

Document 3.3 – 2010 Environmental Statement

Non-Technical Summary

**Wheelabrator Kemsley (K3 Generating Station) and Wheelabrator Kemsley
North (WKN) Waste to Energy Facility DCO**

September 2019 -Submission Version

PINS ref: EN010083



Sustainable Energy Plant, Kemsley Paper Mill, Sittingbourne, Kent.

'DEVELOPMENT OF A SUSTAINABLE ENERGY PLANT TO SERVE KEMSLEY PAPER MILL, COMPRISING WASTE FUEL RECEPTION, MOVING GRATE TECHNOLOGY, POWER GENERATION AND EXPORT FACILITY, AIR COOLED CONDENSERS, TRANSFORMER, BOTTOM ASH FACILITY, OFFICE ACCOMMODATION, VEHICLE PARKING, LANDSCAPING, DRAINAGE AND ACCESS.'

MARCH 2010

E.ON Energy from Waste

STREGIS



**DEVELOPMENT OF A SUSTAINABLE ENERGY
PLANT.**

KEMSLEY PAPER MILL,

**ST REGIS PAPER COMPANY LIMITED & E.ON
ENERGY FROM WASTE UK LIMITED**

ENVIRONMENTAL STATEMENT

NON TECHNICAL SUMMARY

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1. Introduction

1.1 Introduction

- 1.1.1 This Non-Technical Summary (NTS) forms part of the Environmental Statement (ES) which accompanies a planning application by the applicants, St. Regis Paper Company Limited (St. Regis) and E.ON Energy from Waste UK Limited (E.ON Energy from Waste) who propose to construct a Sustainable Energy Plant (SEP) within 7.0 hectares of land at Kemsley Paper Mill, Sittingbourne, Kent. The Sustainable Energy Plant building footprint takes up 4.6 hectares of the site and contains: Reception Hall and Bunker; Boiler House; Stacks; Flue Gas Treatment; Air Cooled Condensers; Bottom Ash (BA) building; Offices; Disabled car parking; Landscaping; and Access.
- 1.1.2 St. Regis have been at the Kemsley site since 1988, when it acquired half of the site. In 2008 the remaining part of the site was acquired from M-real. The mill produces 900,000 tonnes per annum of paper and pulp for the packaging, construction and office paper markets using 1.1 million tonnes of recycled paper per annum. There are 800 people employed full-time at the site. E.ON has worked with St. Regis at Kemsley Paper Mill since 1993. E.ON Energy from Waste currently owns and operates the energy generating infrastructure at the site.
- 1.1.3 The energy requirements at Kemsley paper mill are currently met by the on site Combined Heat and Power (CHP) plant which is fuelled by natural gas, a fossil fuel based energy source, and by a Waste to Energy plant which burns rejects from the paper making process. The mill is an intensive user of energy, consuming 55 MWe per hour of electricity and 150 MWth per hour of steam. The mill's energy cost is circa £50m per annum which represents around 25% of turnover. The pricing of natural gas has been extremely volatile in the UK in recent years which, with the European market less de-regulated than the UK, has put Kemsley mill at a disadvantage to its European competitors. The UK paper industry as a whole has suffered of late from high and volatile energy prices and 22 paper mills have closed in the UK over the last 5 years, including three in Kent. Further, with the UK becoming more reliant upon imported natural gas, there is concern about the future security of supply of natural gas. Consequently, the price of natural gas is forecast to increase over the long term and will continue to be volatile.
- 1.1.4 Although natural gas will remain as a significant source of energy for the mill through the existing CHP plant, there is a clear strategic need for Kemsley mill to diversify its fuel source and, in so doing, to reduce its reliance on fossil fuel based energy sources. The proposed SEP will reduce its dependence on fossil fuel, reduce the carbon footprint associated with energy generation at the paper mill, ensure a greater degree of energy supply security and improve the competitive position of the mill.

- 1.1.5 The SEP will have generation capability of 48.5 MWe per hour of electricity. Under the anticipated electricity and gas pricing outlook, the SEP will usually be set up to generate 36 MWe per hour of electricity and provide in excess of 50 MWth per hour of steam to the mill. However, if required, the SEP will be able to increase its steam provision to fulfil the mill's entire steam demand, with its electricity requirements being met from the national grid.
- 1.1.6 The fuel source of the SEP will be approximately 500,000 to 550,000 tonnes per annum of pre treated waste. This will comprise Solid Recovered Fuel waste, Commercial & Industrial waste and pre treated Municipal Solid Waste, which may include up to approximately 25,000 tonnes per annum of waste plastics arising from the paper making process which are currently sent to landfill.
- 1.1.7 The SEP therefore has the dual role of an energy generating station and a waste management facility.
- 1.1.8 The source of those pre treated wastes has yet to be determined. Subject to appropriate fuel supply agreements, it is anticipated that pre treated waste will be sourced from Kent with the balance from London, the South East and elsewhere in the UK subject to commercial viability. The SEP will use Energy from Waste Technology to recover energy from waste which would otherwise be landfilled. The process is by definition waste recovery rather than disposal, and the bio-degradable fraction would be regarded as a renewable energy source.
- 1.1.9 The SEP will be developed by E.ON Energy from Waste. It is anticipated that it will be operational by 2014, following the civil engineering works associated with the plant construction and the process work involved in the mechanical and electrical equipment installation, fit out and commissioning of the plant. The construction will take approximately 32 months to complete.
- 1.1.10 The proposal assumes that the means of delivery of waste to the site will be by road, though whilst this is demonstrated to be acceptable in highways terms, it is presented as the worst case scenario. The applicant is actively pursuing options for delivery of waste to the site via water and/or rail as an alternative if this proves to be practicable and viable, depending on the source of pre treated waste.
- 1.1.11 The available data shows that even after the Regional Waste Recycling and Composting targets have been met, there are significant quantities of waste available both within Kent and the South East. The Sustainable Energy Plant would therefore make a significant contribution to landfill diversion in Kent, London and the South East.

1.1.12 The aims of the statement are:

- To describe the site and its surroundings
- To describe the proposal
- To review the planning policy context, commenting on those policies of relevance to the proposal; and,
- To explain how the key issues have been addressed in developing the proposal using non technical language.

1.1.12 This document summarises the proposed development and sets out the likely significant environmental effects identified by the ES in relation to the construction and operation of the proposed development

1.2 Stakeholder Engagement

1.2.1 The planning application has been prepared taking into account the policies of the statutory development plan, which comprises The South East Plan: Regional Spatial Strategy for the South East of England (May 2009), the 'saved' policies of the Kent Waste Local Plan (March 1998) and the Swale Borough Local Plan (February 2008), as well as other relevant national policy including PPS10: Planning for Sustainable Waste Management and the Waste Strategy for England 2007.

1.2.2 In addition, the proposals have been prepared through discussions with planning officers of Kent County Council (as determining planning authority) and Swale Borough Council through regular liaison meetings.

1.2.3 The applicant has undertaken a thorough and comprehensive consultation exercise with the local community, local businesses and local Councillors using a range of media (including websites, exhibitions and newsletters).

1.2.4 Kent County Council will also publicise the submitted application through notifications in the form of letters and/or on site notices, and through notices published in local newspapers.

1.3 Scope of the Environmental Statement

1.3.1 The content of the Environmental Statement has been agreed with Kent County Council in consultation with key stakeholders such as the Environment Agency, and Swale Borough Council through a process known as 'scoping'.

- 1.3.2 The Environmental Impact Assessment set within the Environmental Statement has been carried out in accordance with Kent County Council scoping response together with other informal consultations, feedback from stakeholders and the various specialist consultants advising on the assessment including Swale Borough Council.
- 1.3.3 The scoping process identified that the Environmental Impact Assessment should cover the following topic areas
- Traffic and Transportation Issues;
 - Air Quality (including Human Health Issues);
 - Landscape and Visual Impact;
 - Ecology and Nature Conservation Issues;
 - Hydrology and Flood Risk;
 - Hydrogeology and Ground Conditions;
 - Noise and Vibration;
 - Archaeology and Cultural Heritage;
 - Socio Economic Assessment; and,
 - Amenity.
- 1.3.4 In addition to the assessment of the individual environmental effects, the policy context and need for the scheme and alternative sites and technology have also been considered.
- 1.3.5 The Environmental Impact Assessment has also had regard to potential likely effects arising between disciplines. For example, the air quality effects of the development have been considered within the ecological assessment for the relevant ecological receptors. Similarly, the effect of increased traffic in terms of noise has also been assessed.
- 1.3.6 Similarly, where appropriate, the likely effects of other planned development have been assessed in combination with the effects of the proposed development. For example the implications of the Sittingbourne Northern Relief Road have been considered in terms of traffic impacts.

2. Site and Proposed Development

2.1 The Site and its Setting

2.1.1 The site of the SEP lies on the industrial northern edge of Sittingbourne, which forms the largest settlement within the district of Swale. Development dates mainly from the 19th and 20th centuries, clustered around the A2 and railway which pass through the centre of the town. The rapidly expanding industrial and commercial district which extends from the edge of Sittingbourne north to Ridham Docks forms the immediate context to the site as shown on Figure 1.1.

2.1.2 The site of the SEP extends to some 7.0 hectares of which 4.6 hectares is proposed built development. The Kemsley Mill site currently comprises a paper mill and associated infrastructure, including access, car parks and administration buildings.

2.1.3 The site is accessed from the A249 via Swale Way (Western Entrance) or from Swale Way onto Barge Way (Northern Entrance). An internal access road which runs to the south and east of the paper mill buildings provides access to Swale Way.

2.1.4 The site of the SEP has been developed previously, with the wider area to the north comprising areas of reed bed. Other areas in close proximity to the site comprise mostly bare ground with sections of dense and scattered scrub together with semi-improved grassland, bounded by a sea wall protecting the land from the tidal effects of the Swale estuary. Signs of the historical 1970s paper mill waste tipping activity are evident in the surrounding land although the tips used have since been restored and levelled and are covered by scrub vegetation and grassland. One tip to the south east of the site remains visible.

2.1.5 The Swale River lies to the east, separating the area of land on which the site sits from the Isle of Sheppey to the north. The route of a dismantled railway bisects the western and south western wedge of the site as it runs southwards away from Ridham Dock.

2.1.6 There are no public rights of way which cross the site.

2.2 Waste Sources

2.2.1 The proposed SEP is designed to process fuel in the form of pre treated waste from the commercial and industrial, and municipal solid waste streams, together with waste Solid Recovered Fuels. The mixed waste stream will have a predicted average net calorific value of 10.5 MJ/kg. The proposed SEP will seek to attract a wide range of local waste arisings.

2.2.2 Waste fuel will be brought to the site by HGV vehicles. There is the potential for waste fuel to be transported to the site by the use of water transport to the Swale via local docking facilities or via rail transport.

2.3 Waste Treatment Facility

2.3.1 The SEP will comprise and accommodate the following:

- Two line moving grate with thermal combustion capacity of 100 MW per line;
- Two stacks with a height of 90 meters from ground level;
- Waste reception hall and waste storage bunker;
- Waste handling systems and feed hoppers;
- Bottom ash handling with electromagnetic separators;
- Furnace Bottom ash storage and maturation facility;
- Flue gas treatment;
- Boiler, steam turbine and air cooled condensers;
- Heat extraction system and infrastructure providing connectivity to adjacent paper mill;
- Weighbridge and access arrangements;
- Control room;
- Administrative building, workshop;
- Transformers.

2.4 Parking

2.4.1 Parking will be provided for 5 disabled spaces. For reasons of overall pedestrian safety and security the main area of car parking provision is that of the Kemsley paper mill car park located to the south and west of the paper mill complex. Here provision is made for 100 cars for staff and visitors at the SEP. A walkway between the St Regis car park and the SEP plant already exists. This walk way provides full separation between the car park and the SEP plant.

2.4.2 The proposed level of parking is based on staff numbers (including proposed shift arrangements) together with provision for unannounced regulatory authority visits and assumed visitor numbers.

2.5 Access

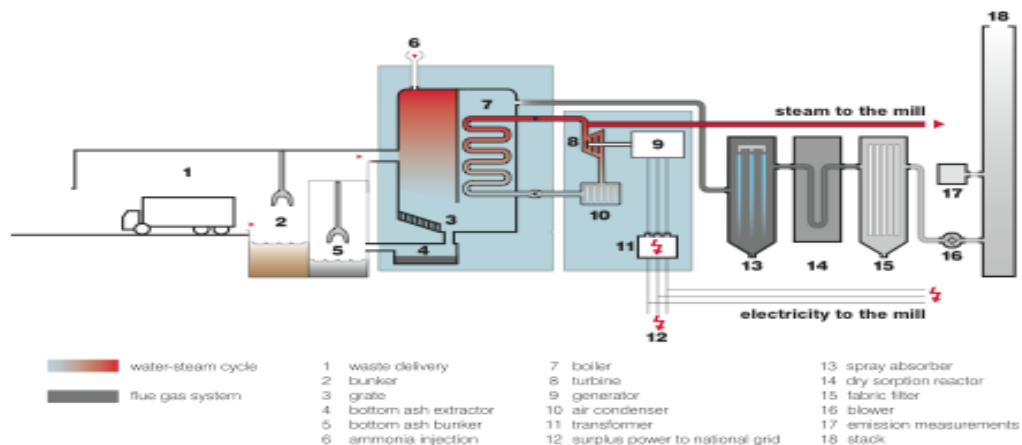
2.5.1 Site access during construction works will be via the existing Ridham Road access which links to Barge Way.

2.6 Waste Treatment Process

2.6.1 The proposed SEP will produce a minimum of 50MWth per hour of steam which will be fed to Kemsley Paper Mill as an integral part of its energy supply. The plant will generate up to 54MWe gross/ 48.5 MWe net per hour of electrical energy. The electrical energy is generated in the synchronous generator at a voltage of 10.5kV. This is transformed to a voltage distribution of 400V and to 700V to supply the plant itself. The electrical energy exported from the plant is fed to the grid via a step-up transformer at 132kV.

2.6.2 The SEP will utilise proven and tested technology and will process waste fuel using a two line process. It is assumed that each line will have 90% availability as a result of planned and unplanned downtime. A two line plant provides operational flexibility during periods of maintenance, enabling one line to be shut down whilst the second continues to operate. Down time will be for a period of about 5 weeks per line per year.

2.6.3 A flow diagram of the SEP process is provided below.



2.6.4 The SEP process equipment will be wholly enclosed within a building. A separate enclosed building will contain the Bottom Ash maturation and storage area. The SEP building will be divided into a number of distinct operational areas all of which relate to function of the overall energy plant process. Elevations which show the location of the main components of the plant within the SEP building are set out within Figures 4.4 to 4.7.

2.7 Energy Recovery

2.7.1 The plant will have a 54MWe gross rated steam turbine with steam inlet conditions of about 410°C/48bara. Low pressure steam is extracted for use as process steam within the adjacent paper mill, being transported over a bridge which crosses the site internal road to the west of the proposal site; the steam will be used by the mill at c. 9bara or at c. 6bara.

2.8 By Products

2.8.1 There are two types of solid by-products produced from the operation of SEP. These are:

- Bottom Ash – which will potentially be recycled as an aggregate replacement material and transported in a container to an aggregate recycler or concrete product manufacturer.
- Flue Gas Treatment System (FGT) Residues – the residues once collected will be loaded into sealed containerised vehicles and transported from the site for disposal within a permitted facility.

2.8.2 The SEP process is designed to be a net consumer of water and therefore there is no requirement for regular discharge of waste water from the combustion process. Waste waters are however generated from the process in the following areas.

- Water from the boiler drains
- Back flushing water from the de mineralisation plant
- Liquid run off from wash down operations
- Surface water on roads and hard standing
- Rainwater from roofs.

2.9 Hours of Operation

2.9.1 Permission is sought to enable the SEP to operate continuously 24 hours per day, seven days a week. It will operate continuously throughout the year with the exception of planned shut downs and unplanned maintenance. In respect to the receipt of waste fuel by heavy goods traffic movements this will as far as possible take place between the following hours:

- 0700 and 1800 hours Mondays to Fridays
- 0700 and 1300 hours Saturdays.

2.10 Construction

2.10.1 There are two main periods of construction works which will overlap to some degree. These are the civil engineering works associated with the plant construction and the process work involved in the mechanical and electrical equipment installation, fit out and commissioning of the plant.

2.10.2 In practice, some waste will be taken during the commissioning period on an intermittent basis. For the purpose of the EIA, January 2014 has been assumed as the commencement date for waste fuel imports to the site with full operation taking place from the Summer of 2014.

2.10.3 Construction operations will generally take place between the following hours:

- 07:00 – 19:00 Monday to Friday
- 07:00 – 16:00 Saturday and Sundays

2.10.4 However, it is envisaged that non-intrusive activities (such as electrical installations, pipework installation and similar activities) would be undertaken outside of these hours in order to minimise overall construction time. HGV movements associated with such activities would be insignificant. The construction of the bunker walls has to be a continuous process and will be of 12 -15 weeks in duration. The delivery of concrete and construction using it would be on 24 hours, 7 days per week.

3. Environment

3.1 Introduction

3.1.1 The development proposals include a range of measures that have been designed to reduce or prevent adverse environmental effects. In some cases these may result in enhancement of existing environmental conditions. The assessment of effects has taken into account all measures that form part of the development proposals. These measures are detailed within the description of the development provided by the Environmental Statement and include for example, air pollution control measures to ensure low level emissions to air.

3.1.2 The following sections provide a non technical summary of each of the topics assessed within the Environmental Impact Assessment and reported within the Environmental Statement.

3.2 Waste Policy and Legislation Context

3.2.1 A review of policy and legislation has been carried out to identify the context in which the proposals are being prepared. This review has considered all the planning policies relating to the proposal at a European, National, Regional and Local level. This policy context highlights the Government's commitment to the development of renewable energy from non 'fossil fuel' renewable sources. The importance that renewable energy will play in the future security of future energy supplies whilst reducing carbon emissions is a key consideration.

3.2.2 The Development Plan indicates that more facilities recovering energy from waste will be required in order to divert waste that cannot be reused or recycled away from landfill, to manage waste in a more sustainable manner by avoiding the environmental costs of landfill and through the generation of renewable energy.

3.2.3 The proposal is compliant with all relevant planning policies at the national, regional and local levels. It has been demonstrated through wide ranging studies and assessments that the proposal can take place in accordance with the development plan without demonstrable harm to interests of acknowledged importance.

3.2.4 It is demonstrated that the proposed SEP development is in accordance with the policy, having regard where appropriate to the wider planning policy framework. The proposal is well located, will meet an identified need, be beneficial, sustainable, and is in accordance with the development plan.

3.3 Alternatives

3.3.1 The need for development has been demonstrated in respect to energy and waste management principles and policy. An outline of the potential alternative sites has demonstrated the favourability of the proposal site in terms of potential environmental effects,

balancing the need to provide certainty of energy supply to Kemsley Paper Mill and providing capacity for the sustainable management of waste.

- 3.3.2 The Environmental statement also provides an outline of the potential alternative technologies and design considered.

3.4 Traffic and Transport

- 3.4.1 The proposed SEP development will generate 258 HGV movements per day associated with waste and reagent delivery and the removal of by-products. Although the proposed SEP will be able to receive waste deliveries over 24hrs, it is expected that the majority of HGV movements will occur over the 12 hour daytime period. On this basis the average number of HGV movements will be 22 per hour. This equates to one additional HGV movement every 3 minutes. The proposed SEP will employ 50 permanent full time staff. Typically these will generate 46 car movements per day and 6 car movements in the peak hours.
- 3.4.2 It has been assumed that all HGVs will travel to and from junction 5 of the M2 via the A249 and Swale Way. All HGVs will use Barge Way to access the site via the existing northern access to the Kemsley Paper Mill. Staff cars will be parked in the existing Kemsley Paper Mill car park adjacent to the southern mill access.
- 3.4.3 On a daily basis the total vehicle movements associated with the proposed SEP development will, in the 2014 year of opening, lead to an increase in flows on Swale Way of less than 2%, on the A249 of less than 1% and on the M2 of 0.2% or less. It is concluded that the proposed SEP will lead to no significant increases in delays for highway users and will cause no other adverse transport related environmental impacts. All reasonable steps will be taken to phase traffic movements so as to avoid times of peak highway use on Barge Way. The possibility that waste could be transported to the site via Ridham Docks using either the existing rail facilities or water transport is currently being investigated.
- 3.4.4 The site is within walking distance of residential areas. The nearest bus stop is located on Ridham Avenue and within cycling distance of much of Sittingbourne and the surrounding area.

3.5 Air Quality

- 3.5.1 An assessment of the air quality effects associated with the construction and operation of the proposed SEP has been undertaken. Air quality at the proposal site is generally good. Swale Borough Council (SBC) has designated an Air Quality Management Area (AQMA) due to high levels of nitrogen dioxide (NO₂) AQMA along the High Street and London Road in Newington. However, the proposed development site is located approximately 8 km northeast of the designated AQMA.
- 3.5.2 During the construction phase, dust nuisance effects and emissions from plant associated with on-site construction and the potential effects associated with emissions from construction vehicles on the local road network have been considered. The London Best Practice guide has been used to establish the risk of causing potential air quality impacts during the construction phase if mitigation measures are not implemented. Mitigation measures consistent with the level of risk have been identified. Effective implementation of the mitigation measures should ensure that the risk of nuisance dust is medium, or even low.
- 3.5.3 The results of stack height determination modelling show that a stack height of 90 m is the optimum height required for the dispersion of pollutants. Detailed atmospheric dispersion modelling has been undertaken for a 90 m stack to predict the effects associated with emissions from the proposed SEP, during the operational phase.
- 3.5.4 Emissions from the SEP have been assessed through detailed dispersion modelling using best practice approaches. The assessment has been undertaken based on a number of worst-case assumptions. This is likely to result in an over-estimate of the contributions that will arise in practice from the SEP. The results of dispersion modelling indicate that predicted contributions and resultant environmental concentrations of all pollutants considered is of 'negligible' to 'slight adverse' significance.
- 3.5.5 The air quality effects associated with changes in traffic flow characteristics on the local road network during operation are not deemed to be significant according to the criteria set out in the Highways Agency's Design Manual for Roads and Bridges. The air quality effects associated with operational traffic are deemed to be negligible.
- 3.5.6 Stack emissions from the existing CHP and effluent treatment plant have been utilised to model the combined effect. Pollutant concentrations are expected to be below the relevant criteria, set for the protection of human-health.

3.6 Landscape and Visual Impact

- 3.6.1 An assessment has been undertaken to identify the effect of the proposed SEP on local residents and views and also on the character of the area in which it is located.
- 3.6.2 The context of the site is divided between the contrasting environments of the industrial townscape of Sittingbourne and the natural estuary landscape of The Swale. The study area for the assessment of landscape, townscape and visual effects extends to a 15km radius from the proposal site. The extent of potential visibility has been established for stack and building heights by production of Zones of Theoretical Visibility. Key viewpoints looking towards the proposals have been agreed with Kent County Council as part of the baseline assessment.
- 3.6.3 There are no designated landscapes which lie within the site area. However the North Kent Marshes Special Landscape Area extends over The Swale and adjoining coastal landscape.
- 3.6.4 The proposal site forms part of the Sittingbourne urban area which lies outside any of the landscape character areas identified within the Swale Borough Council's assessment. For the purposes of this assessment the townscape within which the site lies has been defined as the Sittingbourne Industrial/Commercial character area.
- 3.6.5 The proposed industrial redevelopment of the site would reflect the adjoining St Regis paper mill complex and reinforce local townscape character. Due to the lack of significant site features in the form of built development or vegetation, the existing site is not prominent in views from the surrounding area. The site is easily missed and appears as a gap or opening on the edge of the urban fringe of Sittingbourne.
- 3.6.6 Landscape mitigation proposals have been included as an integral part of the proposed SEP scheme. The range of treatments including an open mosaic of scrub and rough grassland with clusters of trees, linear reed beds within the base of the flood attenuation ponds, grassland with flora and fruiting trees would be implemented as part of the proposals. The assessment of landscape/townscape and visual effects has been undertaken based on the scheme at year one after completion, when the planting proposals are newly established.
- 3.6.7 Direct effects on townscape character relate to the Sittingbourne Industrial/Commercial Area. Although the scale of the project is large, even within the context of this extensive industrial area of Sittingbourne, the SEP could be accommodated within this character area without significant effects on key features or characteristics.

- 3.6.8 The adjoining character areas of Chetney and Greenborough Marshes and the South Sheppey Marshes and Mudflats form the immediate landscape context to the proposal site and are not directly affected by the proposed SEP. The large scale of the SEP buildings and tall stacks would result in indirect adverse effects on the natural and wild elements of these character areas during the daytime and at night. The significance of effect would be Negligible.
- 3.6.9 Redevelopment of the proposal site would be on a large scale, however, opportunities also exist for enhancement of existing site conditions. The overall townscape/landscape effect during operation can be summarised as Minor adverse.
- 3.6.10 From many viewpoint locations the existing industrial edge of Sittingbourne is prominent or dominates views towards the proposal site within its urban fringe location. The introduction of further industrial development of a similar nature would not be uncharacteristic or at odds with the adjoining townscape. The proposed SEP would appear as an extension of the industrial edge. In close and medium range views from the north including the Saxon Shore Way footpath and the Elmley Nature Reserve on the Isle of Sheppey, people would gain views of the proposed buildings and structures as prominent and sometimes dominant elements in front of an extensive backdrop of existing industry at the paper mill. In close range views from the south and east including Church Marshes Country Park and the Saxon Shore Way people would see the tops of buildings and stacks, above intervening industrial development and the landfill mound, as prominent although minor new elements.
- 3.6.11 The Sittingbourne Industrial/Commercial townscape character area contains an abundance of industry which the proposed energy plants in the vicinity of Ridham Docks, the industrial expansion at Kemsley and the Northern Relief Road would add to as an intensification of use. These developments are large in scale and would be visually prominent in the landscape/townscape in their own right. During construction and operation, visual receptors would gain views of the proposed SEP in the context of a slightly more developed urban location.
- 3.6.12 The proposals will not result in the loss of any key townscape elements. The proposed landscape perimeter planting is part of the proposed SEP proposal and would improve the existing poor quality of the area's urban character and provide important buffers with neighbouring rural areas. Location of the proposed SEP on the north east side of the existing St Regis Paper Mill would result in a relatively small number of people in the settlement of Sittingbourne experiencing a change in view. New stacks and the tops of buildings would be seen in the immediate context of existing stacks, buildings and pylons.

3.7 Ecology and Conservation

- 3.7.1 A habitat and protected species scoping survey of the proposed development site for the SEP was undertaken in 2007 and updated in 2009 to inform the ecological appraisal and impact assessment. Further surveys for invertebrates, reptiles, Water Vole and breeding birds, as well as inter-tidal birds on the nearby Swale and Milton Creek, were undertaken during 2009. The site was found to be of relatively low ecological value, consisting mainly of brownfield habitat with recently-left spoil, bare ground and areas of tall ruderal with scrub. Some small areas of species-rich grassland were also present. The relatively low ecological value was confirmed by a desk study that revealed that the site has no recognised wildlife value. The study did identify a number of statutory and non-statutory designated sites within 10 km of the proposed development location, including the Swale and Medway Estuary and Marshes Special Protection Areas (SPA), Ramsars and Sites of Special Scientific Interest (SSSI). A review of relevant legislation and policy pertaining to the site was also undertaken. The proposed SEP development complies with all relevant legislation relating to ecology and biodiversity.
- 3.7.2 No impacts are predicted on any of the features for which the SPAs/SSSIs are designated as a result of the proposed SEP, during either its construction or operation. In order to further ensure that there are no disturbance impacts on the SPA birds species, soft-start piling (where power is ramped up over a minimum of 30 minutes) to avoid the sudden, potentially startling noise often associated with piling, will be used over the winter period.
- 3.7.3 Around 2.1 hectares of reptile, invertebrate and breeding bird habitat will be lost from the site during construction. To mitigate this, 2.36 hectares of species-rich rough grassland and scrub will be planted/enhanced to provide suitable habitat to be used as a receptor site for reptiles and increase the available habitat for breeding bird/invertebrates. Topsoil from the areas of species-rich grassland to be lost during the construction of the proposed SEP will be used within site landscaping to ensure that the seed bank is preserved.
- 3.7.4 Three species of bird listed on Schedule 1 of the Wildlife and Countryside Act (1981) were found to be breeding in a large area of reedbed 100m to the north of the SEP Application Site. The breeding territories of one of these species (Cetti's Warbler) would potentially be within the zone where noise disturbance during construction (particularly from piling) may cause abandonment of nests etc. To avoid this, during the Cetti's Warbler breeding period (April-August), piling will be avoided or achieved via vibro-piling methods that do not produce sudden, startling noises. Surface water management on site will be via two large attenuation ponds, both of which will have significant areas of Common Reed that will provide an increase in habitat for the species currently found breeding within the reedbed.

The attenuation ponds will also be designed to provide significant reptile and invertebrate habitat.

3.7.5 The overall residual impact of the proposed SEP development on ecology would be neutral.

3.8 Hydrology and Flood Risk

3.8.1 The Environmental Impact Assessment assesses the likely significant effects of the proposed SEP in terms of hydrology and flood risk during site preparation, site construction and site operation.

3.8.2 Site ground levels presently vary from 7m AOD in the west to 3.18m AOD in the east. The site is partly within Flood Zones 2 and 3a and has a 1 in 200 year annual probability of tidal flooding from The Swale. The site area does not form part of the functional floodplain and raising site levels would not cause any significant loss of floodplain storage area. The site will be re-profiled to a finished floor level of 5.8m AOD. Thereby the site will be elevated above the area subject to flooding and should be reclassified as located entirely within Flood Zone 1 (negligible risk).

3.8.3 As the site area is in excess of 1 hectare, a flood risk assessment has been undertaken in accordance with Environment Agency requirements.

3.8.4 Discussions with the Environment Agency identified the potential for the site to become tide locked from an extreme tidal level of 5.2m AOD occurring at the same time as a 1 in 100 year extreme runoff event. Storage of runoff from site during such an event forms part of the drainage design, in accordance with the Environment Agency request.

3.8.5 The surface drainage strategy for the site incorporates measures designed to minimise the effects on flood levels, water quality, river/stream morphology and habitat.

3.8.6 The site location in the Swale estuary means that the effect of the proposed SEP on flood storage is considered to be negligible.

3.8.7 The construction of the proposed SEP will be undertaken in accordance with Best Practicable Means and the operational plant will include appropriate mitigation against uncontrolled runoff and potentially contaminated runoff. Consequently the likely effects on water runoff and local water levels will be minor to negligible. A Construction Environmental Management Plan (CEMP) will be submitted for approval to the Local Planning Authority prior to any development occurring on the site.

3.8.8 The inclusion of water quality monitoring and flood risk mitigation at the site means that the overall hydrological effect of the proposed SEP development will be negligible and therefore there is no likely significant effect.

3.9 Hydrogeology and Ground Conditions

3.9.1 The Environmental Impact Assessment assesses the likely significant effects of the proposed SEP in terms of geology, hydrogeology and potential land contamination. The proposed SEP is situated on low lying land immediately west of The Swale tidal estuary. Current site land use includes areas of rough ground, areas of stockpiled materials and a contractor lay down area. Historically the development area has been utilised for coal stockpiling. There is a closed landfill site currently situated to the south of site.

3.9.2 The site is underlain by a sequence of Made Ground, alluvial clay, London Clay and sand deposits. Shallow groundwater has been identified discontinuously across the site. A continuous groundwater body is present in the sand deposits at depth, although no significant pathway between these two groundwater bodies is anticipated. The Swale estuary is considered the principal receptor of shallow and deep groundwater on the site.

3.9.3 Shallow soils are locally contaminated although observed concentrations are acceptable for an industrial / commercial end land use and do not represent an unacceptable risk to construction workers. Brown asbestos has been identified at one locality on the site. Shallow groundwater is generally non-potable and locally contaminated by a limited number of metals and organic substances which exceed appropriate water quality criteria on occasions. Groundwater in the deep aquifer is less contaminated, although quality criteria for a number of parameters are exceeded. No gross contamination of groundwater has been identified on the site. The observed contamination of groundwater is not considered a significant risk to water quality in The Swale owing to the complexity of groundwater pathways, the localised nature of contamination and limited quantity of groundwater discharge anticipated.

3.9.4 The available data provides no evidence to suggest that the closed landfill to the south of the site poses a risk to construction workers and future site users. The principal concern associated with the proposed SEP relates to: the risk to human health from groundwater ingress to deep excavations required as part of the development design; the lateral migration of contaminated shallow groundwater towards The Swale; and asbestos containing materials identified in shallow soils. Although the significance of these risks is generally considered to be minor, they shall be mitigated by the following:

- Intrusive investigation to inform design and asbestos presence on the site;

- Additional gas monitoring in line with CIRIA C665 (CIRIA, 2007);
- The production of groundwater management plan and piling risk assessment; and
- The production of QRA for human health and controlled waters, as required.

The results of all these additional works shall be implemented through the development of a construction Environmental Management Plan prior to construction.

3.10 Noise and Vibration

3.10.1 The noise and vibration effects on residential and recreational receptors due to the construction and operation of the proposed SEP at Kemsley, Sittingbourne, have been predicted and assessed in accordance with international, national and local standards and guidance. Attended short-term and unattended long term surveys have been undertaken to determine the baseline noise levels at locations representative of the potentially most affected noise sensitive receptors, including nearby potentially noise sensitive ecological habitats. Survey locations comprised three long term unattended noise surveys and one short-term attended survey at separate locations in the area:

Location A (Long term): Reams Way (adjacent to the paper mill and to west of the site)

Location B (Long term): Reed bed (to the north of the site)

Location C (Short term): Saxon Shore Way public footpath (to the east of the site)

Location D (Long term): Walsby Drive (to the southwest of the site)

3.10.2 Noise emissions during the construction and operation of the proposed SEP have been predicted using a detailed computer noise model. The model included noise emissions from both continuous and impulsive noise sources, such as piling, vehicle reversing signals and air valve releases. The results of the noise and vibration assessment indicate that significant adverse noise or vibration effects would not be expected to occur at sensitive residential receptors during either the construction or operational phases of the proposed SEP.

3.11 Socio Economic Effects

3.11.1 The study area for the assessment of socio-economic effects is assessed at a number of levels: the ward of Kemsley on a local level, Swale Borough at a district level, Kent on a county level and the South East on a regional level.

3.11.2 Given the numbers of skilled people employed in the construction industry in Swale (2,552) and the South East (138,659) it is considered very unlikely that the number of workers required for the proposed SEP whatever the skill level required would place any pressure

upon the construction labour market. It is, therefore, considered that the capacity of the construction labour market would be able to absorb the impact without difficulty. It is estimated that up to 500 people will be required during the construction phase. An employment change of this scale is assessed as being of minor benefit.

- 3.11.3 It is estimated that the proposed SEP will create 50 full time jobs in the operational phase. Many of these jobs would need particular management and technical skills to ensure the efficient and safe operation of the plant. In addition an average of 100 contractors will be employed for planned shutdowns. It seems likely that the required labour could be identified without difficulty in the immediate area and from within the town itself. This is especially so given the high proportion of manufacturing jobs in the area and Kemsley and the average distance that people already travel to work. It was determined that the significance of effect was Slight rather than Neutral on the basis that there would be some positive change to the socio-economic environment rather than none.
- 3.11.4 It is widely recognised that an increase in employment is also likely to lead to an increase in spending in an area which in turn leads to more spending and becomes an upwards spiral. In this respect, the magnitude of effect for both the construction and operational phases is likely to be similar for Kemsley and Swale which is assessed as minor. For the South East, based on the population size and relationship with the site this is assessed as Negligible.
- 3.11.5 Overall, the socio-economic benefit associated with renewable energy generation and landfill diversion at the scale proposed is considered to be moderate for Swale and Kent as they benefit both from landfill diversion of waste arising from their population, and minor for the South East given that it would benefit from the generation of renewable energy and the diversion of waste from landfill.

3.12 Archaeology and Cultural Heritage

- 3.12.1 The solid geology of the proposed development site consists of London Clay. The drift geology is unmapped but the north eastern part of the proposed development site and the area to the south of the drain forming the south eastern site boundary are recorded as landfill sites. Site investigation has indicated that the proposed development area is underlain by made ground to a depth of between 0.9 metres and 4.6 metres below current ground level.
- 3.12.2 The study has indicated that the proposed development site is located within a landscape that has seen activity since early times and is of high archaeological potential.
- 3.12.3 No statutorily designated sites (e.g. Scheduled Monuments, Listed Buildings) are present within the application site. The closest statutorily protected cultural heritage receptor is Castle

Rough, a Scheduled Ancient Monument (County Number 115), located some 500 metres south of the proposed development site.

- 3.12.4 There would be no direct effects on cultural heritage receptors through the proposed SEP. There would be no indirect effect on the setting of a cultural heritage receptor or a greater significance than slight adverse.
- 3.12.5 It is concluded that, although the proposed development site is located on what was an area suitable for occupation in antiquity, following the land raising of the entire area, the potential for such remains is negligible.
- 3.12.6 No significant effects have been identified requiring mitigation and no mitigation measures against direct impacts are necessary or proposed within the boundaries of the proposed SEP. It is noted that in each case, effects are a function of the sensitivity of the receptor, rather than a great magnitude of impact.

3.13 Amenity Issues

- 3.13.1 The proposed SEP will undertake all waste handling activities within the site building. Therefore there is very little scope for litter, attracting scavenging birds or other pests and vermin. Consequently the potential for any adverse effects on local amenity is considered adequately mitigated through the use of standard procedures associated with good waste management practice.

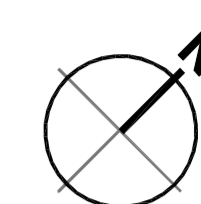
3.14 Summary of Effects

- 3.14.1 The Environmental Impact Assessment has considered the likelihood of significant environmental effects occurring at the site itself and the surroundings resulting from the development of the SEP at Kemsley Paper Mill, Sittingbourne.
- 3.14.2 The Environmental Statement has demonstrated that the proposed SEP will result in beneficial environmental effects by:
- Securing a sufficient and reliable energy source for a high intensive energy user
 - Significant Contribution to Renewable Energy Targets
 - Diversification from fossil to low carbon energy source
 - Utilising waste that would otherwise be land filled managing waste through recovery in the waste hierarchy.

notes :

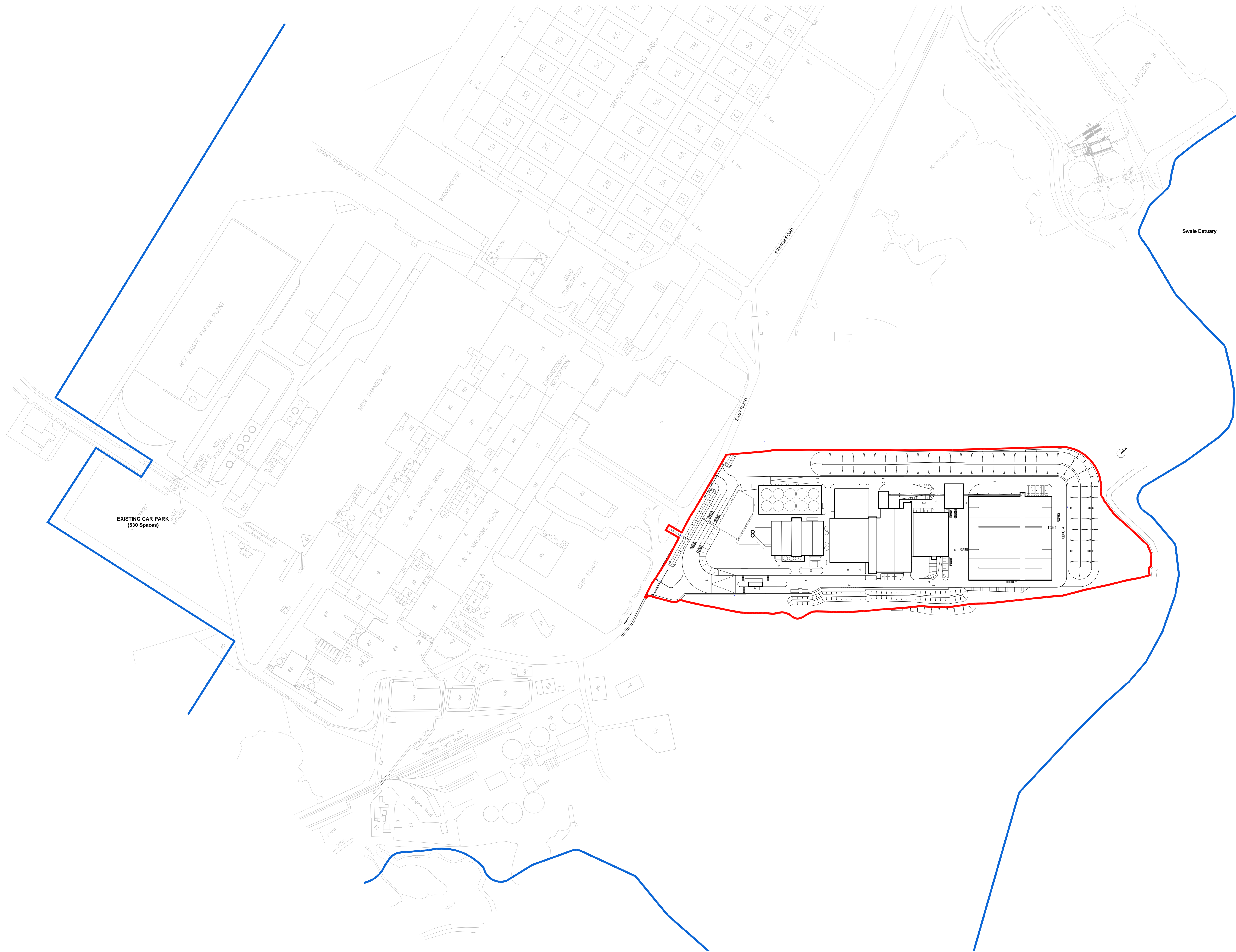
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25m SCALE 1:1250



	Land Ownership Boundary
	Proposed Development Boundary

Note: Reference to OS of existing paper mill provided by St Regis Paper Mill in DWG format and topographical survey provided by Eon.



EXISTING CAR PARK (530 Spaces)

Drawing for PLANNING purposes only

B	Footpath and car park information moved to drawing 16315_P_0065. E.ON logo added.	A.J.L. PRP	20.01.10
A	Footpath locations added, Saxon Shore Way location amended, general notes added.	S.M.G. PRP	16.12.09

rev	amendments	by	date
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Client

Project Kemsley Sustainable Energy Plant

Title Proposed Site Location Plan

Drawing Status Preliminary	Date Created November 2009	Drawing Scale 1:1250
Project Leader RS	Drawn By A.J.L.	Initial Review PRP

Drawing Number	Rev
16315 / A0 / P / 0060 B	

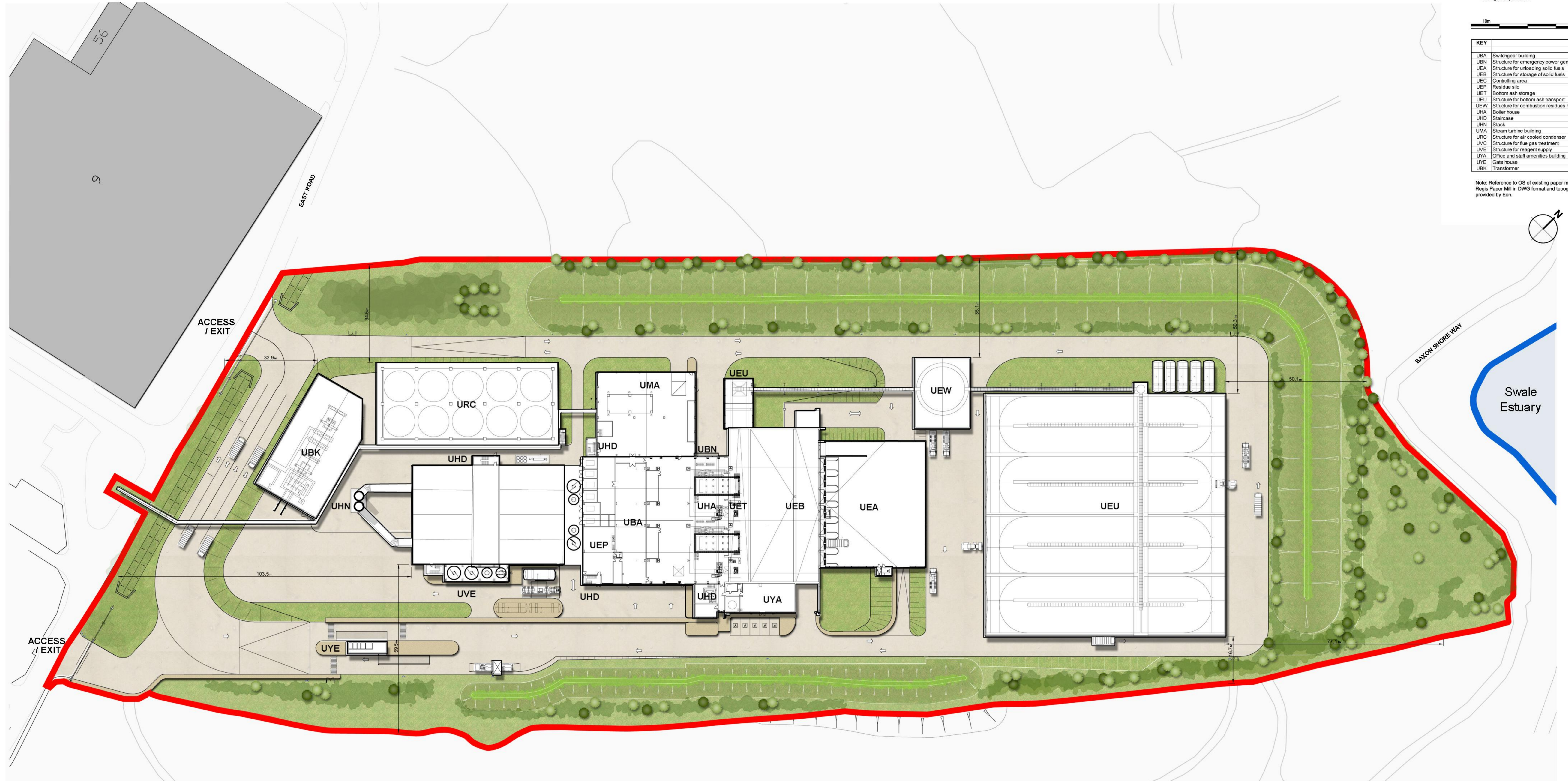
notes :

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2. All dimensions are in millimetres unless stated otherwise. It is recommended that information is not scaled off this drawing.
3. This drawing should be read in conjunction with all other relevant drawings and specifications.

10m SCALE 1:500

KEY	
UBA	Switchgear building
UBN	Structure for emergency power generating sets
UEA	Structure for unloading solid fuels
UEB	Structure for storage of solid fuels
UEC	Controlling area
UEP	Residue silo
UET	Bottom ash storage
UEU	Structure for bottom ash transport
UEW	Structure for combustion residues handling
UHA	Boiler house
UHD	Staircase
UHN	Stack
UMA	Steam turbine building
URC	Structure for air cooled condenser
UVC	Structure for flue gas treatment
UVE	Structure for reagent supply
UYA	Office and staff amenities building
UYE	Gate house
UBK	Transformer

Note: Reference to OS of existing paper mill provided by St Regis Paper Mill in DWG format and topographical survey provided by Eon.



Drawing for PLANNING purposes only

D	Enn logo added.	A.J.L. PRP	17.02.10
C	Surrounding site context and site gates added. Existing OS and colours altered.	S.M.C. PRP	09.12.09
B	Entrance clarified. Red line boundary confirmed. Critical dimensions added.	A.J.L. PRP	02.12.09
A	Boundary confirmed, swale extent reduced.	PRP RS	15.11.09

rev amendments by date

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Client
ST REGIS e-on
 Project: Kemsley Sustainable Energy Plant
 Title: Proposed Building Layout

Drawing Status	Date Created	Drawing Scale
Preliminary	November 2009	1:500
Project Leader	Drawn By	Initial Review
RS	A.J.L.	PRP

Drawing Number 16315 / A0 / P / 0105 D Rev

	Land Ownership Boundary
	Proposed Development Boundary

FIGURE 4.2

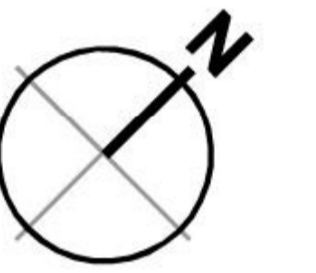
notes :

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3. This drawing should be read in conjunction with all other relevant drawings and specifications.

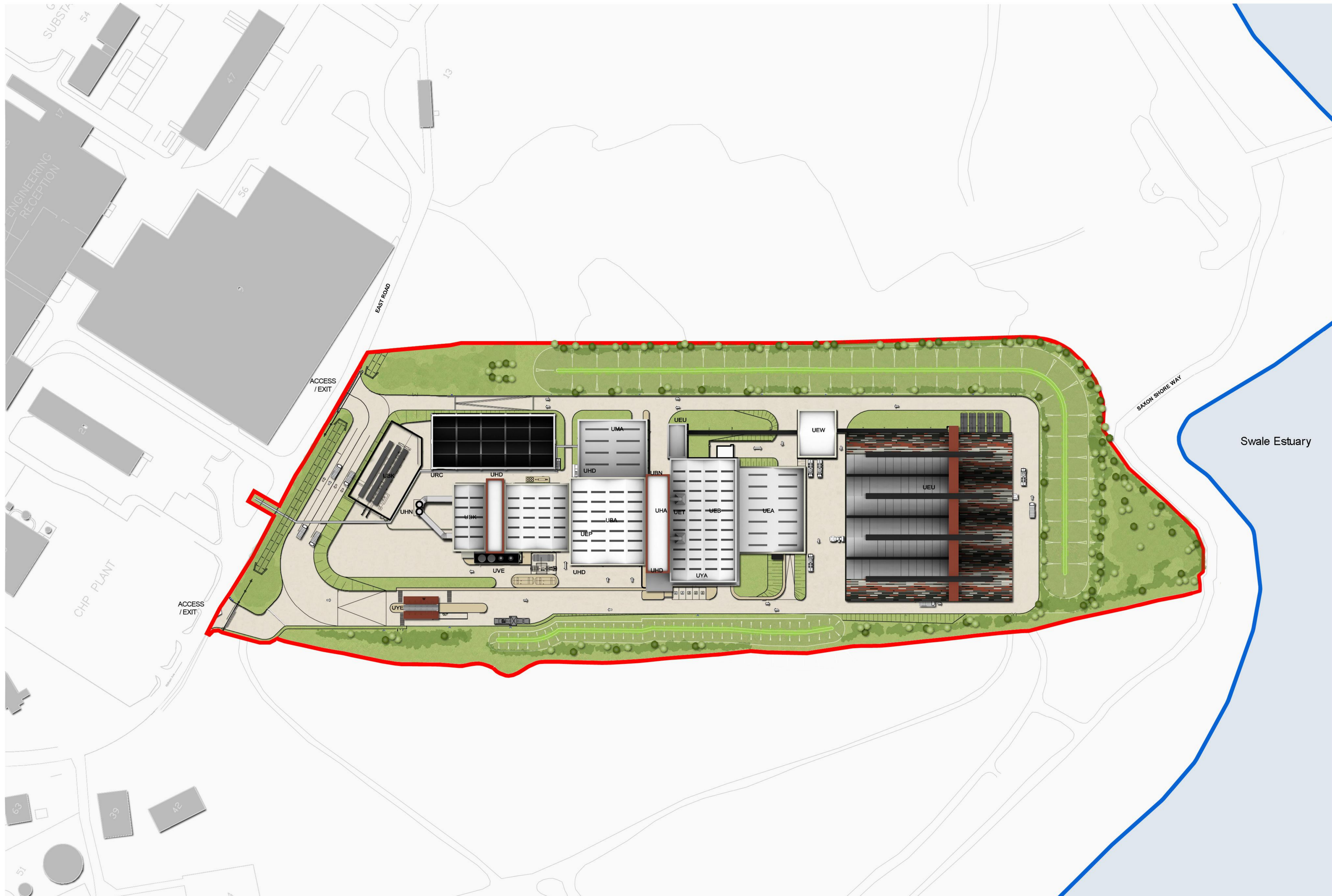
10m SCALE 1:1000

KEY	
UBA	Switchgear building
UBN	Structure for emergency power generating sets
UEA	Structure for unloading solid fuels
UEB	Structure for storage of solid fuels
UEC	Controlling area
UEP	Residue silo
UET	Bottom ash storage
UEU	Structure for bottom ash transport
UEW	Structure for combustion residues handling
UHA	Boiler house
UHD	Staircase
UHN	Stack
UMA	Steam turbine building
URC	Structure for air cooled condenser
UVC	Structure for flue gas treatment
UYA	Office and staff amenities building
UYE	Gate house
UBK	Transformer

Note: Reference to OS of existing paper mill provided by St Regis Paper Mill in DWG format and topographical survey provided by Eon.



	Land Ownership Boundary
	Proposed Development Boundary



Drawing for **PLANNING** purposes only

E	E.ON logo added.	KRy	PRP	15.02.10
D	Roof plan updated. Transformer confirmed as external.	AJL	PRP	21.01.10
C	Surrounding site context and site gates added. Existing OS and colours altered.	SMG	PRP	08.12.09
B	Entrance Clarified. Red line boundary confirmed. Critical dimensions added.	AJL	PRP	02.12.09
A	Boundary confirmed, swale extent reduced	PRP	RS	19.11.09

rev	amendments	by	chkd	date



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Client



Project **Kemsley Sustainable Energy Plant**

Title **Proposed Site Layout**

Drawing Status	Date Created	Drawing Scale
Preliminary	November 2009	1:1000
Project Leader	Drawn By	Initial Review
RS	AJL	PRP

Drawing Number **16315 / A1 / P / 0100 E**

FIGURE 4.3

notes :

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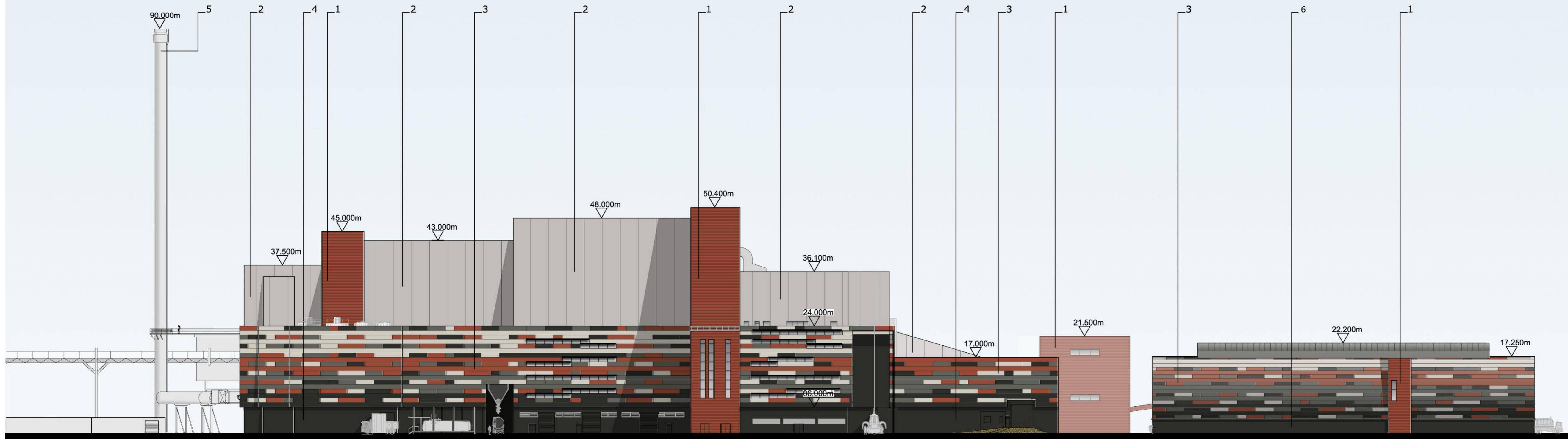
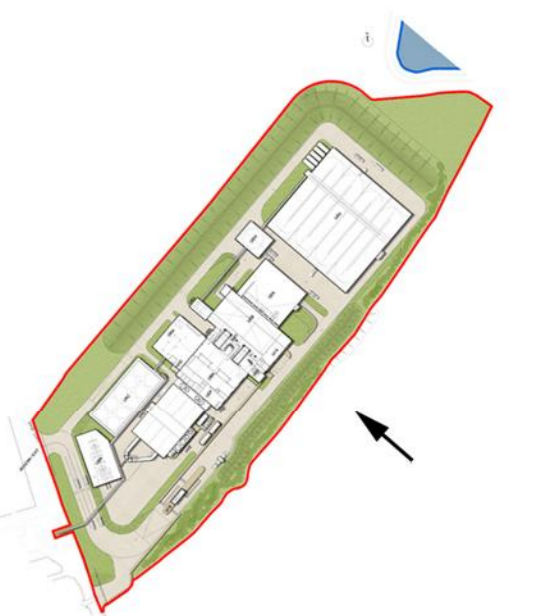
10m SCALE 1:500

10m SCALE 1:1000

Key:

1. Horizontally laid Sinusoidal profile insulated cladding panel with Colorcoat HPS2008 Ultra coating - Colour 'Terracotta' (matt finish) / RAL 040 40 40
2. Vertically laid Flat profile insulated cladding panel with Colorcoat HPS2008 Ultra coating - Colour 'Albatross' / RAL 240 80 05
3. Horizontally laid Flat profile insulated cladding panel with Colorcoat HPS2008 Ultra coating - 1000mm deep bands - Colours random mixture 'Terracotta' (matt finish) RAL 040 40 40/ Merlin Grey RAL 180 40 05/ Anthracite (matt finish) RAL 7016/ Hamlet RAL 9002
4. Vertically laid Trapezoidal profile insulated cladding panel with Colorcoat HPS2008 Ultra coating - Colour 'Anthracite' (matt finish) / RAL 7016
5. Stack - Colour 'Light Grey' / RAL 7035
6. Concrete plinth detail - Colour 'Anthracite'
7. Horizontally laid Flat profile cladding sheet with Colorcoat HPS2008 Ultra coating - 1000mm deep bands - Colours random mixture - 'Terracotta' (matt finish) RAL 040 40 40/ Merlin Grey RAL 180 40 05/ Anthracite (matt finish) RAL 7016/ Hamlet RAL 9002

All Doors and Louvres to match adjacent cladding colour
 Polyester powder coated aluminium window frames and Brise Soleil - Colour 'Anthracite' (matt finish) / RAL 7016
 Metal external handrails and plant support - Colour 'Anthracite' (matt finish) / RAL 7016 (with contrasting elements to comply with building regulations)
 Paladin fencing and gates - Colour 'Anthracite' (matt finish) / RAL 7016



SOUTH EAST ELEVATION

Drawing for **PLANNING** purposes only

F	Logo confirmed.	A.J.L.	PRP	03.03.10
E	E.ON logo added.	K.Ry	PRP	15.02.10
D	Stack colour reference amended. Crane area material changed to concrete.	A.J.L.	PRP	18.01.10
C	Key and notes updated and minor amendments to drawing.	SMG	PRP	16.12.09
B	Building levels information clarified. Keyplan Updated. Stack height confirmed.	A.J.L.	PRP	25.11.09
A	Key added. Keyplan updated. Building elements labelled.	A.J.L.	PRP	19.11.09

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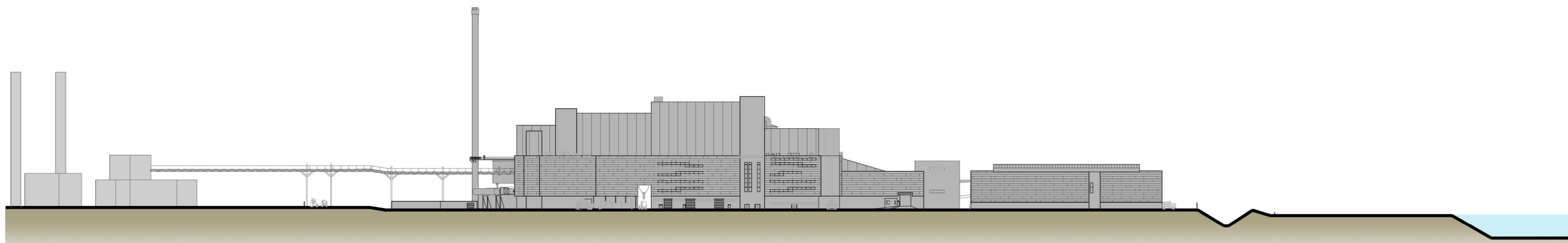
Project **Kemsley Sustainable Energy Plant**

Title **South East Elevation**

Drawing Status	Date Created	Drawing Scale
Preliminary	11.11.09	1:500
Project Leader	Drawn By	Initial Review
AWY	SMG	RS

Drawing Number **16315 / A1 / P / 0110 F** Rev

FIGURE 4.4



Existing Paper Mill (With Indicative Building Heights)
SOUTH EAST SITE SECTION
 1:1000

Proposed Sustainable Energy Plant

Attenuation Pond

Swale Estuary

notes :

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2. All dimensions are in millimetres unless stated otherwise. It is recommended that information is not scaled off this drawing.
3. This drawing should be read in conjunction with all other relevant drawings and specifications.

10m SCALE 1:500

Key:

1. Horizontally laid Sinusoidal profile insulated cladding panel with Colorcoat HPS2008 Ultra coating - Colour 'Terracotta' (matt finish) / RAL 040 40 40
2. Vertically laid Flat profile insulated cladding panel with Colorcoat HPS2008 Ultra coating - Colour 'Albatross' / RAL 240 80 05
3. Horizontally laid Flat profile insulated cladding panel with Colorcoat HPS2008 Ultra coating, 1000mm deep bands - Colours random mixture 'Terracotta' (matt finish) RAL 040 40 40/ Merlin Grey RAL 180 40 05/ Anthracite (matt finish) RAL 7016/ Hamlet RAL 9002
4. Vertically laid Trapezoidal profile insulated cladding panel with Colorcoat HPS2008 Ultra coating - Colour 'Anthracite' (matt finish) / RAL 7016
5. Stack - Colour 'Light Grey' / RAL 7035
6. Concrete plinth detail - Colour 'Anthracite'
7. Horizontally laid Flat profile cladding sheet with Colorcoat HPS2008 Ultra coating, 1000mm deep bands - Colours random mixture 'Terracotta' (matt finish) RAL 040 40 40/ Merlin Grey RAL 180 40 05/ Anthracite (matt finish) RAL 7016/ Hamlet RAL 9002

All Doors and Louvres to match adjacent cladding colour

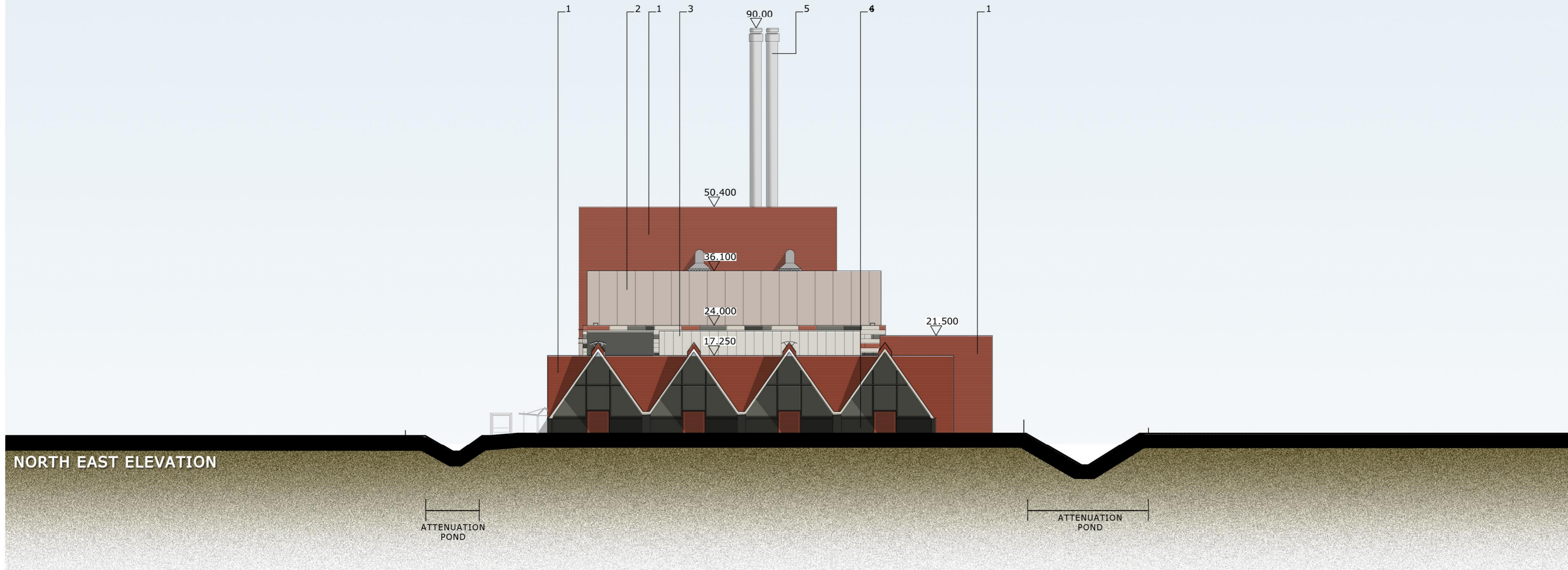
Polyester powder coated aluminium window frames and Brise Soleil - Colour 'Anthracite' (matt finish) / RAL 7016

Metal external handrails and plant support - Colour 'Anthracite' (matt finish) / RAL 7016 (with contrasting elements to comply with building regulations)

Paladin fencing and gates - Colour 'Anthracite' (matt finish) / RAL 7016



NORTH EAST ELEVATION



Drawing for **PLANNING** purposes only

E	E.ON logo added. Building extents confirmed.	KRy	PRP	15.02.10
D	Stack colour reference amended. Crane area material changed to concrete. UMA extents confirmed.	AJL	PRP	18.01.10
C	Key updated, Brise Soleil added. Other minor amendments to drawing.	SMG	PRP	17.12.09
B	Elevation altered to show UEB.	AJL	PRP	23.11.09
A	Key added. Keyplan Updated. Building Elements Labelled.	AJL	PRP	19.11.09

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Project **Kemsley Sustainable Energy Plant**

Title **North East Elevation**

Drawing Status	Date Created	Drawing Scale
Preliminary	11.11.09	1:500
Project Leader	Drawn By	Initial Review
AWY	SMG	RS

Drawing Number **16315 / A1 / P / 0111 E** Rev

FIGURE 4.5

notes :

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10m SCALE 1:500

Key:

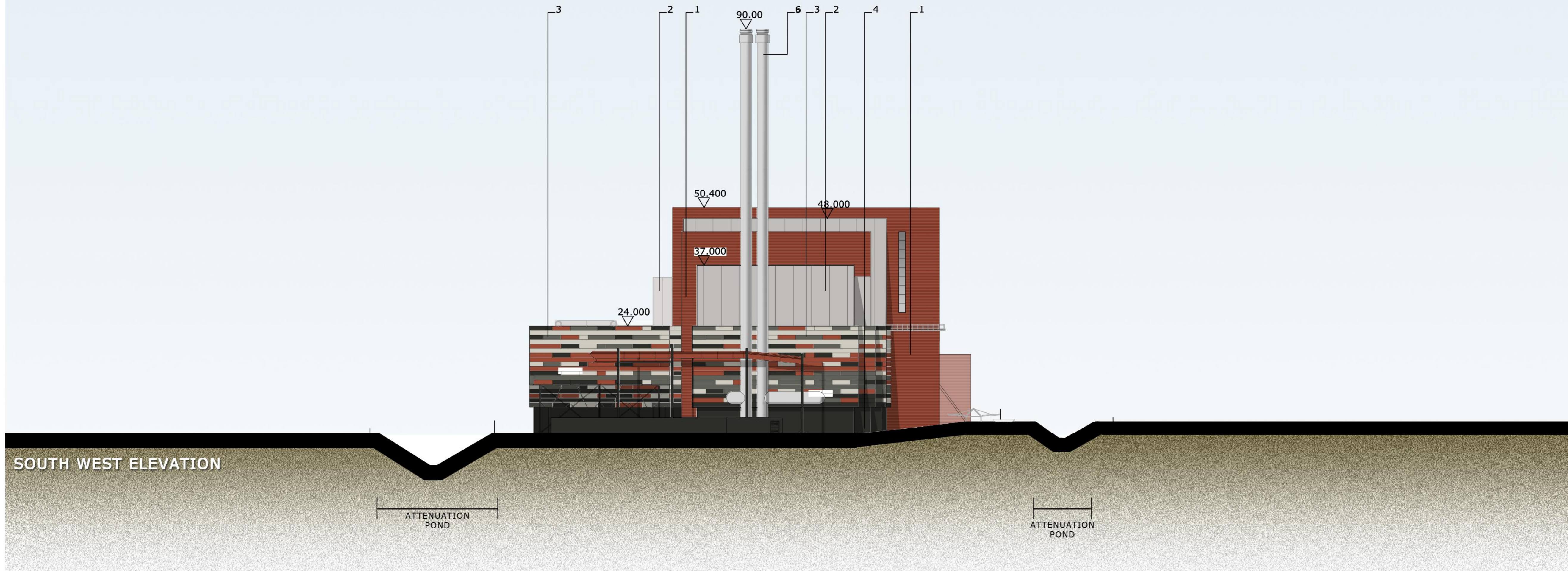
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2. Vertically laid Flat profile insulated cladding panel with Colorcoat HPS2008 Ultra coating - Colour 'Albatross' / RAL 240 80 05
3. Horizontally laid Flat profile insulated cladding panel with Colorcoat HPS2008 Ultra coating, 1000mm deep bands - Colours random mixture 'Terracotta' (matt finish) RAL 040 40 40/ Merlin Grey RAL 180 40 05/ Anthracite (matt finish) RAL 7016/ Hamlet RAL 9002
4. Vertically laid Trapezoidal profile insulated cladding panel with Colorcoat HPS2008 Ultra coating - Colour 'Anthracite' (matt finish) / RAL 7016
5. Stack - Colour 'Light Grey' / RAL 7035
6. Concrete plinth detail - Colour 'Anthracite'
7. Horizontally laid Flat profile cladding sheet with Colorcoat HPS2008 Ultra coating, 1000mm deep bands - Colours random mixture 'Terracotta' (matt finish) RAL 040 40 40/ Merlin Grey RAL 180 40 05/ Anthracite (matt finish) RAL 7016/ Hamlet RAL 9002

All Doors and Louvres to match adjacent cladding colour
 Polyester powder coated aluminium window frames and Brise Soleil - Colour 'Anthracite' (matt finish) / RAL 7016
 Metal external handrails and plant support - Colour 'Anthracite' (matt finish) / RAL 7016 (with contrasting elements to comply with building regulations)
 Paladin fencing and gates - Colour 'Anthracite' (matt finish) / RAL 7016



Drawing for PLANNING purposes only

SOUTH WEST ELEVATION



F	E.ON logo added. Building extents clarified.	KRy	PRP	15.02.10
E	Stack colour reference amended. UMA extents confirmed.	AJL	PRP	18.01.10
D	Key updated and minor amendments to drawing.	SMG	PRP	17.12.09
C	Building levels information clarified. Key updated. Stack material indicated.	AJL	PRP	25.11.09
B	Key & materials information added.	AJL	PRP	23.11.09
A	Key added. Keyplan Upadated. Building Elements Labelled.	AJL	PRP	19.11.09

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Project Kemsley Sustainable Energy Plant

Title South West Elevation

Drawing Status	Date Created	Drawing Scale
Preliminary	11.11.09	1:500
Project Leader	Drawn By	Initial Review
AWY	SMG	RS

Drawing Number 16315 / A1 / P / 0112 F Rev

notes :

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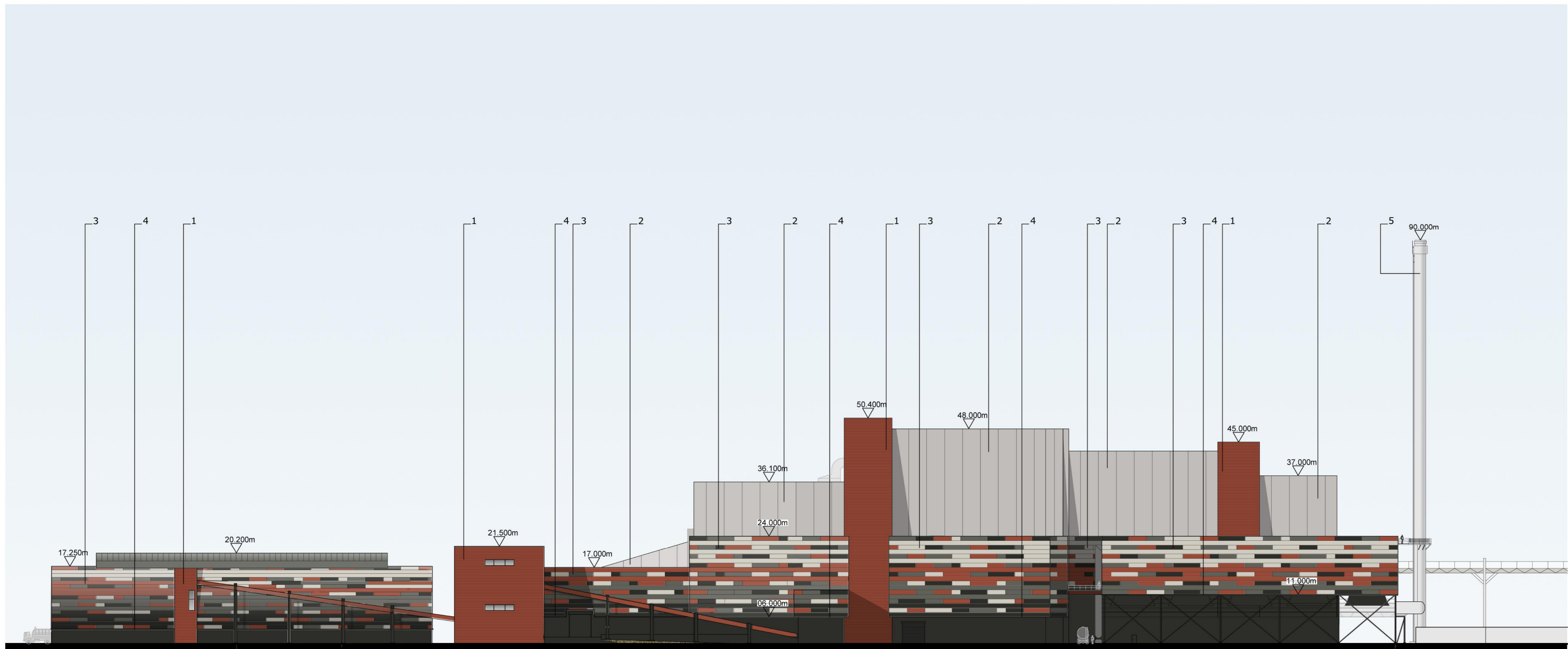
10m SCALE 1:500

10m SCALE 1:1000

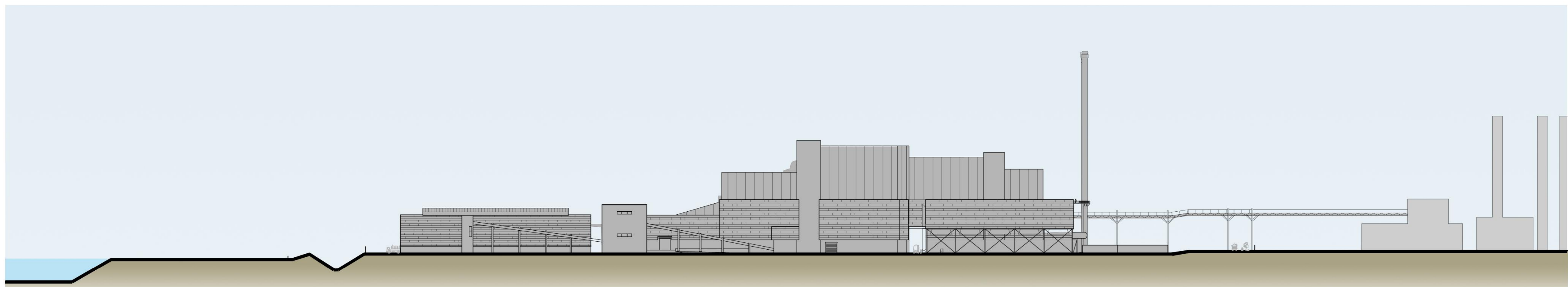
Key:

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2. Vertically laid Flat profile insulated cladding panel with Colorcoat HPS200® Ultra coating - Colour 'Albatros' / RAL 240 80 05
3. Horizontally laid Flat profile insulated cladding panel with Colorcoat HPS200® Ultra coating, 1000mm deep bands - Colours random mixture 'Terracotta' (matt finish) RAL 040 40 40 / 40 Merlin Grey RAL 180 40 05/ Anthracite (matt finish) RAL 7016/ Hamlet RAL 9002
4. Vertically laid Trapezoidal profile insulated cladding panel with Colorcoat HPS200® Ultra coating - Colour 'Anthracite' (matt finish) / RAL 7016
5. Stack - Colour 'Light Grey' / RAL 7035
6. Concrete plinth detail - Colour 'Anthracite'
7. Horizontally laid Flat profile cladding sheet with Colorcoat HPS200® Ultra coating, 1000mm deep bands - Colours random mixture 'Terracotta' (matt finish) RAL 040 40 40/ Merlin Grey RAL 180 40 05/ Anthracite (matt finish) RAL 7016/ Hamlet RAL 9002

All Doors and Louvres to match adjacent cladding colour
 Polyester powder coated aluminium window frames and Brise Soleil - Colour 'Anthracite' (matt finish) / RAL 7016
 Metal external handrails and plant support - Colour 'Anthracite' (matt finish) / RAL 7016 (with contrasting elements to comply with building regulations)
 Paladin fencing and gates - Colour 'Anthracite' (matt finish) / RAL 7016



NORTH WEST ELEVATION



NORTH WEST SITE SECTION
1:1000

Drawing for PLANNING purposes only

E	E.ON logo added. Building extents clarified.	KRy	PRP	15.02.10
D	Stack colour reference amended.	A.JL	PRP	18.01.10
C	Key and notes updated and minor amendments to drawing.	SMG	PRP	17.12.09
B	Building levels information clarified. Keyplan Updated. Stack height confirmed.	A.JL	PRP	25.11.09
A	Key added. Keyplan updated. Building elements labelled.	A.JL	PRP	19.11.09

rev	amendments	by	ckd	date
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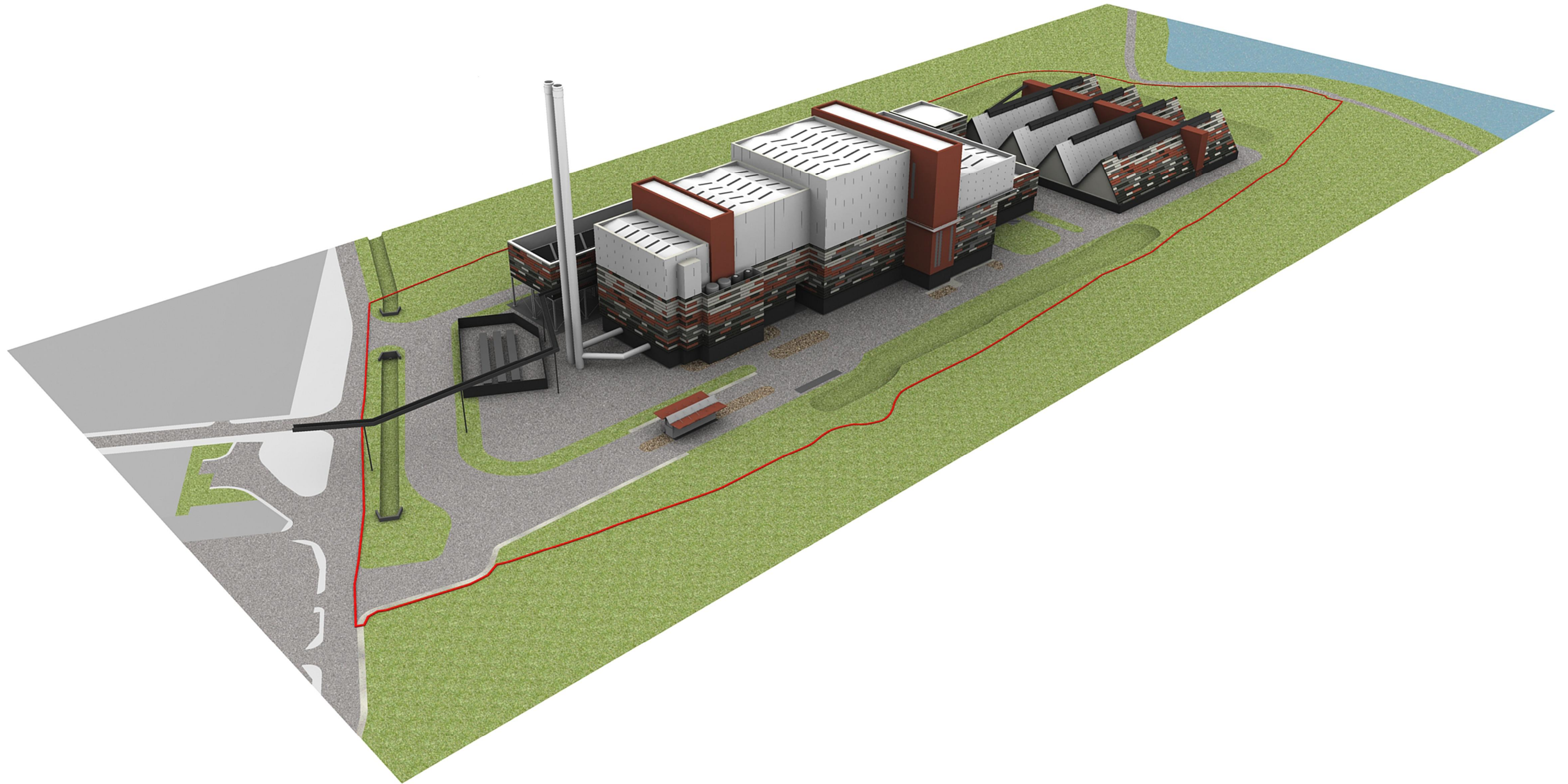
Project Kemsley Sustainable Energy Plant

Title North West Elevation

Drawing Status	Date Created	Drawing Scale
Preliminary	11.11.09	1:500
Project Leader	Drawn By	Initial Review
AWY	SMG	RS

Drawing Number 16315/A1/P/0113 E

FIGURE 4.7



Kemsley Sustainable Energy Plant
Illustrative Visualisation 2 of 8

16315/P/0151

FIGURE 4.30

Rev D
16/11/09
Scale NTS @ A3

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