

**FORD ENERGY RECOVERY FACILITY AND  
WASTE SORTING AND TRANSFER FACILITY,  
FORD CIRCULAR TECHNOLOGY PARK**



ENVIRONMENTAL  
STATEMENT  
**NTS**  
NON-TECHNICAL  
SUMMARY

## Non-technical summary

### Introduction

- NTS.1 Viridor Energy Limited, Grundon Waste Management Limited and Ford Energy from Waste Limited (the latter a joint venture between Grundon Waste Management Limited and Viridor Energy Limited), are applying to West Sussex County Council for full planning permission to build and operate a conventional energy recovery facility (ERF) to treat non-hazardous, non-recyclable, residual waste at the Ford Circular Technology Park at Ford Road, Ford. Grundon Waste Management, the sole owner / operator of the existing waste transfer station (WTS) at the site, is also proposing to continue this operation in a new, purpose built waste sorting and transfer facility (WSTF) on site. Figure NTS.1 shows the site location and figure NTS.2 shows the application site boundary.
- NTS.2 The proposed ERF will take a mixture of municipal solid waste and commercial and industrial waste, and this will be sourced principally from within the West Sussex county area, but also from the neighbouring counties of East Sussex, Hampshire and Surrey, including Portsmouth, Southampton, and Brighton and Hove. Waste for processing at the WSTF will be collected from local householders, businesses and industries in the same catchment.

### Background

- NTS.3 The Ford Circular Technology Park site is identified in the adopted West Sussex Waste Local Plan (2014) as a Strategic Waste Site. In 2015, Grundon Waste Management Limited secured planning permission for an energy from waste facility and a materials recovery facility (application reference: WSCC/096/13/F). The application was subject to environmental impact assessment (EIA) and accompanied by an environmental statement (ES). The approved facilities have not been built, although the permission has been implemented and the site currently operates as a WTS that typically handles between 20,000 and 25,000 tonnes of waste per annum (tpa).
- NTS.4 Planning permission was granted in August 2019 for a new access road that has replaced the previous one-way circulation system (application reference: WSCC/027/18/F). The associated Section 106 agreement also increases the permitted heavy goods vehicle (HGV) movements to / from the site and amends the approved waste delivery hours. Construction of the road was completed in early 2020 and vehicles are no longer using Rollaston Park Road to access the site or the private access road to the north of Rodney Crescent to egress onto Ford Road. The access road application was also subject to EIA and accompanied by an ES.
- NTS.5 The ERF and WSTF will help to meet the need for sustainable waste management infrastructure and to divert waste away from disposal to recycling and recovery. This is in line with national and local policy, including the Waste Hierarchy, which ranks recycling and recovery above disposal methods such as landfill.

## **Environmental impact assessment (EIA)**

NTS.6 As part of the planning application to West Sussex County Council, a study of the potential environmental effects of constructing and operating the proposed facilities has been carried out. The scope of the EIA was the subject of consultation with West Sussex County Council and with a range of other organisations, including Natural England, the Environment Agency and Historic England (see section on *Environmental issues and scope of assessment work* for further details). The results of the study are reported in a document called an environmental statement (ES) and this is a summary of its key findings.

## **The application site**

NTS.7 The application site is located at the Ford Circular Technology Park (the former Tarmac blockworks site, which forms part of the former Ford Airfield) to the west of the village of Ford, as shown in figure NTS.1. An aerial photograph of the site is shown in figure NTS.3.

NTS.8 The 6.72 hectare site is currently partially used for the existing WTS operations and partially vacant. The existing WTS building is located towards the centre of the site, and portacabins, parking and containers associated with this operation are situated to the west of the WTS. There are also two vacant, former hangar buildings towards the north of the site and a large area of hardstanding is situated towards the south and east of the site. The site is flat and approximately 6.7 m above ordnance datum (AOD).

NTS.9 Vehicular access to the site is provided by the existing access road that connects the site at its south east corner to Ford Road, just to the north of Climping / HMP Ford.

## **The surrounding area**

NTS.10 Yapton is situated approximately 1 km to the west of the site, Climping approximately 1 km to the south, Littlehampton approximately 2 km to the east, and Arundel approximately 3 km to the north east.

NTS.11 The site is currently surrounded by agricultural land to the north, east and west. An area of sports pitches and a sewage treatment works lie to the south. Ford Industrial Estate lies beyond the agricultural land to the west, beyond which is a residential area on the edge of Yapton. Ford Market and Viridor's materials recovery facility lies beyond the sewage treatment works to the south, beyond which there is another industrial estate, HMP Ford and the residential area of Climping. Ford village lies beyond the agricultural land to the north east, while Ford Lane and a small number of commercial premises lie beyond the agricultural land to the north. There is agricultural land and the Ford to Barnham railway line beyond these. Beyond the agricultural land to the east of the site is Ford Road, more agricultural land and the River Arun.

NTS.12 There are several public rights of way in the vicinity of the site to the north, including footpaths 366 and 366/1, which run north-south to Ford Lane, and footpath 200/3, which runs from Ford along the site's north eastern edge and joins footpath 363, which runs to Yapton.

- NTS.13 Two planning applications have been submitted for development within the immediate vicinity of the proposed Ford ERF and WSTF development site. One application, by Redrow Homes Southern Counties and Wates Developments Ltd, is for a mixed use development including 1,500 residential dwellings and the other, by Ford Airfield Market, is for amending the layout of the existing market due to the proposed housing development (including the creation of a new car park and footpath and resurfacing of an existing access track). While decisions are not expected on these applications until later this year, granting permission for the mixed use development will clearly change the character of the surrounding area. Both of the proposed developments are included in the cumulative impact assessment, along with other local proposals.
- NTS.14 There are no environmental or cultural heritage designations on site. Figure NTS.4 shows the designations within 2 km of the site.

### **The proposed development**

- NTS.15 The proposed development will include two main buildings, as shown on the proposed layout of the site in figure NTS.5. The larger building will house the ERF and the smaller the WSTF. The plant that will generate electricity for the National Grid will be included within the ERF building. Administration and welfare facilities will also be included within the ERF building.
- NTS.16 There will also be other smaller buildings and structures on site that support the main ERF and WSTF. These include equipment to cool the steam from the turbine, maintenance workshops, parking areas, a gatehouse to monitor access to and from the site, weighbridges and a substation for transferring the energy generated by the facilities to the National Grid. Figures NTS.6a-e are some of the architect's elevation drawings for the ERF and WSTF buildings.
- NTS.17 The site layout and building design have been developed by the project architects in collaboration with heritage, landscape, ecology and noise professionals, and take into account comments from consultation with West Sussex County Council and their consultees.
- NTS.18 The location, orientation and form of the proposed buildings and structures have been very carefully considered, in relation to minimising environmental impacts, particularly landscape and visual. The orientation of the buildings within the site presents a minimum elevation to minimise impacts on the most sensitive landscape and cultural heritage receptors both in the area immediately surrounding the site and further afield, such as at Arundel. The orientation also provides the opportunity to include some substantial landscape areas within the site boundary, specifically to the north east and north west, enabling earth-shaping (or bunding) up to 8 m in height and depth of planting of up to 35 m.
- NTS.19 Building and structure heights and volumes have been restricted to the practicable minimum required for function as this helps to minimise landscape and visual effects. The majority of the ERF buildings and structures will be positioned 1.5 m below ground level (finished floor level), with the waste bunker extending to 3 m below ground level (finished floor level). Potential for



groundwater impacts prevents any further sinking of the development below ground level.

- NTS.20 The architectural design strategy for the building envelopes is for a simple development form reflecting the industrial uses, with high quality external materials and detailing that give it a clean, contemporary and high-quality appearance whilst remaining low key. A light, silver-grey cladding has been selected after consideration of colour, texture and finish options. The selected cladding appears light against the sky in local and middle distance views and also reflects the prevailing light conditions, effectively reducing its visual effects. In longer views, the light colour assimilates well with the other lighter coloured developments that occur within the coastal plain.
- NTS.21 Tree and shrub species proposed for the site have been selected to reflect local native vegetation and enhance biodiversity, whilst providing a good level of screening effect of the lower levels of the proposals. A mix of fast-growing smaller planting stock to maximise plant establishment, together with larger stock in strategic locations, will provide a good level of screening early on. The acoustic fence that forms part of the proposals will have a dark-coloured stain to minimise its visibility and assimilate with the planting.
- NTS.22 Consideration has also been given to the experience of walkers using public footpaths that pass close to the site and also to views that might be experienced by potential future residents in the neighbouring strategic housing site on adjacent land. Feature gabion retaining walls faced with local stone will provide detail and interest as well as biodiversity value, and planting on top of the wall and extending up the earth bunds will provide a much softer and attractive interface than the current hard fenced edge. Operational / security lighting will be kept at low level and with zero up-lighting restricting the extent to which light sources are visible. The bunding and acoustic fencing will also help to contain operational lighting sources. All high level areas of glazing will be fitted with blind systems which will close during the hours of darkness to prevent internal lighting being visible from surrounding areas
- NTS.23 Figure NTS.7 is a flow diagram to show how the ERF process works and NTS.8 shows the key inputs and outputs from the ERF process. Waste for treatment at the ERF will be weighed (while still in the waste delivery vehicles) then tipped into a concrete bunker within the ERF building. Grab cranes will transfer waste from the bunker into the combustion chambers, where the waste will be burnt at a high temperature (850°C). Ash from the burning process, known as bottom ash, will be collected, cooled and stored ready for collection and export off site. 100% of the ash will be recycled into secondary aggregates which will be used for construction projects and road building.
- NTS.24 The hot air from the ERF combustion chambers (known as the flue gases) will be drawn off and used to heat water and create steam. The steam will then be directed to a steam turbine that produces electricity. The process will generate approximately 31 MW of electricity, of which approximately 28 MW will be exported to the National Grid and the remainder will be used on site for the ERF. The proposals also allow for the future export of heat and potential off-site local users have been identified. Heat would be piped in the form of steam or hot water, subject to commercial arrangements being secured in the future.

- NTS.25 Before they are released to the atmosphere the ERF flue gases will undergo a series of treatments that will clean the gas to a level that meets the strict legal standards set for the protection of both human health and the environment. The emissions from the stacks will be continuously monitored and records will be kept on site.
- NTS.26 The residue remaining from the ERF flue gas treatment process is called flue gas treatment (FGT) residue and all of this will be sent off-site for treatment and used to create a lightweight, high quality, carbon-negative aggregate that is used as a construction building material.
- NTS.27 Waste for processing at the WSTF will be weighed in the vehicles they arrive in, then the vehicles are designated a tipping bay depending on the source and content of each load. Once the contents of each load have been deposited within a bay, vehicles will leave the site via the weighbridge to the north of the weighbridge office. Site operatives, where possible and if required, will then manually sort through the waste in each bay to segregate different recyclable waste types, e.g. paper, plastic, cardboard, glass, textiles, wood and metal, leaving only non-recyclable residual waste.
- NTS.28 The different recyclable wastes recovered from each load will then be transferred into different bays for bulking and onward transfer to a suitable offsite recycling facility for further treatment.
- NTS.29 The residual wastes from the WSTF (i.e. those items of waste that cannot be further re-used or recycled) will be collected and transferred to the adjacent ERF.
- NTS.30 The WSTF will have an annual throughput of up to 20,000 tpa. It is anticipated that approximately one third of the waste processed at the WSTF will be transferred to the ERF as non-recyclable waste.
- NTS.31 The ERF will operate 24 hours a day, seven days a week, though there will be periods of annual maintenance when waste processing is reduced. The majority of deliveries and collections will be received / made between 6am and 8pm Mondays to Fridays and 8am and 6pm on Saturdays. The WSTF will operate from 6am to 8pm Mondays to Fridays, 8am to 6pm on Saturdays.
- NTS.32 The ERF will be operated and managed by suitably qualified and trained personnel. A total of 54 full-time staff will be employed, including facility, operations, engineering, health/safety and finance managers, mechanical and electrical engineers, shift team leaders, operators, mechanical and environmental technicians, administrators and industrial cleaners. The existing WTS operations employ a total of 24 full-time staff (i.e. four site operatives and administration staff, and 20 HGV drivers). The proposed WSTF will retain the four site operatives and administration jobs on site and the HGV drivers will be redeployed to another site within the local area.
- NTS.33 The average daily operational heavy goods vehicle movements are forecast to be 109 each way (i.e. 218 heavy goods vehicle movements in total). This includes waste deliveries to the ERF, waste deliveries to the WSTF, the delivery of materials used in the process (e.g. hydrated lime, ammonia, diesel, etc), the

removal of residues from site (e.g. FGT residue, ferrous ash and bottom ash) and the transfer of recyclable waste for onward treatment.

- NTS.34 Maintenance activities, deliveries related to administration and welfare on site, and visitors and staff arriving at and leaving the site will also generate vehicle traffic, although the amount associated with maintenance and administration / welfare deliveries will be very small.
- NTS.35 A range of nuisance control measures will be in place to ensure that problems with dust, odour, noise, pests and litter do not arise. The applicants will operate a good neighbour culture. A Local Liaison Committee has already been set up and will continue to meet on a regular basis to discuss the proposed development. It is intended that the group will meet during all stages of the proposed development, including: construction, commissioning and the start of operations and continue for as long as there is an interest. The liaison committee will provide the opportunity for those in the local community to raise any potential issues or queries. It will also provide a forum for community stakeholders to be informed and consulted regarding site operations and procedures. Liaison committee members will include parish councillors, locally elected representatives of the community, and representatives of the Environment Agency, West Sussex County Council, and Arun District Council, and other stakeholders as appropriate.
- NTS.36 The construction of the proposed ERF and WSTF is likely to take approximately 51 months and would be phased as follows:
- Phase 1 – Construction of the WSTF
  - Phase 2 - Demolition of the existing WTS
  - Phase 3 – Excavation of the -1.5 m finished floor level (i.e. a reduced level dig across a large portion of the site to a depth of -2.5 m below ground level, providing a finished floor level of -1.5 m, plus a 1 m thick concrete floor) and removal of material from site
  - Phase 4 - Construction and commissioning of the ERF
  - Phase 5 - Construction of the earth bunds and landscaping
- NTS.37 Vehicle movements will increase over the construction and commissioning period, but this is for a temporary period only and will be managed through a construction traffic management plan. All heavy goods vehicle movements associated with the construction activities will be required to access and depart the site via the existing access road, from / to the south onto Ford Road and then onto the A259 and the wider network. No construction heavy goods vehicles will be permitted to leave or access the site to / from the northern stretch of Ford Road and measures will be put in place to enforce this.
- NTS.38 Main construction work will take place between the hours of 7am and 7pm Monday to Saturday, with no work on Sundays or public holidays. Delivery of oversize plant and equipment, internal fit out, internal works and other non-intrusive works may take place outside of these times. Extraordinary events such as concrete pours may also need to take place outside these hours as by their nature, they need to be continuous.

- NTS.39 The number of people employed on site at any one time during construction will vary considerably. Phase 1 construction of the WSTF there is anticipated to be a peak workforce of 35. During demolition works (Phase 2) and during the excavation of the -1.5 m finished floor level (Phase 3) constant workforces of 12 and 9 are expected respectively. During Phase 4, construction of the ERF, the workforce is expected to average 292 and peak at 496. The earth bunding and landscaping work (Phase 5) is expected to generate a peak workforce of seven. As noted above, some of the phases will overlap for short periods.
- NTS.40 More detailed information on both the construction and operation of the proposed ERF and WSTF can be found in Chapter 3 of the environmental statement.

### **Alternatives**

- NTS.41 A number of alternatives were considered during the development of the proposals, including alternative:
- Technologies
  - Site layouts
  - Building designs
  - Building materials
  - Drainage solutions
- NTS.42 The alternative combustion solutions that were considered for the ERF are explained in Chapter 4 of the ES. The selected solution of a 'moving grate' incineration process is a leading technology with a proven track record for achieving compliance with high health, safety and environmental standards.
- NTS.43 A review of alternative site layouts, building designs, materials and colours led to the selection of a design that meets the operational requirements of the technical processes, is practical in terms of vehicle circulation, mitigates as far as possible visual and landscape impacts, reflects the local history of the site and reduces potential noise impacts.
- NTS.44 The review of alternative drainage solutions led to the selection of lined, below ground cellular storage tanks and rainwater harvesting for dealing sustainably with surface water at the site. The measures selected will ensure that clean surface water is released gradually from the site and does not pose any flood risk.

### **Environmental issues and scope of assessment work**

- NTS.45 The initial stage of the environmental assessment work involved 'scoping', i.e. identifying the range of significant issues likely to arise as a result of the proposed development. Scoping ensures that significant issues are addressed in detail, while those of less relevance are considered in less or no detail. A formal scoping exercise was undertaken with West Sussex County Council and various statutory consultees between January - March 2020 and as a result the following environmental topics have been considered within the environmental statement:

- Air quality, odour and dust
- Climate change
- Health
- Community and social effects
- Cultural heritage
- Ground conditions and the water environment
- Landscape and visual effects
- Natural heritage
- Noise and vibration
- Traffic and transport

NTS.46 The various specialist assessments, which are discussed in more detail later, followed generally similar methodologies. Baseline desk and / or field studies were undertaken to establish the existing situation. The effects of constructing and operating the proposed facilities were then evaluated using a method that compares the sensitivity and importance of receptors with the likely magnitude of change, to establish the degree of effect or significance. The degree of an effect determines the amount of resource that should be put in place to avoid or reduce (mitigate) an adverse effect and identifies the actual value of a beneficial one.

NTS.47 The main focus of the environmental impact assessment is on the effects of the proposed ERF and WSTF development. However, the existing planning permission for an energy from waste facility and a materials recovery facility at the site (see paragraph NTS.3 above) represents a theoretical alternative development scenario or ‘fall-back’ position with its own potential effects. The environmental statement topic chapters therefore also summarise the potential effects of this existing approved scheme for comparative purposes.

NTS.48 The environmental assessment work has also looked at the potential for cumulative effects with other significant proposed and approved development projects in the area, together with some sites allocated in the Arun Local Plan that are close to the site. Figure NTS.9 identifies the 23 local projects and shows their location in relation to the proposed development.

NTS.49 The following sections summarise the findings of each of the environmental topics covered in the environmental statement, but for more detail please see the environmental statement and associated technical appendices.

## **Environmental effects**

### ***Air quality, odour and dust***

NTS.50 The potential impact of the proposed development on air quality has been considered in detail. The main focus of the assessment was the process emissions from the operation of the proposed ERF (i.e. the content of the flue gas). However, impacts from dust during the construction phase, the emissions from traffic bringing materials in and out of the site during construction and operation, and potential dust and odour once the ERF and WSTF are both operational, have also been assessed.

- NTS.51 Trends in national air quality monitoring show that generally pollutant concentrations have been decreasing and are projected to continue to decrease. The only local monitoring available is for nitrogen dioxide and this shows that existing concentrations in the area are fairly low and there are no instances where the government's air quality assessment levels (i.e. target and limit values for different air quality pollutants) are exceeded.
- NTS.52 The site is situated close to Viridor's materials recycling facility and Southern Water's wastewater treatment works site. The baseline odour in the local area therefore has the potential to be impacted by these neighbours. In addition, the Besmoke manufacturing facility around 400 m to the west of the site and a biogas digester and lagoon around 500 m to the north west of the site could lead to increased odour levels in the area.
- NTS.53 There is the potential for increased dust generation from construction activities such as demolition, earth moving, and the transport and storage of materials. A range of best practice measures will be put in place to ensure that there will be no significant effects on sensitive receptors from increased dust generation. These measures will include the use of dust control equipment, covering or screening stockpiles, removing materials that have the potential to create dust from the site as soon as possible, covering vehicles entering and leaving the site, and a wheel washing system. These measures will be set out in detail in a construction environment management plan that will be prepared by the appointed site contractor. It is considered that with the implementation of these measures there would not be any significant effects.
- NTS.54 Traffic levels during the operation of the proposed facilities will not exceed the heavy goods vehicle limit in the Section 106 legal agreement for the new access road (as referred to in paragraph NTS.4), i.e. up to 240 heavy goods vehicle movements per day (120 movements to the site and 120 movements from the site). This means that there will be no significant effects on air quality from operational traffic. Similarly, the number of heavy goods vehicle movements during construction will also adhere to this limit and therefore there will be no significant increase in the levels of traffic-related pollutants as a result of the construction period.
- NTS.55 The assessment of the operation of the ERF included modelling the concentrations of a range of pollutants in the flue gas emissions. As discussed in paragraph NTS.20, the flue gases will undergo a series of rigorous treatments that will clean the gases to a safe level before they are released to the atmosphere. The flue gas treatment system will be designed to comply with current stringent legislation, meeting the requirements of the Environment Agency guidance on risk assessments for environmental permits and the Industrial Emissions Directive. In accordance with this Directive, emission limit values must be based on 'best available techniques', which is enforceable in law through Environmental Permits that are issued by the Environment Agency. The flue gas treatment system will therefore be designed to ensure that the facility operates well within strict limits. The air quality modelling shows that there will be no significant effects on air quality, human health or designated nature conservation sites as a result of emissions from the ERF.
- NTS.56 There is the potential for dust and odour to arise during operation of the proposed facilities due to the delivery and unloading of waste materials.

However, the potential for nuisance to arise will be very limited due to the containment and mitigation measures embedded in the design of the ERF and WSTF.

- NTS.57 The ERF building is totally enclosed except for the fast-acting tipping hall doors. All operations will therefore be conducted within an enclosed building, and vehicles would deposit waste into an enclosed tipping hall. The tipping hall would be held under negative pressure, with the air being used in the combustion process. This prevents the release of odours and dust from the building when the doors are opened for short periods for deliveries. With regard to the WSTF there will be a first in – first out approach applied to waste deliveries; therefore, potentially odorous waste will not be permitted to deteriorate on site. When not in operation, all doors to the WSTF will be shut. No waste will be stored outside any of the buildings and there would be no release of odour from the stack emissions.
- NTS.58 The fact that all ERF processes will be enclosed within the building will also ensure that dust emissions do not become a nuisance. Dust emissions from the WSTF will be minimal as all waste materials will also be contained within the WSTF building. Doors to the WSTF will be shut when the facility is not open and the movement of waste throughout the building will be minimised where possible. As a precaution, a rotary atomiser (water spray) will be installed within the WSTF to provide dust suppression. The site access road will be properly maintained, and regular checks will be carried out on road conditions. Cleaning will be carried out as necessary. Vehicles will also be checked to ensure that they are clear of loose waste and that their loads are secure.
- NTS.59 A qualitative assessment of potential cumulative effects has been undertaken and this has demonstrated that there is no risk of significant cumulative effects in relation to dust, odour or emissions. In conclusion, the proposed development is not predicted to give rise to significant environmental effects on air quality, human health and odour.

### ***Climate change***

- NTS.60 An assessment of the effects of the proposed development on greenhouse gas emissions and the likely significant effects of climate change on the proposed development (known as climate resilience) has been undertaken as part of the environmental impact assessment work.
- NTS.61 The greenhouse gas emissions assessment considered the following factors when determining the carbon impact of the development:
- Carbon dioxide emissions generated from landfilling the same waste that would be treated by the proposed development (i.e. releases of landfill gas)
  - Emissions from vehicles taking waste to landfill
  - Emissions offset from the export of electricity from landfill gas engines
  - Emissions from vehicles taking waste to the proposed ERF
  - Emissions offset from the export of electricity from the proposed development

- NTS.62 With regard to the ERF the assessment showed that there will be a net carbon saving of approximately 48,102 tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e) per annum when compared to the baseline. Therefore, over the lifetime of the development (assumed to be 25 years) the net carbon saving of the proposed development will be approximately 1,202,550 tCO<sub>2</sub>e compared to the baseline.
- NTS.63 Although a minor contributor to the benefits in comparison with the operation of the ERF, it is also worth noting that the ERF will have solar photovoltaic cells and all car parking spaces associated with the ERF will be provided with electric charging points. It has therefore been concluded that the development will have a positive contribution to reducing carbon emissions when compared to the baseline and a significant benefit when compared to the total carbon emissions in West Sussex.
- NTS.64 The existing WTS usually handles in the region of 20 - 25,000 tonnes per annum of waste from West Sussex and surrounding counties. The waste, primarily from commercial and industrial sources, is delivered in refuse collection vehicles. Currently, there is no treatment of the waste at the WTS, it is simply bulked up and then transferred to a number of outlets off-site.
- NTS.65 Approximately one third of the waste processed in the WSTF (i.e. the residual waste left over after sorting of recyclables) will subsequently be treated within the adjacent ERF. The recyclates such as metals, glass, aggregate material, etc. will be transferred off-site for further recovery or recycling at a suitably licensed facility.
- NTS.66 It is anticipated that there will be a carbon saving associated with the development of the WSTF when compared to the existing WTS due to:
- Reduced transport requirements - the carbon emissions associated with the transport of 100% of the waste to other waste management facilities such as the Lakeside EfW or the Bishops Cleeve Landfill from the existing WTS will result in significantly higher carbon emissions compared to the transport of two thirds of the waste off-site with one third remaining on-site for treatment at the ERF, as would be the case for the proposed WSTF.
  - The recovery of recyclates from the incoming waste at the WSTF - this will displace extraction of primary resources and the production of materials which would otherwise need to be produced. In addition, as recyclates will be recovered from the incoming waste, the WSTF will reduce the quantities of waste which would otherwise potentially be transferred for disposal.
- NTS.67 The climate change resilience assessment considered the following, potentially vulnerable receptors: plant building and operational equipment, vehicular access to the site (for workers and waste), grid connection and local users and on-site workers. For each receptor, the impact of a number of predicted climatic effects was assessed, including increased temperatures, increased rainfall in winter, decreased rainfall in summer (drought), increased flooding (from surface water, rivers and groundwater) and extreme climatic events (storms).
- NTS.68 In all cases, due to good building and site design (i.e. building ventilation, generous sustainable surface water drainage system, rainwater harvesting, wastewater recycling, quality building cladding) together with commitment to



regular maintenance, robust operational procedures and safe working practices, no significant adverse effects were identified.

### ***Health***

- NTS.69 A detailed human health risk assessment was carried out as part of the environmental impact assessment. The key issue for consideration in the human health risk assessment was the release of substances from the ERF to the atmosphere that have the potential to harm human health. Some pollutants accumulate in the environment. This means that inhalation is only one of the potential exposure routes to these substances and impacts cannot be evaluated in terms of their effects on human health by simple reference to ambient air quality standards. An assessment was therefore made of the overall human exposure to the substances by the local population and the risk that this exposure causes.
- NTS.70 The ground level concentrations resulting from emissions from the proposed ERF will be highest in the vicinity of the plant. To account for this, notional adult and child receptors were assessed at the point of maximum impact. The human health risk assessment also assessed the potential effects at a range of existing and future receptors in areas predicted to experience the greatest impacts.
- NTS.71 The emissions from the ERF at the point of maximum impact for agricultural, allotment and residential receptors (both adult and child) were assessed. The agricultural receptor was assumed to experience direct inhalation and ingestion from soil, drinking water and home-grown eggs, produce, meat and milk. The allotment receptor was assumed to experience direct inhalation and ingestion from soil, drinking water and home grown eggs, produce and poultry. The residential receptor was assumed to be a person who lives at the point of maximum impact and consumes home-grown produce.
- NTS.72 The human health risk assessment concluded that there will be no significant adverse health effects at any of the sensitive receptors considered, including farms, allotments, residential properties (existing and future) and schools (existing and future), as a result of the proposed development. No cumulative effects were identified either.

### ***Community and social effects***

- NTS.73 The scoping process determined that the community and social assessment should focus on the potential for effects on house prices and housing supply, education and local services, and tourism, as well as examining issues associated with public perception. Public concern regarding ERFs relates to a number of issues, including emissions, health impacts, transport issues, conflict with recycling, disposal of residues, local amenity issues, management and operational concerns, and property values.
- NTS.74 Emissions from ERFs are tightly regulated and no significant adverse air quality or health effects are predicted as a result of the proposed development. Waste will be delivered to the site via the existing access road that is already used to deliver waste to the existing WTS and no significant effects are predicted as a result of the transport of waste.

- NTS.75 Examination of recycling levels in West Sussex showed that recycling and composting are well established in the area. The site is safeguarded in the adopted waste local plan, indicating that it forms an integral part of the county's waste management strategy and will not displace other management methods. All of the residues from the ERF will also be recycled.
- NTS.76 A number of measures have been incorporated into the building design and operational procedures to minimise effects from dust, odour releases and noise. The ERF will be operated to stringent standards and no significant amenity issues are envisaged.
- NTS.77 Studies of property values and the provision of local services and facilities before and after the construction of ERFs have not shown evidence of any significant adverse effects. As a result, the proposed development is not predicted to lead to significant effects on house prices and housing supply or education and local services. While tourism is an important contributor to the wider area's economy, the proposed development will be seen in the context of existing buildings and structures in the surrounding area and will not significantly alter the visitor experience to the area. It is therefore not predicted to significantly affect tourism.
- NTS.78 As the proposed ERF is not predicted to lead to any significant community and social effects, there is no potential for cumulative effects with other consented and proposed developments in the area.

### ***Cultural heritage***

- NTS.79 The cultural heritage assessment considered the likely significant effects of the proposed ERF and WSTF on the historic environment, covering designated and non-designated heritage assets in the study area (see figure NTS.10), such as: archaeological remains, historic buildings, conservation areas and overall historic landscape character. The assessment was carried out following consultation with West Sussex County Council County Archaeologist. The assessment makes use of the viewpoints and visualisations produced for the landscape and visual effects assessment to consider potential change to the setting of designated heritage assets.

### ***Archaeology***

- NTS.80 There are no scheduled monuments within the 1 km study area around the site. The site is located within part of a large Archaeological Notification Area, designated due to recorded evidence of early prehistoric settlement activity, predominantly of Bronze and Iron Age in date, and the east - west alignment of the former Portsmouth – Arundel canal.
- NTS.81 The proposals will involve groundworks which will inevitably have an impact on any archaeological remains. The assessment concluded that the extent of disturbance at the site from the construction of the airfield has resulted in an archaeological resource that is considered to be of low importance. The physical change predicted to occur will be large, permanent and of moderate significance. However, this can be wholly mitigated through an agreed programme of targeted investigation and subsequent preservation by record.

The knowledge gained in that process is predicted to result in a moderate, beneficial effect.

- NTS.82 While the site does not have a rich resource of non-designated assets, it does possess elements that attest to its former use in two distinct periods of transport history. The heritage will be celebrated and its awareness increased by the implementation of a number of enhancement and heritage interpretation measures within the proposals. This will be a large change to an asset of low importance, resulting in a moderate, beneficial effect.

*Built heritage*

- NTS.83 There are no designated heritage assets anywhere on site. The two former hangars on the site are both type B1 aircraft sheds, a Ministry of Aircraft Production pre-fabricated building. They were built in the immediate post-war period of reconstruction of the airfield, between 1948 and 1951, and functioned until the military use ended in 1958. The two B1 hangars are examples of a standard and common building type, have been extensively altered and are in the greatly changed setting of the redeveloped airfield. They are non-designated assets of low - negligible importance.
- NTS.84 The closest listed building (grade II) to the site is the former Place Farm (sub-divided into four properties) approximately 210 m north - north east. The heritage value of the listed building lies principally in the architectural and historic value of its fabric and high status appearance, and the immediate setting of the walled garden. The proposed development will lead to the alteration to some qualities and character of the south western portion of the former agricultural setting of the house, which is considered to be a substantial significant effect.
- NTS.85 St Andrew's Church at Ford lies approximately 725 m east of the site and is a grade I listed building. The immediately surrounding land (setting) includes areas of the former deserted medieval village and the dock on the river, and the setting is of value in allowing appreciation of the church within its walled graveyard. The alteration to the qualities and character of the setting of the church as a result of the development are considered to be of moderate significance.
- NTS.86 The group of designated heritage assets at Climping (grade I St Mary's Church, grade II rectory and scheduled monument earthworks) are approximately 1 km south of the site. There will be no visibility of the proposed development from St Mary's Church or its immediate setting and group of assets, primarily as a result of distance and intervening development. The presence of the completed development will not alter the qualities and character of the setting of these assets and no significant effects are predicted.
- NTS.87 St Mary's Church, Yapton lies approximately 1.1 km west of the site and is listed grade I for the exceptional historic and architectural value of its fabric. The immediate setting of the walled churchyard allows appreciation of the aesthetic and scenic values of the church and is enclosed by mature trees and the high flint and cobble walls of the adjacent properties. The alteration to the qualities and character of the wider setting of the church are considered to result in an effect of slight - moderate significance.

- NTS.88 The areas of agricultural land from which the completed development is predicted to be visible are a peripheral part of the setting of the Yapton Church Lane conservation area. There are few features of heritage value and the large scale industrial development at the airfield is already an established presence at approximately 800m west of the site. The visual addition of the development will be perceptible primarily as a result of the stack. The alteration to the qualities and character of the setting of the conservation area are considered to result in a slight adverse effect.
- NTS.89 For the built heritage assets beyond 1 km potential effects will result from visual intrusion of the ERF and stack in some views and the visible plume appearing as a new distant element in a wider landscape panorama, such as from the higher land around Arundel. There is sufficient distance, as well as intervening buildings, mature hedgerows, the railway line and existing road network, between the site and both Lyminster conservation area (approximately 3 km to the east) and Tortington with its scheduled monument earthworks of the former Augustinian priory (approximately 3 km to the north) that the proposals will not be considered a significant visual intrusion or detractor from the present setting of these designated heritage assets.
- NTS.90 The ERF building will be sited approximately 4.5 km south of Arundel Castle and in the high level views from the shell keep will appear as a distant structure set low on the skyline partially against the backdrop of the sea, occupying a very small part of a much wider view. The alterations to the qualities and character of the setting of Arundel Castle are considered to result in a slight adverse effect. There will be no significant visual intrusion within the registered parkland. No alterations are predicted to the qualities and character of the setting of the cathedral or to the character and appearance of the town's conservation area.

### ***Ground conditions and the water environment***

- NTS.91 A ground conditions and water environment assessment of the site has been undertaken based on a desk study, a water quality assessment and a flood risk assessment.

#### *Ground conditions*

- NTS.92 The site has historically been used as an RAF airfield and a tarmac manufacturing plant (Tarmac Limited). Most recently the site has been partially in use as a WTS, with the northern portion of the site occupied by former RAF hangars, which are currently disused. Historical ground investigation information indicates the site to be underlain by Made Ground, River Terrace Deposits and Lewes Nodular Chalk Formation.
- NTS.93 The nearest surface water feature to the site is the River Arun, 900 metres to the east. The site is not located in a groundwater source protection zone and no potable groundwater abstractions have been identified in the vicinity of the site. A minimum depth to groundwater of 2.45 m below ground level was recorded on site in February 2020.
- NTS.94 A ground investigation undertaken by Enzygo in 2015 looked at potential contamination at the site. No contaminants were found to exceed human

health generic assessment criteria levels for a commercial land use in the soil samples tested. However, organic compounds were noted to exist at a level that indicates the potential for migration into water supplies and groundwater samples did show elevated levels of some contaminants, particularly in the vicinity of a former above ground fuel storage tank.

NTS.95 Another site investigation (a walkover survey) was undertaken in December 2019 which identified several key features which could represent sources of contamination, including storage tanks, electricity substations and historic features (e.g. a bunker).

NTS.96 Based on the existing conditions at the site, the following potential effects during construction of the proposed development were identified:

- Accumulation and inhalation of gas / vapours in confined spaces / buildings / structures
- Inhalation of asbestos fibres
- Permeation of contaminants into drinking water pipes
- Leaching and vertical migration of contaminants in groundwater
- Migration of contaminants via preferential pathways (i.e. piled foundations)

NTS.97 The potential effects post-construction with respect to ground conditions include:

- Accumulation and inhalation of gas / vapours in confined spaces in the new buildings
- Permeation of contaminants into drinking water pipes

NTS.98 However, with proposed mitigation measures in place (for example undertaking an intrusive ground investigation, completion of a foundation works risk assessment and remediation strategy, which will include groundwater and surface water monitoring and the implementation of a construction environmental management plan) no significant residual risks are predicted in relation to ground conditions. No cumulative effects are predicted on ground conditions either.

#### *Water environment*

NTS.99 The River Arun lies approximately 900 m to the east of the main part of the site. The River Arun is designated under the Water Framework Directive as a transitional heavily modified water body. It was classified as being of good status with respect to its chemical quality in 2016, but its ecological classification was of moderate potential. In addition, a number of small ponds are located around the site. None of the ponds are designated under the Water Framework Directive. There are several ditches within the vicinity of the site. The closest of these ditches runs is approximately 350 m from the south east corner of the main part of the site.

NTS.100 There are no drinking water protected areas in the immediate vicinity of the site, although the River Arun is classified as a surface water drinking water protected area.

NTS.101 Environment Agency mapping shows that the River Terrace Deposits underlying the site are classified as a Secondary A Aquifer (i.e. predominantly permeable layers that can store and yield limited amounts of groundwater) and the Lewes Nodular Chalk Formation is classified as a Principal Aquifer (i.e. a regionally extensive aquifer that has the potential to be used as a source of drinking water). The groundwater level at the site has been recorded at 2.45 m below ground level based on data available to date. Given the location of the River Arun to the east and the southerly direction of flow of the River Arun, it is anticipated that groundwater at the site is likely to flow in an easterly or south easterly direction.

NTS.102 The potential effects during construction related to the water environment have been identified as:

- Contaminants from sub-surface strata and surface soils getting into groundwater
- Contaminants present in groundwater migrating towards excavation during dewatering and effecting water quality
- Rainfall infiltration, leaching and contaminant migration in areas of open excavation, stripped ground, etc. which may migrate into the water environment
- Creation of pathways for contamination via piling or other construction activities
- Accidental spillages and leaks of fuels, oils and chemicals that could affect groundwater quality
- Changes to local groundwater resources due to temporary dewatering activities

NTS.103 No significant effects are anticipated during the post-construction phase of development.

NTS.104 With the implementation of a detailed construction environment management plan, which will include best practice measures to manage potential effects associated with the groundwater and surface water environment, together with groundwater monitoring, no significant residual effects are predicted in relation to the water environment. No significant cumulative effects are predicted either.

#### *Flood risk*

NTS.105 Environment Agency indicative flood risk mapping shows that the proposed site is entirely located in Flood Zone 1, i.e. it is at low risk of flooding from rivers and the risk of flooding from surface water within the site boundary is considered to be low.

NTS.106 The existing surface water drainage system on site will be abandoned with the exception of the final run of pipework leaving the site. The off-site surface water drainage connection to a land drain to the east of the site will be surveyed and cleaned to ensure that the new surface water drainage system will function well.

NTS.107 It is proposed that surface water runoff is temporarily held in large impermeable cellular storage tanks below ground, prior to being discharged gradually into

the land drain to the east of the site. The proposed storage tanks will be located at north, north eastern and eastern parts of the site and will collect surface water from rainwater pipes and external hardstanding areas. Rainwater harvesting is also proposed for the development and will be further detailed in future design stages.

NTS.108 If rainfall exceeds the storage capacity of the tanks, the site has been designed to allow for shallow ponding (approximately 150 mm average depth) within managed external hardstanding areas. This will ensure that there will not be an increase in flood risk downstream.

NTS.109 To aid in minimising the impact to the surrounding environment in terms of water quality as well as water quantity it is proposed to install “light liquid” separators as part of the proposed formal surface water drainage system.

NTS.110 No significant effects on flood risk are therefore predicted during the construction or post-construction stages of the development. Due to this no significant residual or cumulative effects are predicted.

### ***Landscape and visual effects***

NTS.111 The landscape and visual effects of the proposed development have been a primary consideration in developing the development design strategy. Landscape effects arise either from direct changes as a result of development in the physical elements of the receiving landscape, or from indirect effects on the character and quality of the surrounding landscape. Visual effects arise from the changes in character and quality of people’s views resulting from a proposed development.

NTS.112 The proposed site is within an established area of industrial land uses, on a former airfield. There are no landscape or national natural heritage designations within the immediate local area. However, the South Downs National Park boundary lies 2.2 km to the north of the site and there are listed buildings at Ford, Yapton and Climping, two conservation areas (at Yapton) and a scheduled monument at Climping, within 1.5 km of the site. The older part of Arundel, defined by the conservation area and with a concentration of listed buildings and Arundel Castle (scheduled monument), lies approximately 4.4 km to the north east. There are a number of public rights of way in the vicinity of the site, with one passing adjacent to the northern boundary. There is no significant vegetation on the operational part of the site. Vegetation in the outlying area just beyond the site to the north west, in the control of the applicant will remain as existing. Vegetation outside the site, located adjacent to the site boundary, will not be affected.

NTS.113 The proposals replace a current industrial facility of low visual quality and up to 17 m in height, with new, high quality buildings. The main part of the ERF will be at 34.60 m with a portion of the boiler hall extending up to 38.5 m in height. The twin stack will be 85 m. Subsidiary elements extending from the main volume include the turbine hall and air cooled condensers on the south east elevation at 23.50 m, the silos on the north east elevation at 28.50 m, the waste reception to the south west at 23.50 m, the administration and incinerator bottom ash loading area on the north west elevation at 25.20 m and

the administration stair core and workshops at 12.25 m and 9.20 m respectively on the west elevation.

- NTS.114 As with any building of this scale, the heights of the ERF and WTSF mean that although the substantial areas of planting proposed will provide effective screening for much of the development, the upper parts of the buildings and stacks would remain visible. The design strategy has therefore been to screen the lower 'busier' and active parts of the development with earth-shaping (i.e. bunding), fencing and planting, leaving visible the upper volumes of the buildings and structures in a simple architectural form designed to be low key and to minimise visual effects, rising above the planting and landform that surrounds the site.
- NTS.115 The area from which the proposed development is likely to be seen can be modelled on a computer and is called a zone of theoretical visibility or ZTV (see figure NTS.11). The extent of this zone indicates that visibility will extend in all directions around the site and for a large distance, but that the pattern of topography, vegetation, (particularly the strong tree lines that are characteristic of the agricultural and horticultural landscape) can help to reduce the extent of visibility and to help screen the proposals.
- NTS.116 A visual receptor is a particular person or group of people who would be likely to experience views of the proposals or are likely to be affected at a specific viewpoint. Following site visits and desktop studies 27 different visual receptor groups were identified for assessment. These include residents, recreational users of public rights of way, visitors to local heritage features, users of other transport routes and people engaged in work. For residential receptors, in line with the Landscape Institute's landscape and visual impact assessment guidelines, the views from their homes were not assessed, and the assessment focused on effects on residents using local streets, public rights of way and recreational areas. Recreational users were a particularly important receptor group in respect of people visiting the South Downs National Park.
- NTS.117 Within a 1.5 km radius of the site, the proposals will be visible from some local residential areas, some public rights of way (some of which cross Ford Airfield, close to the site), local roads, some local workplaces, and some views in the settings of heritage features. The majority of the visibility from the wider area (between 1.5 and 4.5 km radius of the site) is from some public rights of way in the surrounding agricultural land, some transport links and some of the edges of some more distant settlements. It also includes views from rising ground at Arundel, 3.8 km to the north east. Visibility of the site beyond this 4.5 km radius is predominantly from elevated areas of the South Downs National Park and from parts of the A259 that bridge over the railway line near Bognor Regis.
- NTS.118 The character of the site will remain industrial, but the scale will be altered through the introduction of taller structures than the existing. However, the quality of the design and materials will improve the overall character and distinctiveness of the site itself, which, together with the substantial areas of planting, biodiversity improvements, measures such as the gabion walling in local stone and expressing the course of the historic canal, will on balance be beneficial in terms of the landscape quality and value of the site.



NTS.119 The proposals will influence the character of the wider landscape character area, within which Ford Airfield is located (North of Yapton Coastal Plain). Although the character area is already influenced by existing industrial development, the size and scale of the proposals will increase the extent of visual influence of industrial elements in the landscape into some areas with currently little or, in some cases, no view of industrial buildings. In those areas already influenced by existing industry, the scale of industrial elements will be greater than is currently experienced. The design is of high quality and although the appreciation of the design will be subjective, its simplicity of form and low-key design in high quality materials will minimise its degree of visibility and influence.

NTS.120 The scale and height of the ERF building and stacks will also result in some degree of influence on the other landscape character areas more distant from the site and also influence the setting of some limited parts of the South Downs National Park. The majority of views from the potentially affected parts of South Downs National Park include the developed coastal plain as part of the South Downs National Park wider setting and the proposals will be a small component within the existing context of that wider view which encompasses the larger developed areas of Littlehampton and Bognor including some large existing structures.

#### *Landscape effects*

NTS.121 The assessment has concluded that the significance of landscape effects will be slight for the following landscape receptors (or landscape character areas): the site area, Lower Arun Valley Floor, Littlehampton Arun Valley Sides, South Downs National Park (Open Downlands) and South Downs National Park (Wooded Estate Downland), South Downs National Park (Major Chalk River Floodplains) and Marine area Selsey Bill to Seaford Head, and therefore in ES terms, these effects are not significant.

NTS.122 For the following landscape receptors, the assessment of the significance of effects concludes that the effects will be slight to moderate: Bilsham Coastal Plain, Barnham Yapton Coastal Plain, South Downs National Park (Major Chalk Valley Sides).

NTS.123 The assessment of the significance of effects concludes that the effects will be moderate for the following landscape receptors: North of Yapton Coastal Plain, Middle Arun Valley Floor, Climping Lower Coastal Plain, Lyminster Arun Valley Sides, West of Yapton Coastal Plain, Ryebank Rife, Flansham/Middleton Fringe Coastal Plain and South Downs National Park (Upper Coastal Plain).

NTS.124 Moderate to substantial effects have been concluded for the following landscape receptors: Tortington Arun Valley Sides, Binsted Upper Coastal Plain character area, remaining parts of Binsted Park/Wood character area (outside the South Downs National Park) and Withy Rife.

#### *Visual effects*

NTS.125 The large scale of the building and stack means that there will be some effects for visual receptor groups in the local area (up to 4.5 km away) and beyond that distance effects will generally reduce over distance. However, where

visual receptors are more sensitive to visual change, such as persons experiencing views from the South Downs National Park, then this greater sensitivity may increase the overall degree of significance of effect. However, the existing context of the developed coastal plain which features in most views from the South Downs National Park, means that the susceptibility to additional development in the coastal plain is reduced.

NTS.126 For residential receptors and public rights of way users in the local area up to 1.5 km from the proposals, the visual effects will be mostly moderate - substantial. For receptors in the range 1.5 - 4.5 km from the proposals, the significance of visual effects will be mostly moderate, except for those receptors located within the more sensitive and rural areas north of the site, including parts of the South Downs National Park in and around Arundel, where the significance of visual effects will be moderate-substantial.

NTS.127 The significance of effects on visual receptors experiencing views from the South Downs National Park varies with location, distance, elevation and context. For the views from the limited closer areas of the South Downs National Park with clear views towards the site, for example from the Binsted area, the proposals are not seen in the wider context of coastal plain development and so the magnitude of change in the view was found to be small - medium but due to the medium-high sensitivity of receptors in the South Downs National Park, the significance of visual effect was found to be moderate.

NTS.128 For receptors experiencing views from the more distant viewpoints, on high ground within the South Downs National Park, the development occupies a very small proportion of the wider vista and although it is a large building, the distance of the development, its context within the large amount of development seen in the existing view and the low key design with colours that assimilate well within the landscape, means that the magnitude of change to the overall view experienced is small to negligible. The medium-high sensitivity of the visual receptors, for whom the developed coastal plain is a characteristic of the view, mean that the significance of visual effect was found to be slight.

NTS.129 This assessment records a range of effects of slight to moderate, moderate and moderate - substantial significance on landscape and visual receptors, but none of the effects are found to be substantial. The design strategy contributes strongly to ensuring that there are no substantial effects.

NTS.130 In the closer, more local views, the relatively flat landscape means that upper parts of the building are seen against the sky and often partially screened and filtered by skyline vegetation. In these instances the light and partially reflective colour of the building envelope appears light against the sky and responds to prevailing weather and light conditions. These visual effects and, particularly in the immediate locality, the existing industrial context, help to reduce the magnitude of change experienced in the views.

NTS.131 In the more distant views from the coastal plain, the large amount of intervening development and vegetation combined with distance means that the development becomes increasingly difficult to perceive with distance resulting in a small or negligible magnitude of change. In the more distant views from the higher ground of the South Downs National Park, the simple

building form and the strategy to maintain the minimum necessary height help to reduce its perceived scale and the selected colour of the envelope, whilst light in colour, assimilates well with the other many lighter coloured elements also seen in the view, so that the overall composition of the view of the coastal plain appears largely as existing.

***Natural heritage (ecology)***

- NTS.132 The current nature conservation (or ecological) interest at the site was assessed, together with its potential to support protected species, such as badgers, bats, dormice, etc. The potential effects of the proposed development on the existing habitats and species has been assessed and mitigation measures have been incorporated into the design to offset losses wherever possible.
- NTS.133 There are a couple of internationally and nationally important / protected sites in the area. The Arun Valley Ramsar, Special Area of Conservation and Special Protection Area which lie approximately 10.17 km north east of the proposed development, are designated due to the presence of the ramshorn snail, the overwintering population of Bewick's swan and over 20,000 waders and wildfowl which are present over the winter period. Duncton to Bignor Escarpment Special Area of Conservation is approximately 9.9 km north of the proposed development area. This site is designated for a steeply sloping area of broadleaved woodland and heathland noted for its beech forests.
- NTS.134 Due to the distance of these sites from the proposed development site, no effects were considered to arise during construction. The potential for adverse effects on these sites post-construction through emissions from the ERF was considered in detail, however, the air quality modelling showed an extremely low contribution of pollutants at the distances involved and therefore no significant effects were identified.
- NTS.135 Ford Ancient Woodland is a priority habitat (i.e. one that requires conservation under the UK Biodiversity Plan) and is located approximately 1.3 km to the north of the proposed development site. As for the aforementioned protected sites, the ancient woodland is sufficient distance from the site and main access routes for there to be no effects from the construction phase. With regard to potential effects post-construction, the air quality assessment found that there would be no significant effects on the woodland and in fact surrounding agricultural practises (through the application of artificial fertilisers) were causing impacts to woodland flora.
- NTS.136 The development site itself largely comprises colonised hardstanding, with small areas of unconnected, poor, semi-improved grassland, scrub, a non-native hedgerow, scattered trees and buildings, all of which are considered to be of low value ecologically. During ecological survey work, no evidence was found of badgers, bats, dormice, great crested newts or reptiles. A range of common invertebrate species are likely to be present and breeding birds may use the existing scrub vegetation and hedgerows for nesting purposes. During survey work the following species were recorded on site: Blackbird, Black-headed gull, Dunnock, Herring gull, House sparrow and Wren.

- NTS.137 The construction phase of the development will result in the loss of approximately 0.15 hectares of poor semi-improved grassland, 0.12 hectares of bramble scrub and 120 m of non-native hedgerow. This equates to a loss of 0.27 hectares of habitats and 120 m of hedgerow with biodiversity value. Loss of the limited habitats present on site also has knock-on potential to impact on foraging bats, breeding birds and invertebrates. However, the proposals include a landscape strategy that includes the planting of conservation grassland, scrub and native species-rich hedgerow, resulting in an additional 1.66 hectares of habitat compared to the existing levels. Furthermore, the habitats created will be of higher biodiversity value than the existing habitats.
- NTS.138 In addition to the mitigation habitats to be created on site, additional habitat and species-specific features will be created and installed to provide enhancements for the site. These will include: 0.37 hectares of pollinator-rich grassland, 0.83 hectares of native mixed woodland, 360m of ground-based green walls (i.e. gabion walls planted up with climbers), 0.1 hectare of pear and oak tree planting, a wildlife pond planted with native aquatic vegetation, five bat boxes, 15 bird boxes to encourage nesting by swift, house sparrow and wagtails and five bug hotels (see figure NTS.12).
- NTS.139 All mitigation and enhancement habitat is considered to ensure that, overall, there are no significant adverse effects in relation to ecology. The measures set out above will be included in a landscape and ecological management plan for the site, which will specify the long term management strategy for the proposed habitats and ensure they reach their target condition and are maintained at that condition.
- NTS.140 Cumulative effects from the proposed development and other proposed developments nearby were assessed as having no significant effects on local ecological receptors.

### ***Noise and vibration***

- NTS.141 The potential effects of the proposed development in relation to noise and vibration have been considered at the nearest existing noise sensitive receptors. Noise emissions during site preparation and construction activities (including site traffic) have been calculated based on a number of assumptions relating to construction methods and plant. The actual construction noise levels will vary depending on the type of activity, periods of operation and the distances between source of noise and receivers. However, conservative assumptions have been made regarding these parameters.
- NTS.142 Noise levels from demolition, substructure, superstructure, earthworks and external works have been calculated from the existing / proposed building footprints to the nearest receptor locations. Noise levels from earthworks and external works have been assessed from the site boundary. The results show that predicted demolition and construction noise levels will result in short-term, negligible effects Monday to Friday and Saturday mornings, and slight adverse effects on Saturday afternoons. Similarly, it is expected that demolition and construction heavy goods vehicle traffic noise will result in short term, negligible effects.

NTS.143 A computer noise model was prepared to calculate the plant and activity noise emissions from the proposed development at each noise sensitive receptor considered. The model generated predicted noise levels for the daytime and night-time separately. The results showed that during both the daytime and night-time periods, long term negligible effects are predicted for all receptor locations in relation to plant and activity noise emissions. Negligible to slight effects are predicted on existing sensitive receptors between 6 – 7am when site-related heavy goods vehicles will be operational.

NTS.144 It should be noted, however, that the existing site experiences noise from the WTS activities, as well as noise from the arrival and departure of lorries and refuse collection vehicles. Therefore, it is considered that the predicted effects for the early morning (6 – 7am) period may not occur due to the current context of the site, i.e. there are already impulsive characteristics to the noise present on site during when HGV movements and sorting of waste is occurring.

NTS.145 Best practicable means will be implemented during the demolition and construction phase of the development, to minimise the noise and vibration effects at receptors nearest to the construction works. Typical measures which will be considered will include:

- Programming noisy works so that, where possible, these do not occur during Saturday working hours of 13:00-19:00
- Planning working hours to take account of the effects of noise and vibration upon persons in areas surrounding site operations and upon persons working on-site
- Where reasonably practicable, adopting quiet working methods and using construction plant with lower noise emissions
- Where reasonably practicable, adopting working methods that minimise vibration generation
- Locating construction plant away from noise and vibration sensitive receptors, wherever feasible
- Using silenced and well-maintained construction plant that conforms to the relevant legislation relating to noise and vibration
- Avoiding unnecessary revving of engines and switching off equipment when not required
- Carrying out regular inspections of noise mitigation measures to ensure integrity is maintained at all times
- Providing briefings for all site-based personnel so that noise and vibration issues are understood and mitigation measures are adhered to
- Managing plant movement to take account of surrounding receptors, as far as is reasonably practicable.

NTS.146 Noise mitigation measures have been designed into the proposed development. The majority of equipment with potential to create noise will be housed inside the main ERF and WSTF buildings and will include measures to contain noise from the noisiest elements. Within the ERF high levels of acoustic insulation will be installed around the turbines and generator sets. Other potentially noisy equipment such as fans and motors will also be insulated. The

site has been designed to provide sufficient distance between the low speed fans on the air cooled condensers that are situated in the south east corner of the site and surrounding noise receptors.

NTS.147 A combination of landscaped bunding and 2.4 – 5 m high acoustic fencing will also be installed between the operational area of the site and the site boundary. A 2.4 m timber acoustic fence will be positioned along the top of the proposed landscaped bunds to the north west side, north side and north east side of the site. A further 5 m high stretch will extend from the bottom of the north eastern bund to the south east corner of the site. A 3 m high timber acoustic fence is proposed on top of the lower south westerly bund and will peel off running flat along the site's south easterly perimeter.

NTS.148 In addition, all unloading and loading of vehicles will be undertaken inside the ERF and WSTF buildings and vehicle access for delivery of waste or collection of ash or recyclable materials will be restricted to normal working hours. Both the ERF and WSTF have been designed to include one-way vehicle circulation systems, which also reduces the need for reversing vehicles and reversing alarms.

### ***Traffic and transport***

NTS.149 The traffic and transport assessment work considered the effects of the proposals during construction and operation on existing traffic flows and junctions, as well as the effects on public transport, public rights of way, pedestrians, cyclists and accidents / safety.

NTS.150 The construction traffic effects relate to the arrival and departure of construction workers, construction materials / equipment and waste. All vehicles will access the proposed ERF and WSTF from Ford Road. No construction-related heavy goods vehicles will be permitted to leave or access the site to / from the northern stretch of Ford Road. All heavy goods vehicles will come from / go to the south onto Ford Road and then onto the A259 and the wider network.

NTS.151 The existing WTS will continue to operate during the construction period until the replacement WSTF is ready for use, then operations will transfer across and this will commence operations while construction on the ERF starts. This will provide continuity of existing waste management services at the site.

NTS.152 The traffic flow assessment work took into account the committed development likely to come forward in the local area in the near future (including the housing and mixed use development proposed immediately surrounding the site).

NTS.153 The traffic modelling has identified a minimal percentage increase in heavy goods vehicles as a result of the construction of the proposed development across the local highway network. These increases are considered to be negligible and not significant. It is anticipated that Ford Road / Church Lane, south of the site access road, will experience a small increase (30.3%) in heavy goods vehicle movements during construction, however, this is not considered to be significant given the low sensitivity of the roads.

NTS.154 The site access road off Ford Road will experience an 81% increase in two-way heavy goods vehicle movements, however, this is an internal access link and is not considered a sensitive receptor. It is also important to note that the access road is only permitted to have up to 240 heavy goods vehicle two-way movements per day (i.e. 120 heavy goods vehicle movements to the site and 120 heavy goods vehicle movements from the site) between 6am to 8pm Monday – Friday, and up to 120 heavy goods vehicle two-way movements per day (i.e. 60 heavy goods vehicle movements to the site and 60 heavy goods vehicle movements from the site) between 8 am to 6pm on Saturdays, and the forecast construction traffic will not exceed this. The movement limit was set by the planning approval for the access road that was granted in August 2019.

NTS.155 An assessment of the existing Church Lane / A259 roundabout was also undertaken. The junction assessment demonstrates that the Church Lane / A259 roundabout already has capacity issues before the proposed development's construction phase traffic is taken into account. The modelling of the impact of construction traffic on this junction shows a minimal impact on the roundabout's performance. It is, however, understood that a mitigation scheme has been secured by West Sussex County Highways to increase the capacity of this roundabout. As such, the marginal increase in construction traffic movements is considered to be of slight adverse significance.

NTS.156 It is anticipated that there may be some delay to road users at times due to construction vehicles entering / exiting the site access road onto Ford Road. However, a detailed construction environment management plan, to be prepared by the contractor prior to commencement of work, will commit to ensuring deliveries are co-ordinated to avoid vehicles being held up on the local highway and that, wherever feasible, deliveries would be undertaken outside of peak hours. Effects are therefore considered to be slight and not significant.

NTS.157 During the construction phase there would be no anticipated change to access to local public transport services and construction workers will be encouraged to use public transport where feasible. The public rights of way in the local area will not be impacted on by the proposed construction traffic route and will not be affected. Access to the site for pedestrians would also remain unchanged. There are no dedicated cycleways along the construction route, although cyclists will use the local highway network.

NTS.158 Given the existing background traffic along Ford Road / Church Lane, there is considered to be little change in severance, pedestrian delay, amenity, or fear and intimidation for pedestrians and cyclists resulting from the forecast construction traffic movements and no significant effects have been identified.

NTS.159 As for construction traffic, all post-construction / operational heavy goods vehicle movements must access / depart the site via the existing access road, from / to the south onto Ford Road and then onto the A259 and the wider network. No operational vehicles will be permitted to leave or access the site from the northern stretch of Ford Lane.

NTS.160 The traffic modelling undertaken has identified a minimal percentage increase in heavy goods vehicles as a result of the proposed development across the local highway network. The exceptions to this are on the site access road,

which is not considered to be a sensitive receptor and Ford Road / Church Lane, south of the site access road. Ford Road / Church Lane will experience an increase in two-way heavy goods vehicle movements of 28% which is considered to be a negligible impact and not significant.

NTS.161 With regard to the existing Church Lane / A259 roundabout, an operational phase assessment was not undertaken given that traffic flows through the junction are anticipated to be lower during the operational phase compared to the construction phase and it is understood that a mitigation scheme has been secured to increase capacity of this roundabout.

NTS.162 It is anticipated that there may be some delay to road users at times due to operational vehicles entering / exiting the proposed development site. However, an assessment of the access road / Ford Road junction has demonstrated that the junction will operate within capacity during the morning and afternoon/evening peak periods and therefore the overall effect will be slight.

NTS.163 Site workers will be encouraged to use car share or non-car modes where feasible. Overall, there is considered to be little change in severance, pedestrian delay, amenity or fear and intimidation resulting from the forecast change in traffic movements against the existing background traffic. The overall significance of impact for pedestrians post-construction is therefore considered to be slight and not significant.

NTS.164 In addition to heavy goods vehicle movements remaining within the consented cap during construction and operation, a detailed construction environment management plan will be prepared once a contractor is appointed. The plan will outline measures to reduce the potential impacts from the construction traffic including:

- Preferred hours of deliveries and removals (out of peak hours)
- Agreed construction traffic routing
- Road cleaning facility provisioning
- Off-loading and storage areas
- Personnel and vehicle segregation
- Equipment e.g. temporary fencing, signage etc.
- Site inductions

NTS.165 Overall there would be no significant effects anticipated as a result of the construction phase of the proposed development. The completed proposed development will include a new ERF and WSTF, accessed via an existing road. No changes are proposed to the local highway network, footways / cycleways or access to public transport services. Whilst it is noted there will be an increase in heavy goods vehicle movements on Ford Road / Church Lane (south of the site access road) overall, there are no significant adverse effects anticipated as a result of the proposed development.



## Summary tables

NTS.166 A comprehensive assessment has been undertaken of the potential environmental effects arising from the proposed development. Where possible, measures have been incorporated into the development proposals to prevent or reduce the potential for adverse environmental effects. These primary mitigation measures are an integral part of the design and were considered in the impact assessments. Measures to help mitigate adverse effects identified during the assessment process have also been proposed for some of the environmental topics. The environmental statement includes a series of tables within Chapter 16 that summarise the primary mitigation measures, the secondary mitigation measures, the residual effects (i.e. those effects left over once all forms of design and mitigation have been considered) and the measures envisaged for monitoring any potential adverse effects.

## Conclusion

NTS.167 This non-technical summary has outlined the findings of the environmental assessment of the proposed Ford ERF and WSTF at the Ford Circular Technology Park, Ford that are contained within the environmental statement that accompanies the planning application. The proposed development will lead to a number of changes to the local environment, but a range of measures will be put in place to minimise potential significant adverse effects. The proposed mitigation measures and the significant effects of the proposals that are predicted to remain after mitigation are summarised in more detail in Chapter 16 of the environmental statement.

NTS.168 Copies of the full environmental statement and its technical appendices have been sent to West Sussex County Council and this, together with the rest of the planning application documents, will be available for public inspection (subject to COVID-19 restrictions) during the consultation period at the council's offices at the address below:

West Sussex County Council  
Planning Services  
Ground Floor Northleigh  
County Hall  
Chichester, PO19 1RH

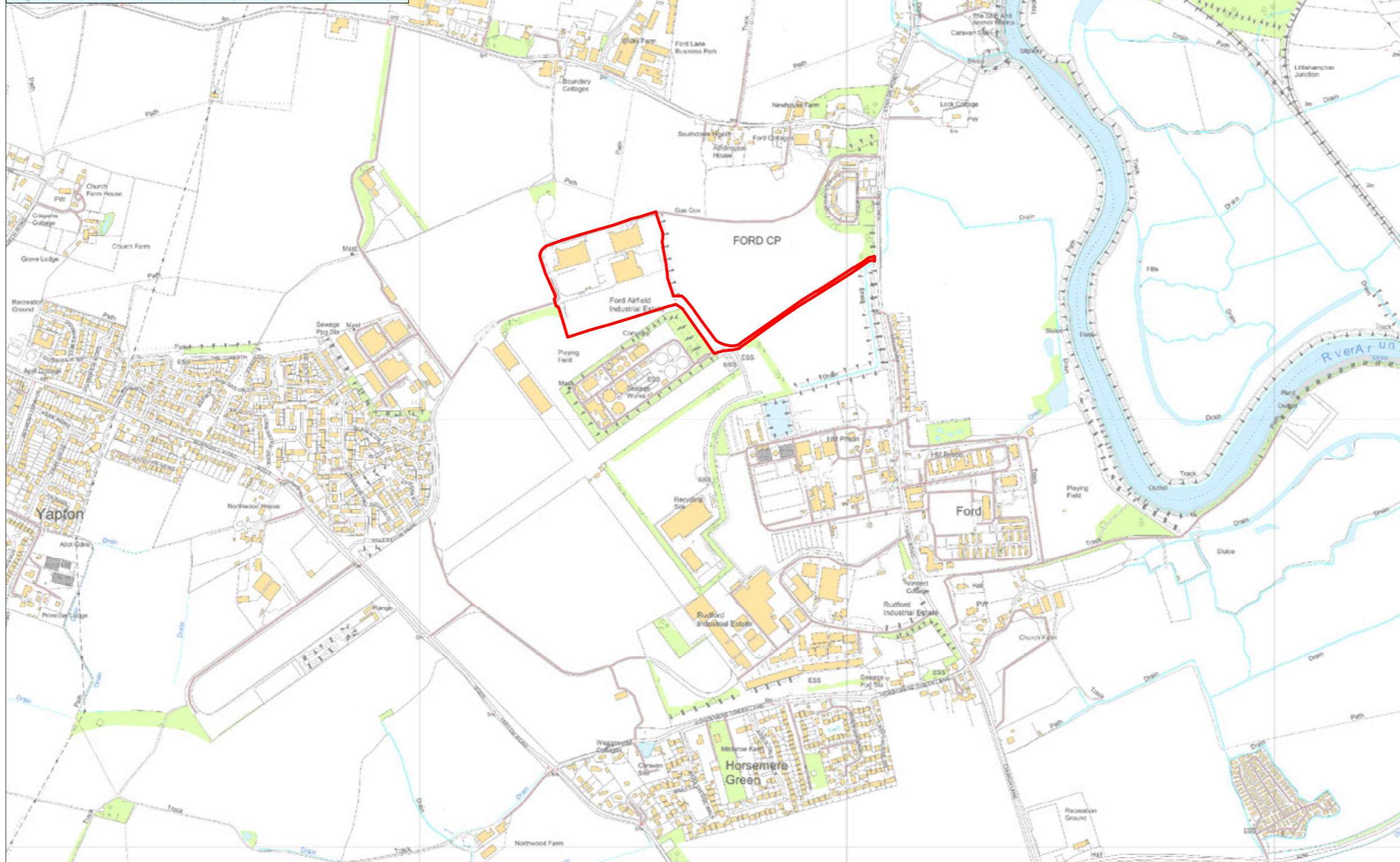
NTS.169 The application documents will also be available to view on the council's website: [www.westsussex.gov.uk](http://www.westsussex.gov.uk).

NTS.170 Copies of the environmental statement on memory stick or DVD can be purchased from Terence O'Rourke Ltd at a price that reflects the time and production costs. Paper copies may also be available (at printing cost) from Terence O'Rourke Ltd at the following address:

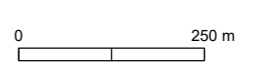
Terence O'Rourke Ltd  
Everdene House  
Deansleigh Road  
Bournemouth, BH7 7DU

Tel: 020 3664 6755

E-mail: [maildesk@torltd.co.uk](mailto:maildesk@torltd.co.uk)

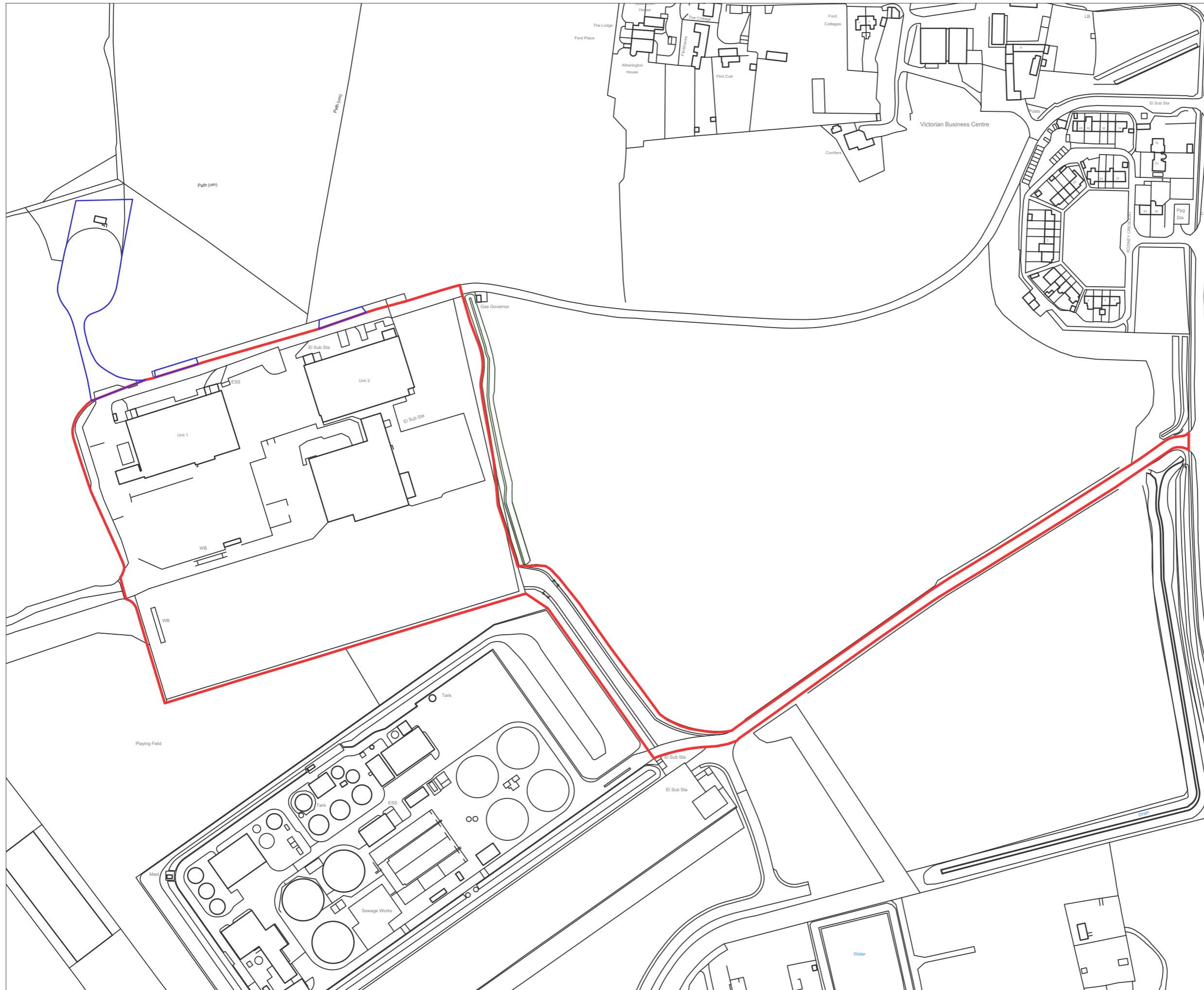


Site boundary



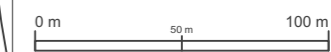
Based upon the 2019 Ordnance Survey 1:10,000 colour raster map (Inset based on 1:50,000) with the permission of the Ordnance Survey on behalf of Her Majesty's Stationery Office, © Crown copyright. Licence No. 100019980.  
Copyright Terence O'Rourke Ltd, 2020





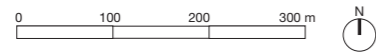
Key

- Planning Application Boundary 6.72 ha
- Other land owned by the applicants 0.42 ha



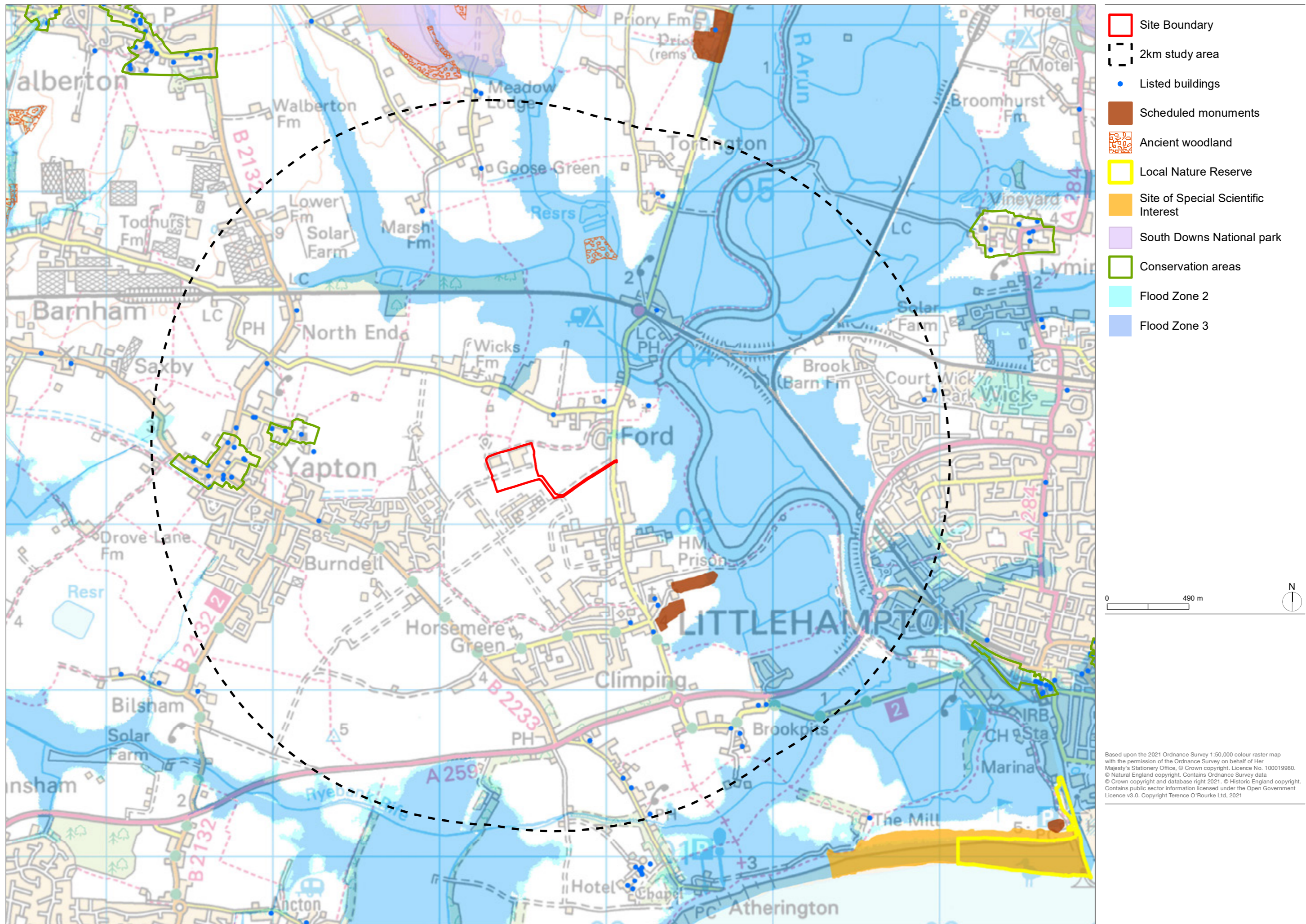
Based upon the 2020 Ordnance Survey Mastermap vector data with the permission of the Ordnance Survey on behalf of Her Majesty's Stationery Office, © Crown copyright. Terence O'Rourke Ltd. Licence No. 100019980.  
© Terence O'Rourke Ltd 2020





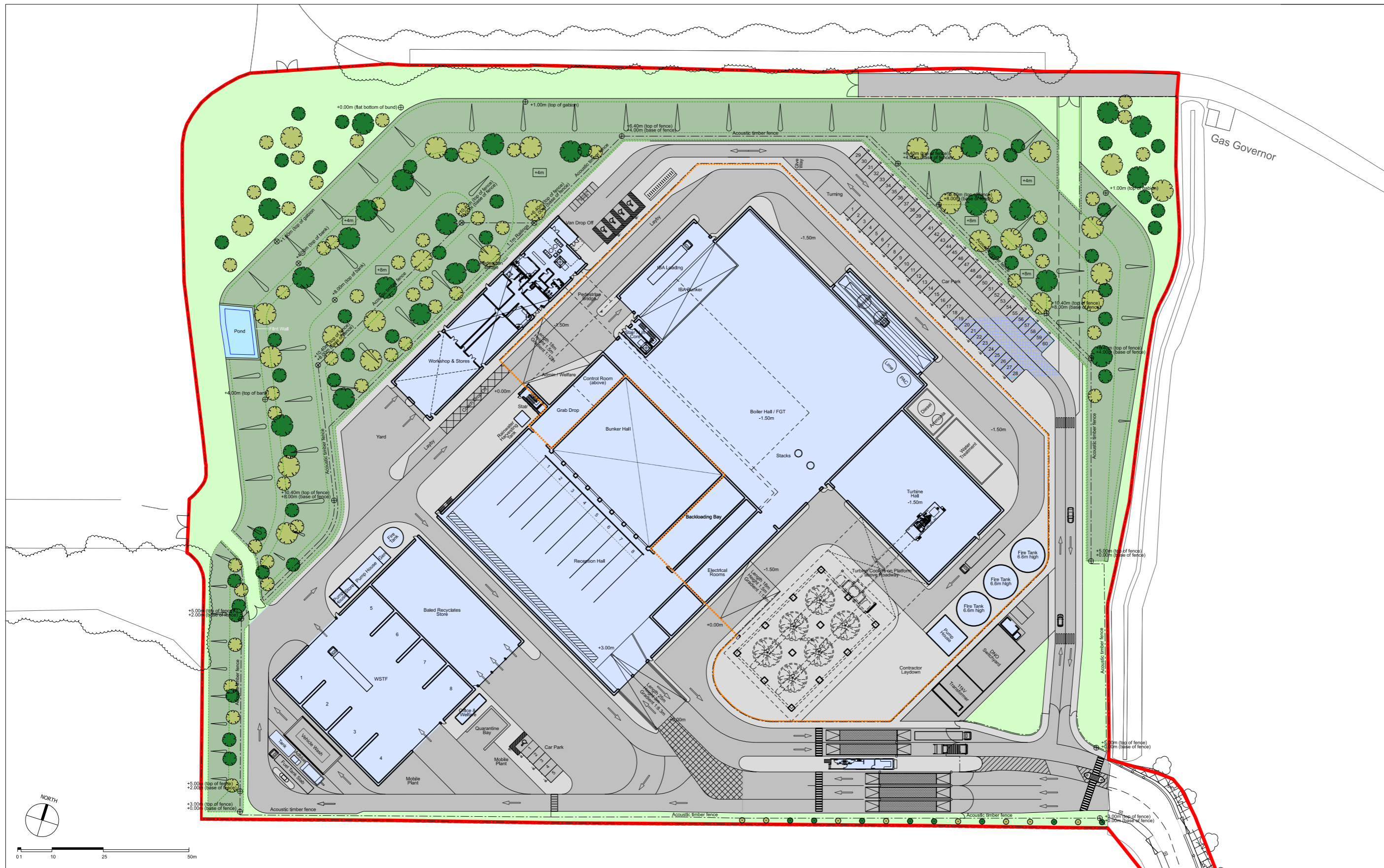
Aerial imagery © Getmapping plc





Based upon the 2021 Ordnance Survey 1:50,000 colour raster map with the permission of the Ordnance Survey on behalf of Her Majesty's Stationary Office, © Crown copyright. Licence No. 100019980. © Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right 2021. © Historic England copyright. Contains public sector information licensed under the Open Government Licence v3.0. Copyright Terence O'Rourke Ltd, 2021



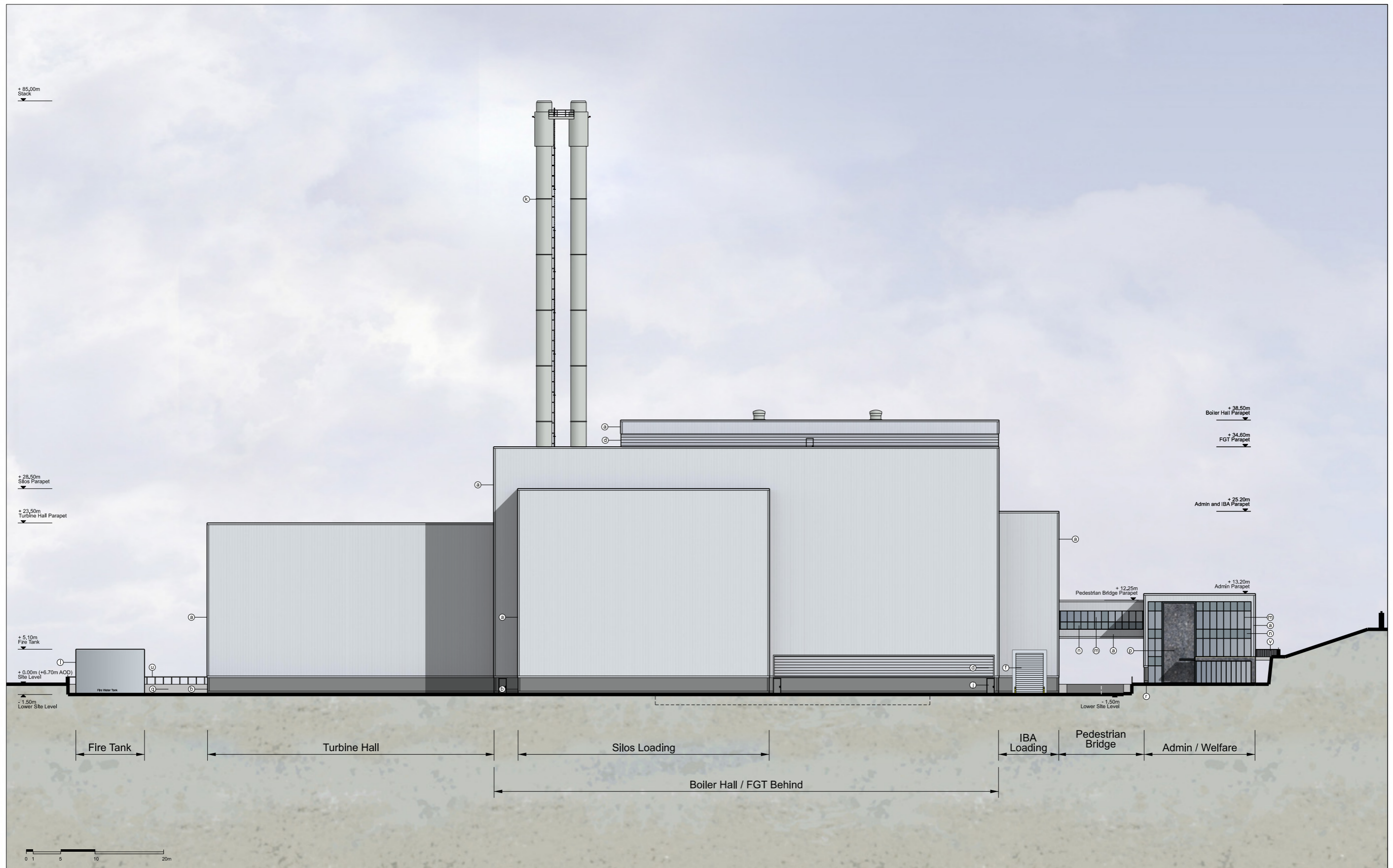


- NOTE**
1. THIS DRAWING IS COPYRIGHT GSDA LTD.
  2. THE CONTRACTOR MUST NOT SCALE FROM THE DRAWING ALL DIMENSIONS TO BE TAKEN FROM DIMENSION STRINGS.
  3. WHERE ANY DISCREPANCIES ARE FOUND BETWEEN DIMENSIONS THESE MUST BE BROUGHT TO THE ATTENTION OF THE ARCHITECTS FOR RESOLUTION.
  4. WHERE DISCREPANCIES EXIST BETWEEN REFERENCE OR ASSEMBLY DRAWINGS & DETAIL DRAWINGS, THE LATTER TAKE PREFERENCE.

**Key**

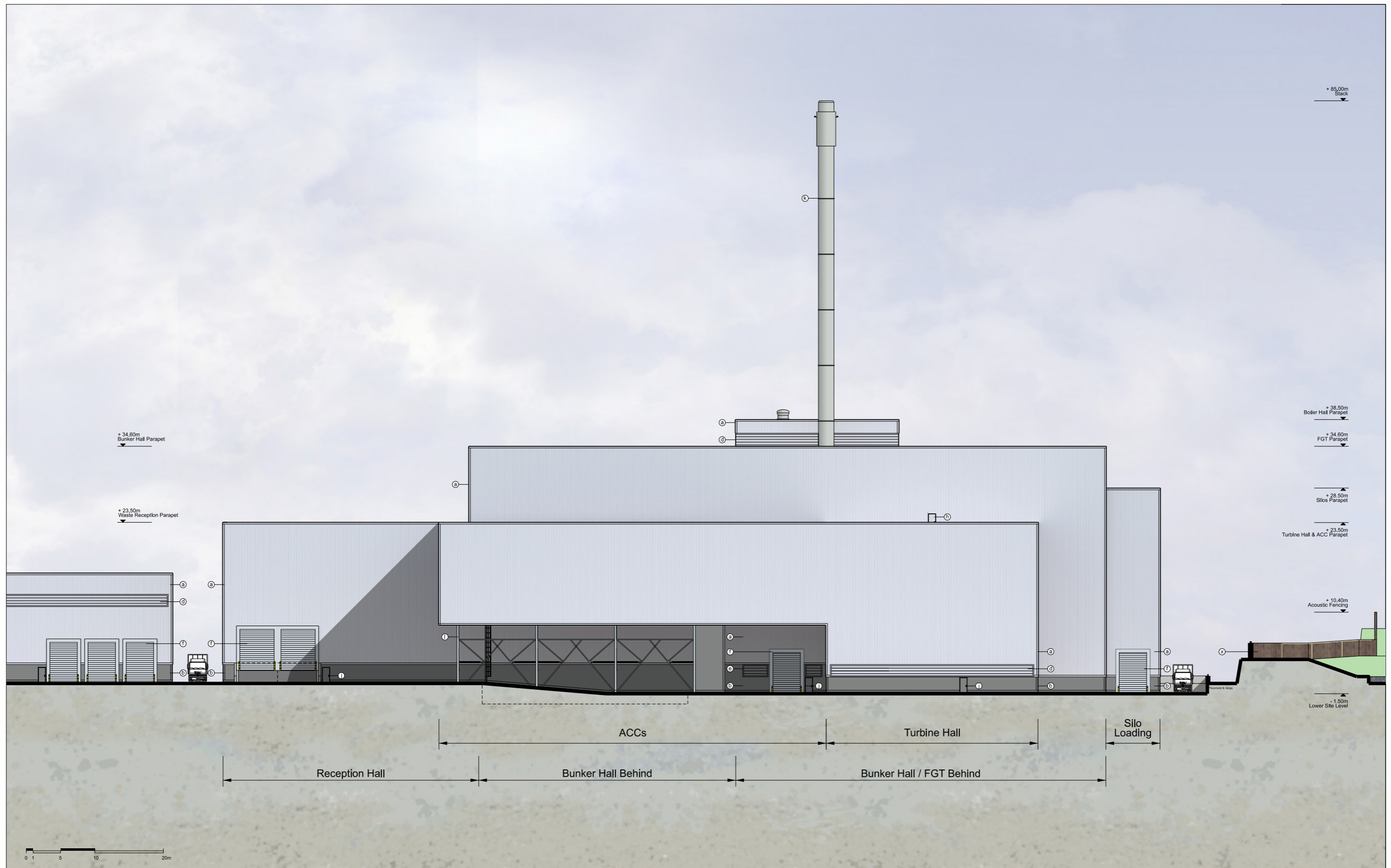
	Planning Application Boundary		Pastel Blue Block Paving Symbolising Path of Old Canal
	-1.5m Lowered Area		Indicative Landscaping
	Extent of bunding		
	Fencing Line		

© Crown copyright and database rights 2019 OS Licence no. 100019980.

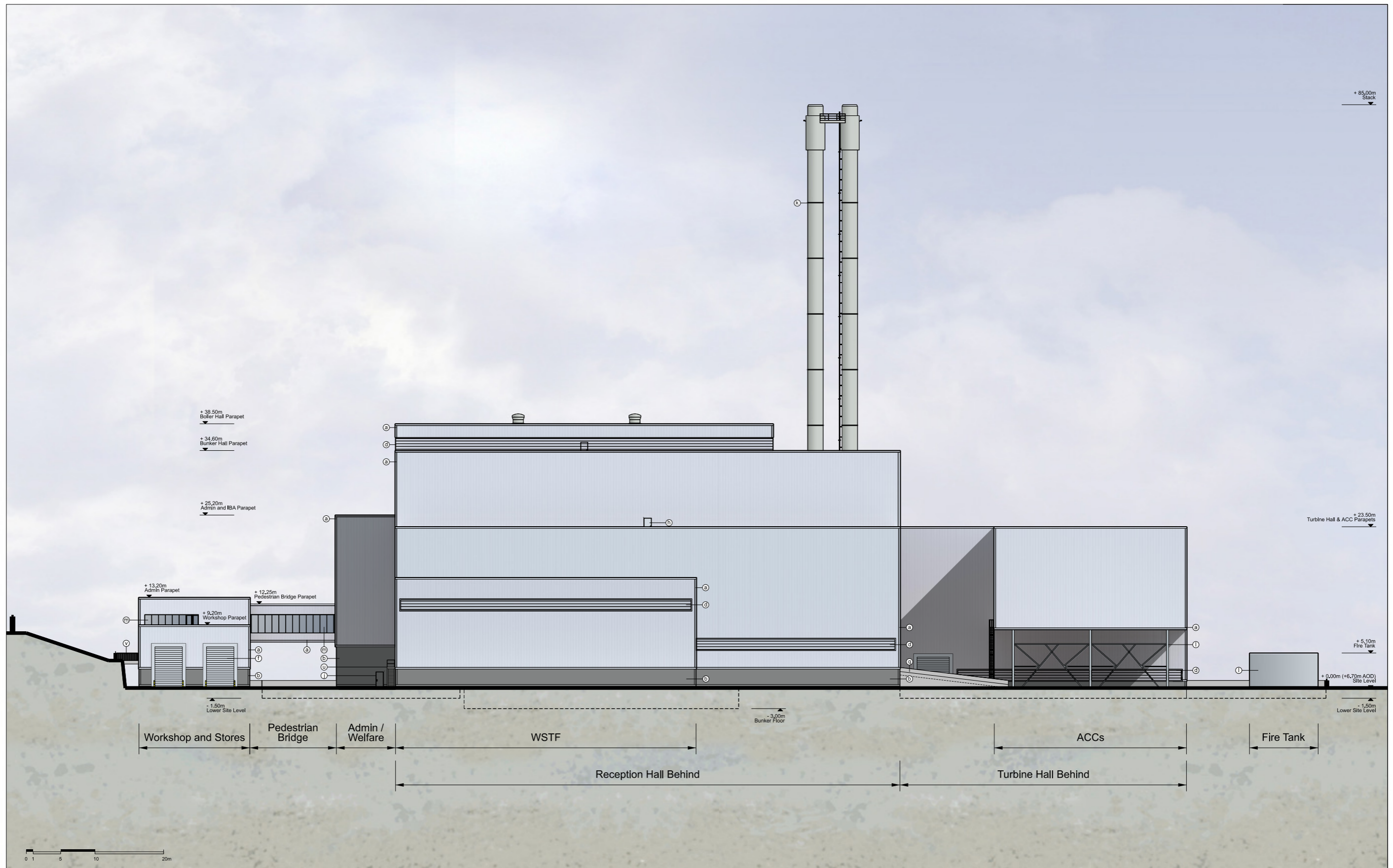


<p><b>NOTE</b></p> <ol style="list-style-type: none"> <li>THIS DRAWING IS COPYRIGHT GSDA LTD.</li> <li>THE CONTRACTOR MUST NOT SCALE FROM THE DRAWING ALL DIMENSIONS TO BE TAKEN FROM DIMENSION STRINGS.</li> <li>WHERE ANY DISCREPANCIES ARE FOUND BETWEEN DIMENSIONS THESE MUST BE BROUGHT TO THE ATTENTION OF THE ARCHITECTS FOR RESOLUTION.</li> <li>WHERE DISCREPANCIES EXIST BETWEEN REFERENCE OR ASSEMBLY DRAWINGS &amp; DETAIL DRAWINGS, THE LATTER TAKE PREFERENCE.</li> </ol>	<p><b>LEGEND</b></p> <table border="0"> <tr> <td> <ul style="list-style-type: none"> <li>④ Kelzip AluPlusPatina standing seam aluminium cladding and flashing Finish: Natural aluminium mill finish, standard</li> <li>⑤ Metal trapezoidal wall cladding / flashing Colour: Pure Grey (RAL 000 55 00)</li> <li>⑥ Metal trapezoidal profile roof cladding Colour: Albatross (RAL 240 80 05)</li> <li>⑦ PPC aluminium louvres with integrated access door. Colour / Finish: Seren Silver</li> <li>⑧ PPC aluminium louvres. Colour / Finish: Pure Grey (RAL 000 55 00)</li> <li>⑨ Metal roller shutter doors Colour / Finish: Seren Silver</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>⑩ Metal roller shutter doors Colour / Finish: Pure Grey (RAL 000 55 00)</li> <li>⑪ PPC metal personnel doors Colour: Seren Silver</li> <li>⑫ PPC metal personnel doors Colour: Pure Grey (RAL 000 55 00)</li> <li>⑬ PPC metal stack casing, metal ducting, tanks and silos Colour: Oyster (RAL 7035)</li> <li>⑭ PPC metal stack casing, metal ducting, tanks and silos Colour: Albatross (RAL 240 80 05)</li> <li>⑮ PPC aluminium framed curtain walling, glazing and personnel doors Colour: Anthracite (RAL 7016)</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>⑯ Curtain walling glass spandrel panels Colour: Alaska Grey (RAL 7000)</li> <li>⑰ Knapped Flint Wall</li> <li>⑱ In situ / pre fab concrete plinths, /bunds / retaining walls etc</li> <li>⑲ Engineering brick plinth Colour: Staffordshire Slate Blue Smooth (from Bratock)</li> <li>⑳ Flat roofing - Single ply membrane system. Colour: Lead Grey</li> <li>㉑ Glass entrance canopy and bike shelter canopy</li> <li>㉒ Galvanised steel</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>㉓ Bespoke PPC flat metal cladding panels and feature railings Colour: Anthracite (RAL 7016)</li> <li>㉔ Metal paladin security fencing Colour: Anthracite (RAL 7016)</li> <li>㉕ Timber acoustic fence with concrete posts</li> <li>㉖ Gabion walls</li> <li>㉗ Polycarbonate wall and roof panels Colour: Clear</li> </ul> </td> </tr> </table> <p>Note: All materials, finishes and colours will be as stated or similar approved.</p>	<ul style="list-style-type: none"> <li>④ Kelzip AluPlusPatina standing seam aluminium cladding and flashing Finish: Natural aluminium mill finish, standard</li> <li>⑤ Metal trapezoidal wall cladding / flashing Colour: Pure Grey (RAL 000 55 00)</li> <li>⑥ Metal trapezoidal profile roof cladding Colour: Albatross (RAL 240 80 05)</li> <li>⑦ PPC aluminium louvres with integrated access door. Colour / Finish: Seren Silver</li> <li>⑧ PPC aluminium louvres. Colour / Finish: Pure Grey (RAL 000 55 00)</li> <li>⑨ Metal roller shutter doors Colour / Finish: Seren Silver</li> </ul>	<ul style="list-style-type: none"> <li>⑩ Metal roller shutter doors Colour / Finish: Pure Grey (RAL 000 55 00)</li> <li>⑪ PPC metal personnel doors Colour: Seren Silver</li> <li>⑫ PPC metal personnel doors Colour: Pure Grey (RAL 000 55 00)</li> <li>⑬ PPC metal stack casing, metal ducting, tanks and silos Colour: Oyster (RAL 7035)</li> <li>⑭ PPC metal stack casing, metal ducting, tanks and silos Colour: Albatross (RAL 240 80 05)</li> <li>⑮ PPC aluminium framed curtain walling, glazing and personnel doors Colour: Anthracite (RAL 7016)</li> </ul>	<ul style="list-style-type: none"> <li>⑯ Curtain walling glass spandrel panels Colour: Alaska Grey (RAL 7000)</li> <li>⑰ Knapped Flint Wall</li> <li>⑱ In situ / pre fab concrete plinths, /bunds / retaining walls etc</li> <li>⑲ Engineering brick plinth Colour: Staffordshire Slate Blue Smooth (from Bratock)</li> <li>⑳ Flat roofing - Single ply membrane system. Colour: Lead Grey</li> <li>㉑ Glass entrance canopy and bike shelter canopy</li> <li>㉒ Galvanised steel</li> </ul>	<ul style="list-style-type: none"> <li>㉓ Bespoke PPC flat metal cladding panels and feature railings Colour: Anthracite (RAL 7016)</li> <li>㉔ Metal paladin security fencing Colour: Anthracite (RAL 7016)</li> <li>㉕ Timber acoustic fence with concrete posts</li> <li>㉖ Gabion walls</li> <li>㉗ Polycarbonate wall and roof panels Colour: Clear</li> </ul>
<ul style="list-style-type: none"> <li>④ Kelzip AluPlusPatina standing seam aluminium cladding and flashing Finish: Natural aluminium mill finish, standard</li> <li>⑤ Metal trapezoidal wall cladding / flashing Colour: Pure Grey (RAL 000 55 00)</li> <li>⑥ Metal trapezoidal profile roof cladding Colour: Albatross (RAL 240 80 05)</li> <li>⑦ PPC aluminium louvres with integrated access door. Colour / Finish: Seren Silver</li> <li>⑧ PPC aluminium louvres. Colour / Finish: Pure Grey (RAL 000 55 00)</li> <li>⑨ Metal roller shutter doors Colour / Finish: Seren Silver</li> </ul>	<ul style="list-style-type: none"> <li>⑩ Metal roller shutter doors Colour / Finish: Pure Grey (RAL 000 55 00)</li> <li>⑪ PPC metal personnel doors Colour: Seren Silver</li> <li>⑫ PPC metal personnel doors Colour: Pure Grey (RAL 000 55 00)</li> <li>⑬ PPC metal stack casing, metal ducting, tanks and silos Colour: Oyster (RAL 7035)</li> <li>⑭ PPC metal stack casing, metal ducting, tanks and silos Colour: Albatross (RAL 240 80 05)</li> <li>⑮ PPC aluminium framed curtain walling, glazing and personnel doors Colour: Anthracite (RAL 7016)</li> </ul>	<ul style="list-style-type: none"> <li>⑯ Curtain walling glass spandrel panels Colour: Alaska Grey (RAL 7000)</li> <li>⑰ Knapped Flint Wall</li> <li>⑱ In situ / pre fab concrete plinths, /bunds / retaining walls etc</li> <li>⑲ Engineering brick plinth Colour: Staffordshire Slate Blue Smooth (from Bratock)</li> <li>⑳ Flat roofing - Single ply membrane system. Colour: Lead Grey</li> <li>㉑ Glass entrance canopy and bike shelter canopy</li> <li>㉒ Galvanised steel</li> </ul>	<ul style="list-style-type: none"> <li>㉓ Bespoke PPC flat metal cladding panels and feature railings Colour: Anthracite (RAL 7016)</li> <li>㉔ Metal paladin security fencing Colour: Anthracite (RAL 7016)</li> <li>㉕ Timber acoustic fence with concrete posts</li> <li>㉖ Gabion walls</li> <li>㉗ Polycarbonate wall and roof panels Colour: Clear</li> </ul>		



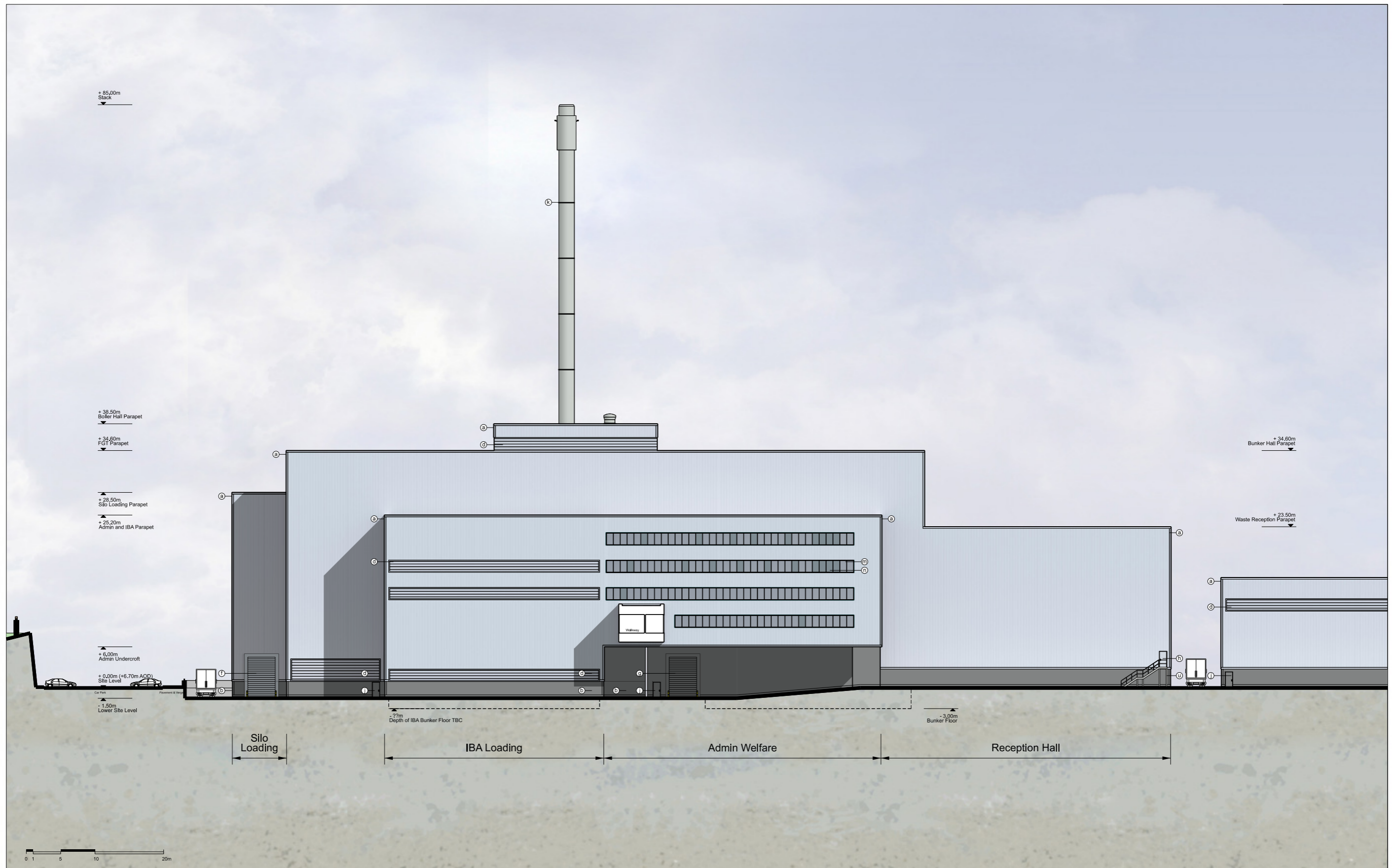


NOTE	LEGEND
<p>1. THIS DRAWING IS COPYRIGHT GSDA LTD.</p> <p>2. THE CONTRACTOR MUST NOT SCALE FROM THE DRAWING ALL DIMENSIONS TO BE TAKEN FROM DIMENSION STRINGS.</p> <p>3. WHERE ANY DISCREPANCIES ARE FOUND BETWEEN DIMENSIONS THESE MUST BE BROUGHT TO THE ATTENTION OF THE ARCHITECTS FOR RESOLUTION.</p> <p>4. WHERE DISCREPANCIES EXIST BETWEEN REFERENCE OR ASSEMBLY DRAWINGS &amp; DETAIL DRAWINGS, THE LATTER TAKE PREFERENCE.</p>	<p>① Metal roller shutter doors Colour / Finish: Pure Grey (RAL 000 55 00)</p> <p>② Metal trapezoidal wall cladding / flashing Colour: Pure Grey (RAL 000 55 00)</p> <p>③ Metal trapezoidal profile roof cladding Colour: Albatross (RAL 240 80 05)</p> <p>④ PPC aluminium louvres with integrated access door. Colour / Finish: Seren Silver</p> <p>⑤ PPC aluminium louvres. Colour / Finish: Pure Grey (RAL 000 55 00)</p> <p>⑥ Metal roller shutter doors Colour / Finish: Seren Silver</p> <p>⑦ Metal roller shutter doors Colour / Finish: Pure Grey (RAL 000 55 00)</p> <p>⑧ PPC metal personnel doors Colour: Seren Silver</p> <p>⑨ PPC metal personnel doors Colour: Pure Grey (RAL 000 55 00)</p> <p>⑩ PPC metal stack casing, metal ducting, tanks and silos Colour: Oyster (RAL 7035)</p> <p>⑪ PPC metal stack casing, metal ducting, tanks and silos Colour: Albatross (RAL 240 80 05)</p> <p>⑫ PPC aluminium framed curtain walling, glazing and personnel doors Colour: Anthracite (RAL 7016)</p> <p>⑬ Metal roller shutter doors Colour / Finish: Pure Grey (RAL 000 55 00)</p> <p>⑭ Knapped Flint Wall</p> <p>⑮ In situ / pre fab concrete plinths, /bunds / retaining walls etc</p> <p>⑯ Engineering brick plinth Colour: Staffordshire Slate Blue Smooth (from Beatock)</p> <p>⑰ Flat roofing - Single ply membrane system. Colour: Lead Grey</p> <p>⑱ Glass entrance canopy and bike shelter canopy</p> <p>⑲ Galvanised steel</p> <p>⑳ Bespoke PPC flat metal cladding panels and feature railings Colour: Anthracite (RAL 7016)</p> <p>㉑ Metal paladin security fencing Colour: Anthracite (RAL 7016)</p> <p>㉒ Timber acoustic fence with concrete posts</p> <p>㉓ Gabion walls</p> <p>㉔ Polycarbonate wall and roof panels Colour: Clear</p> <p>Note: All materials, finishes and colours will be as stated or similar approved.</p>



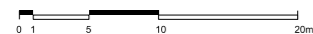
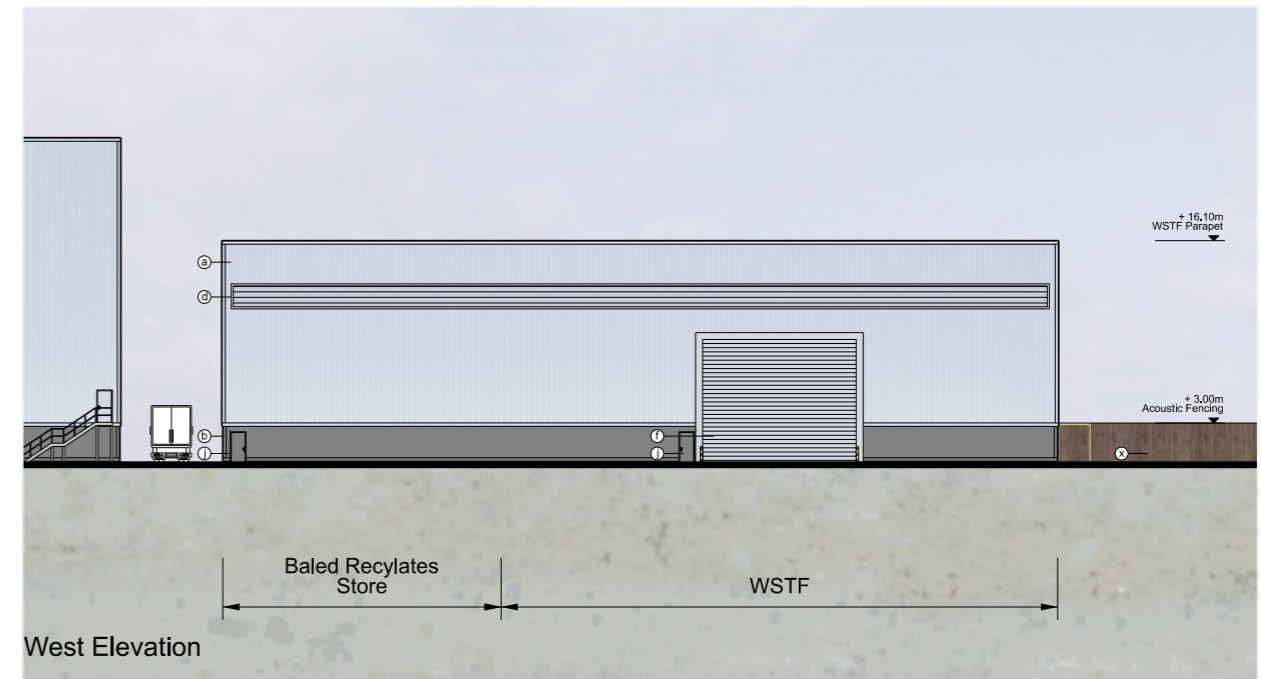
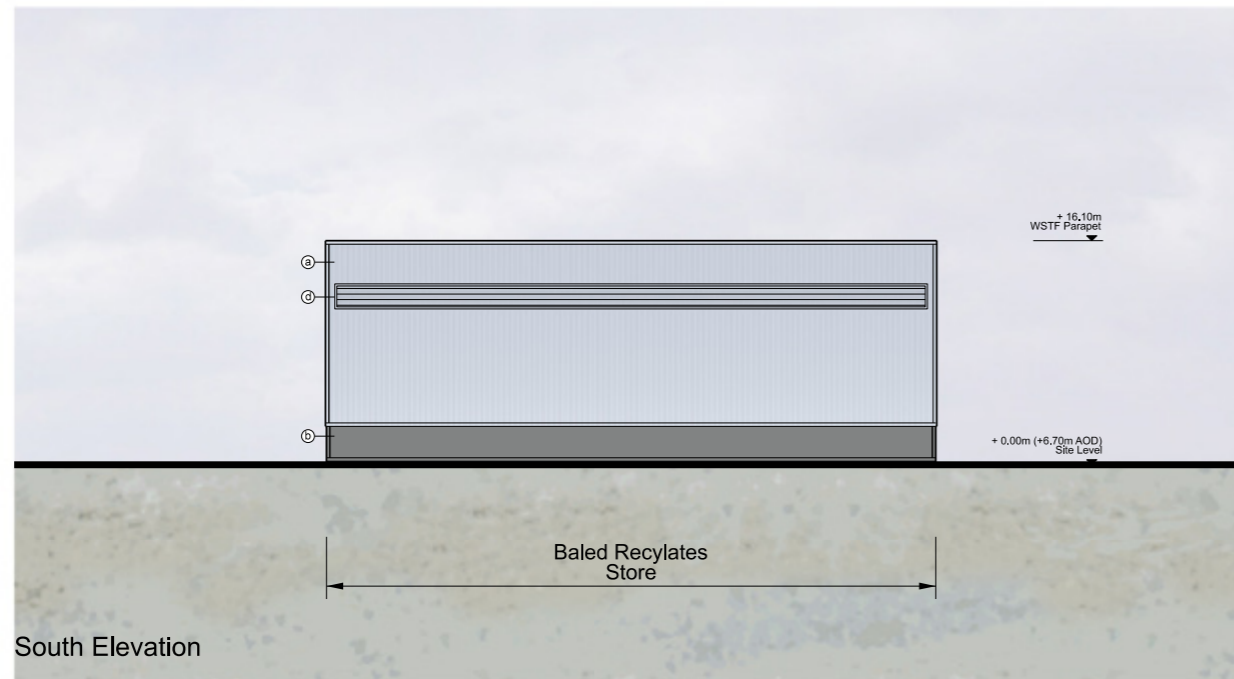
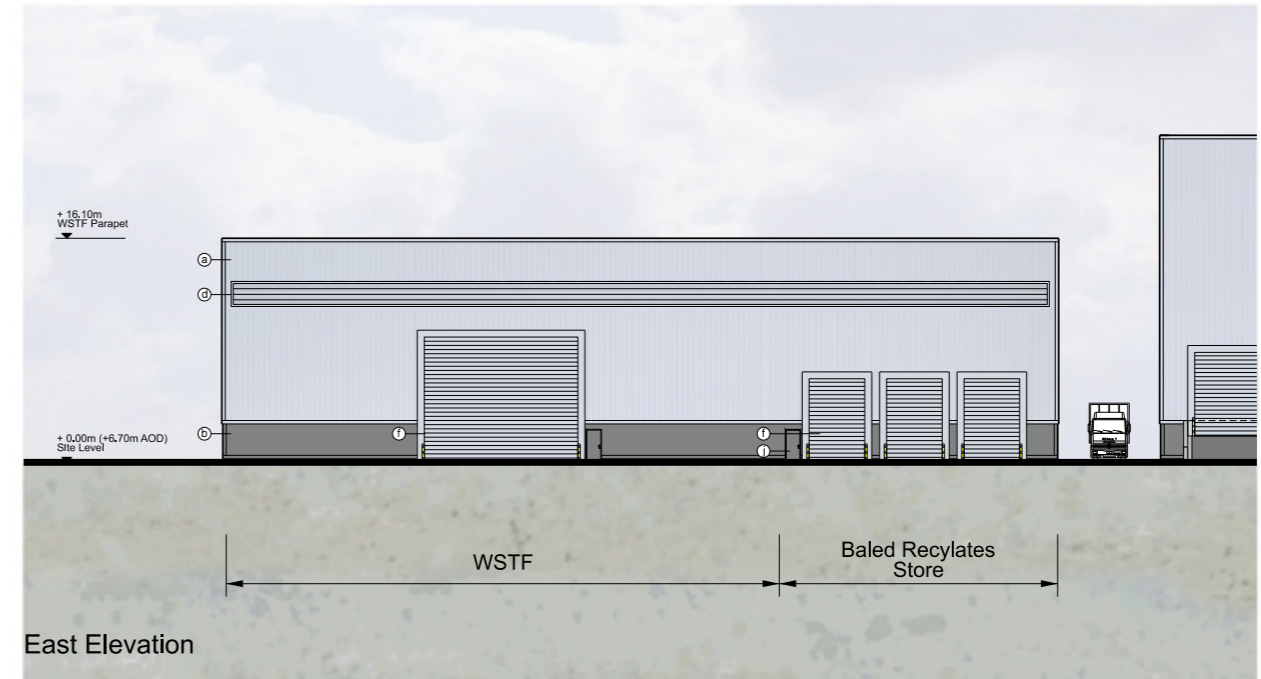
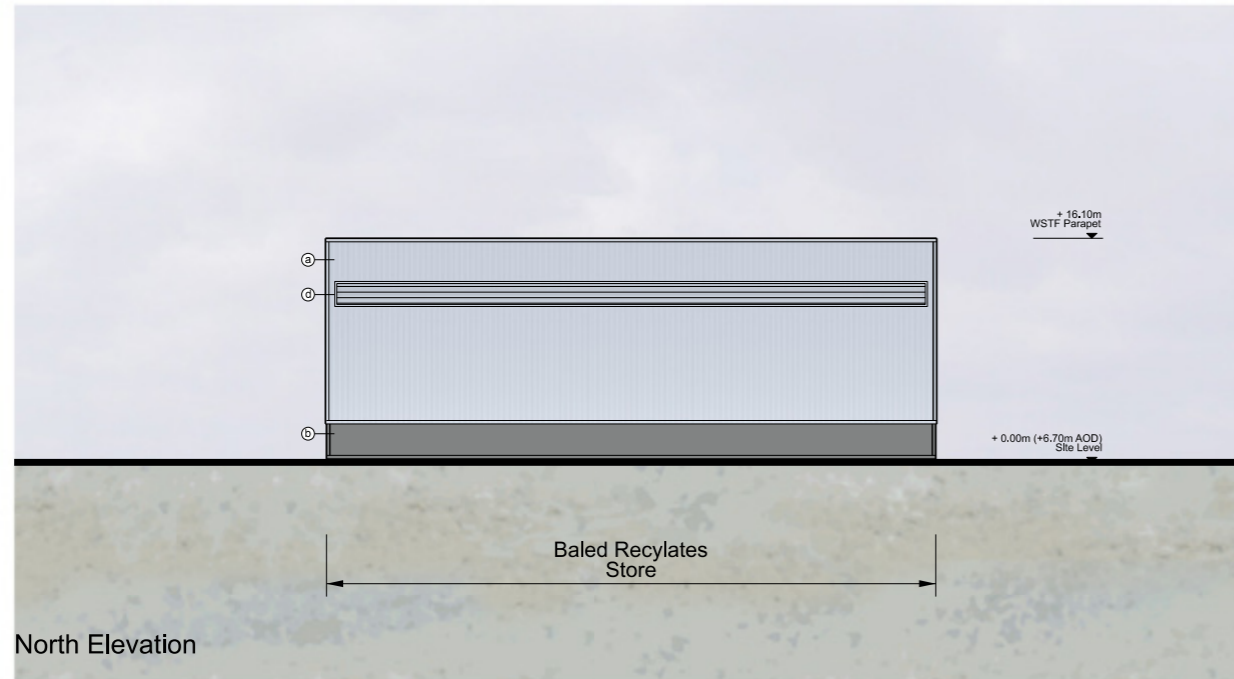
<p><b>NOTE</b></p> <ol style="list-style-type: none"> <li>THIS DRAWING IS COPYRIGHT GSDA LTD.</li> <li>THE CONTRACTOR MUST NOT SCALE FROM THE DRAWING ALL DIMENSIONS TO BE TAKEN FROM DIMENSION STRINGS.</li> <li>WHERE ANY DISCREPANCIES ARE FOUND BETWEEN DIMENSIONS THESE MUST BE BROUGHT TO THE ATTENTION OF THE ARCHITECTS FOR RESOLUTION.</li> <li>WHERE DISCREPANCIES EXIST BETWEEN REFERENCE OR ASSEMBLY DRAWINGS &amp; DETAIL DRAWINGS, THE LATTER TAKE PREFERENCE.</li> </ol>	<p><b>LEGEND</b></p> <table border="0"> <tr> <td> <ul style="list-style-type: none"> <li>① Kalzip AluPlusPatina standing seam aluminium cladding and flashing Finish: Natural aluminium mill finish, standard</li> <li>② Metal trapezoidal profile roof cladding Colour: Albatross (RAL 240 80 05)</li> <li>③ PPC aluminium louvres with integrated access door. Colour / Finish: Seren Silver</li> <li>④ PPC aluminium louvres. Colour / Finish: Pure Grey (RAL 000 55 00)</li> <li>⑤ Metal roller shutter doors Colour / Finish: Seren Silver</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>⑥ Metal roller shutter doors Colour / Finish: Pure Grey (RAL 000 55 00)</li> <li>⑦ PPC metal personnel doors Colour: Seren Silver</li> <li>⑧ PPC metal personnel doors Colour: Pure Grey (RAL 000 55 00)</li> <li>⑨ PPC metal stack casing, metal ducting, tanks and silos Colour: Oyster (RAL 7035)</li> <li>⑩ PPC metal stack casing, metal ducting, tanks and silos Colour: Albatross (RAL 240 80 05)</li> <li>⑪ PPC aluminium framed curtain walling, glazing and personnel doors Colour: Anthracite (RAL 7016)</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>⑫ Curtain walling glass spandrel panels Colour: Alaska Grey (RAL 7000)</li> <li>⑬ Knapped Flint Wall</li> <li>⑭ In situ / pre fab concrete plinths, /bunds / retaining walls etc</li> <li>⑮ Engineering brick plinth Colour: Staffordshire Slate Blue Smooth (from Beacock)</li> <li>⑯ Flat roofing - Single ply membrane system. Colour: Lead Grey</li> <li>⑰ Glass entrance canopy and bike shelter canopy</li> <li>⑱ Galvanised steel</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>⑲ Bespoke PPC flat metal cladding panels and feature railings Colour: Anthracite (RAL 7016)</li> <li>⑳ Metal paladin security fencing Colour: Anthracite (RAL 7016)</li> <li>㉑ Timber acoustic fence with concrete posts</li> <li>㉒ Gabion walls</li> <li>㉓ Polycarbonate wall and roof panels Colour: Clear</li> </ul> </td> </tr> </table> <p>Note: All materials, finishes and colours will be as stated or similar approved.</p>	<ul style="list-style-type: none"> <li>① Kalzip AluPlusPatina standing seam aluminium cladding and flashing Finish: Natural aluminium mill finish, standard</li> <li>② Metal trapezoidal profile roof cladding Colour: Albatross (RAL 240 80 05)</li> <li>③ PPC aluminium louvres with integrated access door. Colour / Finish: Seren Silver</li> <li>④ PPC aluminium louvres. Colour / Finish: Pure Grey (RAL 000 55 00)</li> <li>⑤ Metal roller shutter doors Colour / Finish: Seren Silver</li> </ul>	<ul style="list-style-type: none"> <li>⑥ Metal roller shutter doors Colour / Finish: Pure Grey (RAL 000 55 00)</li> <li>⑦ PPC metal personnel doors Colour: Seren Silver</li> <li>⑧ PPC metal personnel doors Colour: Pure Grey (RAL 000 55 00)</li> <li>⑨ PPC metal stack casing, metal ducting, tanks and silos Colour: Oyster (RAL 7035)</li> <li>⑩ PPC metal stack casing, metal ducting, tanks and silos Colour: Albatross (RAL 240 80 05)</li> <li>⑪ PPC aluminium framed curtain walling, glazing and personnel doors Colour: Anthracite (RAL 7016)</li> </ul>	<ul style="list-style-type: none"> <li>⑫ Curtain walling glass spandrel panels Colour: Alaska Grey (RAL 7000)</li> <li>⑬ Knapped Flint Wall</li> <li>⑭ In situ / pre fab concrete plinths, /bunds / retaining walls etc</li> <li>⑮ Engineering brick plinth Colour: Staffordshire Slate Blue Smooth (from Beacock)</li> <li>⑯ Flat roofing - Single ply membrane system. Colour: Lead Grey</li> <li>⑰ Glass entrance canopy and bike shelter canopy</li> <li>⑱ Galvanised steel</li> </ul>	<ul style="list-style-type: none"> <li>⑲ Bespoke PPC flat metal cladding panels and feature railings Colour: Anthracite (RAL 7016)</li> <li>⑳ Metal paladin security fencing Colour: Anthracite (RAL 7016)</li> <li>㉑ Timber acoustic fence with concrete posts</li> <li>㉒ Gabion walls</li> <li>㉓ Polycarbonate wall and roof panels Colour: Clear</li> </ul>
<ul style="list-style-type: none"> <li>① Kalzip AluPlusPatina standing seam aluminium cladding and flashing Finish: Natural aluminium mill finish, standard</li> <li>② Metal trapezoidal profile roof cladding Colour: Albatross (RAL 240 80 05)</li> <li>③ PPC aluminium louvres with integrated access door. Colour / Finish: Seren Silver</li> <li>④ PPC aluminium louvres. Colour / Finish: Pure Grey (RAL 000 55 00)</li> <li>⑤ Metal roller shutter doors Colour / Finish: Seren Silver</li> </ul>	<ul style="list-style-type: none"> <li>⑥ Metal roller shutter doors Colour / Finish: Pure Grey (RAL 000 55 00)</li> <li>⑦ PPC metal personnel doors Colour: Seren Silver</li> <li>⑧ PPC metal personnel doors Colour: Pure Grey (RAL 000 55 00)</li> <li>⑨ PPC metal stack casing, metal ducting, tanks and silos Colour: Oyster (RAL 7035)</li> <li>⑩ PPC metal stack casing, metal ducting, tanks and silos Colour: Albatross (RAL 240 80 05)</li> <li>⑪ PPC aluminium framed curtain walling, glazing and personnel doors Colour: Anthracite (RAL 7016)</li> </ul>	<ul style="list-style-type: none"> <li>⑫ Curtain walling glass spandrel panels Colour: Alaska Grey (RAL 7000)</li> <li>⑬ Knapped Flint Wall</li> <li>⑭ In situ / pre fab concrete plinths, /bunds / retaining walls etc</li> <li>⑮ Engineering brick plinth Colour: Staffordshire Slate Blue Smooth (from Beacock)</li> <li>⑯ Flat roofing - Single ply membrane system. Colour: Lead Grey</li> <li>⑰ Glass entrance canopy and bike shelter canopy</li> <li>⑱ Galvanised steel</li> </ul>	<ul style="list-style-type: none"> <li>⑲ Bespoke PPC flat metal cladding panels and feature railings Colour: Anthracite (RAL 7016)</li> <li>⑳ Metal paladin security fencing Colour: Anthracite (RAL 7016)</li> <li>㉑ Timber acoustic fence with concrete posts</li> <li>㉒ Gabion walls</li> <li>㉓ Polycarbonate wall and roof panels Colour: Clear</li> </ul>		





NOTE

1. THIS DRAWING IS COPYRIGHT GSDA LTD.
2. THE CONTRACTOR MUST NOT SCALE FROM THE DRAWING ALL DIMENSIONS TO BE TAKEN FROM DIMENSION STRINGS.
3. WHERE ANY DISCREPANCIES ARE FOUND BETWEEN DIMENSIONS THESE MUST BE BROUGHT TO THE ATTENTION OF THE ARCHITECTS FOR RESOLUTION.
4. WHERE DISCREPANCIES EXIST BETWEEN REFERENCE OR ASSEMBLY DRAWINGS & DETAIL DRAWINGS, THE LATTER TAKE PREFERENCE.

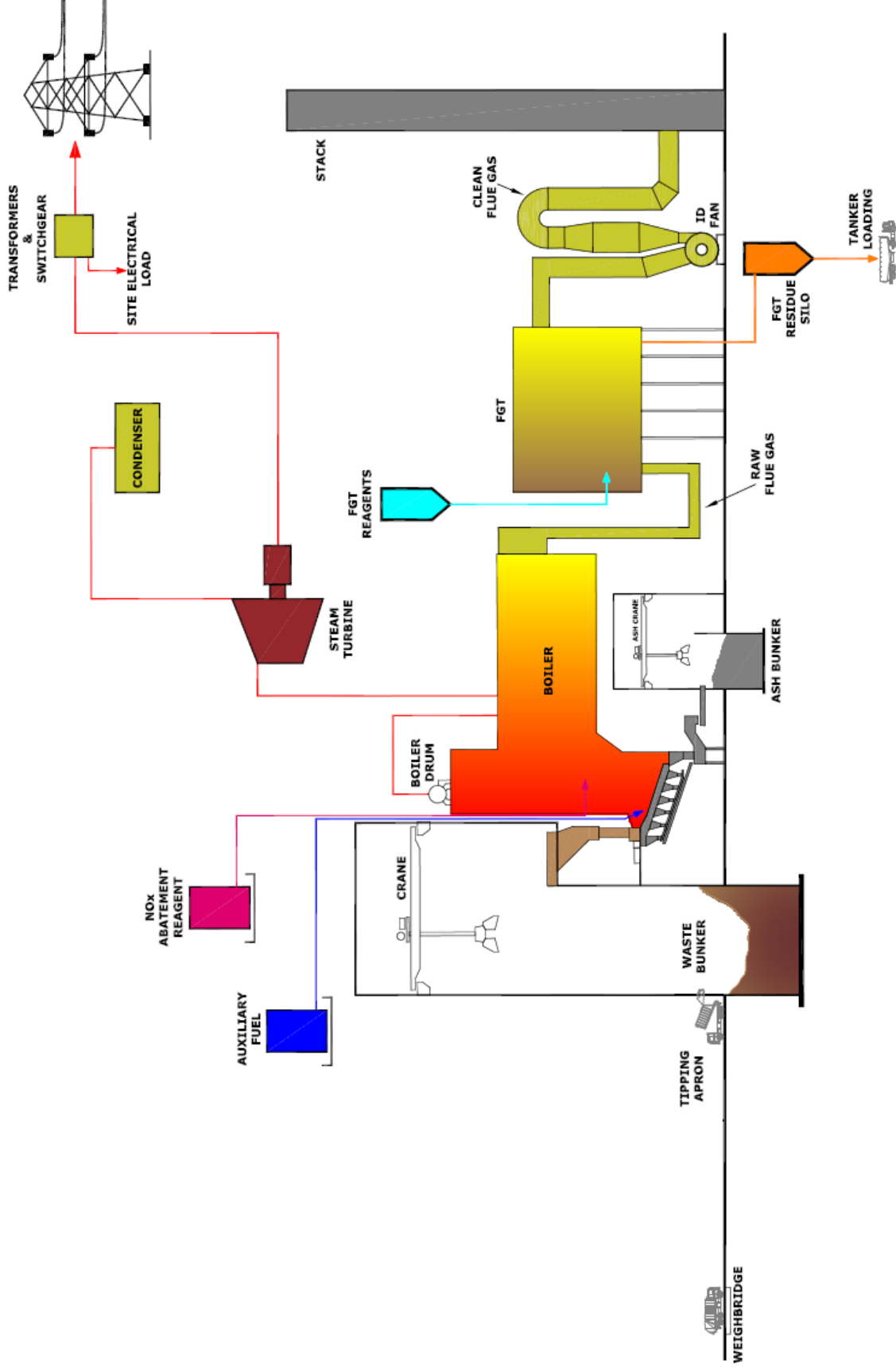


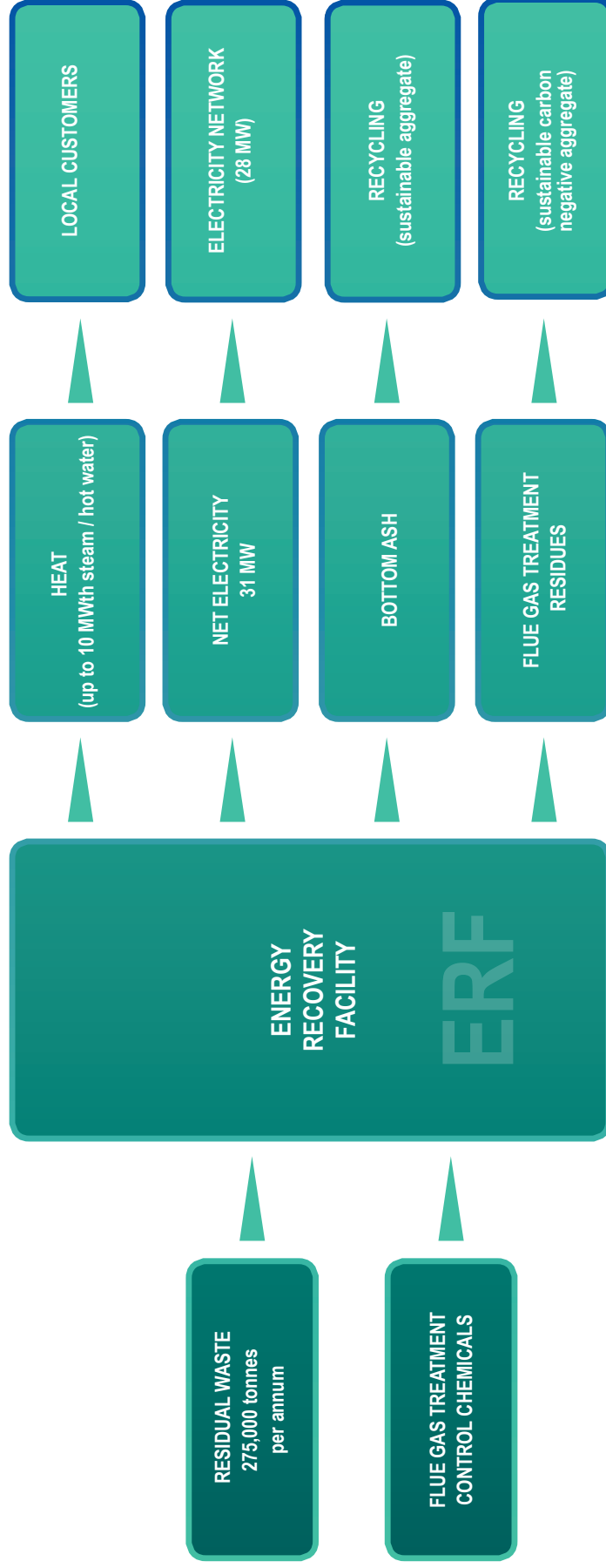
**NOTE**

- THIS DRAWING IS COPYRIGHT GSDA LTD.
- THE CONTRACTOR MUST NOT SCALE FROM THE DRAWING ALL DIMENSIONS TO BE TAKEN FROM DIMENSION STRINGS.
- WHERE ANY DISCREPANCIES ARE FOUND BETWEEN DIMENSIONS THESE MUST BE BROUGHT TO THE ATTENTION OF THE ARCHITECTS FOR RESOLUTION.
- WHERE DISCREPANCIES EXIST BETWEEN REFERENCE OR ASSEMBLY DRAWINGS & DETAIL DRAWINGS, THE LATTER TAKE PREFERENCE.

LEGEND			
① Kalzip AluPlusPatina standing seam aluminium cladding and flashing Finish: Natural aluminium mill finish, standard Colour: Pure Grey (RAL 000 55 00)	② Metal roller shutter doors Colour / Finish: Pure Grey (RAL 000 55 00)	③ Curtain walling glass spandrel panels Colour: Alaska Grey (RAL 7000)	④ Bespoke PPC flat metal cladding panels and feature railings Colour: Anthracite (RAL 7016)
⑤ Metal trapezoidal wall cladding / flashing Colour: Pure Grey (RAL 000 55 00)	⑥ PPC metal personnel doors Colour: Seren Silver	④ Knapped Flint Wall	⑤ Metal paladin security fencing Colour: Anthracite (RAL 7016)
⑥ Metal trapezoidal profile roof cladding Colour: Albatross (RAL 240 80 05)	⑦ PPC metal personnel doors Colour: Pure Grey (RAL 000 55 00)	⑤ In situ / pre fab concrete plinths / bunds / retaining walls etc	⑥ Timber acoustic fence with concrete posts
⑦ PPC aluminium louvres with integrated access door. Colour / Finish: Seren Silver	⑧ PPC metal stack casing, metal ducting, tanks and silos Colour: Oyster (RAL 7035)	⑥ Engineering brick plinth Colour: Staffordshire Slate Blue Smooth (from Bratock)	⑦ Gablon walls
⑧ PPC aluminium louvres. Colour / Finish: Pure Grey (RAL 000 55 00)	⑨ PPC metal stack casing, metal ducting, tanks and silos Colour: Albatross (RAL 240 80 05)	⑦ Flat roofing - Single ply membrane system. Colour: Lead Grey	⑧ Polycarbonate wall and roof panels Colour: Clear
⑨ Metal roller shutter doors Colour / Finish: Seren Silver	⑩ PPC aluminium framed curtain walling, glazing and personnel doors Colour: Anthracite (RAL 7016)	⑧ Glass entrance canopy and bike shelter canopy	
		⑨ Galvanised steel	

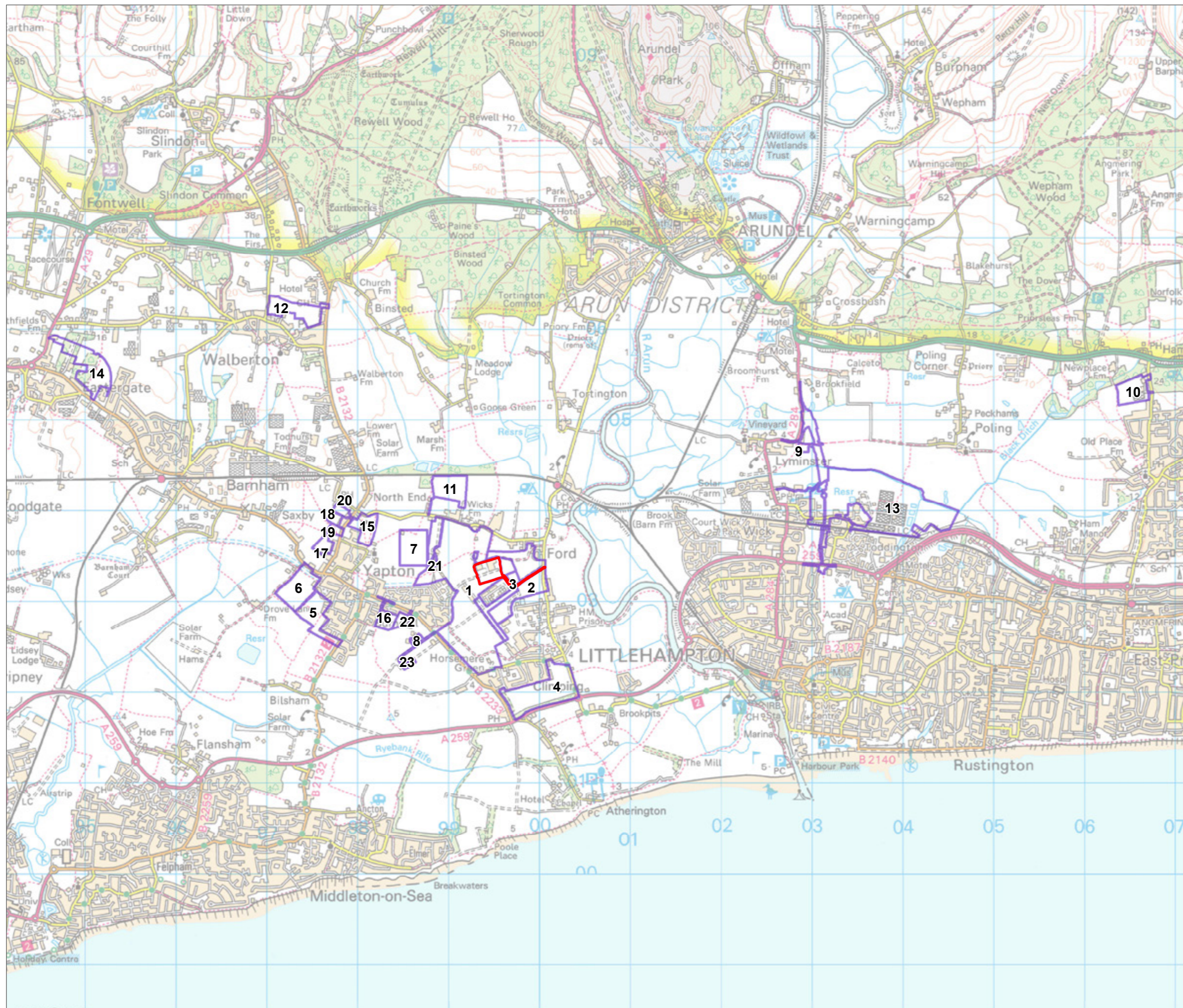
Note: All materials, finishes and colours will be as stated or similar approved.



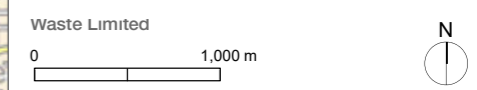


\* Quantity may vary depending upon waste composition



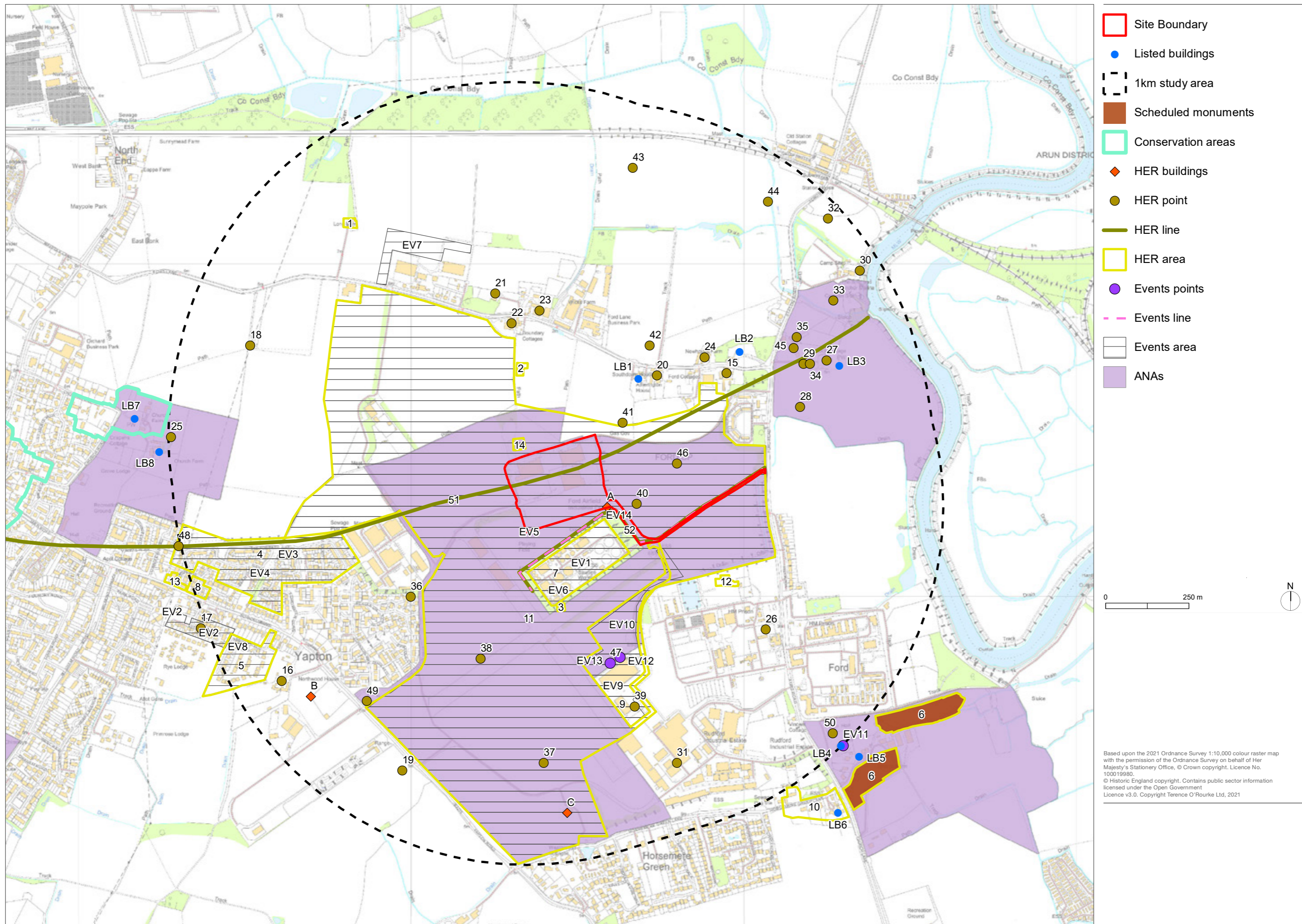


- Cumulative sites
- 1. F/4/20/OUT (part of SD8 allocation)
- 2. Remaining part of SD8 allocation
- 3. F/5/20/PL
- 4. CM/1/17/OUT
- 5. Y/9/1/17/OUT
- 6. Y/9/2/17/OUT
- 7. Option/Site F
- 8. WSCC/037/19
- 9. WSCC/049/18/LY
- 10. A/122/19/OUT
- 11. F/30/18/PL
- 12. WA/44/17/OUT
- 13. LU/47/11 and LU/121/17/RES
- 14. BN/122/19/EIS
- 15. Y/82/20/RES
- 16. Y/19/16/OUT
- 17. Y/44/17/OUT
- 18. Y/83/19/OUT
- 19. Y/93/14/OUT
- 20. Y/49/17/OUT
- 21. F/4/18/PL
- 22. F/7/15/OUT
- 23. CM/6/18/PL



Based upon the 2021 Ordnance Survey 1:50,000 colour raster map with the permission of the Ordnance Survey on behalf of Her Majesty's Stationery Office, © Crown copyright. Licence No. 100019980.  
Terence O'Rourke Ltd, 2021





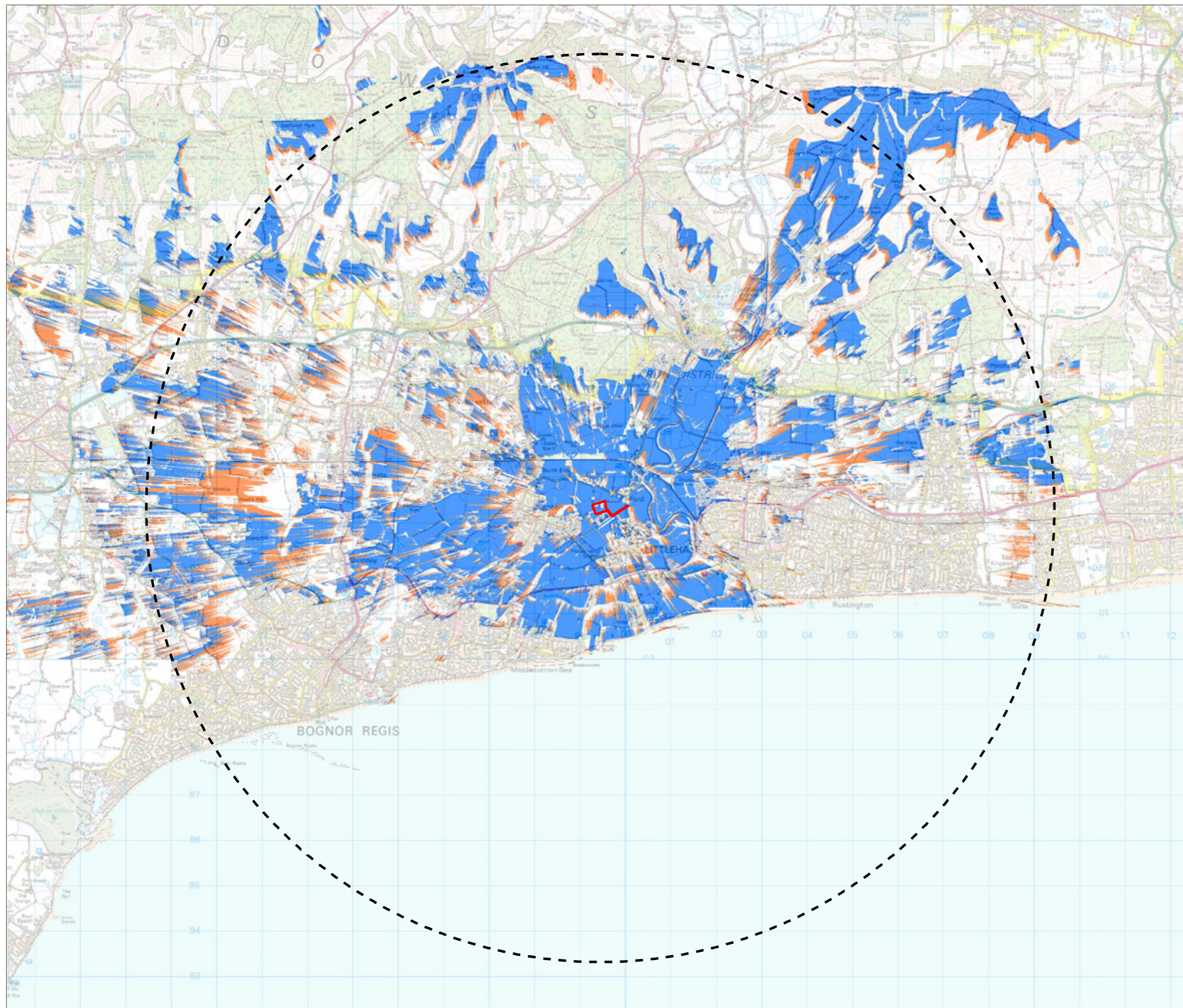
- Site Boundary
- Listed buildings
- 1km study area
- Scheduled monuments
- Conservation areas
- ◆ HER buildings
- HER point
- HER line
- HER area
- Events points
- Events line
- Events area
- ANAs

0 250 m

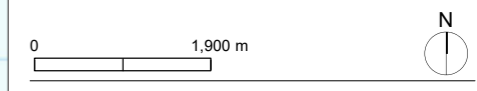
N

Based upon the 2021 Ordnance Survey 1:10,000 colour raster map with the permission of the Ordnance Survey on behalf of Her Majesty's Stationery Office, © Crown copyright. Licence No. 100019980.  
 © Historic England copyright. Contains public sector information licensed under the Open Government Licence v3.0. Copyright Terence O'Rourke Ltd, 2021





- Site Boundary
- 10km study area
- ZTV building 38.5m
- ZTV stack 85m



Based upon the 2021 Ordnance Survey 1:50,000 colour raster map with the permission of the Ordnance Survey on behalf of Her Majesty's Stationery Office, © Crown copyright. Terence O'Rourke Ltd. Licence No. 100019980.  
 Copyright Terence O'Rourke Ltd, 2021





Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright & database right 2018. All rights reserved. Ordnance Survey Licence number AL 100036678.



based on site layout by  
**GSDA**  
LANDSCAPE ARCHITECTS

