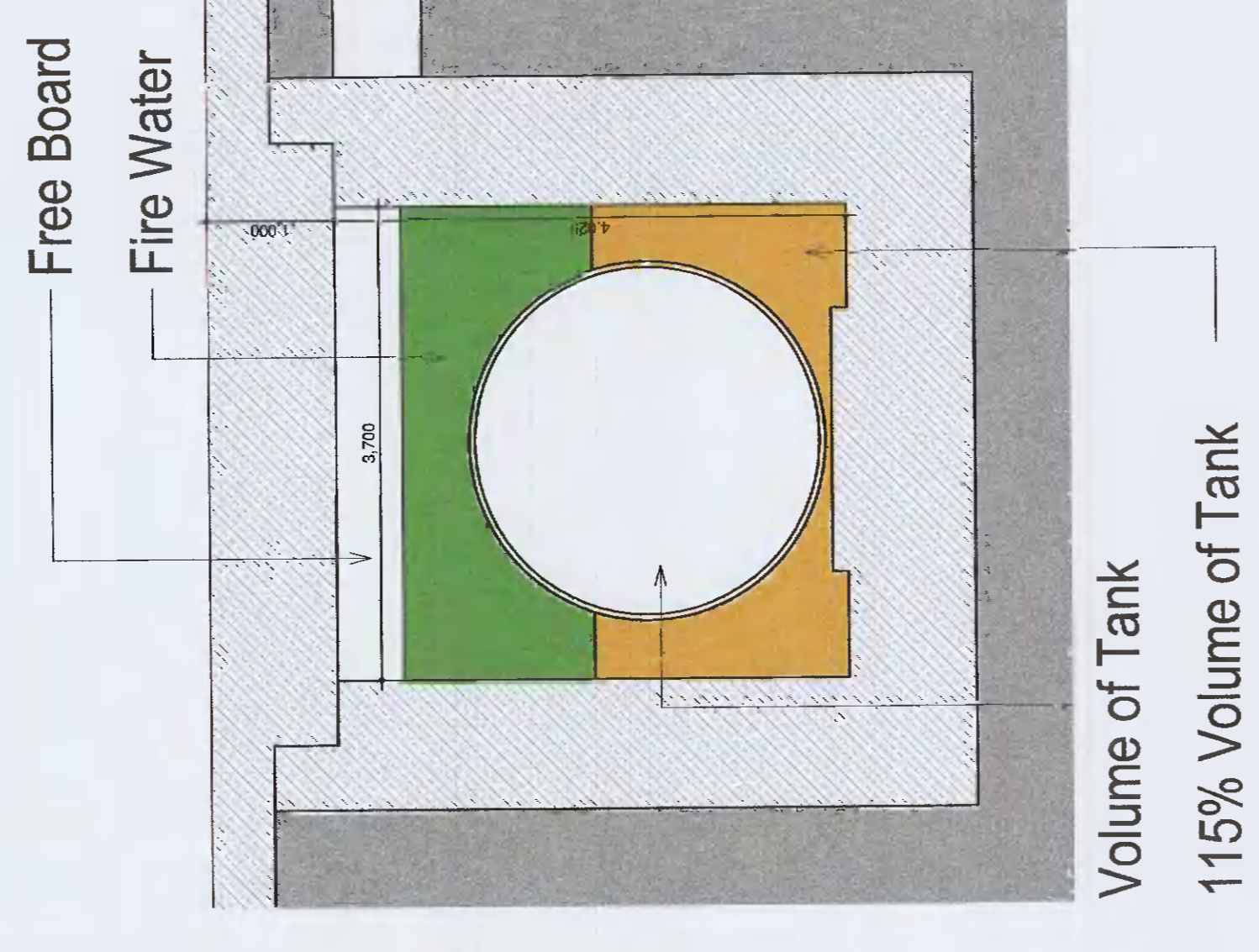


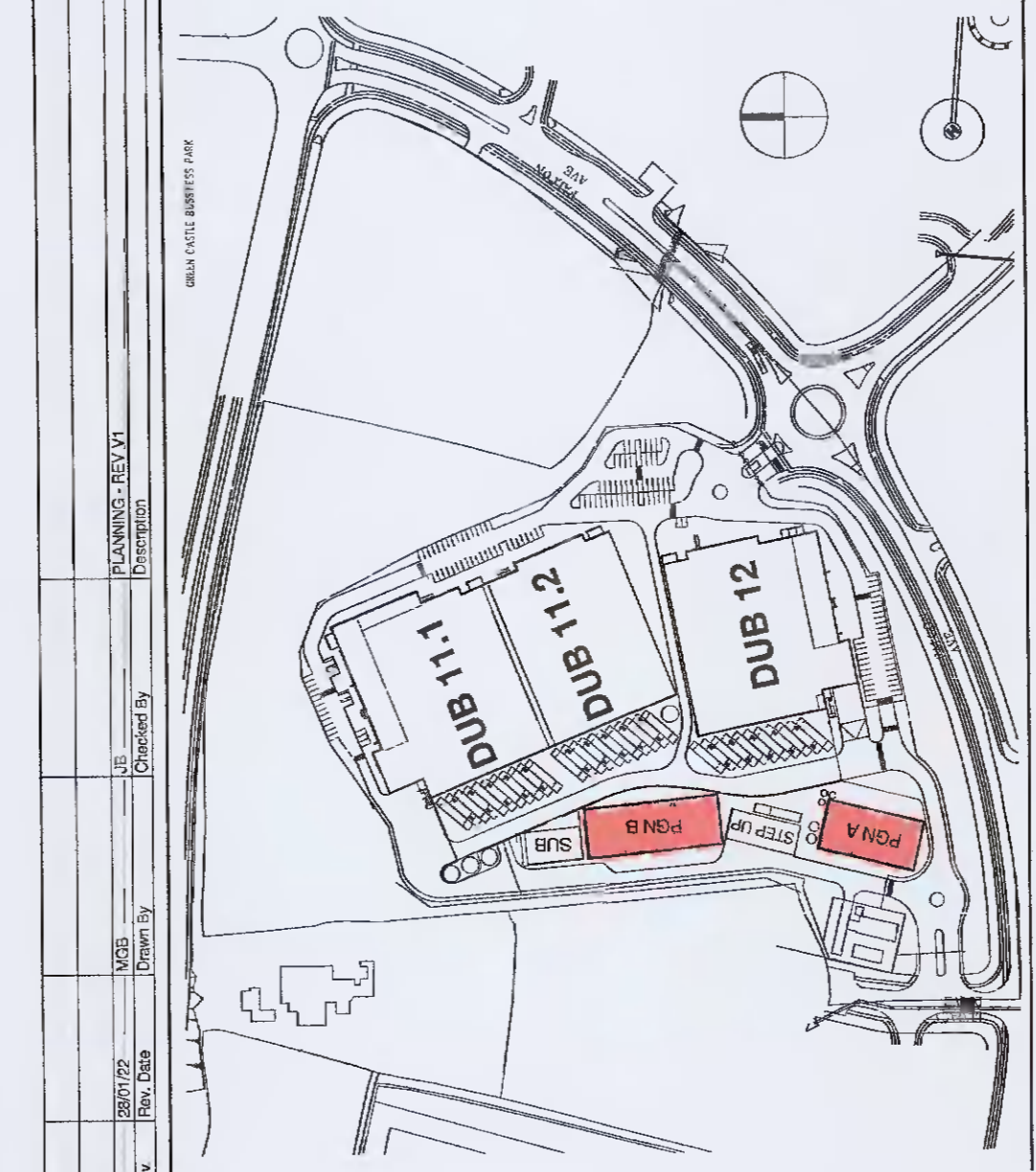
**THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE PLANNING PACK DRAWINGS:**

- DUB1-DR-ZZ-A016-V0-PL-BMD
- DUB1-DR-ZZ-A017-V0-PL-BMD
- DUB1-DR-ZZ-A018-V0-PL-BMD
- DUB1-DR-ZZ-A019-V0-PL-BMD

Fuel Storage to comply with BS 5410-3



**3 Below Ground Vaults Calculations**



**VANTAGE**  
 VENTILATION SYSTEMS

**BURNS MEDONNELL**  
 CONSULTING ENGINEERS

**Hyphen**  
 HYDRATION SYSTEMS

Project: Profile Park, Dublin 22, Ireland  
 53°19'14.07"N, 6°26'40.80"W

Drawn by: J. Maguire  
 Checked by: J. Burrell  
 Approved by: M. Egan  
 Date: 01/10/22

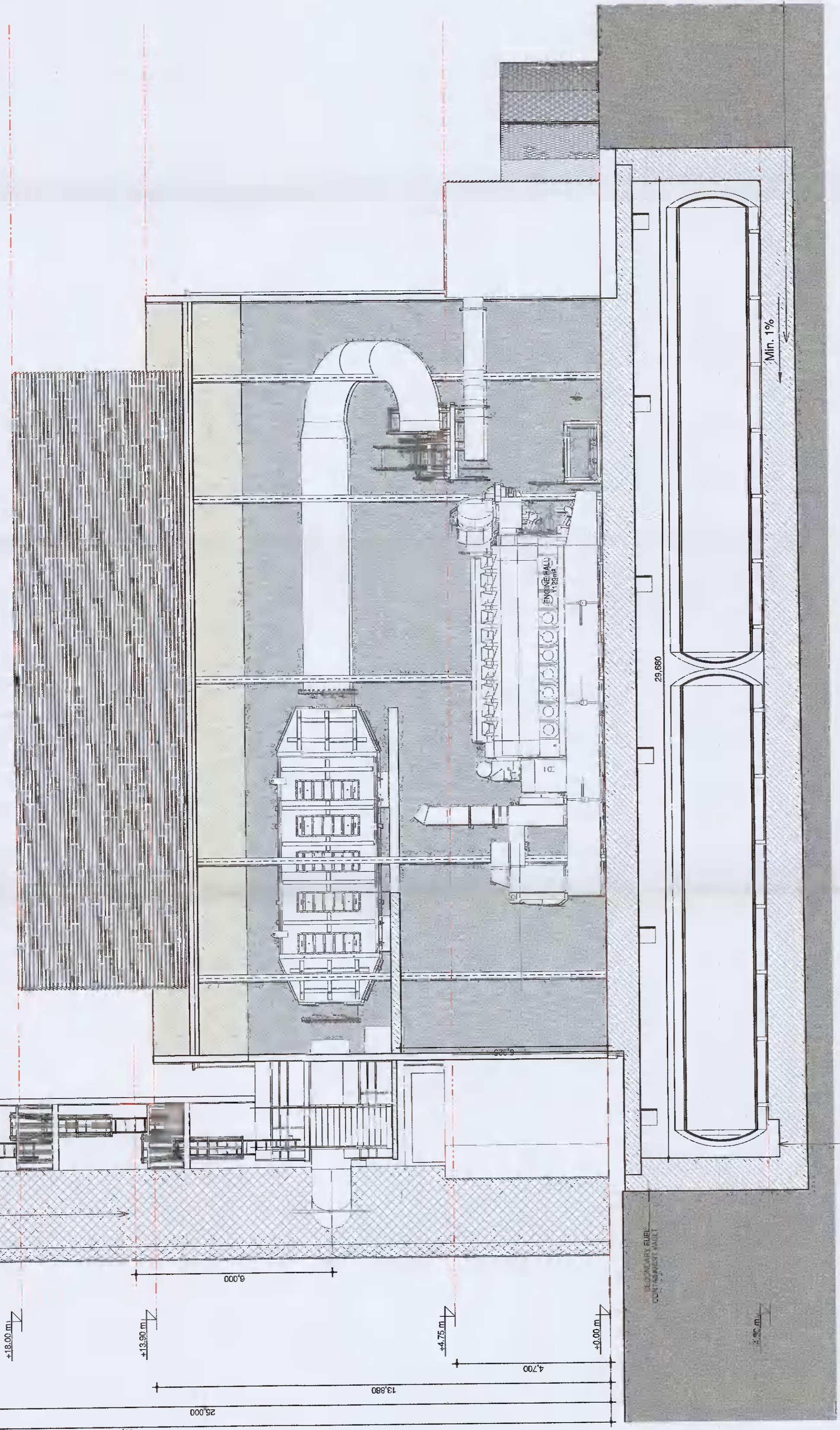
Project Code: DUB1-DR-ZZ-A020-V0-PL-BMD V1

Under EN 15259, the CEMS (Continuous Emission Monitoring Sampling) require 5 diameters (6m) of undisturbed flow before sample location ports for samples which are both remote Infra-red and regular physical testing from a gantry (i.e. after the exhaust gas silencer) and 5 diameters of distance before flow exit (6m). The top of the stack. The Flue bore diameter of each stack is 1.2metres.

This EN regulation for regular emissions testing on this Multifuel Power Generation Plant requires a Total flue stack height of 30metres to comply with European Environmental Standards. 30m flue stack height results in best efficiency for reduced gas emissions, building height is absolute minimum for best efficiencies for compliance with noise abatement, and heat dispersal and gas emissions reduction.

A lower flue stack height than the 30metres designed cannot meet regulations set by the EN codes across EUROPE and would if allowed also adversely affect higher energy requirements for Data Centre facility cooling.

- Emission testing position 01
- Emission testing position 02



**1 MULTIFUEL NORTH BUILDING - CROSS SECTION**

Drainage channel suitable for external extraction hose or extraction pipe to the West of the Power Generation Facility. This is to comply with environmental protection agency standards for the avoidance of ground water pollutants and contamination through the collection of either fire water or HVO leakage.

Slope falling away from the Data Centre Building

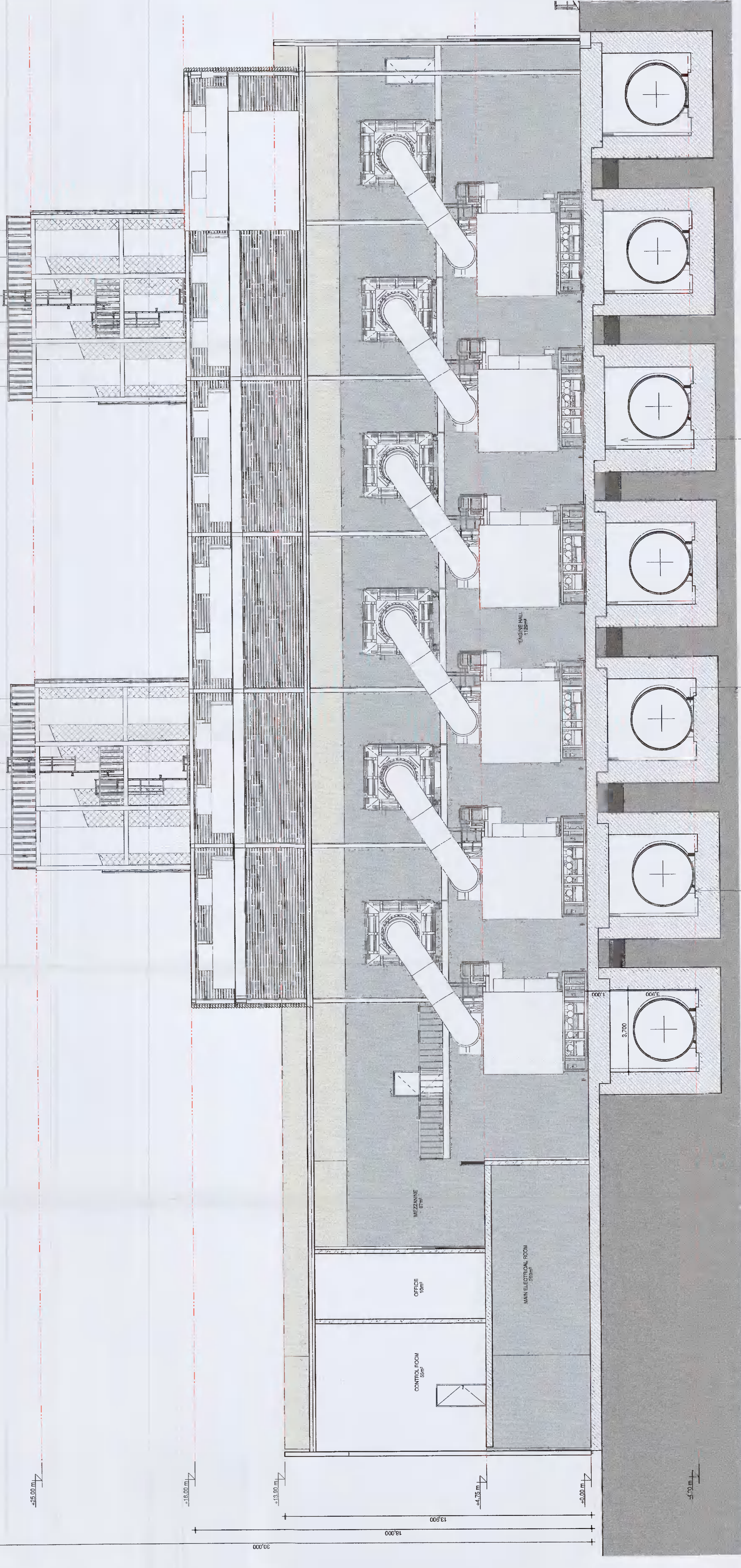
Channels to connect all vaults above tanks top level for overspillage  
 Drainage channels around tanks falling West, away from the Data Centre Building

**Design Concept**

2x 80,000 litres tanks beneath each generator, placed at 4.9m below ground, each contained in an independent concrete vault. Total number of compartment 26 = 2,080,000 litres = 72 hours backup compliant with CRU and Eirgrid requirements.

Below ground slab to have a slope of a minimum 1% towards the West, away from the Data Centre Building, to create a drainage channel for external extraction. Bunded tanks are to be connected above the 110% requirement to enable fire water capture and prevent overspillage - Total overspillage volume is equivalent to 2,496,000 litres (Total fire water storage on site is 358,000 litres). There is zero risk of an overspill or contamination to the site and surrounding subsoil and belowground drainage.

Tanks to be anchored to the slab to avoid any movements or misplacement and to comply with the following standards from the document "Integrated Pollution Prevention and Control - Emissions from Storage - July 2006": EN 14015, API 650, BS 2654, DIN 4119, NEN 3850, CPR9-3, BS 2594 or BS 4994.



**2 MULTIFUEL NORTH BUILDING - LONGITUDINAL SECTION**

Tanks to be anchored to avoid misplacement

Vaults to have an excess of 115% of the tank capacity to account for any eventual spillage

**PLANNING SUBMITTAL NOT FOR CONSTRUCTION**

Project Code: DUB1-DR-ZZ-A020-V0-PL-BMD V1