

FOR INFORMATION

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CLEARSTONE ENERGY

Developer:

Dartford Energy Hub

Project:

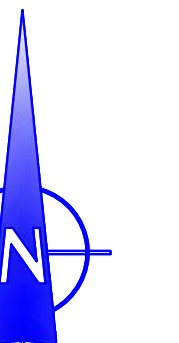
DEVELOPMENT ZONE	AREA (HECTARES)	0.14
PROPOSED SITE ACCESS		0.03
EMERGENCY ACCESS ONLY		2.33
BATTERY SITE		0.15
SUBSTITUTION		2.91
ECOLOGICAL ENHANCEMENT		3.83
CABLE ROUTE		9.39
TOTAL		

LEGEND:

The map shows the proposed site (red rectangle) and surrounding infrastructure. The proposed site is located near the intersection of Cable Route and Ecological Enhancement. The map also shows the Battery Site, Substation, and Emergency Access Only. The proposed site is located near the intersection of Cable Route and Ecological Enhancement.

Revision	Date	Revision Notes	Drawn	Inspected
01	07/11/23	First issue	JM	DW
02	16/12/23	Revised	JM	DW
03	19/01/24	Revised	JM	DW
04	08/02/24	Development zones amended to suit layout	JM	ST
05	17/02/24	Development zones amended to suit layout	OB	ST
06	25/1/24	Amended as per Comments	OB	ST
07	29/1/24	Amended as per Comments	OB	ST
08	06/1/24	Amended as per Comments	OB	ST

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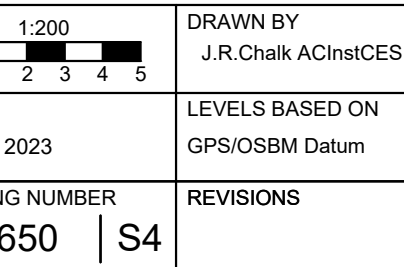


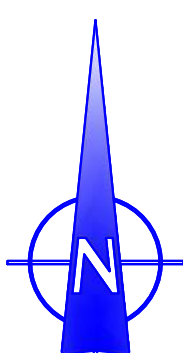
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PROJECT
Northfleet Battery
Station Road
Northfleet
Gravesend
DA13 9PA

Survey Drawing


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Grid Origin 0908

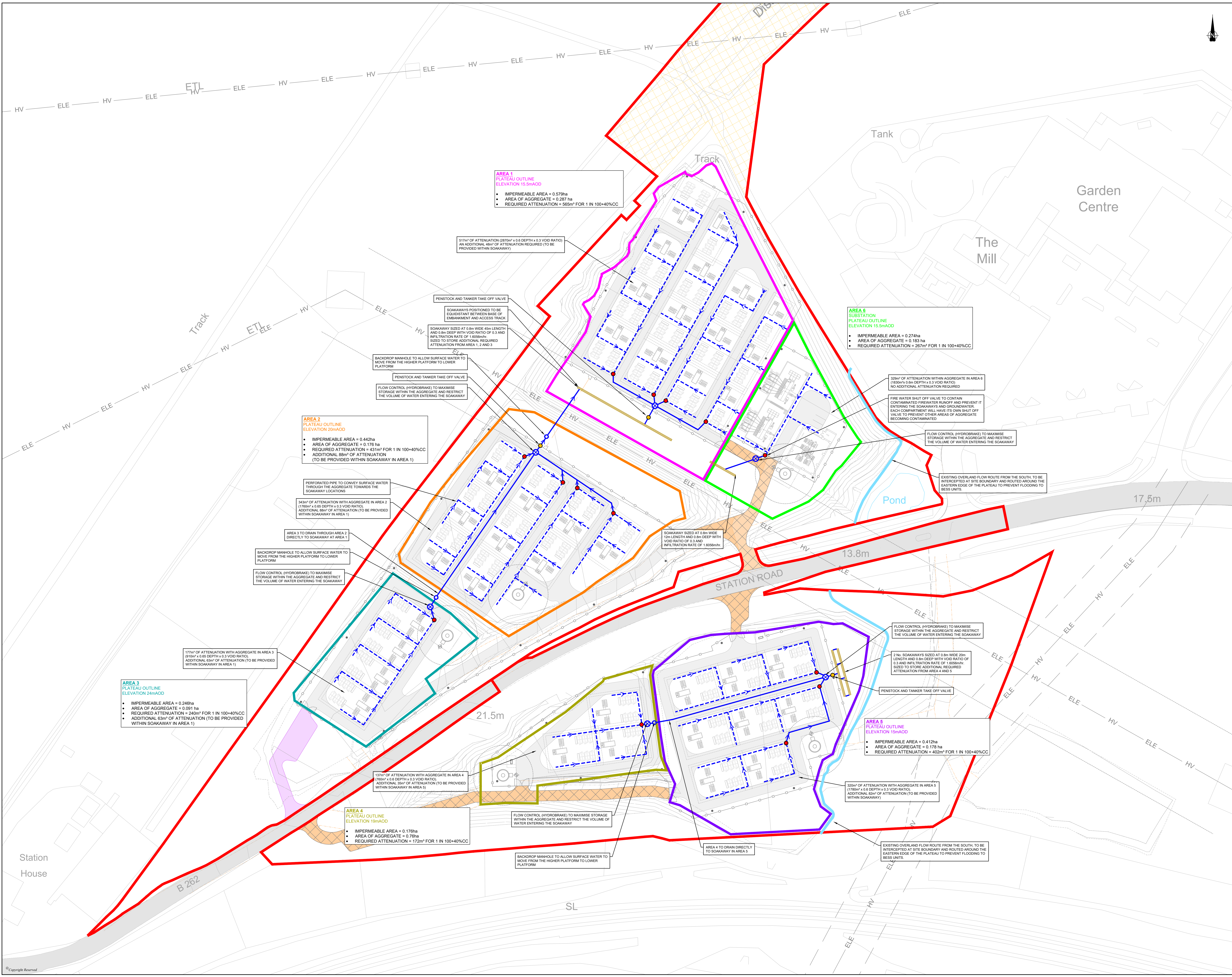
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TITLE/PROJECT
Northfleet Battery
Station Road
Southfleet
Gravesend
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Survey Drawing


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	DRAWN BY J.R.Chalk AInstCES
DATE June 2023	LEVELS BASED ON GPS/OSBM Datum
DRAWING NUMBER 14650 S6	REVISIONS



DO NOT SCALE FROM THIS DRAWING

NOTES

1. TO BE READ IN CONJUNCTION WITH WARDELL ARMSTRONG FLOOD RISK ASSESSMENT REPORT REF CA1284-00.

2. SITE LAYOUT PROVIDED BY CLIENT (REF: CST010-MASTER XREF REV 10).

3. ALL PROPOSED DRAINAGE SHOWN ON THIS DRAWING IS INDICATIVE ONLY AND SUBJECT TO DETAILED DESIGN.

4. ALL ATTENUATION VOLUMES ARE ESTIMATES ONLY AND SUBJECT TO DETAILED DESIGN.

5. DO NOT SCALE FROM THIS DRAWING. ALL DIMENSIONS MUST BE CHECKED/VERIFIED ON SITE.

6. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED.

7. ALL AGGREGATE STORAGE TO BE LINED WITH IMPERMEABLE MEMBRANE TO PREVENT INFILTRATION.

8. SURFACE WATER TO DISCHARGE VIA INFILTRATION TO CHALK BEDROCK. INFILTRATION RATES QUOTED FROM ON-SITE TESTING.

9. DUE TO THE DEPTH OF THE CHALK BEDROCK IN THE WEST OF THE SITE, SOAKAWAYS HAVE BEEN POSITIONED TOWARDS THE EAST WHERE THE CHALK IS SHALLOWER.

10. CHALK DISSOLUTION RISK HAS BEEN CONSIDERED IN THE SITING OF SOAKAWAYS. POSITIONS OF SOAKAWAY ARE AWAY FROM 'VERY HIGH RISK' AREAS.

11. BACKDROP MANHOLES WILL BE REQUIRED TO TRANSFER FLOWS EASTWARDS FROM HIGHER PLATFORMS TOWARDS THE SOAKAWAY FEATURES.

12. ATTENUATION HAS BEEN SIZED TO ACCOMMODATE THE 1 IN 100 YEAR + 40% CLIMATE CHANGE STORM EVENT, BASED ON THE ESTIMATED INFILTRATION RATE.

13. IMPERMEABLE AREA ESTIMATES INCLUDE 100% OF ACCESS TRACK AND ROOF AREAS + 100% OF AGGREGATE AREAS.

14. EXISTING SURFACE WATER FLOW PATH THAT CROSSES THE SITE FROM SOUTH TO NORTH (REFER TO FRA REPORT FOR DETAIL) TO BE RE-ROUTED AROUND PLATFORM AREAS TO PREVENT FLOODING TO ELECTRICAL INFRASTRUCTURE. SIZING OF THE DIVERSION DITCH TO BE CONFIRMED AT DETAILED DESIGN STAGE.

15. FIREWATER RUNOFF STORAGE REQUIREMENT = 228m³.

16. FIREWATER STORAGE TO BE PROVIDED IN ADDITION TO THE SURFACE WATER ATTENUATION REQUIREMENT FOR THE 1 IN 2 YEAR RETURN PERIOD STORM.

17. THE AGGREGATE WILL BE LINED TO PREVENT INFILTRATION AT THIS POINT TO ENSURE NO CONTAMINATED WATER ENTERS THE GROUNDWATER. TANKER TAKE OFF VALVES ARE PROPOSED TO ALLOW CONTAMINATED WATER TO BE REMOVED FROM THE SITE FOR TREATMENT IF REQUIRED.

18. FIRE WATER CONTAINMENT TO BE PROVIDED WITHIN THE AGGREGATE SURROUNDING THE BESS UNITS WITH SHUT OFF VALVES FOR EACH COMPARTMENT.

NORTHERN PARCEL 1 (AREA 1 & 6)

• REQUIRED STORAGE FOR 1 IN 2 YEAR RETURN PERIOD + FIREWATER RUNOFF = 552m³

• ATTENUATION PROVIDED WITHIN AGGREGATE = 846m³

NORTHERN PARCEL 2 (AREA 2 & 3)

• REQUIRED STORAGE FOR 1 IN 2 YEAR RETURN PERIOD + FIREWATER RUNOFF = 469m³

• ATTENUATION PROVIDED WITHIN AGGREGATE = 520m³

SOUTHERN PARCEL:

• REQUIRED STORAGE FOR 1 IN 2 YEAR RETURN PERIOD RUNOFF + FIREWATER = 451m³

• ATTENUATION PROVIDED WITHIN AGGREGATE = 457m³

KEY

— SITE BOUNDARY

— SURFACE WATER PIPE

— PERFORATED PIPE (150mm)

• FIRE WATER SHUT OFF

• FLOW CONTROL (HYDROBRAKE)

• BACK DROP MANHOLE

— SOAKAWAY

— SURFACE WATER DIVERSION DITCH

— EASEMENT FOR CABLE ROUTE

• PENSTOCK AND TANKER TAKE OFF VALVE

AREA 1

AREA 2

AREA 3

AREA 4

AREA 5

AREA 6

OS DATA PROVIDED BY CLIENT

A FIRST ISSUE

11-02-24

10

10

10

CLIENT

NAME

DATE

10-02-24

10-02-24

PROJECT

CLEARSTONE ENERGY

PROJECT

DARTFORD ENERGY HUB

DRAWING TITLE

SURFACE WATER MANAGEMENT PLAN

DRG No:

CA12848-007

REV

A

DATE CODE

07-10-24

DRG SIZE

A0

SCALE

1:500

DATE

07-10-24

DRAWN BY

DR

CHECKED BY

HW

APPROVED BY

EK

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