A1

NFCC Design Guidance (Nov 2022) Checklist - Dartford Energy Hub			
Ref Number	Guidance Description for Battery Energy Storage Design	Complies	Notes
N/A	Confirmation that the Battery Storage System will comply to UL 9540A and NFPA855	Yes	Clearstone Energy are only working with suppliers who comply with these standards and have successfully passed the required tests to receive certification. (See Battery Safety Standards Report for full list of required standards)
1	Provision of Secondary Access/Egress Point	Yes	As the site is split in two by Station road we have provided primary and secondary access points for each section of the site. Refer to below Plan in addition to Plan Ref: CST010-DF4.0 for further detail
2	Provision of sufficient firefighting water provision	Yes	Each section of the site will provide access to 228,00 litres of water - stored in tanks - so capable of delivering 1900 litres per minute for 2 hours. Water hydrants provided at 45m radius coverage in line with approved document part B Fire Safety. Fire hydrants will be compliant with BS9990 and BS3251 and capable of delivering a minimum 25 litres per second flow rate as per draft Updated NFCC guidance. 4inch BSP connection provided for FRS direct water extraction from tanks for redundancy.
3	Passing places to be provided on access route suitable for fire service vehicles	Yes	Provided along both primary and emergency access routes
4	Provide suitable spacing between battery units, supported by justifying evidence if less than 6m.	Yes	Battery spacing will be confirmed post planning at the detailed design stage and approved by Kent Fire & Rescue Service as part of the Battery Safety Management Plan for the project. Any reduction below 6m will be designed by a competent fire engineer and supported by full scale fire testing and / or modelling. The indicative layout below is based on the Wartsila Gridsolv Quantum BESS which is designed and tested at 3m spacing and provides for 4m spacing between battery rows.
5	Offset battery units 25m from sensitive site boundaries (eg residential, roads and footpaths)	Yes	Battery units are located no less than 25m from the nearest publicly accessible space - Millbrook Garden Centre car park and Station Road
6	10m buffer between battery units and combustible vegetation	Yes	All surfaces within the BESS compound will be made with compacted gravel to inhibit vegetation growth. There is a minimum of 10 metres from battery units to existing or new planting as shown by the green line on the plan.
7	Battery units to be single level and not stacked	Yes	Battery Containers are all Single Level, See Drawing Ref: CST011-DF6.0 for Elevations of Battery Pack Unit
8	Access roads and gateways / pinch points sized appropriately for Kent Fire & Rescue Service vehicles	Yes	Access roads and gates meet Approved Document B vehicle dimensions with access roads a minimum of 4.5m wide and capable of accommodating Kent Fire & Rescue Service vehicles.
9	Appropriate Signage will be provided on site	Yes	Signage will be installed in locations visible from the exterior of the compound identifying the presence of a BESS system and the relevant hazards posed. In addition to this Signage will be fixed in a prominent position denoting the presence of equipment to be used by the FRS in the event of an Emergency.
10	Consideration should be given, within the site design, to the management of water run-off (e.g Drainage systems, interceptors, bunded lagoons)	Yes	Water containment for 228,000 litres of water is provided in the aggregate layer underneath each section of the site. This will be lined with an impermeable membrane designed to resist chemical concentrations and high temperatures. The system is closed by penstock valves in the event of a fire incident to contain water on site. Water tanker take off valves are provided for removal of water post fire if contaminated.
11	Provision of an annunciation panel to provide FRS with live, accurate information on safety systems and status of battery units (as recommended in draft Updated NFCC Guidance - July 2024).	Yes	Five First Responder panels (referred to as Annunciation Panels in updated NFCC guidance) positioned at compound access points to ensure that accessible by FRS in event of a fire incident. Please refer to plan for further detail.

THIS PLAN IS TO BE READ IN CONJUNCTION WITH THE PROPOSED SITE LAYOUT PLAN REF: DF4.0

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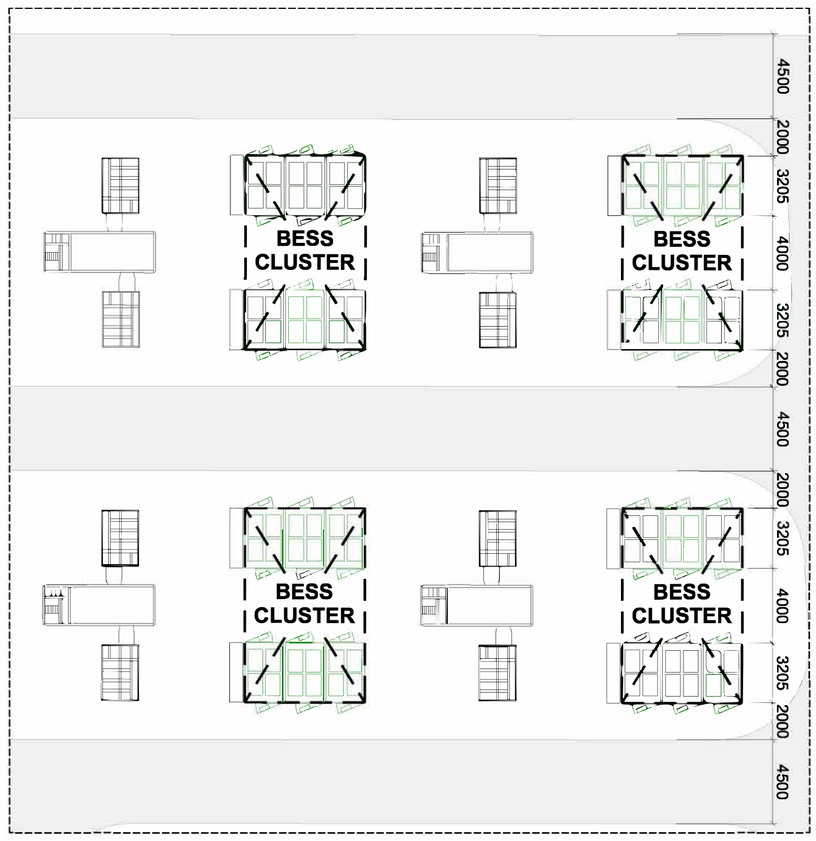
Scaled dimensions must not be taken from this drawing. All dimensions are to be confirmed on site prior to commencement of work

Revisions:

Revision	Date	Revision Notes	Drawn	Inspected
01	21.10.24	First Issue	JM	ST
02	23.10.24	Amended as per List	OB	ST
03	28.10.24	Table Title Amended	GM	ST
04	26.11.24	Amended as per Comments	OB	ST
05	29.11.24	Amended as per Comments	OB	ST
06	06.12.24	Amended as per Comments	OB	ST

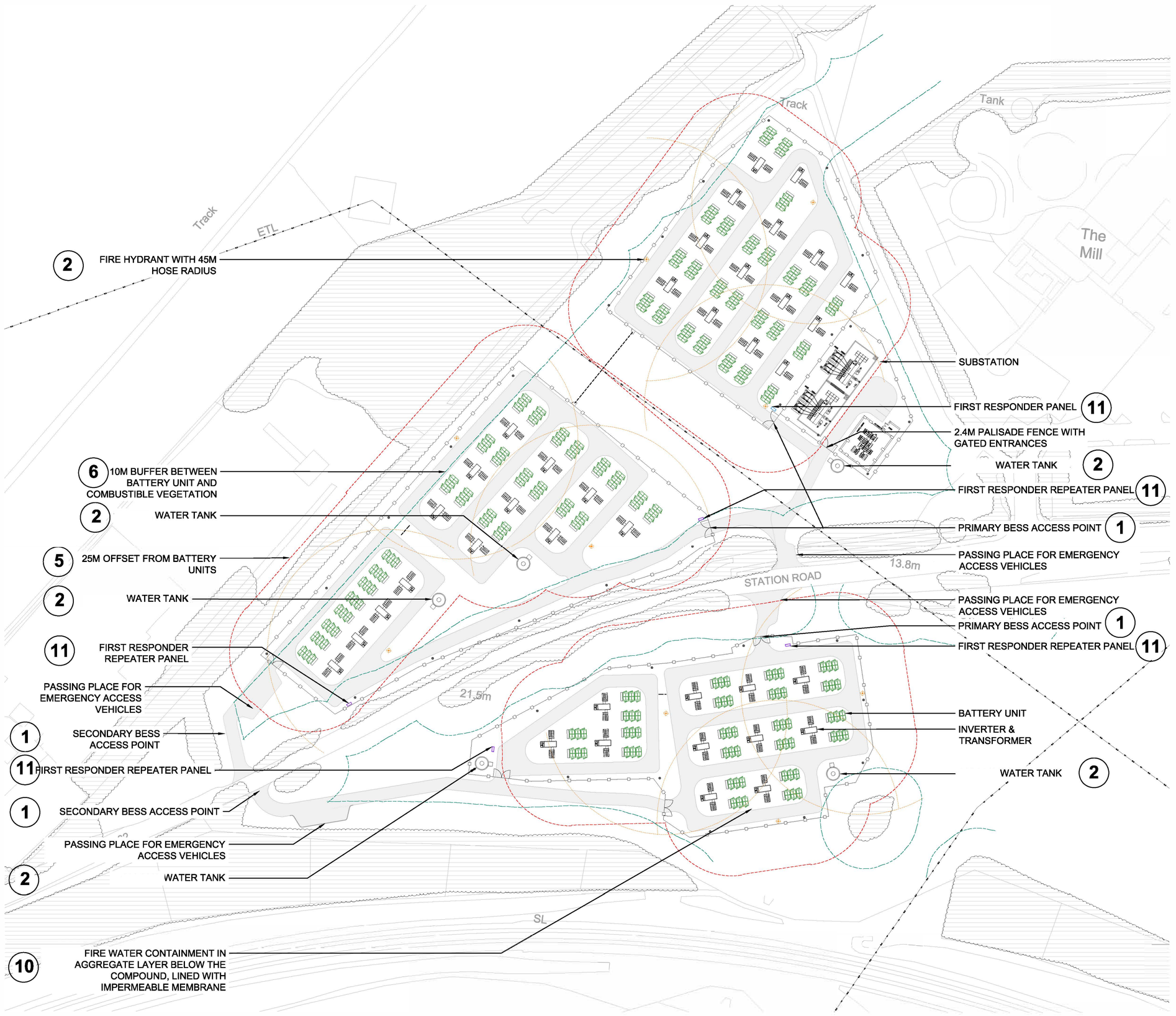
LEGEND:

- 25M BATTERY OFFSET
- 10M OFFSET FROM VEGETATION
- 45M HOSE COVERAGE (HYDRANTS)
- FOOT ACCESS



4 Enlarged view: Battery Storage Spacing

Scale: NTS



Fire Strategy Plan

Scale 1:1000

0 10 20 30 40 50 60 70 80 90 100m

SCALE 1:1000

Project:

Dartford Energy Hub

Developer:

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FOR APPROVAL

Drawing Title:

Dartford Energy Hub

Compliance with NFCC Design Guidance

Drawn:	Checked:	First Issued:
JM	ST	21.10.2024

Project Code:	Drawing Number:	
CST010	FS-01	

Sheet Size:	Scale:	Revision:
A1	1:1000	06