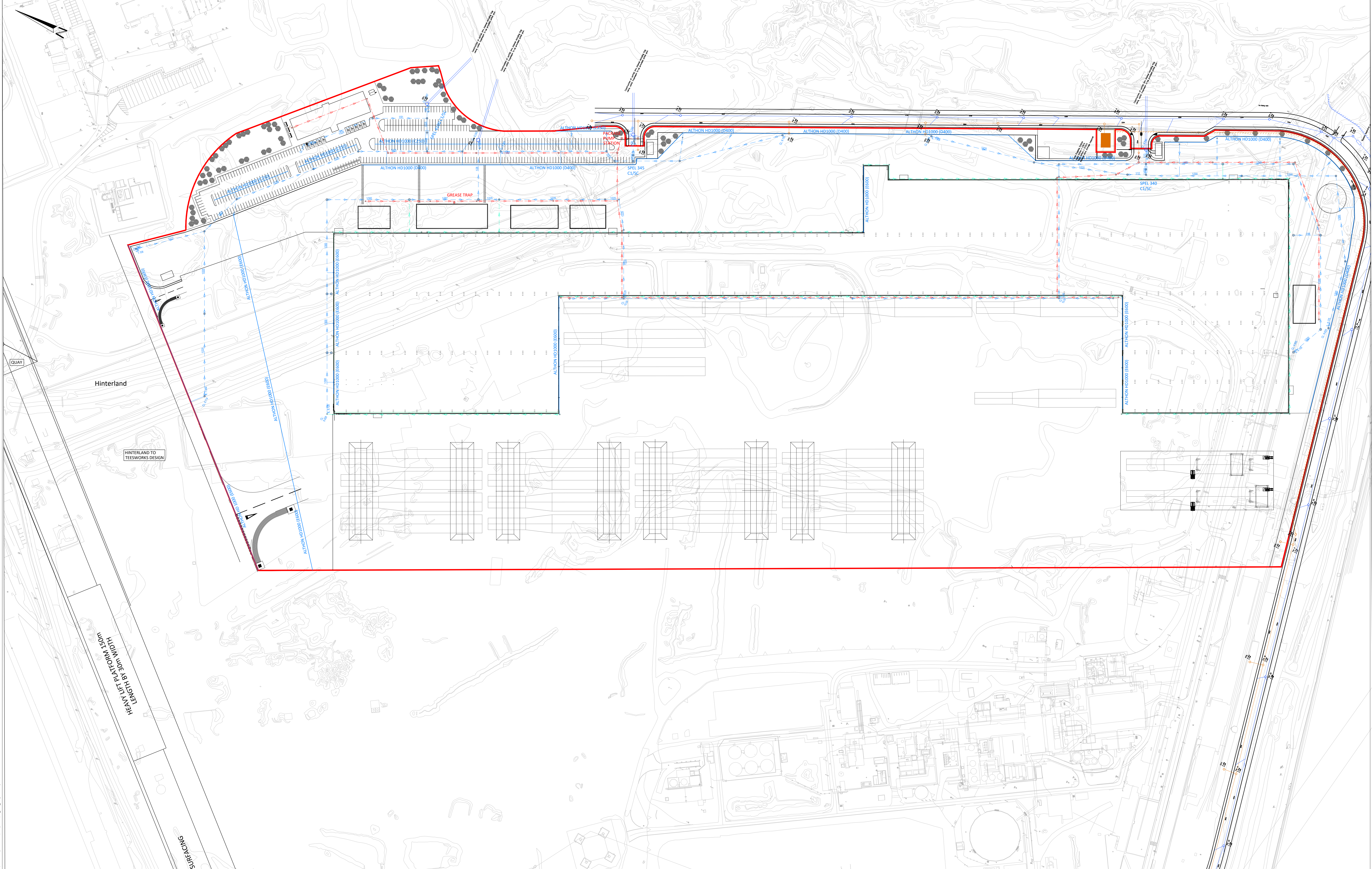
- 4.5.1 Maintenance regime to comply with manufacturers guidance.
- 4.4.2 All vegetation local to access chamber should be cleared annually at the end of the summer period – ideally once bird nesting is complete.
- 4.4.3 The access chamber cover and frame should be serviced to ensure they are operable with ease in an emergency.
- 4.4.4 Empty and clean the interceptor as per manufacturers guidance. Chamber cleaning should be undertaken in accordance with the “Code of Practice for the use of High Pressure Water Jetting Equipment”.

4.5 Grease Trap

- 4.5.1 Maintenance regime to comply with manufacturers guidance.
- 4.4.2 All vegetation local to chamber should be cleared annually at the end of the summer period – ideally once bird nesting is complete.
- 4.4.3 The chamber cover and frame should be serviced to ensure they are operable with ease in an emergency.
- 4.4.4 Empty and clean the grease trap as per manufacturers guidance.

5 APPENDIX

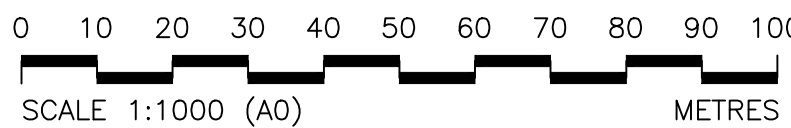
Appendix A – Proposed Drainage Strategy



KEY

- PROPOSED SURFACE WATER DRAINAGE
- PROPOSED FOUL WATER DRAINAGE
- BUILDING PERIMETER LAND DRAIN
- ALTHON HD1000 (C250, D400, E600 - SEE PLAN)
- SURFACE WATER SYSTEM (BY OTHERS)
- FOUL WATER SYSTEM (BY OTHERS)
- PETROL INTERCEPTOR
- GREASE TRAP

NOTE: PIPE DIAMETERS AND GRADIENTS TO BE CONFIRMED SUBJECT TO DETAILED DESIGN.



CDM RESIDUAL RISKS

The work shown on this drawing is both familiar to the designers and routinely safely built in similar circumstances by competent contractors.

Risks are considered significant.

~~Information to be included on the Draw Construction Information~~

Signed: S:JLH Date: 08/04/2022

RELEASE OF ELECTRONIC FILES FOR DEVELOPMENT BY OTHERS.

CLARKEBOND RELEASES THIS FILE, WHICH WAS USED TO PRODUCE STRUCTURAL & CIVIL ENGINEERING LAYOUTS & DETAILS ON THE FOLLOWING CONDITIONS:

- FUTURE USERS OF THIS FILE ARE RESPONSIBLE FOR THE ACCURACY & SUITABILITY OF THE ORIGINAL INFORMATION IN THE FILE FOR THE NEW APPLICATION.
- CLARKEBOND WILL NOT RELEASE OR ADVISE OF CHANGES THEY MAY MAKE TO THEIR ELECTRONIC FILES OTHER THAN THAT REQUIRED FOR THE ISSUE OF THEIR STRUCTURAL & CIVIL ENGINEERING DRAWINGS FOR THE PROJECT.

CLARKEBOND WILL NOT BE RESPONSIBLE FOR:

- ANY INFORMATION PRODUCED BY A THIRD PARTY
- THE ACCURACY OF THE MODEL FILE ONCE MODIFIED BY OTHERS

- NOTES:**
1. DO NOT SCALE FROM THIS DRAWING.
 2. CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ANY ERRORS AND OMISSIONS TO THE ENGINEER.
 3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE ARCHITECTS DRAWINGS AND THE SPECIFICATIONS.
 4. THE CONTRACTOR IS TO BE RESPONSIBLE FOR ALL DIMENSIONS, LEVELS AND FOR THE CORRECT SETTING OUT OF ALL WORKS ON SITE.
 5. ALL WORKS ARE TO COMPLY WITH THE RELEVANT STANDARDS AND CODES OF PRACTICE AND TO THE APPROVAL OF THE LOCAL AUTHORITY FOR BUILDING REGULATIONS
 6. INTERNAL DRAIN RUNS AND CONNECTION POINTS TO BE CONFIRMED AT DETAILED DESIGN.

Rev	Description	By	CHK	Date
001	PLANNING	JLH	SI	08/04/22

clarkebond

7 Hatchers Mews
Barnsbury
London
SE1 9GS

tel +44 (0) 20 7939 0959
e-mail london@clarkebond.com
web www.clarkebond.com

BRISTOL EXETER LONDON

Client
SeAH

Project
SeAH MONOPILE FACILITY

Drawing Title
DRAINAGE STRATEGY LAYOUT

Drawing Status
SUITABLE FOR INFORMATION S2

Drawing No.
SEAH-CLK-ZZ-EX-ZZ-DR-C-1500

Client Project No. L05858	Scale 1/1000	Revision P01
Drawn By JLH	Checked By SI	Date of First Issue 08/04/22