



Technical considerations







TECHNICAL CONSIDERATIONS INCLUSIVE DESIGN

INTRODUCTION

8.1.1 The design proposals have been developed with reference to regulations, adopted planning policy and guidance including:

- *The Building Regulations 2010, Access to and use of buildings - Volume 2: Buildings other than dwellings, Approved Document M, HMSO, 2015*
- *British Standard 8300:2009 +A1:2010 Design of buildings and their approaches to meet the needs of disabled people - Code of practice, British Standards Institution, 2010*

8.1.2 The design aspiration for this development is the creation of an inclusive environment. All issues relating to inclusive access have been, and will continue to be, considered throughout the design process.

8.1.3 Our access strategy is based on an inclusive model of disability. Impairments are considered as individual rather than categorised, and the design philosophy seeks to achieve a design that maximises access for all disabled people.

DISABILITY DEFINITION

8.1.4 The term 'disability' has been viewed in its broadest sense and includes impaired mobility, sight, comprehension and hearing. This approach addresses not only the short-term compliance with the Equality Act and relevant planning policies, but also the long-term implications of sustainability.

THE EQUALITY ACT (2010) AND DISABILITY

8.1.5 The Equality Act has been in force since October 2010, and replaces, amongst other legislation, the Disability Discrimination Act.

8.1.6 The Equality Act, although not prescriptive, includes an intent to provide disabled people an accessible environment which does not discriminate against them because of their impairment. Statutory regulations and recommendations for the built environment provide parameters for how an accessible environment can be achieved. Compliance with these regulations and recommendations is not proof that Equality Act issues have been addressed. However, they do go a long way to ensuring such issues are considered.

8.1.7 In the Act, the term disability includes not only disabled people, but also people who have an association with a disabled person (e.g. carers and parents) and people who are perceived to be disabled.

- 1 designated disabled parking
- 2 landscape gradients less than 1:20
- 3 level thresholds
- 4 draft lobby provides sufficient manoeuvring space for wheelchair users
- 5 split level reception counter with space below for wheelchair users & induction loop
- 6 lift adjacent to entrance
- 7 wheelchair accessible toilet adjacent to entrance
- 8 2m wide corridors/circulation

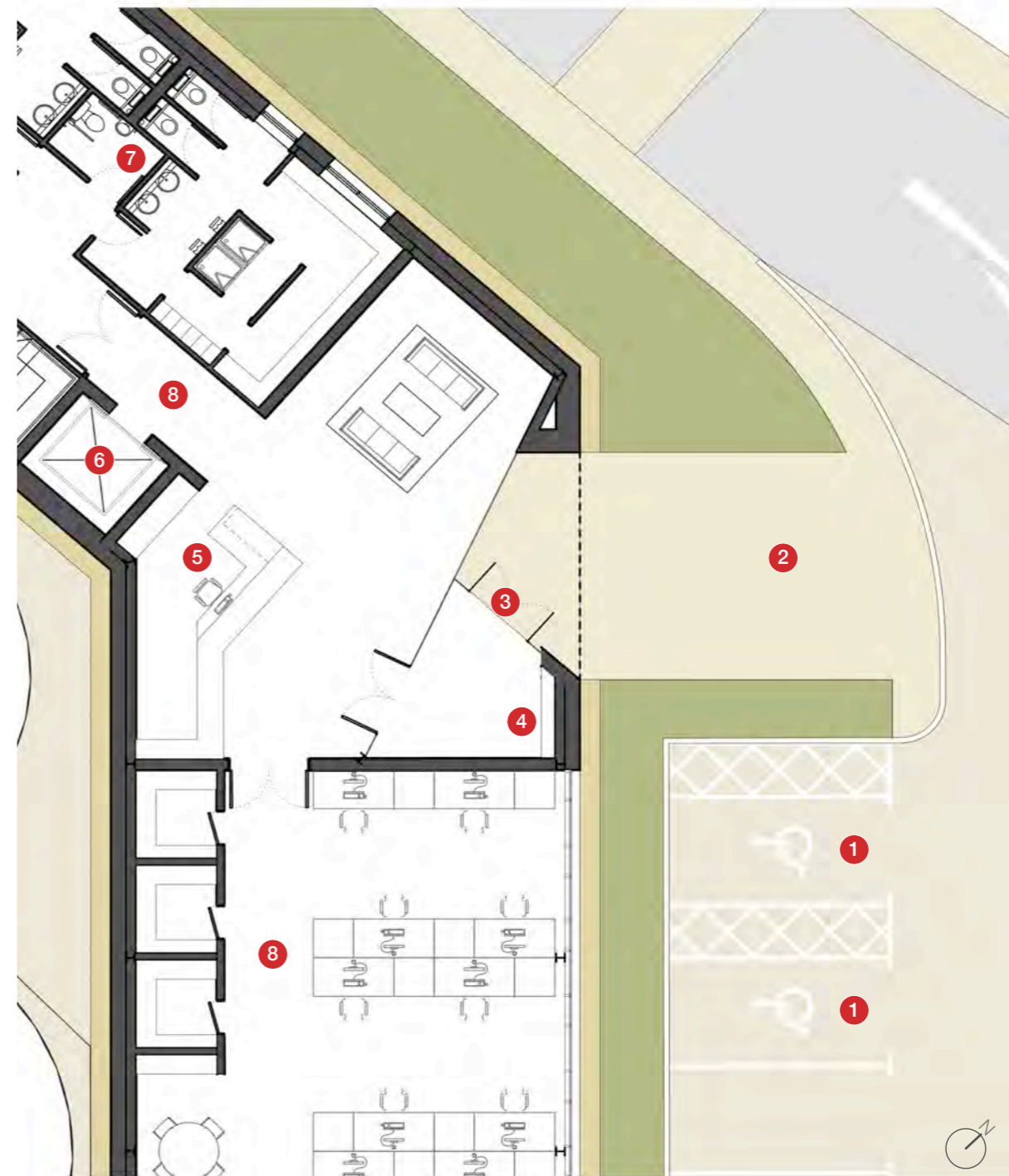
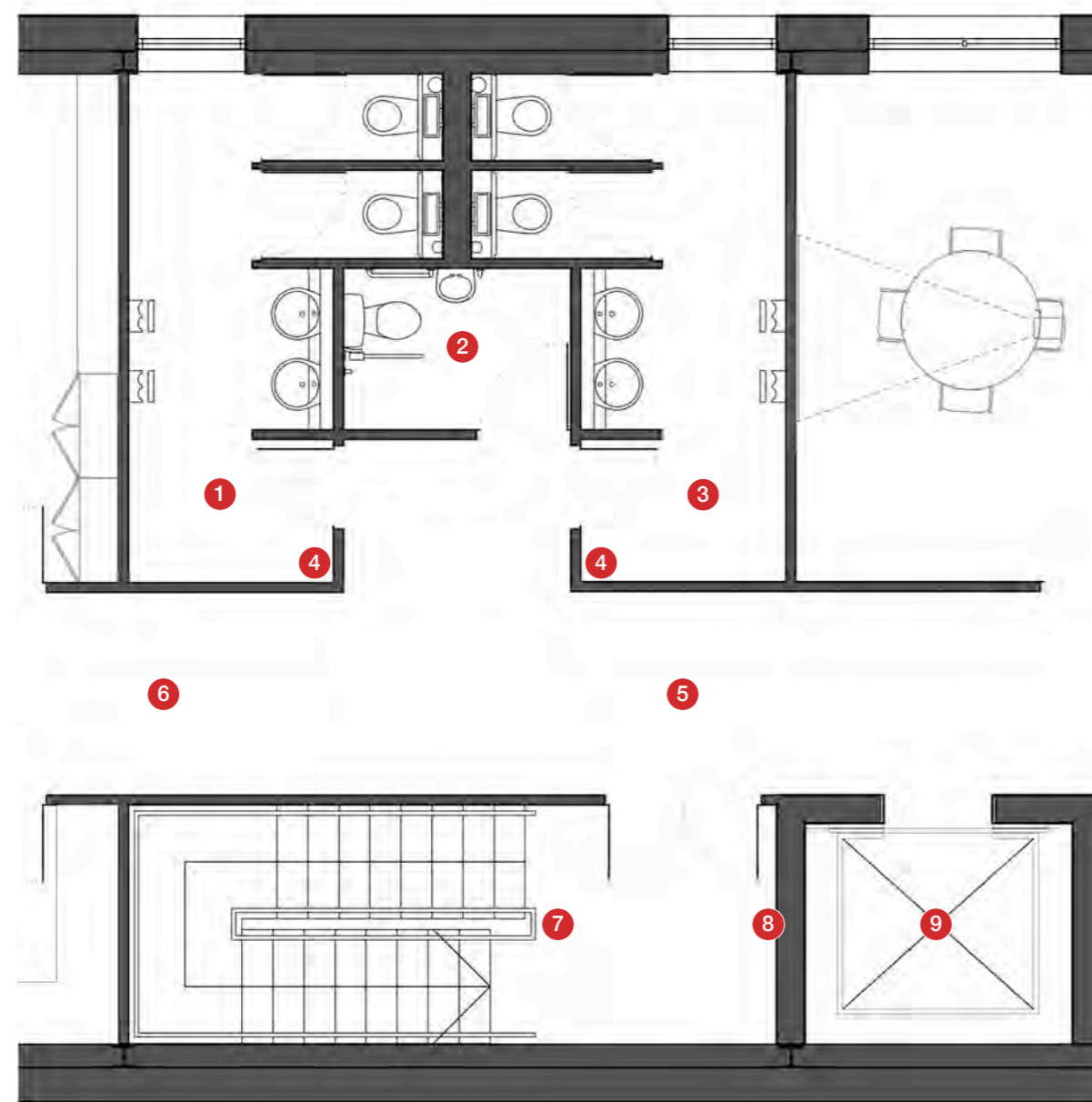


FIG 8.1
SITE PLAN DEMONSTRATING THE INCLUSIVE ARRIVAL AT THE MAIN ENTRANCE



- | | | |
|--------------------------------|---|---|
| 1 male toilets | 4 300mm to door leading edge | 7 ambulant disabled staircase (going 300m, riser 170mm) |
| 2 wheelchair accessible toilet | 5 2m wide corridors | 8 Evac Chair storage (see para 8.5.9) |
| 3 female toilets | 6 visually contrasting walls, floors, ceilings and doors to all corridors | 9 wheelchair accessible lift |

FIG 8.2
TYPICAL CORE AND TOILET BLOCK ARRANGEMENT

THE PROPOSALS

8.1.8 The principal areas of both the office building and plant building have been designed to be as inclusive as practically possible.

8.1.9 The requirement to monitor and maintain various components of the operational plant will inevitably result in gantry walkways that need to access a number of different levels. This makes it practically impossible to design in full compliance with Approved Document Part M.

8.1.10 Landscape areas leading to public buildings will have a gradient no greater than 1:20, with level landings to prevent a vertical rise greater than 500mm in height.

8.1.11 The finished floor levels of the building and external site levels have been designed to ensure all external doors level access/egress.

8.1.12 All doors will have a level threshold.

8.1.13 Once in the building the slab of each floor is flat for its entirety with vertical circulation cores providing access between all levels.

8.1.14 Cores include a wheelchair accessible lift, with minimum door width of 800mm, and an ambulant disabled staircases providing access for occupants of all physical abilities to each floor.

8.1.15 Part M compliant wheelchair accessible toilets are provided in all toilet locations, which are provided at each level containing occupied office space and in close proximity to the building's entrance.

8.1.16 All internal doors will have a clear space of at least 300mm from the leading edge of the door to provide ease of access to the door handles for wheelchair users.

8.1.17 Where draft lobbies have been incorporated into the design to assist with the environmental comfort of the building, the swing and spacing between doors ensures adequate space for wheelchair manoeuvring.

8.1.18 The main reception desk in the office buildings will include a split height counter with leg space beneath for wheelchair users. It will also include a hearing aid induction loop.

8.1.19 At the detailed design stage the selection of wall, floor and door finishes will ensure adequate visual contrast to assist with the safe, convenient use of the building by visually impaired staff.

8.1.20 The two parking spaces closest to the main entrance have been designated for disabled people and designed in full compliance with the standards set out in BS8300.

8.1.21 Switches, outlets and controls will be all be mounted at a height between 400mm and 1200mm above the floor.



TECHNICAL CONSIDERATIONS

SAFETY, SECURITY AND DESIGNING OUT CRIME

SAFETY, SECURITY AND DESIGNING OUT CRIME

Security & Crime

8.2.1 The site adopts an integrated approach to security that brings together technical, physical and operational measures in a proportionate and appropriate manner.

8.2.2 The site is located within the curtilage of Portland Port which operates its own strict security measures. The movement of all people and vehicles is controlled at the gatehouse by the entrance to the port at the eastern end of Castletown.

8.2.3 The philosophy of crime prevention through environmental design and the principles of Secured by Design have been applied throughout the design of the buildings. These includes straight building lines, security fencing and natural surveillance of the surrounding areas, where the layouts permit.

8.2.4 The operational plant areas are all within a secure boundary. This is created by the building envelope or two metre high palisade fencing around the service yard and other areas of hard standing.

8.2.5 The existing port CCTV network will be expanded to ensure all areas of the site are covered. CCTV will be designed in accordance with HOSDB/CAST standards.

8.2.6 Measures such as access control and intruder detection systems will be incorporated into the scheme. These measures will be designed in accordance with appropriate BS/EN standards, and supported by CCTV to provide security coverage within semi-public and private areas of the development, including car and bicycle parks.

8.2.7 The design has considered the movements and requirements of all types of site visitors and so welfare facilities have been provided for delivery/collection vehicle drivers which do not require access to the secure areas of the operational buildings.

8.2.8 Lifting arm barriers on Canteen Road and Balaclava Road ensure no unauthorised vehicles gain access to the site.

Safety

8.2.9 Vehicular and pedestrian access routes are segregated through the use of a handrail along the western side of Balaclava Road to improve pedestrian safety, where appropriate.

8.2.10 To avoid accidental collisions between vehicles and the PBUK fuel line further Armco barriers will line the eastern edge of Balaclava Road and the new maintenance road that follows the pipe line along the water's edge.

8.2.11 The back up starter fuel has been located at the eastern corner of the site at the point furthest from the other buildings and occupied areas of the site.

8.2.12 Due to the nature of the building 'permits to work' will be required for almost all maintenance and operational work around the site. Despite this the building's design has looked to design out risk where possible, in line with best practice and the CDM Hierarchy of Hazard Control.

8.2.13 The site operator will undertake their own hazard risk and fire risk assessments and put an appropriate mitigation strategy in place to deal with any issues identified. It is anticipated that a muster point will be located in the staff car park providing building occupants a safe refuge in the event of an emergency.



FIG 8.3
SITE SECURITY AND EMERGENCY ASSEMBLY PLAN

TECHNICAL CONSIDERATIONS STRUCTURE



STRUCTURE

8.3.1 Whilst the detailed design of the building's structure will not be fully resolved until the next stage of the design the proposed layout is based on a rational structural grid, as indicated to the left.

8.3.2 A steel frame solution is proposed to accommodate the large spans required for the areas of internal plant and storage.

8.3.3 The heights on the planning drawings make sufficient allowance for the depth of the large roof trusses required to span these spaces.

8.3.4 Due to the movement of vehicles inside the building, and the possibility of some of the site being made up ground following the removal of previous buildings, the ground floor slab is likely to be designed as a continuous raft foundation.

8.3.5 Internal floors are likely to be constructed from a composite structure using a metal deck as the permanent form work for the in-situ concrete above.

8.3.6 The setting out of the grid looks to resolve the spacial requirements of the plant whilst providing an efficient structural arrangement that minimises the size and quantity of steel required for the building.

8.3.7 As the coastal location makes the site susceptible to strong winds the steel frame will include bays of cross bracing to stabilise the structure.

8.3.8 The detailed design of the structure will be developed following any approval of this planning application and will conform to the Building Regulations 2010, Structure, Approved Document A, HMSO, 2013.

FIG 8.4
INDICATIVE STRUCTURAL GRID THROUGH PLANT AND OFFICE BUILDING



TECHNICAL CONSIDERATIONS LIGHTING

LIGHTING

8.4.1 The lighting concept places great emphasis on limiting the environmental impact of any new external lighting associated with the proposed development. The design will be developed to minimise the impact upon the surrounding environment whilst maintaining functional, safety and operational requirements.

8.4.2 The design of the exterior lighting will comply with British Standards and best practices; in particular to the following standards and guidance documents:

- SLL Code for Lighting
- BS EN 12464 Part 2: 2014 – Lighting of outdoor workplaces
- BS EN 5489 Part 1 – Lighting of roads and public amenity
- EN 13201 Part 2 – Performance requirements
- CIE 150: 2017 – Guide on the limitation of the effects of obtrusive light from outdoor
- lighting installations
- ILP GN01:2020 – Guidance notes on the reduction of obtrusive light
- BS EN 8300-1:2018 – Design of an accessible and inclusive built environment. Part 1 – External environment, code of practice

8.4.3 Lighting will be provided along routes and within areas as indicated on the lighting treatment plan with the corresponding criteria.

Pedestrian Movement and Inclusive Lighting

8.4.4 Pedestrian movement is anticipated between the car park, office building and main buildings. Lit routes will be provided from the car park to the entrances of the buildings around site.

8.4.5 Enhanced lighting levels will be provided around accessible car parking spaces, with further enhanced lighting levels between these spaces and

the main entrance and the entrances between the office building and main facility to assist navigation for the visually impaired and ensure the safety of pedestrians.

8.4.6 During hours of darkness there will be pedestrian movement between the buildings, therefore enhanced levels of light will be provided to crossings to ensure the safety of pedestrians.

Transportation of material within the site area

8.4.7 Deliveries are expected 24 hours a day and so the lighting design ensures a good uniform level of light at intersections so that vehicles can safely navigate the roads.

Security lighting

8.4.8 Lighting for security is required around the perimeter of the buildings and at the service yard.

8.4.9 There is a security barrier at the southern tip of the site. Lighting for CCTV coverage will be non-visible, far-infrared black light illumination and therefore not covered as part of the Lighting Statement included with this application.

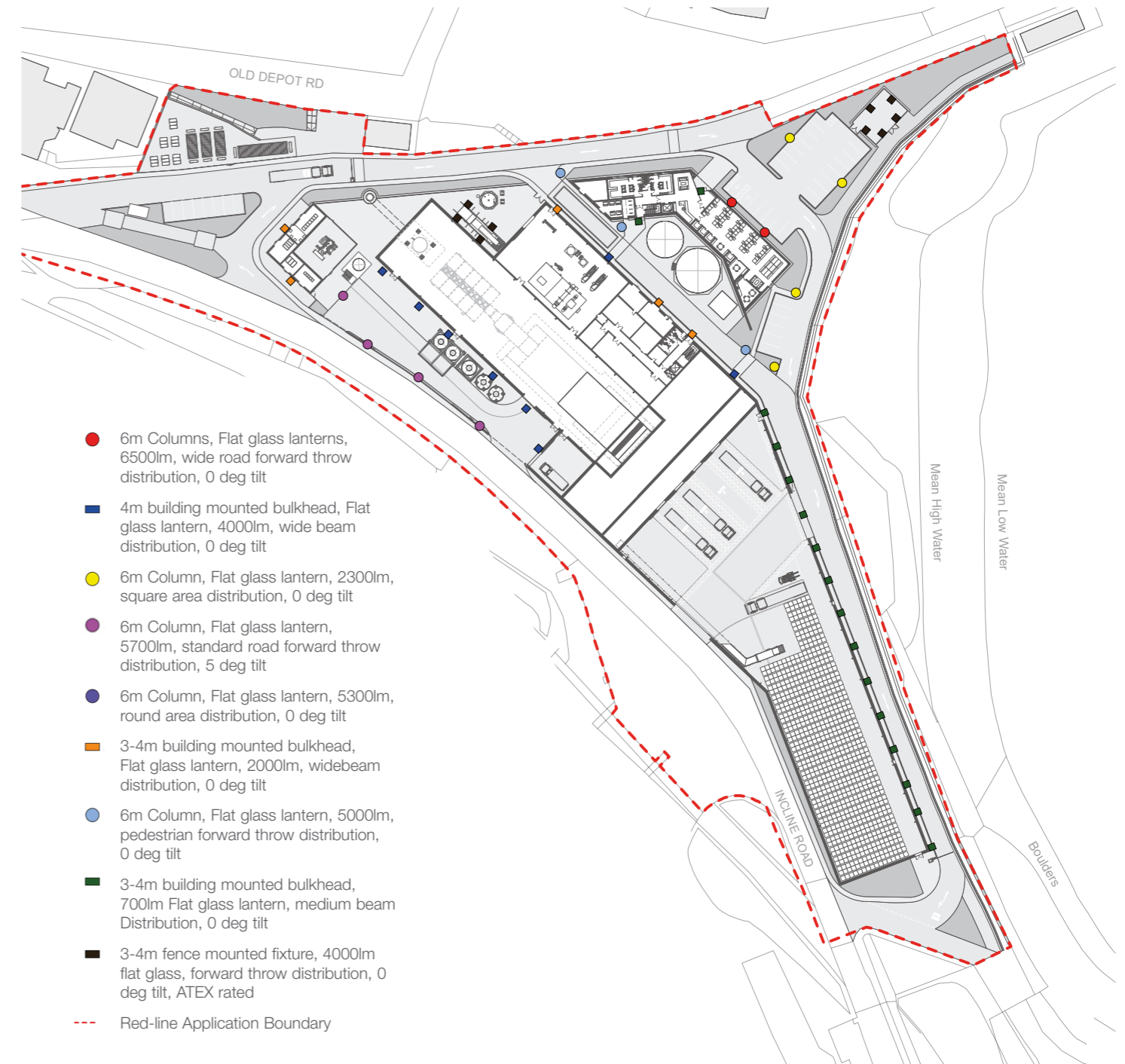
Lighting in event of emergency

8.4.10 General lighting to roads and pathways around the site will already be provided therefore in the event of an emergency, occupants will be able to safely navigate to the fire assembly point.

8.4.11 Lighting for safety will be required at the following areas for specific tasks during an emergency:

- LPG fuel storage
- Emergency Generator

8.4.12 Full details of the lighting proposals can be found in the Lighting report submitted as part of this application.



**FIG 8.5
PROPOSED LIGHTING STRATEGY**

TECHNICAL CONSIDERATIONS FIRE STRATEGY



FIG 8.6
INDICATIVE FIRE STRATEGY

FIRE

8.5.1 The design proposals have been developed with reference to regulations, adopted planning policy and guidance including:

- *The Building Regulations 2010, Fire Safety - Volume 2: Buildings other than dwellings, Approved Document B, HMSO, 2019*
- *The Building Regulations 2010, Access to and use of buildings - Volume 2: Buildings other than dwellings, Approved Document M, HMSO, 2015*
- *The Building Regulations 2010, Combustion appliances and fuel storage systems, Approved Document J, HMSO, 2013*

8.5.2 The design of the building includes 'passive fire protection' measure such as compartmentation of the plant building to contain and prevent the spread of fire throughout the building. The compartmentation between the RDF Store, Boiler and Turbine Hall will all provide a minimum of 4 hour fire protection. This will be achieved through the combination of fire resistant walls and floors, appropriately rated fire doors and cavity barriers and fires stopping to all voids and penetrations throughout these areas.

8.5.3 The building will be fitted with an advance fire detection system and manual call points throughout the building to ensure emergency procedure can be implemented at the earliest possible opportunity.

8.5.4 Sprinklers will be fitted throughout the plant building to suppress the flames of any fire that may occur on the site. To ensure there is always sufficient water and pressure available the site has a dedicated sprinkler tank and pump which are located to the rear (west) of the office building.

8.5.5 To assist in the fighting of any fire, hydrants will be provided around the site at a distance no greater than 90m apart.

8.5.6 The backup starter fuel has been located at the eastern extent of the site, in a position as far away as possible from all buildings to reduce to a reasonable level the risk of the fuel igniting in the event of fire in an adjacent building.

8.5.7 The fire escape travel distances from all occupied areas of the buildings ensure compliance with those set out for Group 6 (Industrial) in Table 2.1 *Limitations on travel distance*, Approved Document Part B, Volume 2.

8.5.8 In both buildings the stair cores serve all floors and provide direct escape to the outside at the ground floor.

8.5.9 In the event of a fire all lifts will be disabled. Due to the nature of the building Evac Chairs will be provided within all stair cores and appropriate training provided to all personnel to ensure all building occupants can safely exit the building without having to wait and rely on the fire services entering the building.

8.5.10 Fire escape doors are provided around the perimeter of the building providing the safe escape from all spaces throughout the building.

8.5.11 Segregated pedestrian routes provide a safe route of escape from all fire exits to the muster point in the staff car park.

8.5.12 Where escape routes run adjacent to the external envelope of the building the fire integrity and insulation rating of the external construction will be compliant with Approved Document Part B to ensure these routes can always provide safe passage from the building.

8.5.13 The detailed positioning of measures in the fuel storage areas, including partitioning, sprinklers, water canon, etc. will be agreed at a detailed design stage with the Local Authority Building Control, Dorset and Wiltshire Fire Services, Environment Agency and our insurers.



TECHNICAL CONSIDERATIONS FLOOD RISK

FLOOD RISK

The Site

8.6.1 As demonstrated by the Environment Agency's Flood Maps for Planning extract to the right the proposed building sits within Flood Zone 1, suggesting a low probability of flooding.

8.6.2 The port to the north and land around the perimeter of Balaclava Bay to the east are both significantly lower and sit within Flood Zone 2 with some areas in Flood Zone 3.

8.6.3 The site is significantly elevated from these areas with the lowest point of the proposed site +6.85 metres above ordnance datum (AOD). This means that, excluding any natural disaster, the site immediately around the building should never flood.

The Site Access

8.6.4 The Environment Agency's Flood Maps for Planning identifies that the southern section of the Portland Beach Road (A354) is located within Flood Zone 3 with a high probability of flooding.

8.6.5 Flooding of this road would have the potential to disrupt the delivery of the RDF fuel and collection of waste products. Should this occur the facility, in association with the Port, would have back up procedures in place to allow them to ship both deliveries and waste collections across from Weymouth, or an alternative location further afield, for the duration of the flooding.

8.6.6 For further details please refer to the full Flood Risk Assessment submitted with this application.



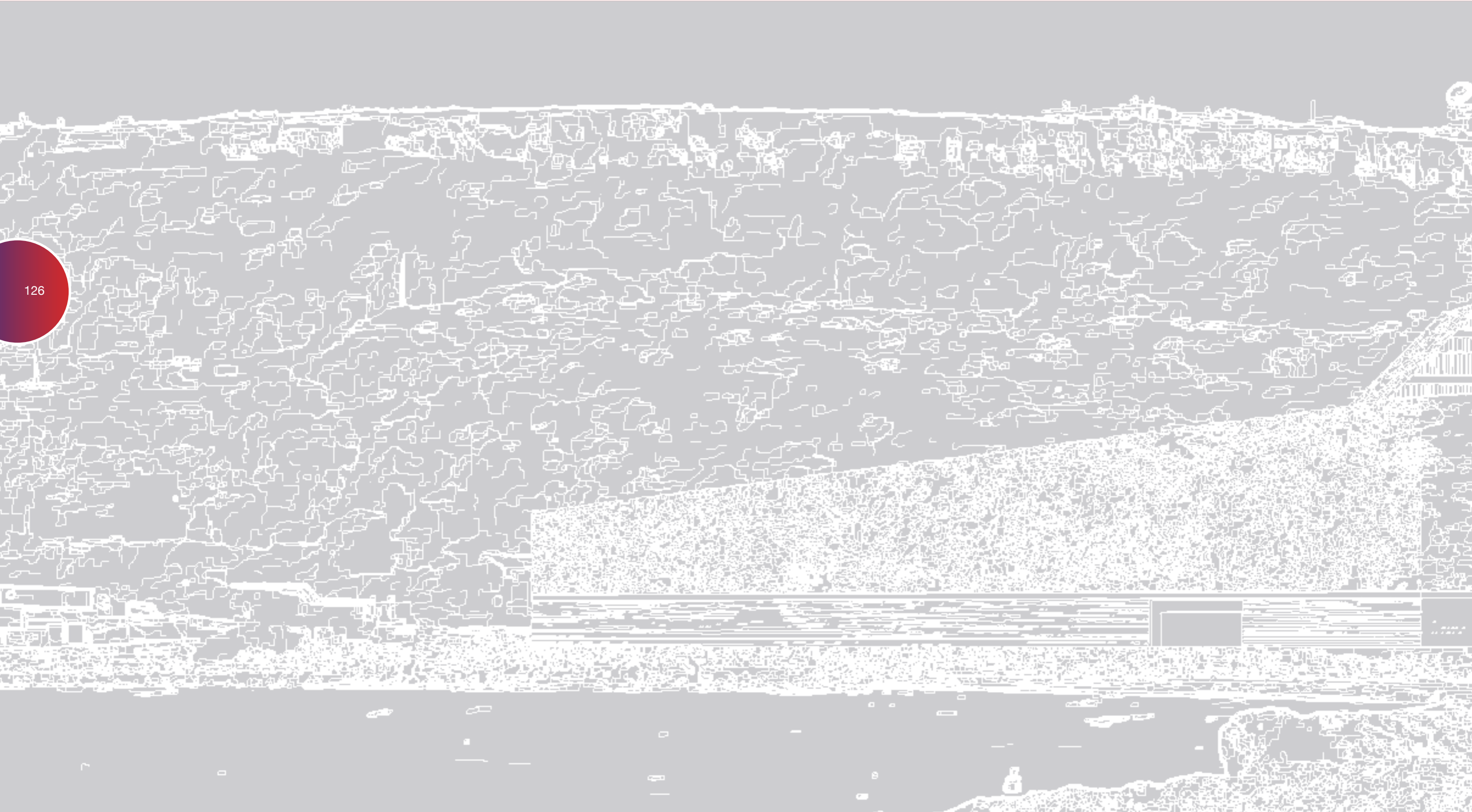
FIG 8.7
ENVIRONMENT AGENCY'S FLOOD RISK MAPPING FOR PLANNING
SHOWING THE SITE AND ACCESS ACROSS PORTLAND BEACH ROAD

FIG 8.8
THE FLEET AND CHESIL
BEACH





Summary and conclusions







SUMMARY AND CONCLUSIONS

DESIGN AND ACCESS STATEMENT SUMMARY AND CONCLUSION

DESIGN AND ACCESS STATEMENT SUMMARY

9.1.1 This DAS forms part of the supplementary documentation submitted in support of the detailed planning application for the proposed redevelopment of the site at the base of Incline Road, within Portland Port, for an Energy Recovery Facility (ERF).

9.1.2 This document should be read in conjunction with the Supporting Planning Statement, Environmental Statement and other submitted documents.

9.1.3 Located within Portland Port the site sits within the Man Made Harbour, as defined in the Dorset Coast Landscape & Seascape Character assessment coastal character types, and the Defined Development Boundary of the Portland Neighbourhood Plan.

9.1.4 Whilst not subject to any statutory designations the site is adjacent, or in close proximity, to a number of national and internationally designated natural environments and habitats including the Dorset AONB and The Dorset and East Devon Coast World Heritage Site (The Jurassic Coast WHS).

9.1.5 The brownfield site was occupied by the 4-storey building of the HM Underwater Detection Establishment (HMUDE) that was demolished in 2005. The site is still an integral part of the operational Port of Portland which is identified as a Key Employment Site and part of 'the Northern Arc' employment zone.

9.1.6 The site's unique position within the port provides the opportunity for the Refuse Derived Fuel (RDF) to be delivered by ship or road.

9.1.7 The proposed building creates an opportunity to provide a distinctive high-quality building that acts as a gateway to Portland and Weymouth and greets visitors and tourists arriving by ship.

9.1.8 The design has been informed extensively by the form and geology of the Isle of Portland, as described in great detail through Chapters 3 and 4.

9.1.9 The proposals have been informed by feedback from public consultation and pre-application discussions with the planning, landscape and AONB officers at Dorset Council and the Head of Heritage and Conservation at The Jurassic Coast Heritage Trust.



DESIGN AND ACCESS STATEMENT CONCLUSION

9.1.10 This DAS demonstrates that the proposed development is a result of rigorous and iterative design process to develop a set of proposals that will bring forward a high-quality building in keeping with the aspirations for the regeneration of the Port.

9.1.11 The redevelopment of the brownfield site provides an excellent opportunity to effectively re-use a brownfield site within a Key Employment site helping to regenerate the port and create around 30 to 35 new full-time jobs and approximately 60 indirect jobs.

9.1.12 Careful consideration has been given to the movement and operational requirements of the ERF which will get through around 202,000 tonnes of waste a year. This has informed the layout and design of the building to ensure the final design solution creates a safe and attractive working environment for all staff and visitors.

9.1.13 The layout of the building ensures the optimum relationship between the various components of the facility ensuring optimum efficiency and maximising the output to around 15MW of renewable energy for export. The configuration of the internal plant and photovoltaic roof also create the opportunity to provide low carbon heat and power to the local residences and businesses of Portland.

9.1.14 The Portland ERF will be a net-zero carbon project with a commitment to offset any carbon produced for the duration of the facilities operational life.

9.1.15 The design of the layout, stack height and position and the facade design ensures suitable air speeds to adequately disperse the exhaust gases. This along with the stringent monitoring of the exhaust gases, which will exceed the minimum requirements of national legislation, will ensure no impacts on the health of local residents and negligible impact on the various designated habitats that surround the site.

9.1.16 Whilst accounting for operational requirements of the facility, it is considered this document demonstrates that the design of the building form and materials will create a high quality, distinctive building that balances aspirations to create a gateway to the port and the visual impact of the proposals the from the surrounding AONB and WHS.

9.1.17 Drawing on the distinctive character of the Isle of Portland the proposed architectural form and elevational treatments will embed the proposals within their context, assist in mitigating the effects on the Special Qualities (SQs) of the AONB and will aid in the compliance with the AONB Management Plan Objectives and Policies.

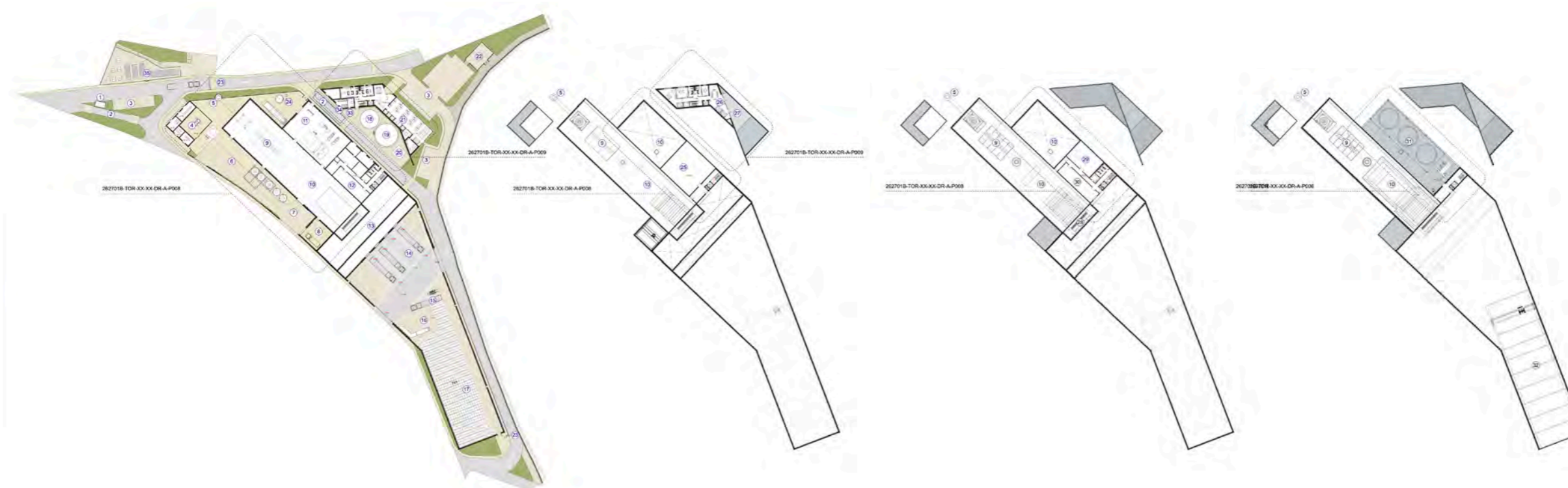
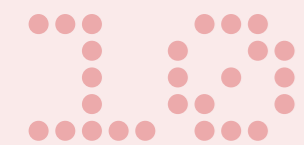
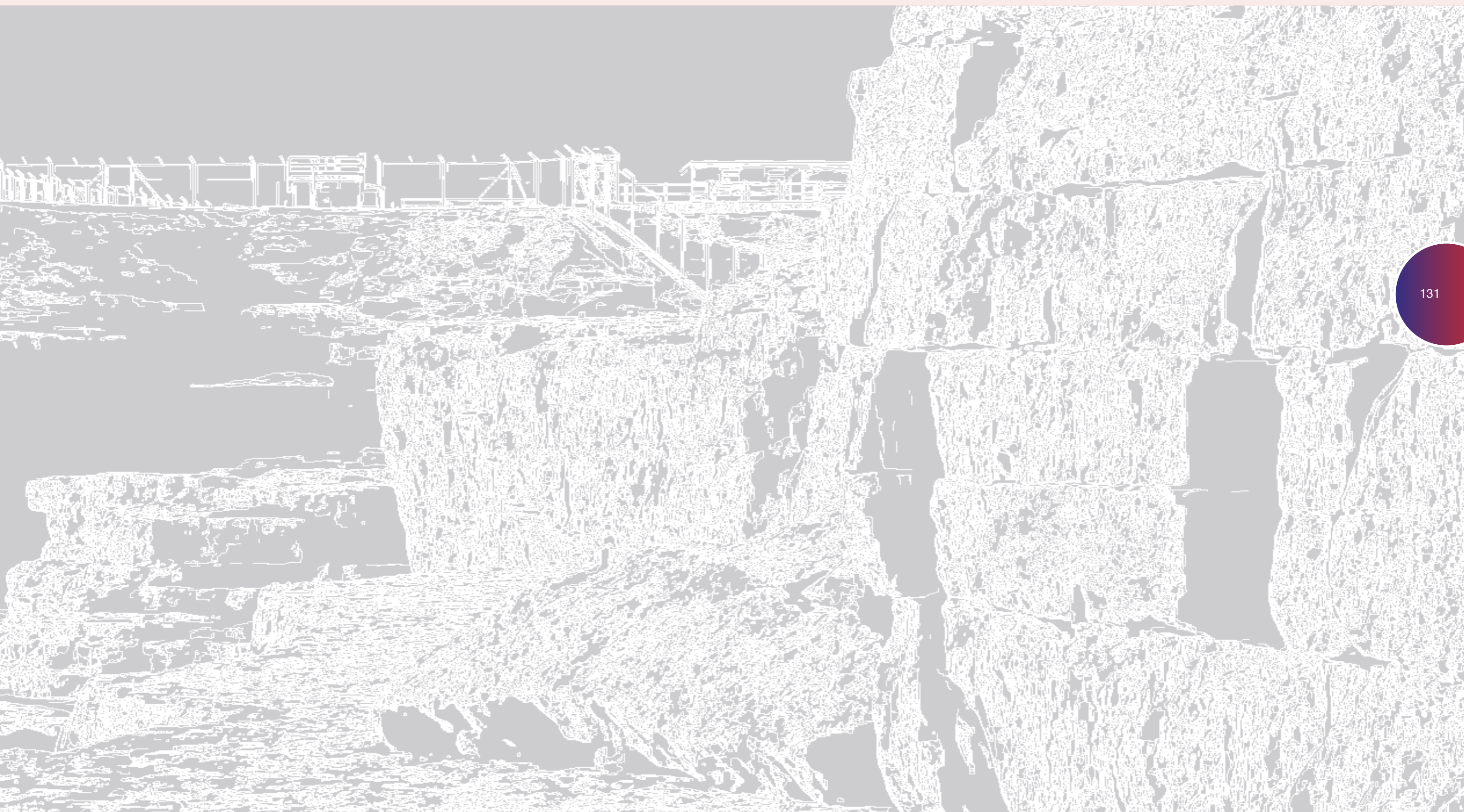


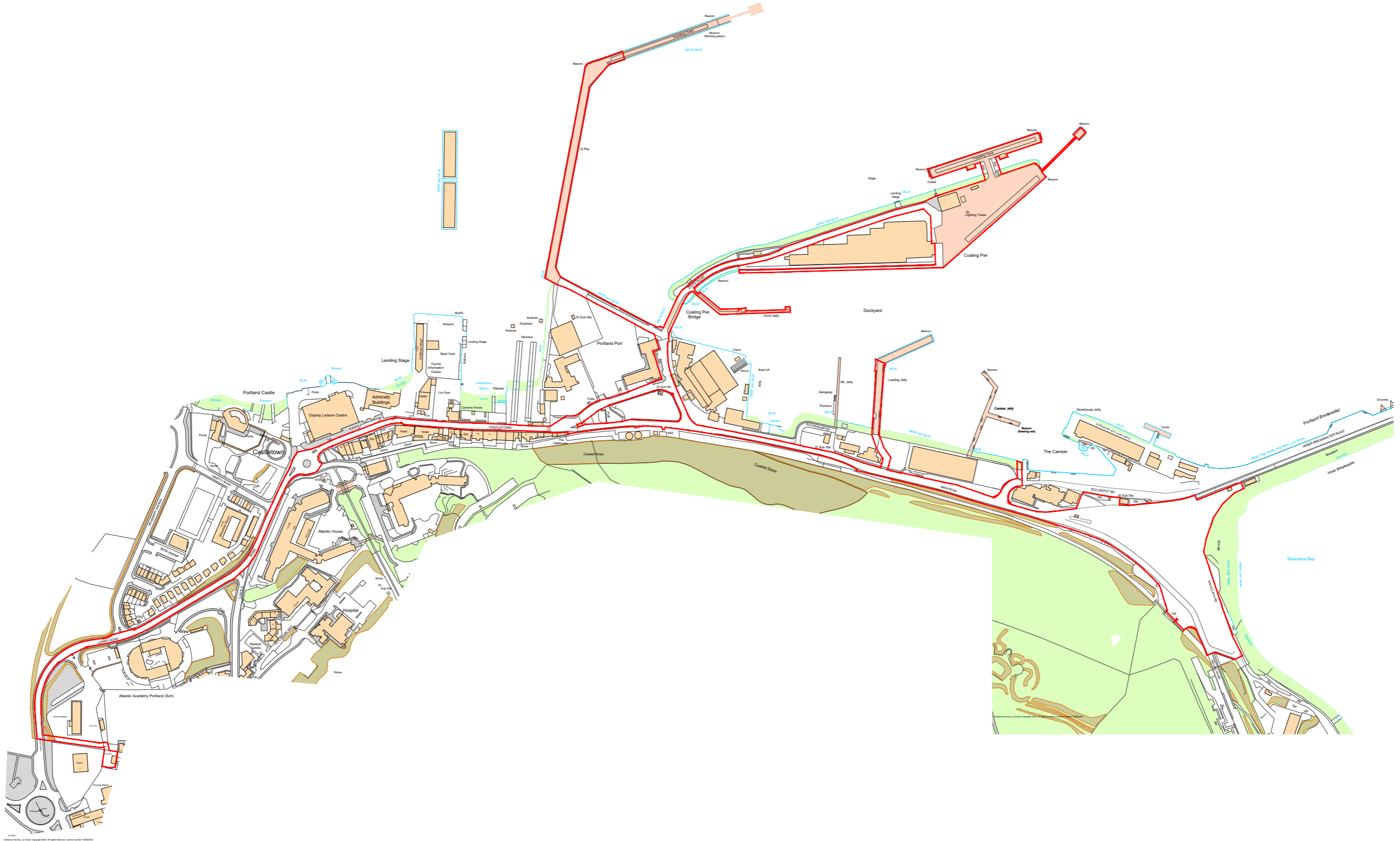
FIG 9.1
PROPOSED FLOOR PLANS



Appendix A: Planning application drawings







Drawing not to scale.
For information purposes only.
Not for construction.

Notes:

| Issue Log: | Revision Details: | Date: |
|------------|-----------------------|------------|
| 01 | Initial Issue | 25/06/2019 |
| 02 | Drawing revised | 23/07/2019 |
| 03 | Area updated | 19/03/2020 |
| 04 | Title details revised | 21/07/2020 |

Key: Application Boundary (6.29 Hectares)

POWERFUEL
Powerfuel
Suite B, The Core
Gore Cross Business Park
Bridport
Dorset
DT6 3FH
Email: energy@power-fuel.co.uk
©Powerfuel Ltd.

Project Name:
Powerfuel Portland ERF

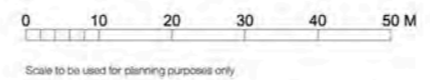
Document Name:
Site Location Plan

Document Reference #:
1081-01-07

Scale: 1:2500@A1 Issue: 04
Produced: RC Checked: ## Date: 26/06/2019



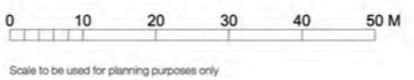
Application Boundary





Balaclava Bay

Application Boundary

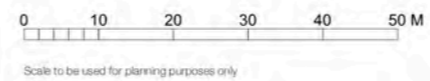


Existing Topographical Plan
262701B - TOR - XX-XX-DR-A-P003
Scale 1:500 @ A1 / 1:1000 @ A3
Aug 2020





- Key**
- ① Control room
 - ② Weighbridge
 - ③ Parking
 - ④ Transformer compound
 - ⑤ Stack
 - ⑥ Chemical and ash silos
 - ⑦ Service yard
 - ⑧ IBA collection
 - ⑨ Flue gas cleaning system
 - ⑩ Boiler house
 - ⑪ Turbine hall
 - ⑫ Plant control area
 - ⑬ RDF pit
 - ⑭ Loose RDF unloading
 - ⑮ RDF bale unloading
 - ⑯ De-baler
 - ⑰ RDF bale store
 - ⑱ Water tank
 - ⑲ Sprinkler tank
 - ⑳ P-sprinkler
 - ㉑ Office building
 - ㉒ Auxiliary fuel store
 - ㉓ Lifting barrier
 - ㉔ Generator
 - ㉕ Bicycle store
 - ㉖ Bin store
 - ㉗ Shore Power main switchgear
- Application Boundary





Key

- ① Main plant building
- ② Transformer compound
- ③ Office building
- ④ Stack
- ⑤ Service yard / external store
- ⑥ Staff and visitor parking
- ⑦ Weighbridge
- ⑧ Shore Power main switch gear
- ⑨ Photovoltaic roof panels

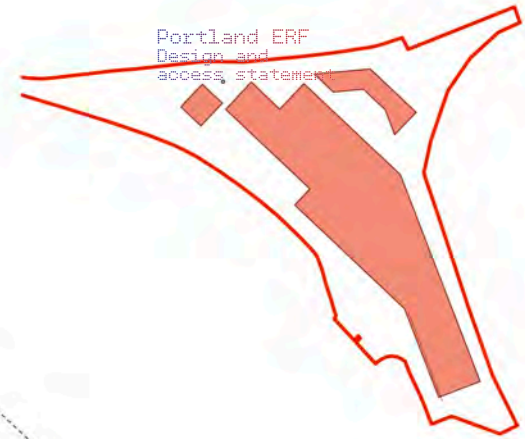
□ Application Boundary



Proposed Aerial Roof Plan
262701B - TOR - XX-XX-DR-A-P005
Scale 1:500 @ A1 / 1:1000 @ A3 PLANNING
Aug 2020

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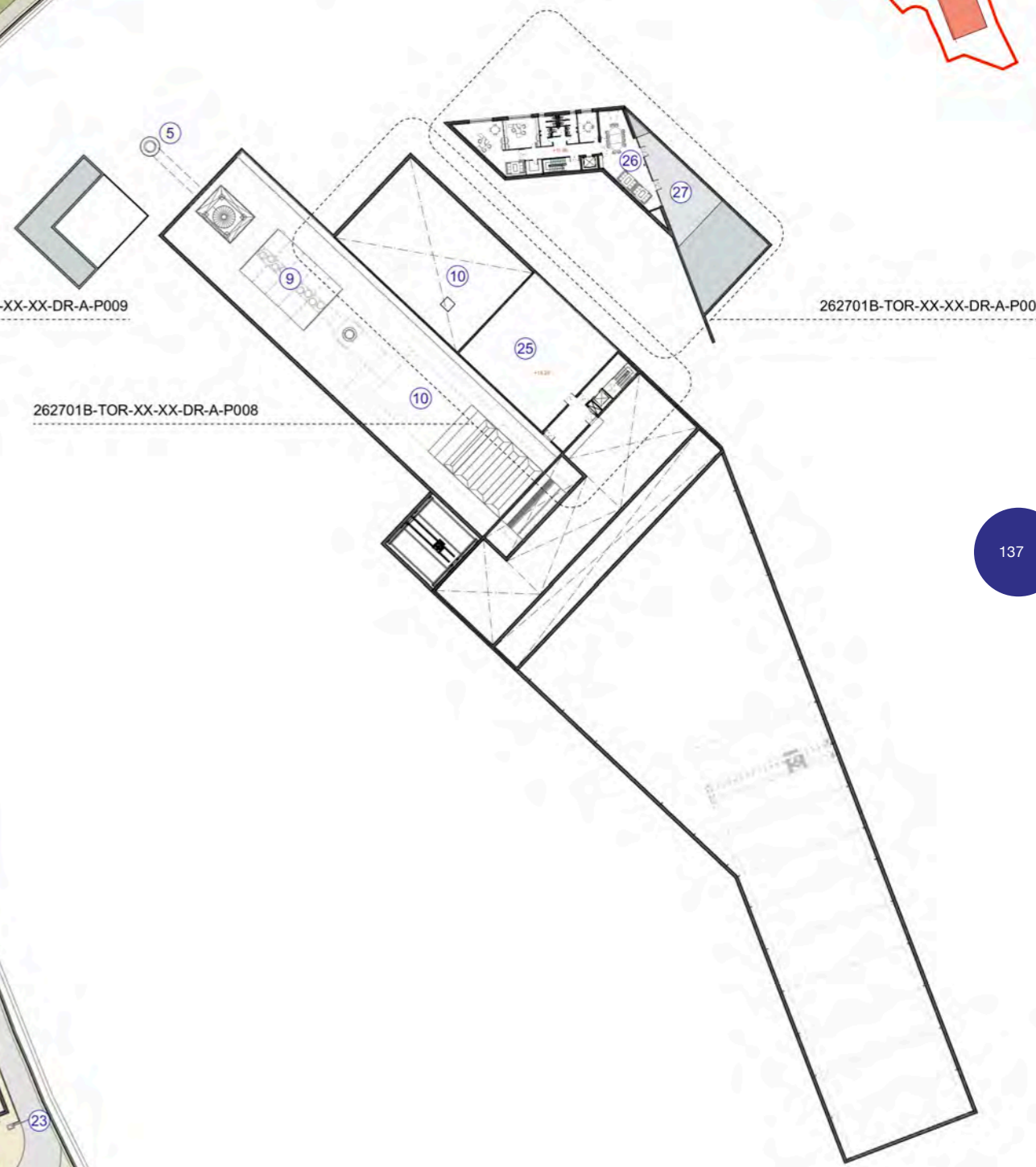
Location plan key
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01 Proposed Ground Floor Plan
1:500 @ A1 / 1:1000 @ A3

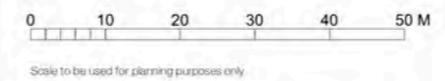


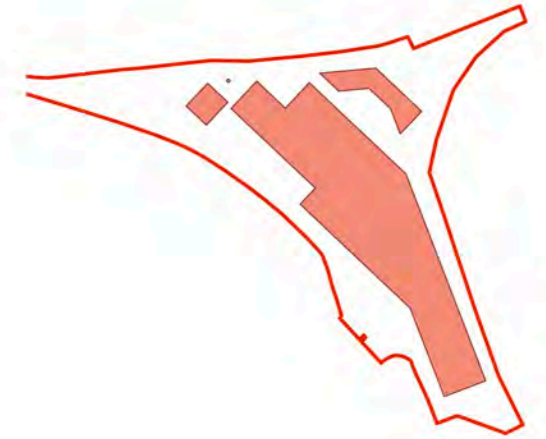
02 Proposed First Floor Plan
1:500 @ A1 / 1:1000 @ A3



Key

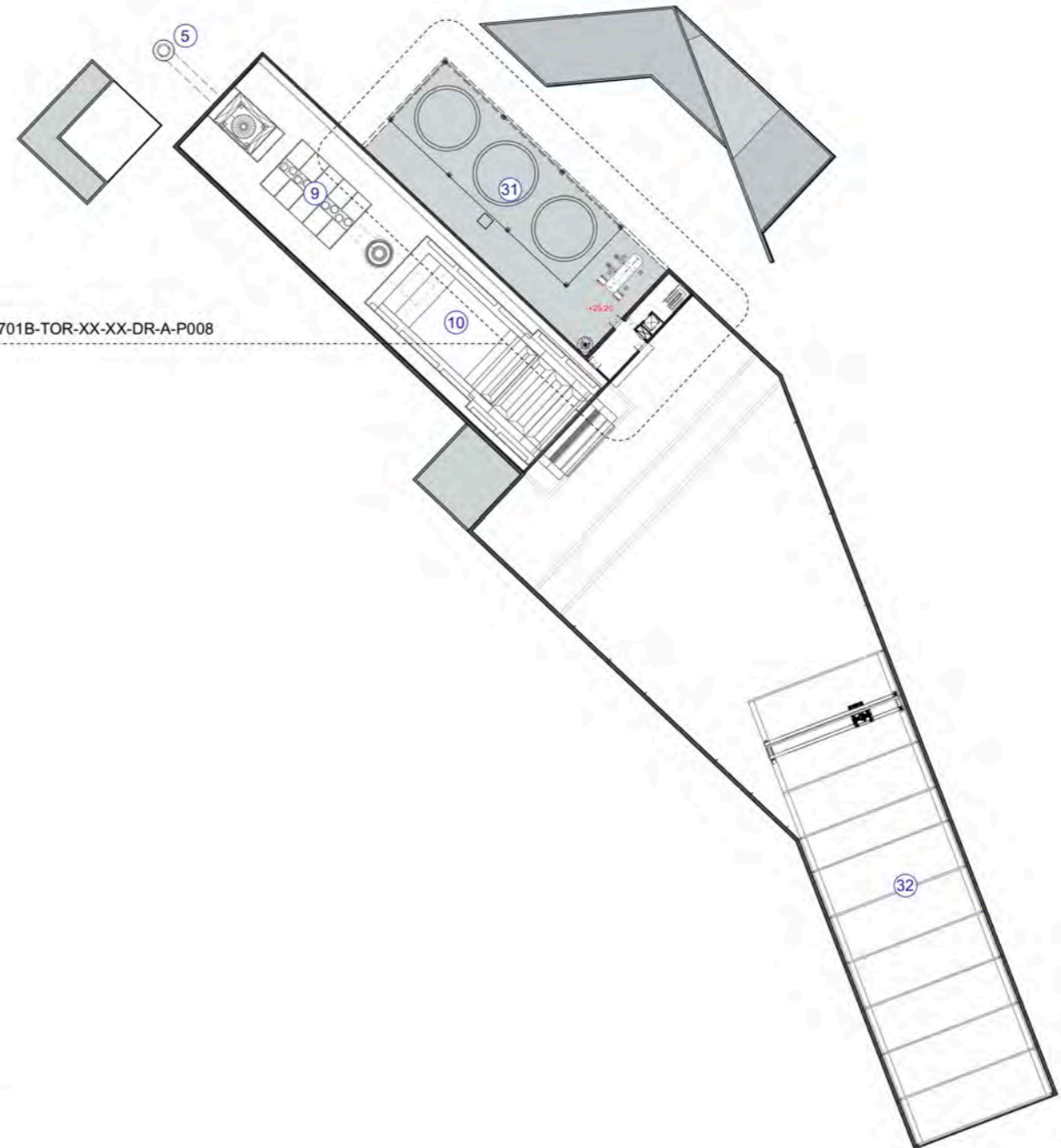
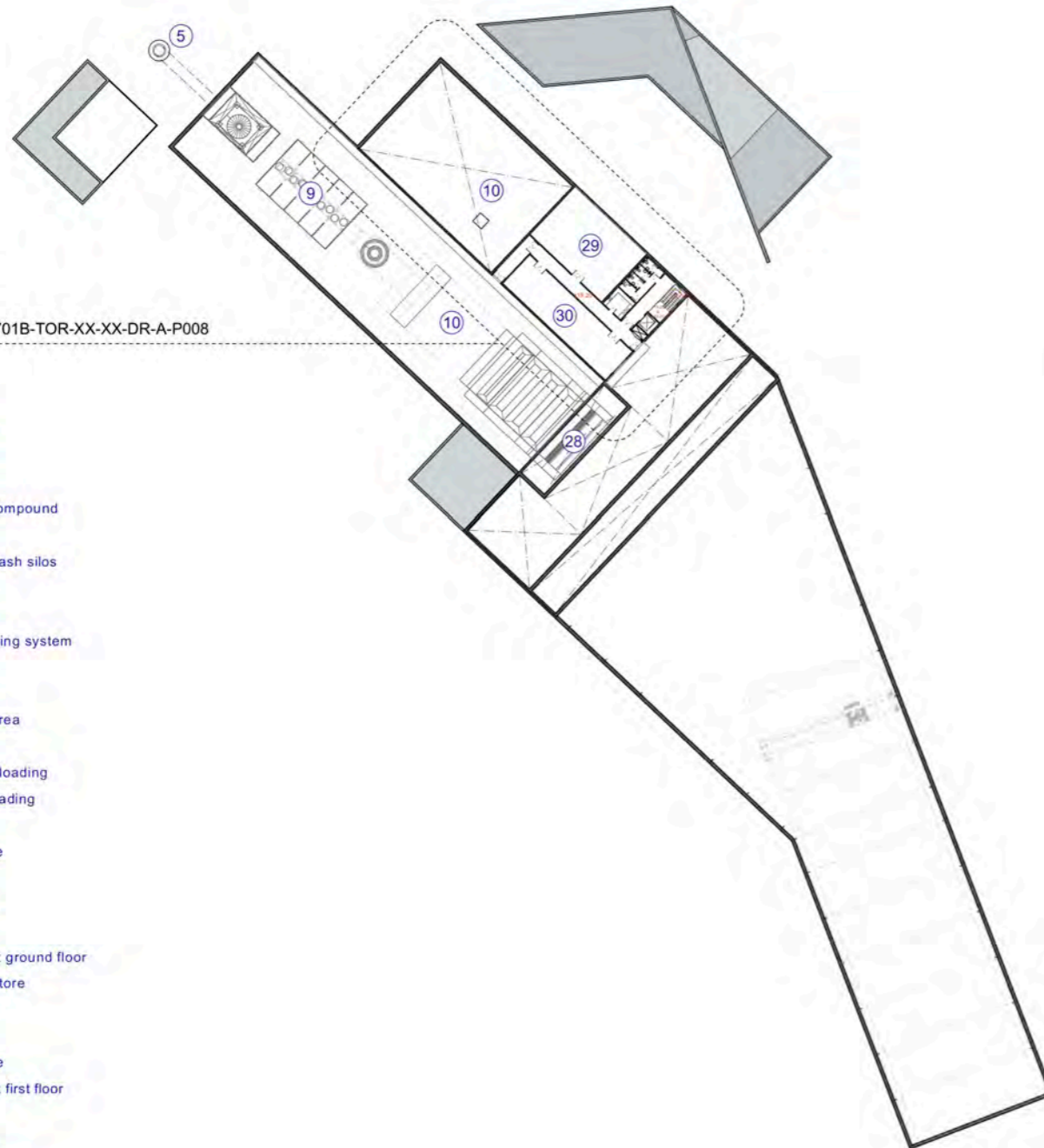
- ① Control room
- ② Weighbridge
- ③ Parking
- ④ Transformer compound
- ⑤ Stack
- ⑥ Chemical and ash silos
- ⑦ Service yard
- ⑧ IBA collection
- ⑨ Flue gas cleaning system
- ⑩ Boiler house
- ⑪ Turbine hall
- ⑫ Plant control area
- ⑬ RDF pit
- ⑭ Loose RDF unloading
- ⑮ RDF bale unloading
- ⑯ De-baler
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- ⑱ Water tank
- ⑲ Sprinkler tank
- ⑳ P-sprinkler
- ㉑ Office building: ground floor
- ㉒ Auxiliary fuel store
- ㉓ Lifting barrier
- ㉔ Generator
- ㉕ Office / storage
- ㉖ Office building: first floor
- ㉗ Roof terrace
- ㉘ Boiler hopper
- ㉙ Motor control room
- ㉚ Control room
- ㉛ External roof mounted air cooled condensers
- ㉜ RDF bale overhead crane
- ㉝ Bicycle store
- ㉞ Bin store
- ㉟ Shore Power main switchgear





03 Proposed Second Floor Plan
1:500 @ A1 / 1:1000 @ A3

04 Proposed Third Floor Plan
1:500 @ A1 / 1:1000 @ A3



Key

- ① Control room
- ② Weighbridge
- ③ Parking
- ④ Transformer compound
- ⑤ Stack
- ⑥ Chemical and ash silos
- ⑦ Service yard
- ⑧ IBA collection
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- ⑯ De-baler
- ⑰ RDF bale store
- ⑱ Water tank
- ⑲ Sprinkler tank
- ⑳ P-sprinkler
- ㉑ Office building: ground floor
- ㉒ Auxiliary fuel store
- ㉓ Lifting barrier
- ㉔ Generator
- ㉕ Office / storage
- ㉖ Office building: first floor
- ㉗ Roof terrace
- ㉘ Boiler hopper
- ㉙ Motor control room
- ㉚ Control room
- ㉛ External roof mounted air cooled condensers
- ㉜ RDF bale overhead crane

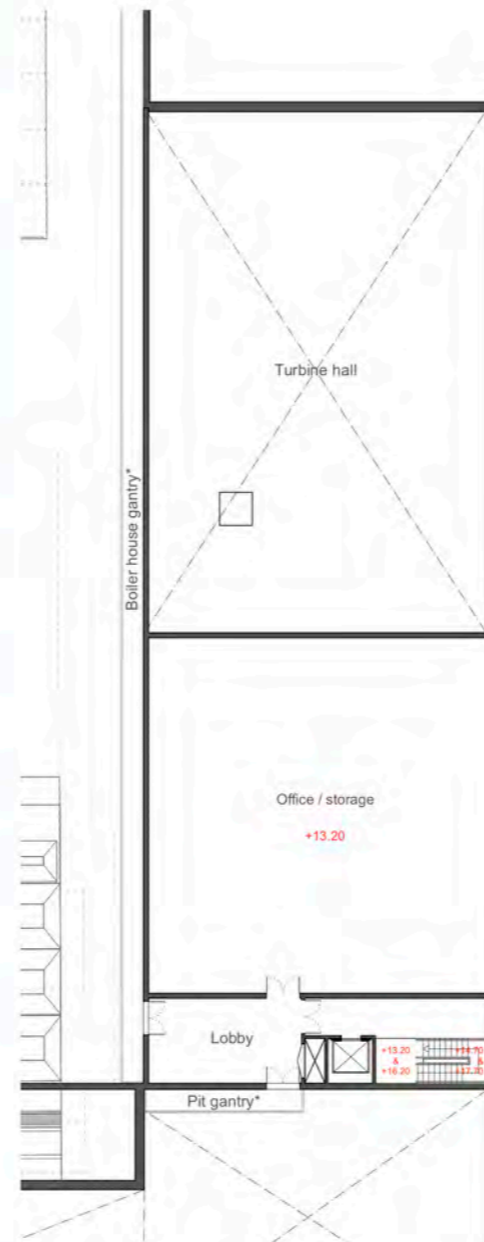




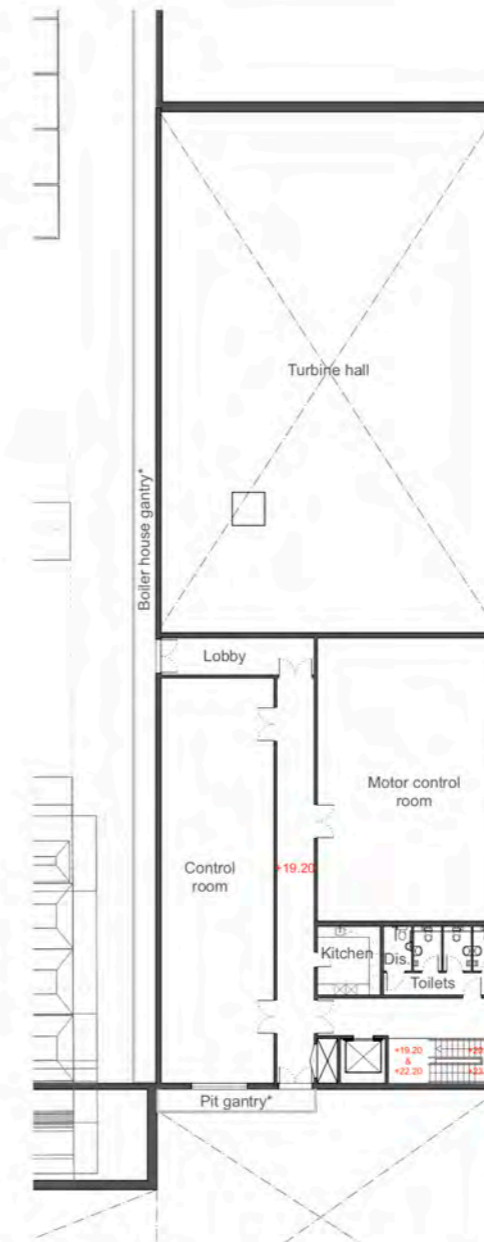
01 Proposed Ground Floor Plan
 1:200 @ A1 / 1:400 @ A3



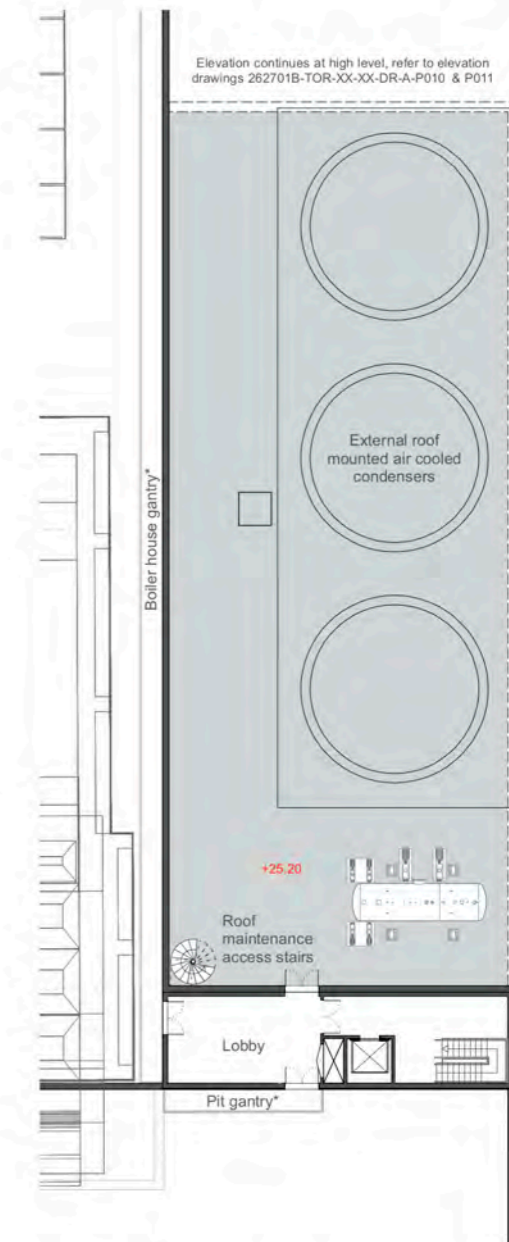
Location plan key
 NTS



02 Proposed First Floor Plan
 1:200 @ A1 / 1:400 @ A3



03 Proposed Second Floor Plan
 1:200 @ A1 / 1:400 @ A3



04 Proposed Third Floor Plan
 1:200 @ A1 / 1:400 @ A3

*Gantry heights subject to final plant selection / operator

Elevation continues at high level, refer to elevation drawings 262701B-TOR-XX-DR-A-P010 & P011

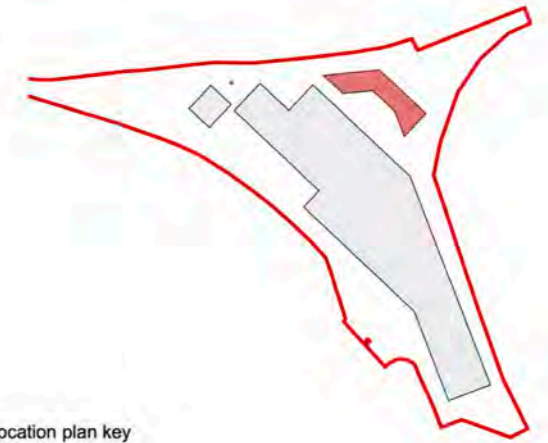
Elevation continues at high level, refer to elevation drawings 262701B-TOR-XX-DR-A-P010 & P011



01 Proposed Ground Floor Plan
1:100 @ A1 / 1:200 @ A3



02 Proposed First Floor Plan
1:100 @ A1 / 1:200 @ A3



Location plan key
NTS

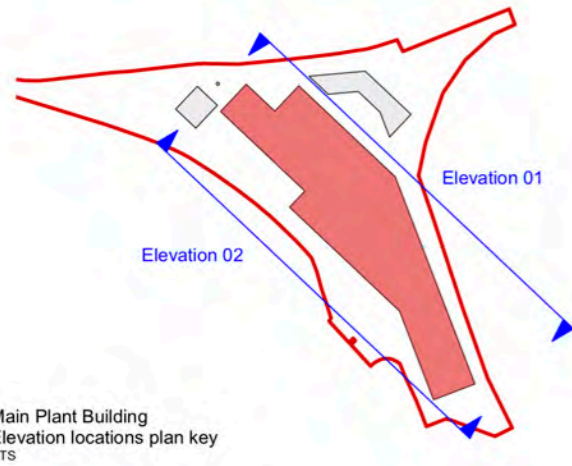


Scale to be used for planning purposes only

Proposed Floor Plans
Office Building
262701B - TOR - XX-XX-DR-A-P009
Scale 1:100 @ A1 / 1:200 @ A3
Aug 2020

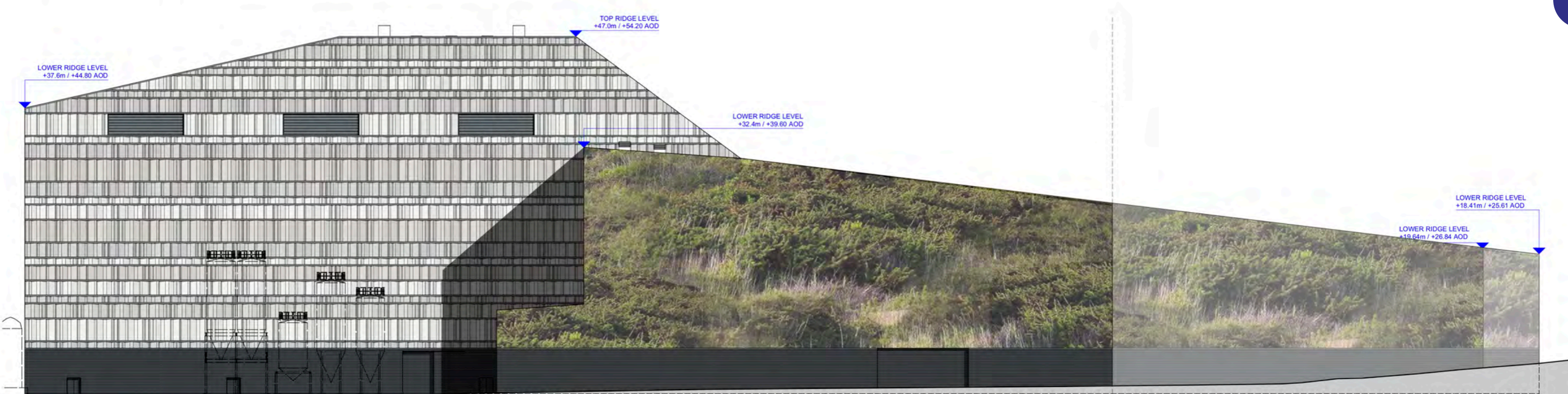
PLANNING





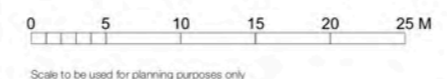
01 Elevation 01 (north-eastern)
1:250 @ A1 / 1:500 @ A3

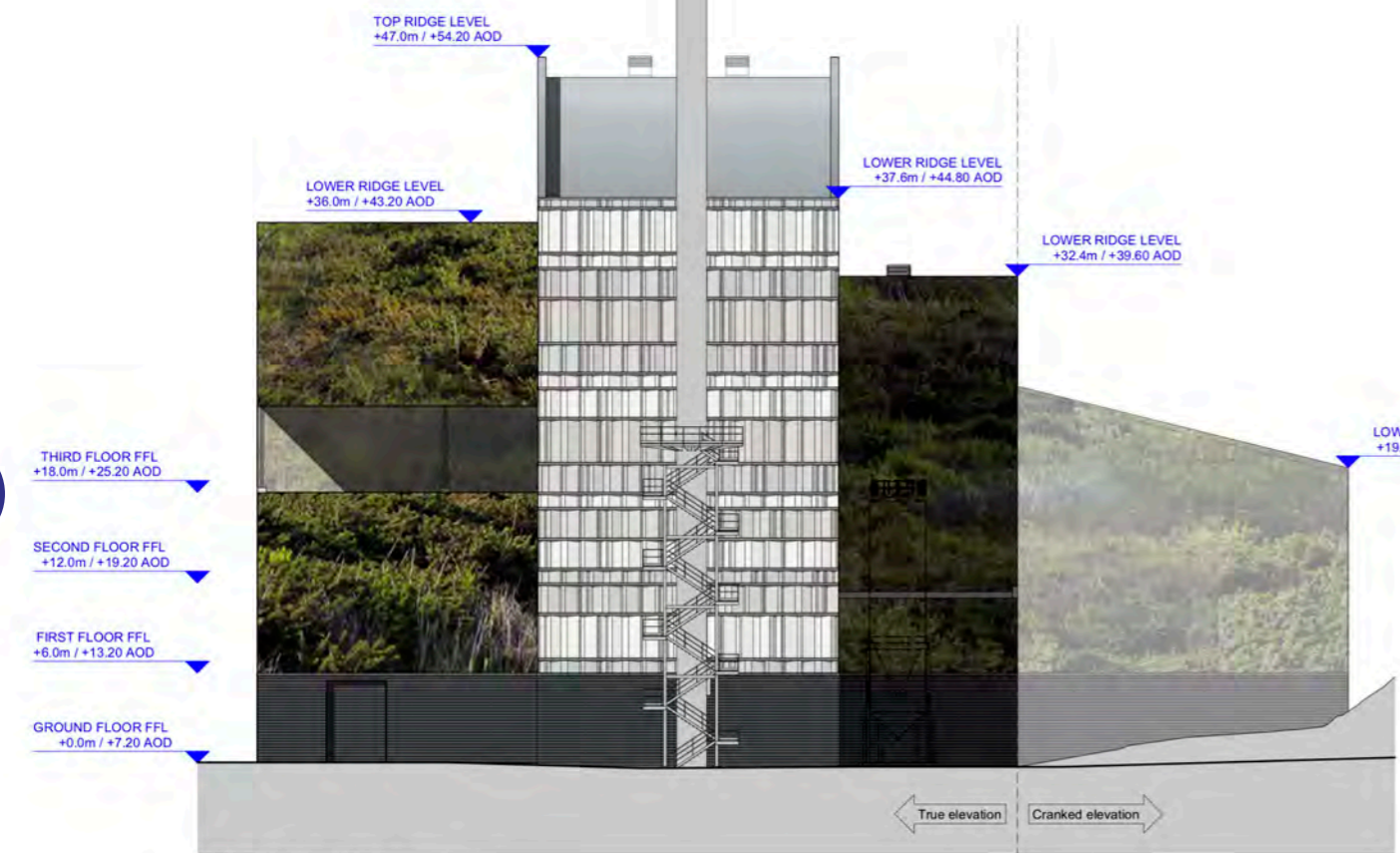
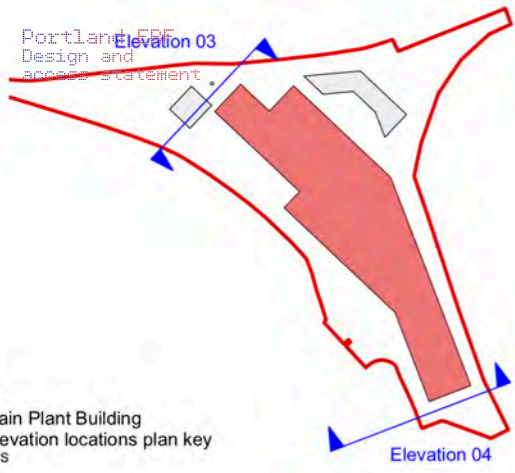
← Cranked elevation True elevation →



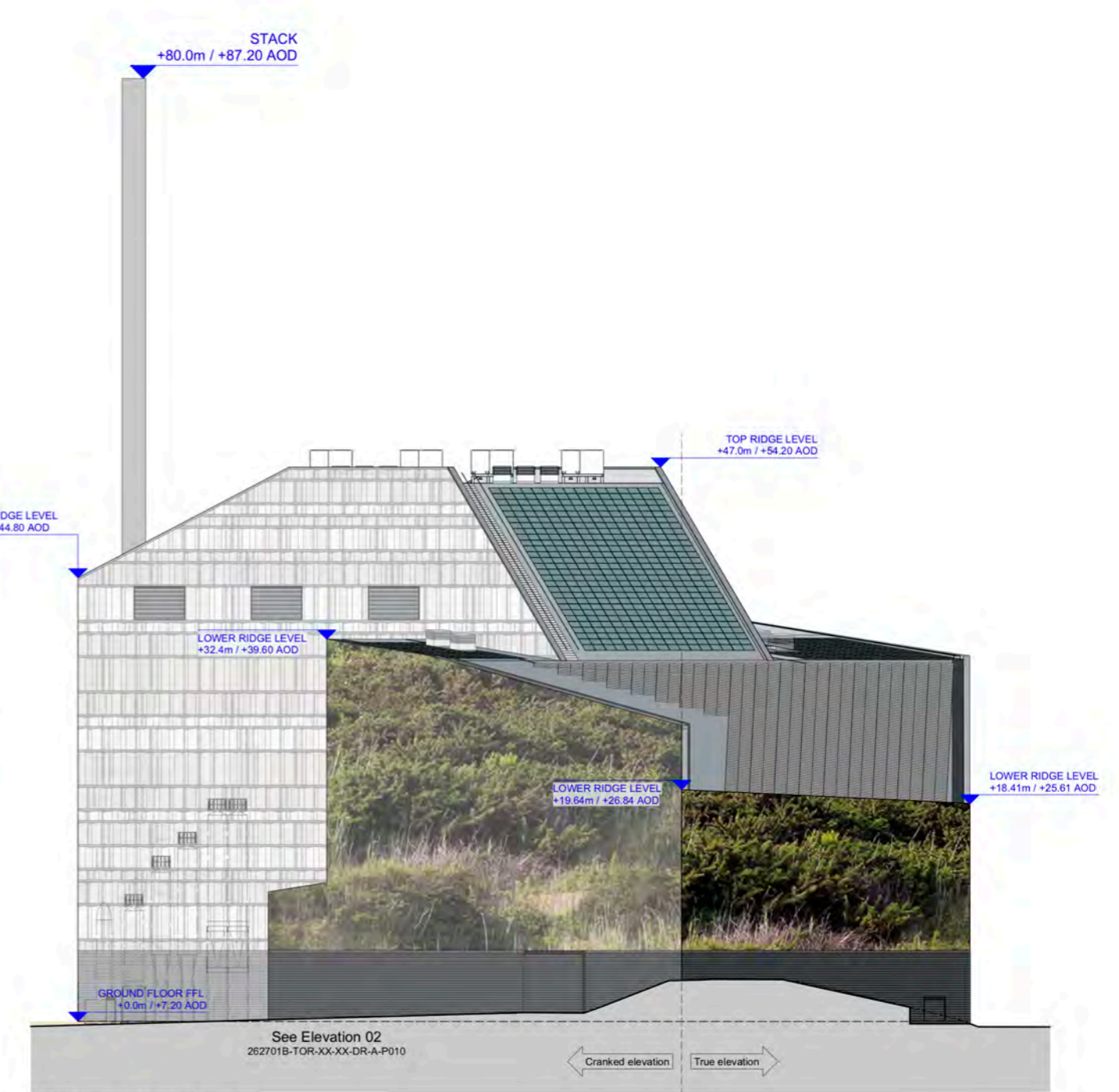
02 Elevation 02 (south-western)
1:250 @ A1 / 1:500 @ A3

← True elevation Cranked elevation →

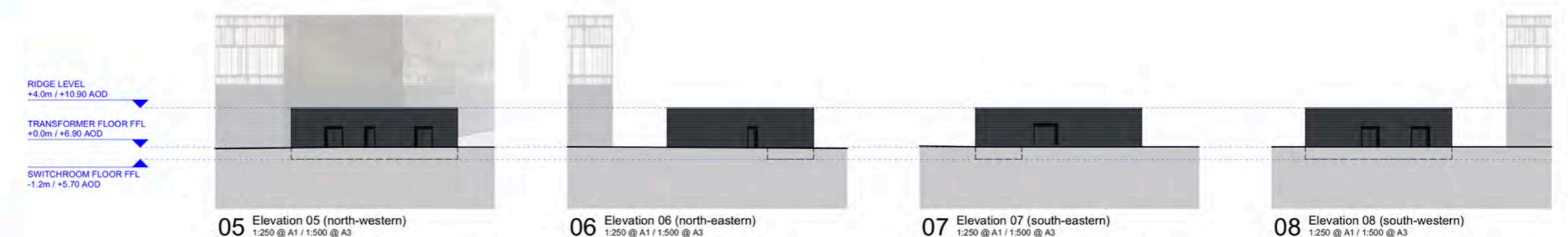
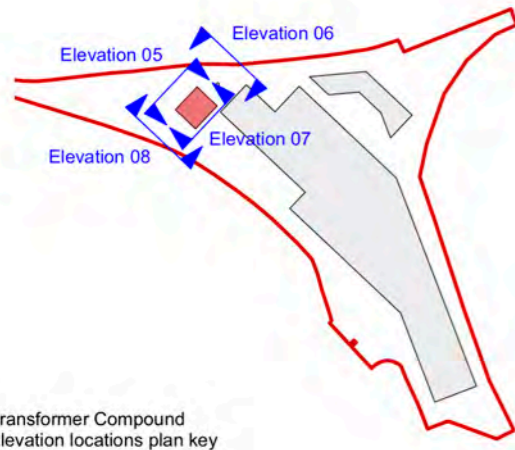




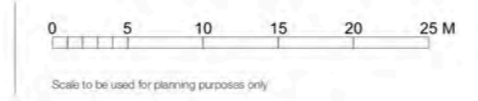
03 Elevation 03 (north-western)
1:250 @ A1 / 1:500 @ A3

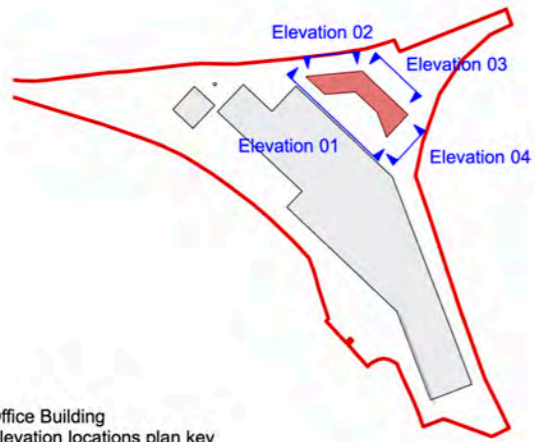


04 Elevation 04 (south-eastern)
1:250 @ A1 / 1:500 @ A3

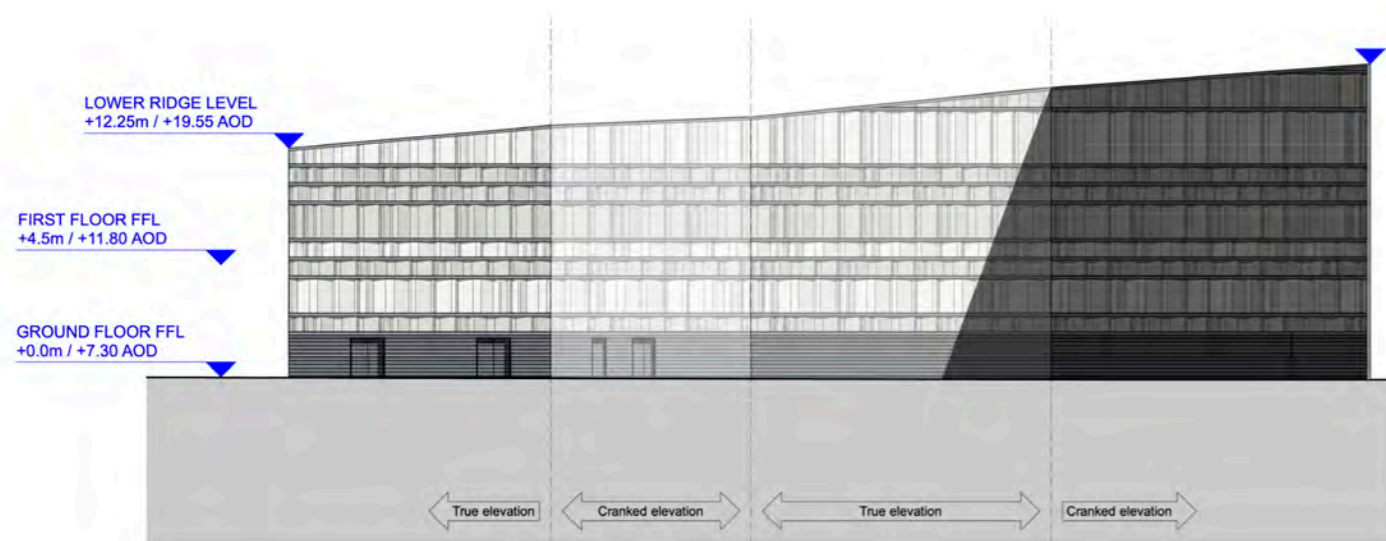


Transformer Compound
Elevation locations plan key
NTS

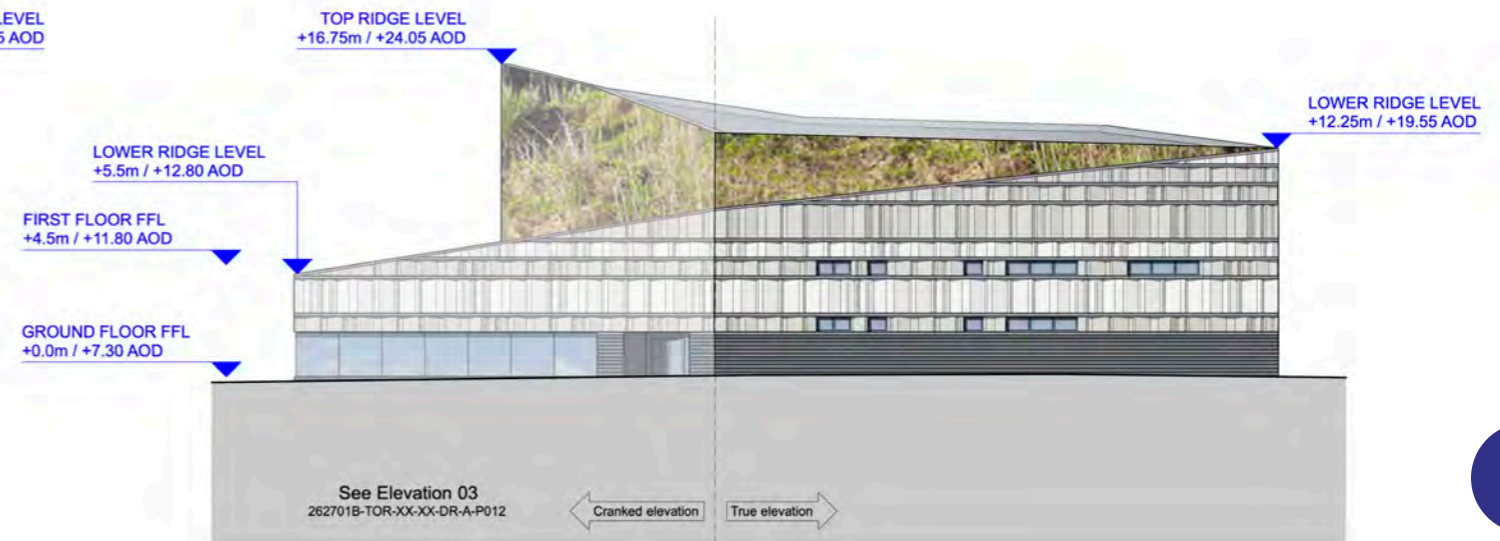




Office Building
Elevation locations plan key
NTS



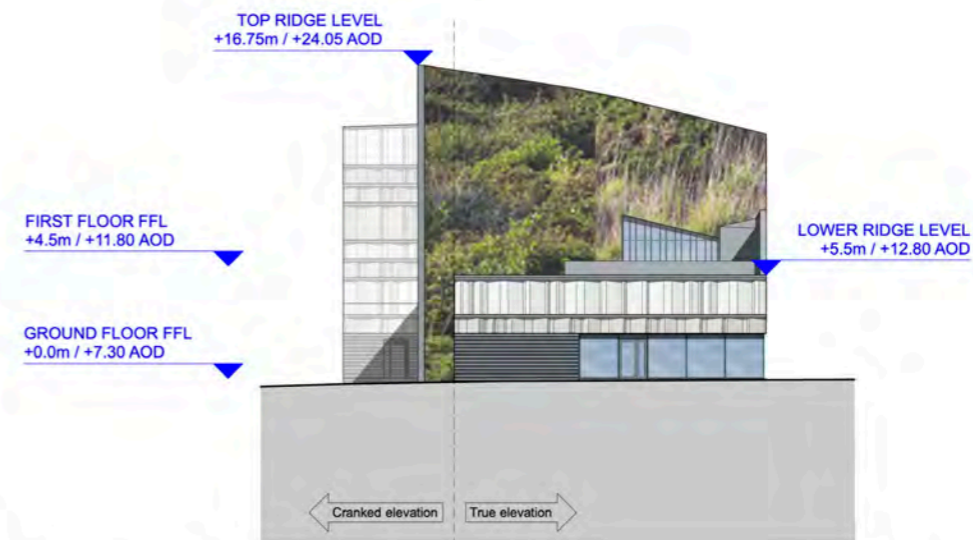
01 Elevation 01 (south-western)
1:200 @ A1 / 1:400 @ A3



02 Elevation 02 (northern)
1:200 @ A1 / 1:400 @ A3

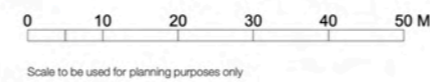
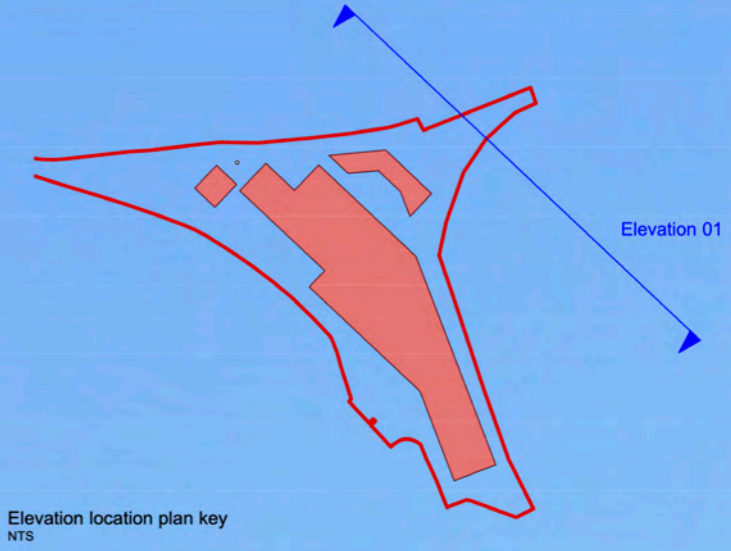


03 Elevation 03 (north-eastern)
1:200 @ A1 / 1:400 @ A3



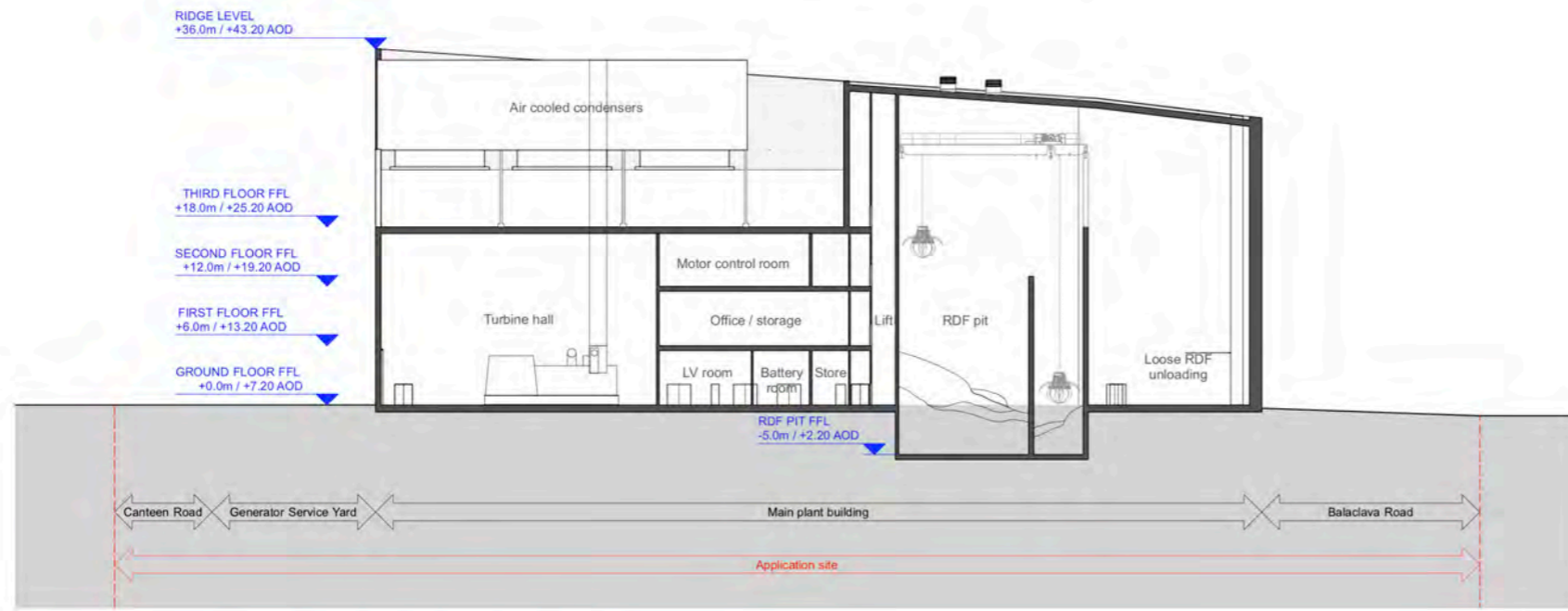
04 Elevation 04 (south-eastern)
1:200 @ A1 / 1:400 @ A3

01 Site Elevation 01 (north-eastern)
1:500 @ A1 / 1:1000 @ A3

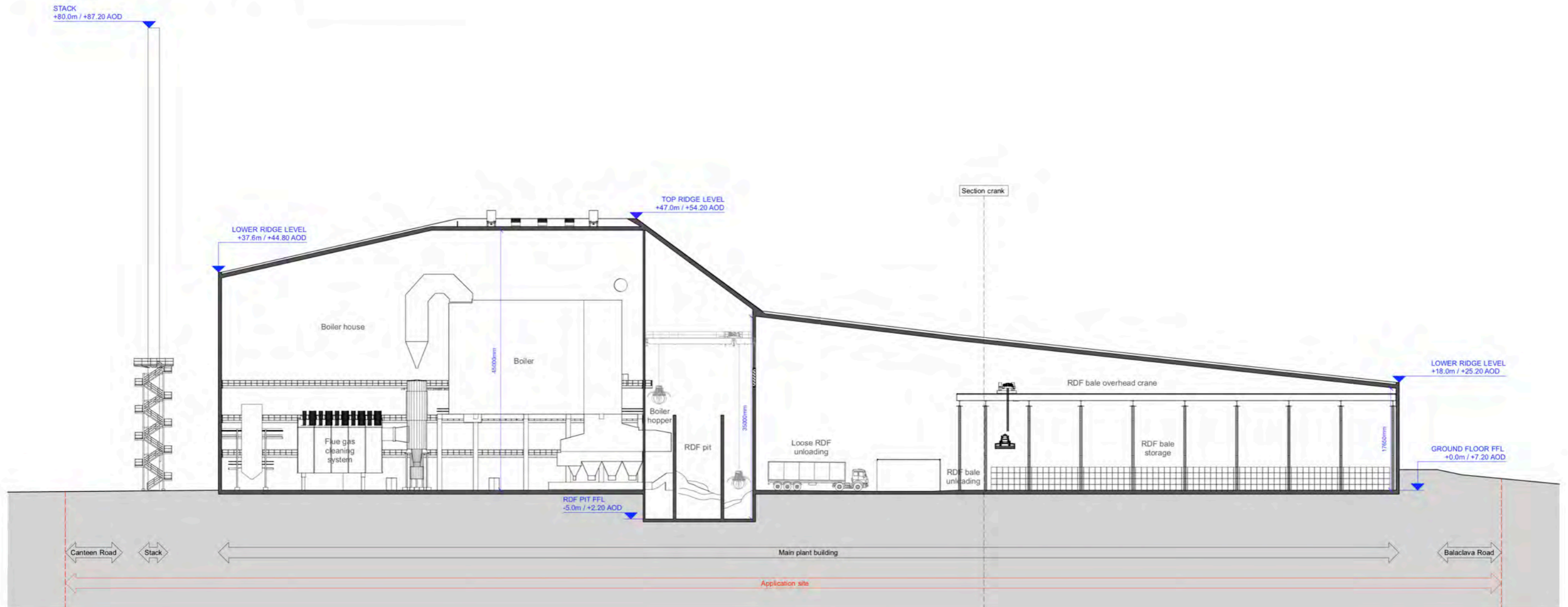


Proposed Site Elevation
262701B - TOR - XX-XX-DR-A-P013
Scale 1:500 @ A1 / 1:1000 @ A3
Aug 2020

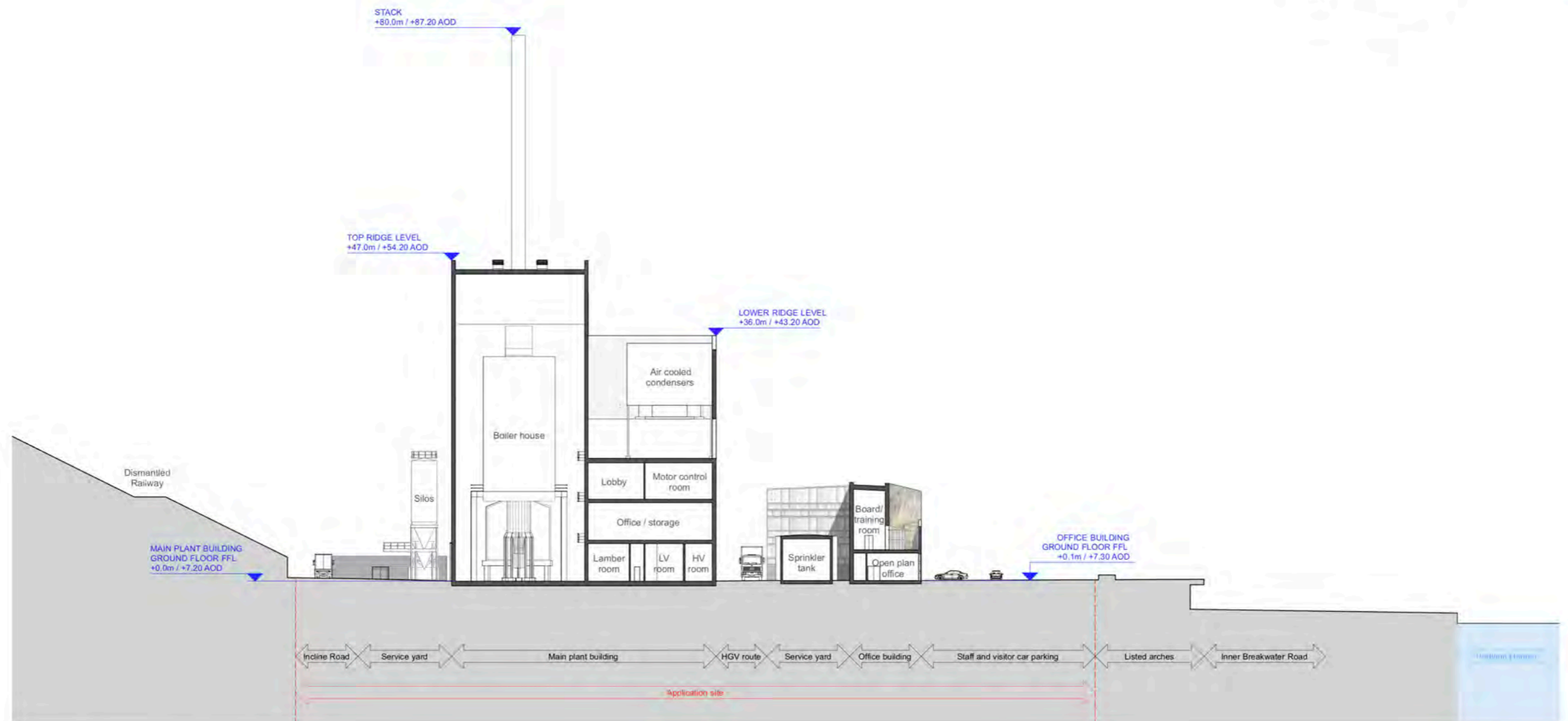
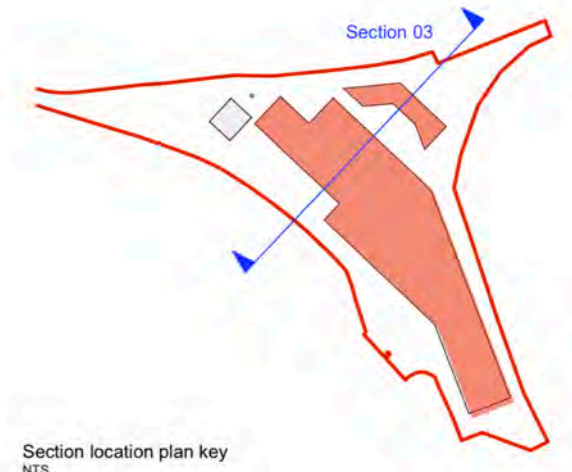




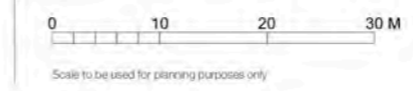
01 Section 01 (Long section through turbine hall and RDF pit)
1:350 @ A1 / 1:700 @ A3

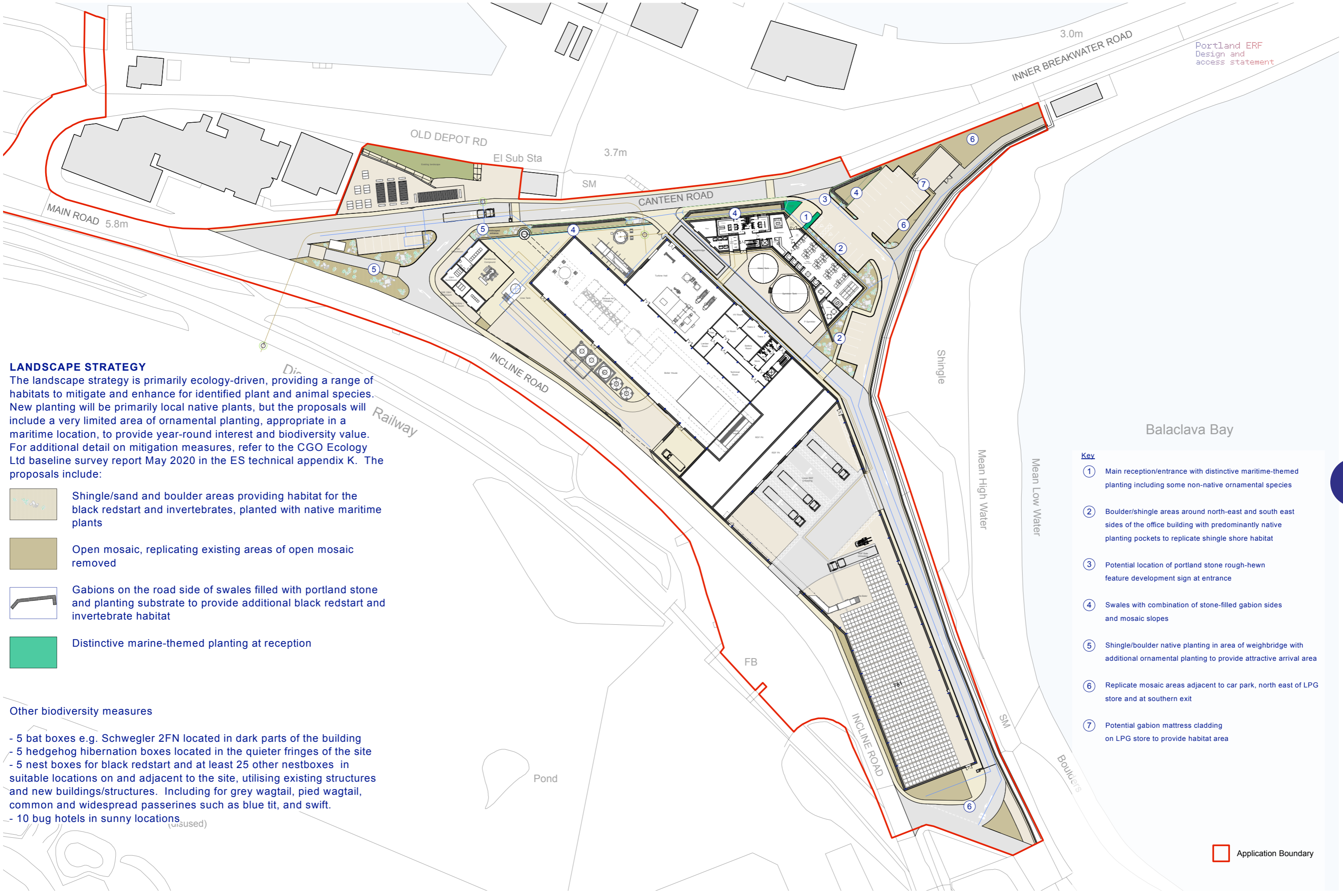


02 Section 02 (Long section through boiler house, RDF pit and RDF store)
1:350 @ A1 / 1:700 @ A3





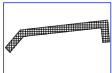

03 Section 03 (Cross section through Main Plant and Office Building)
1:250 @ A1 / 1:500 @ A3





LANDSCAPE STRATEGY

The landscape strategy is primarily ecology-driven, providing a range of habitats to mitigate and enhance for identified plant and animal species. New planting will be primarily local native plants, but the proposals will include a very limited area of ornamental planting, appropriate in a maritime location, to provide year-round interest and biodiversity value. For additional detail on mitigation measures, refer to the CGO Ecology Ltd baseline survey report May 2020 in the ES technical appendix K. The proposals include:


-  Shingle/sand and boulder areas providing habitat for the black redstart and invertebrates, planted with native maritime plants
-  Open mosaic, replicating existing areas of open mosaic removed
-  Gabions on the road side of swales filled with portland stone and planting substrate to provide additional black redstart and invertebrate habitat
-  Distinctive marine-themed planting at reception

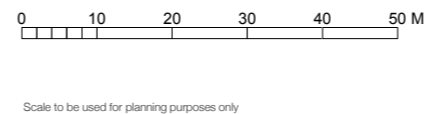
Other biodiversity measures

- 5 bat boxes e.g. Schwegler 2FN located in dark parts of the building
- 5 hedgehog hibernation boxes located in the quieter fringes of the site
- 5 nest boxes for black redstart and at least 25 other nestboxes in suitable locations on and adjacent to the site, utilising existing structures and new buildings/structures. Including for grey wagtail, pied wagtail, common and widespread passerines such as blue tit, and swift.
- 10 bug hotels in sunny locations (unused)

Key

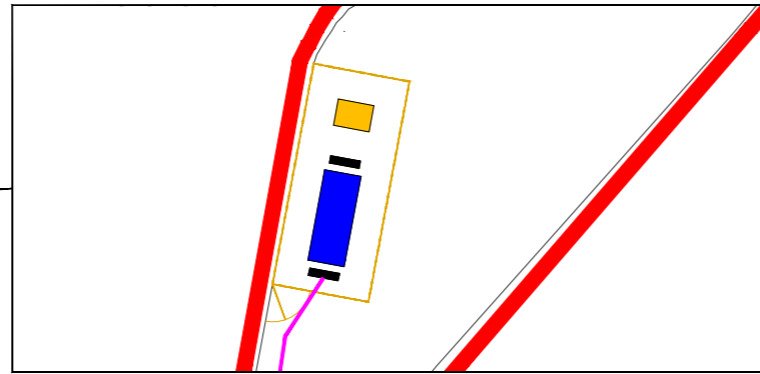
- ① Main reception/entrance with distinctive maritime-themed planting including some non-native ornamental species
- ② Boulder/shingle areas around north-east and south east sides of the office building with predominantly native planting pockets to replicate shingle shore habitat
- ③ Potential location of portland stone rough-hewn feature development sign at entrance
- ④ Swales with combination of stone-filled gabion sides and mosaic slopes
- ⑤ Shingle/boulder native planting in area of weighbridge with additional ornamental planting to provide attractive arrival area
- ⑥ Replicate mosaic areas adjacent to car park, north east of LPG store and at southern exit
- ⑦ Potential gabion mattress cladding on LPG store to provide habitat area

 Application Boundary

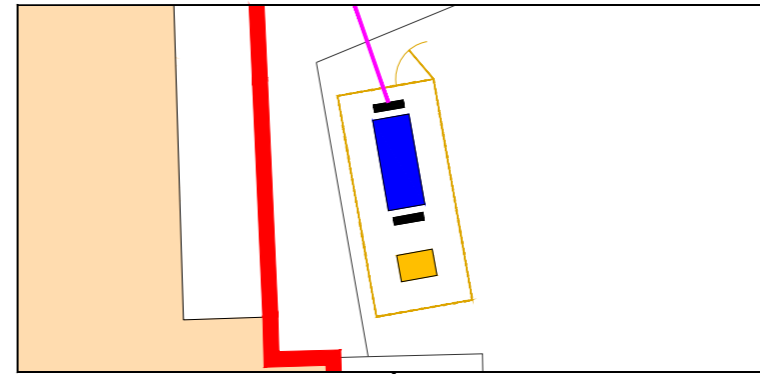




Queens Pier Connection Point - Sub 3



Coaling Pier Connection Point - Sub 2



Drawing not to scale,
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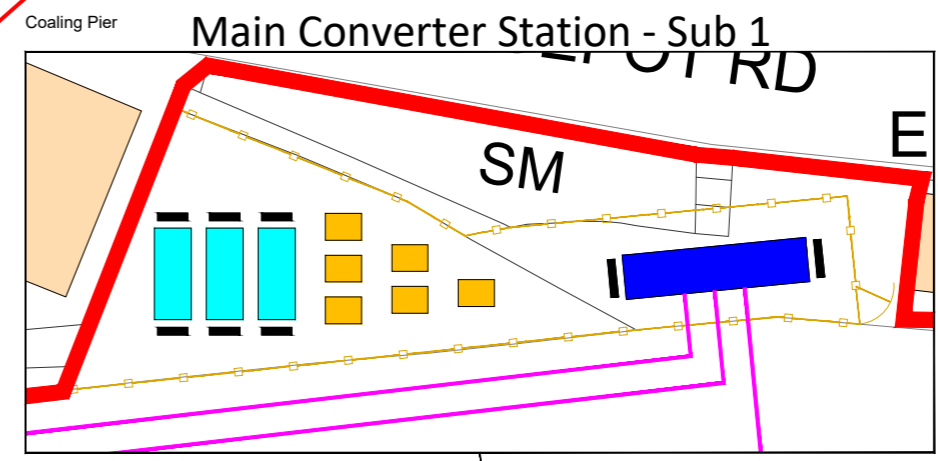
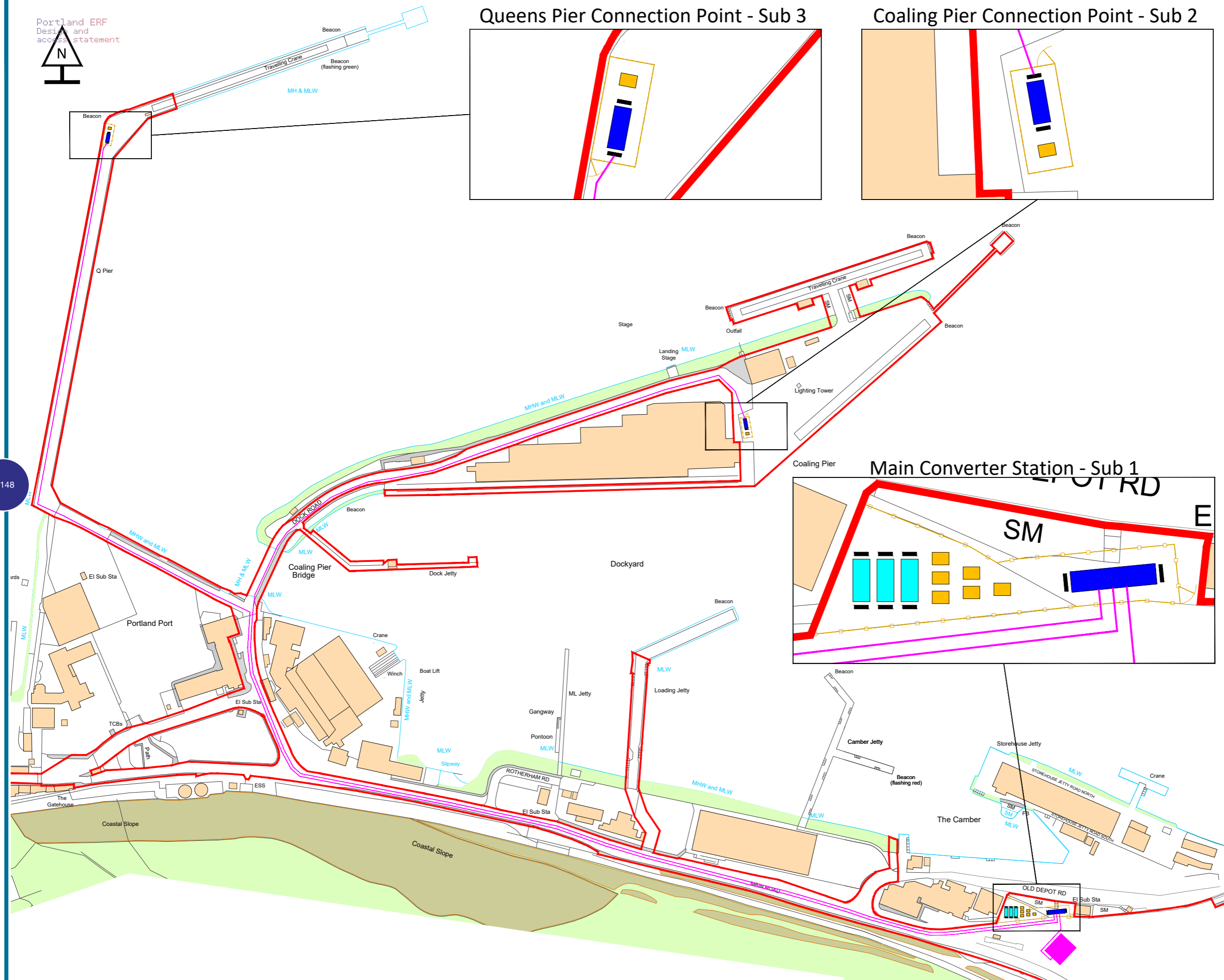
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Issue Log:

| Issue: | Revision Details: | Date: |
|--------|------------------------|------------|
| WIP | Initial Issue | 26/05/2020 |
| 01 | Initial Issue | 03/06/2020 |
| 02 | Layout revised | 09/06/2020 |
| 03 | Minor format revisions | 16/06/2020 |
| 04 | Key updated & expanded | 16/07/2020 |
| 05 | Title details updated | 21/07/2020 |

Key:

- Application Boundary
- EfW Sub Station
- Power Supply Cables
- Shore Power System Main Switchgear
- Ship Connection Substation
- Power Converter
- Transformer



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Project Name:

Powerfuel Portland

Document Name:

Powershore Layout

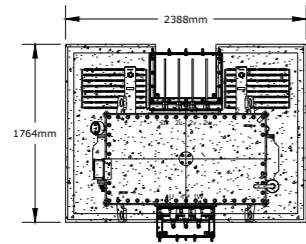
Document Reference #:

1081-02-32

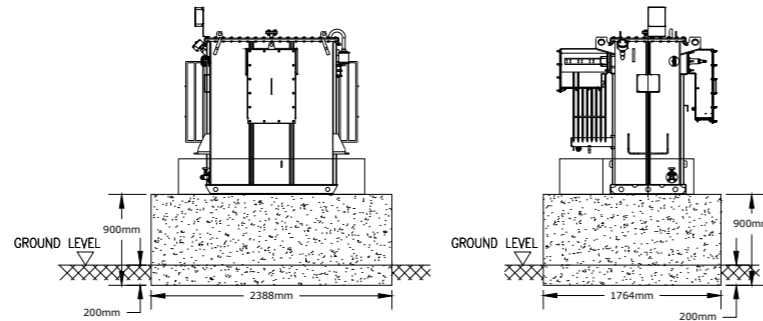
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Produced: RC Checked: ## Date: 26/05/2020

TRANSFORMER (TX) PLAN VIEW



TRANSFORMER (TX) ELEVATION VIEWS



PERIMETER FENCING DETAILS



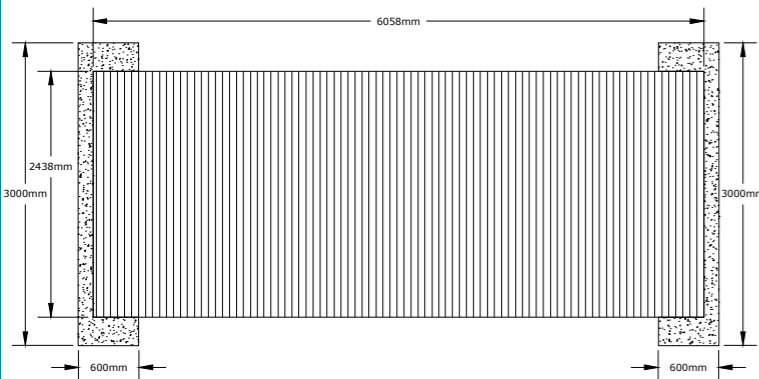
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Design access statement

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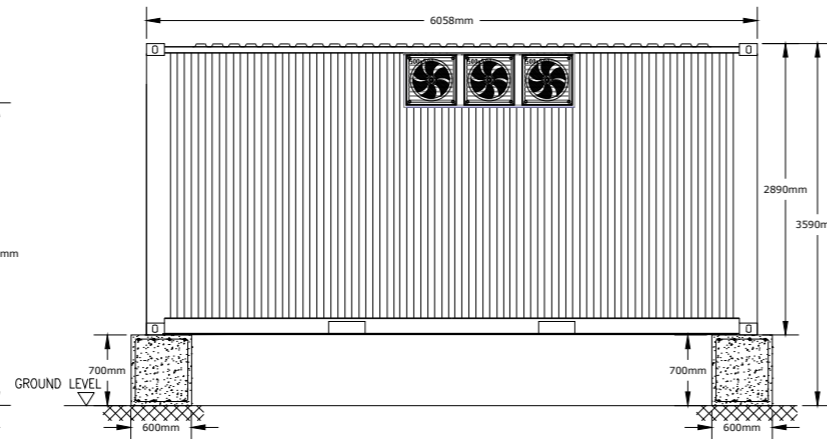
Issue Log:

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| 01 | Initial Issue | 03/06/2020 |
| 02 | Sub numbers revised | 09/06/2020 |
| 03 | Minor format revisions | 16/06/2020 |
| 04 | Plan view details added | 16/07/2020 |
| 05 | Title details revised | 21/07/2020 |

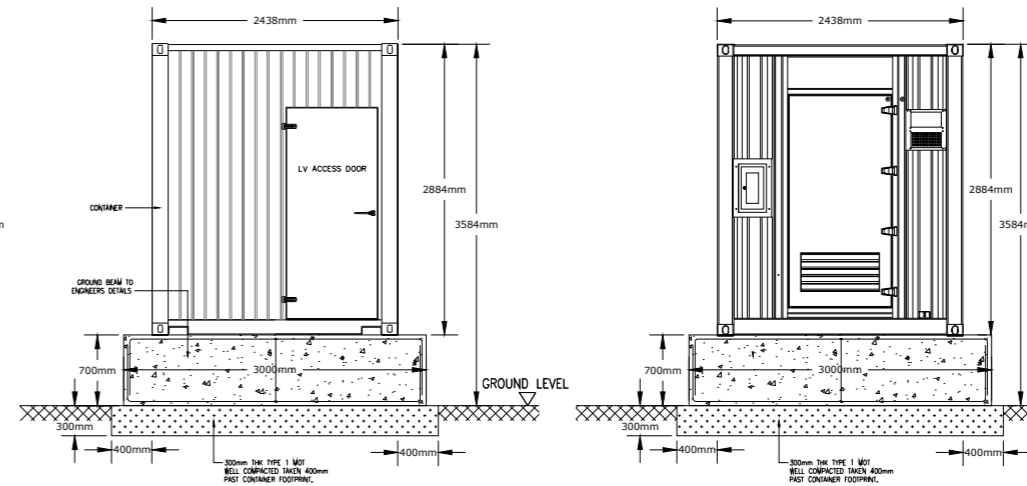
SUB STATION 1 - CONVERTER EXTERNAL PLAN VIEW
SUB STATION 2 & 3 - SWITCHGEAR EXTERNAL PLAN VIEW



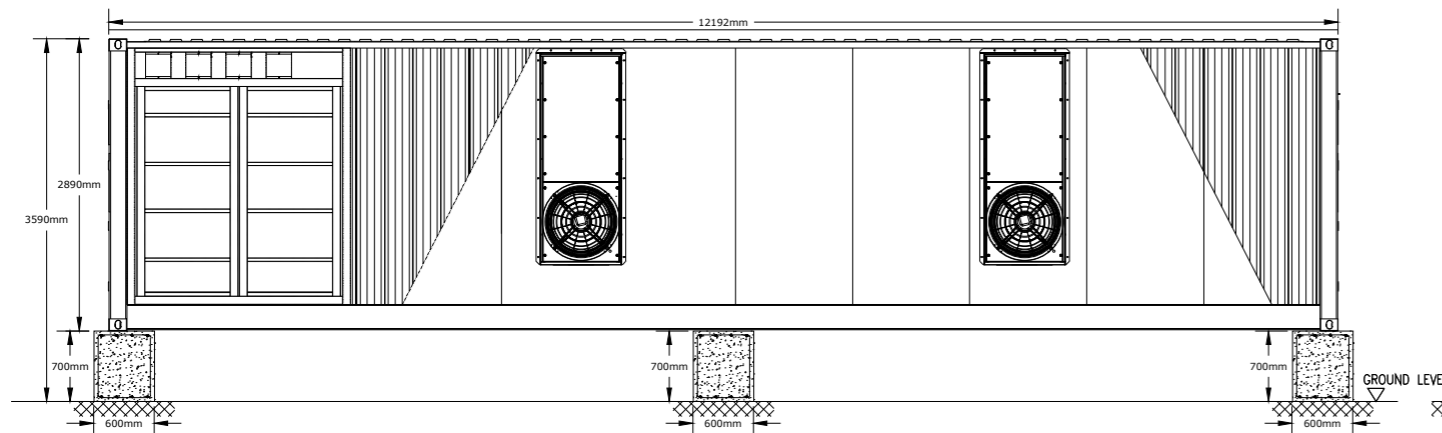
SUB STATION 1 - CONVERTER EXTERNAL SIDE ELEVATION VIEW
SUB STATION 2 & 3 - SWITCHGEAR EXTERNAL SIDE ELEVATION VIEW



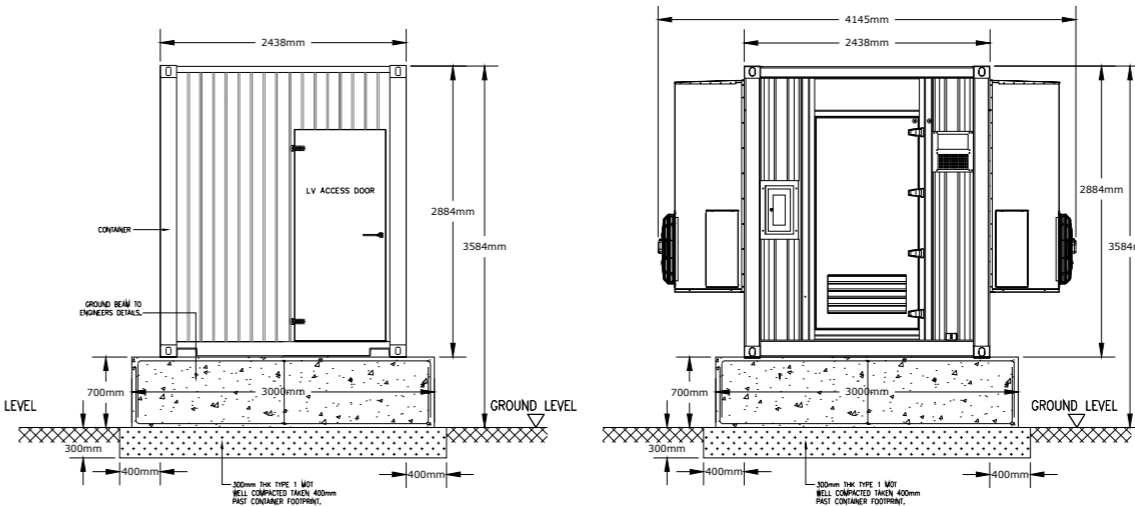
SUB STATION 1 - CONVERTER EXTERNAL END ELEVATION VIEWS
SUB STATION 2 & 3 - SWITCHGEAR EXTERNAL END ELEVATION VIEWS



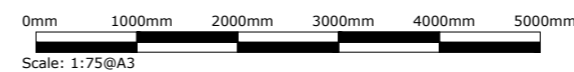
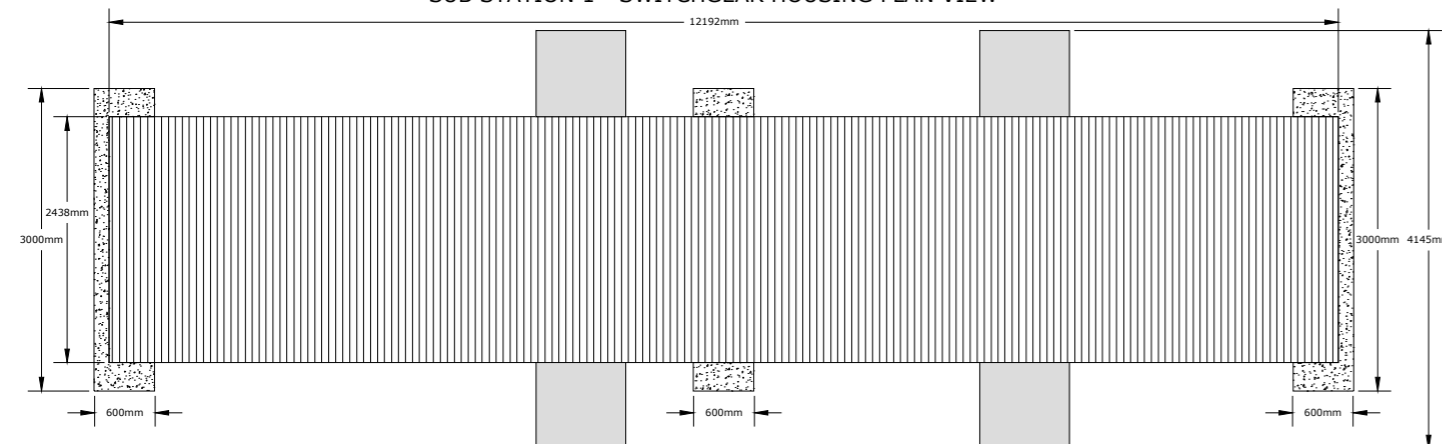
SUB STATION 1 - SWITCHGEAR HOUSING SIDE ELEVATION VIEW



SUB STATION 1 - SWITCHGEAR EXTERNAL END ELEVATION VIEWS



SUB STATION 1 - SWITCHGEAR HOUSING PLAN VIEW



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