# Design and Access Statement

**CONSULTATION DRAFT – JUNE 2020** 



This document is a Design and Access Statement for proposals for a taller stack at the Enviroparks waste resource recovery and energy production park on Fifth Avenue, Hirwaun Industrial Estate, Hirwaun, South Wales.

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### **Design and Access Statement**

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## Chapter One INTRODUCTION

#### **BACKGROUND**

1.1 This design and access statement (DAS) supports a planning application by Enviroparks (Wales) Limited ('EWL' or 'the Applicant') for a 90 metre high stack in a revised location at its waste recovery and energy production plant at Fifth Avenue on the Hirwaun Industrial Estate, near Hirwaun in South Wales.

#### The Applicant: Enviroparks (Wales) Limited

- 1.2 EWL is an energy company that has developed a concept of co-locating waste recycling, energy recovery and associated commercial operations on the same site or 'park'. The company's approach is to recycle diverse waste streams using integrated advanced technologies to maximise recycling and energy generation with the minimum residual waste and environmental impact.
- 1.3 Based in Abergavenny, EWL was established with the aim of developing a chain of Enviroparks in the UK. EWL is funded by private investors and investing institutions. The directors of EWL formerly developed a battery recycling facility in Ebbw Vale which is the most modern of its kind in Europe and one of only two in the UK. Now employing 135 staff, the plant has become one of largest producers of lead roofing materials worldwide.
- 1.4 EWL is working in partnership with several specialist technology providers to deliver its aims. The combination of technologies brought together by EWL is designed to ensure high levels of efficiency with regard to fuel preparation and electricity production. These technologies are intended to represent Best Available Techniques for the functions they serve.

#### Background

1.5 In 2008 EWL (then called Enviroparks (Hirwaun) Limited) submitted planning applications to Rhondda Cynon Taf County Borough Council (RCT) and Brecon Beacons National Park Authority (BBNPA) for planning permission for development described as follows:

Development of a sustainable waste resource recovery and energy production park comprising 27,562  $m^2$  of buildings and structures, including a 10,240  $m^2$  building for use class B1 / B2 use; process buildings; a gatehouse and weighbridge; a visitor centre and administration building; a 20 MW $_e$  net capacity combined heat and power plant; with a 40 m ventilation stack; external anaerobic digestion, liquid and gas holding tanks; 30,352  $m^2$  of internal roads and hardstandings; vehicular parking; external security lighting; 17,497  $m^2$  of landscaping; vehicular ingress and egress from Fifth and Ninth Avenues, and associated utilities infrastructure.

1.6 Planning applications were made to two planning authorities because the boundary between the two crosses the application site. Planning permission was granted by both authorities on 21

December 2010 (RCT reference 08/1735/10 and BBNPA reference 08/02488/FUL) following the completion of a planning obligations agreement under section 106 of the Town and Country Planning Act 1990. These original proposals are referred to in this document as 'the 2010 scheme'.

- 1.7 Since then the planning permissions have been implemented through the construction of the first phase of the development. However, since the original scheme design was prepared in 2008, advances in waste recovery technologies and a much-changed policy and commercial landscape for waste recovery and renewable energy generation necessitated a review of the original master plan for the Enviroparks site. The outcome of this review was a focus on waste gasification technology, with the required process plant contained under cover in a single large building on the Hirwaun site.
- 1.8 In 2017 revised planning applications were submitted for the following development:

Amended phase II development and operation of a sustainable waste resource recovery and energy production park, comprising the consolidation of the approved gasification yard and pyrolysis building into a 6,270.43 m² gasification hall; an emissions stack measuring 45 m in height and 3.5 m in diameter; a 2,102.86 m² fuel storage hall and a 378 m² turbine hall for electricity generation; and a 4,824 m² open service yard containing ancillary structures including air-cooled condensers for the gasification plant, ancillary fire water tanks and a fire pumphouse, effluent pumps, gas boosters, transformers and a standby diesel generator and fuel tank, with boundary landscape and planting.

1.9 Planning permission was granted for this development in February 2019 (RCT reference 17/0249/10 and BBNPA reference 17/14587/FUL). These amended proposals are referred to in this document as 'the 2019 scheme'.

#### The current proposals

- 1.10 Since the 2019 approval, the proposals for phase 2 have been reviewed by the applicant in response further modelling of the anticipated emissions from the gasification process. In pursuit of a superior operational and environmental performance the applicant decided to seek planning permission to relocate the main stack within the Enviroparks site and to increase the height of the structure from 45 metres, as currently consented, to 90 metres. This will improve the emissions profile of the plant, particularly in respect of acid and nutrient nitrogen deposition on adjacent Special Areas of Conservation (SAC).
- 1.11 The proposed development that forms the subject of the current planning application relates solely to the provision for an amended main stack. No other elements of the previously consented scheme are proposed to be altered. For reasons that will be explained, the stack will be relocated from its established central location on the site to a service yard to the east of the consented Gasification Hall.
- 1.12 The revised stack, including its access from the public highway, is now located wholly within the jurisdiction of RCT and the current planning application is thus submitted to this planning authority alone, with BBNPA becoming a consultee to the application.

Form and content of the planning submission

1.13 EWL is applying to RCT for planning permission for the following development, which is illustrated in the proposed site plan at figure 1.1:

**Development description:** Construction and use of a stack with associated pipework and continuous emissions monitoring systems gantry with ladder access

- 1.14 A new Environmental Statement Addendum ('the ES Addendum 2020') is submitted alongside this application to provide an updated assessment of the likely significant environmental effects of the proposals.
- 1.15 Being a waste industry project, the submission constitutes a 'major development'. In accordance with the Town and Country Planning (Development Management Procedure) (Wales) (Amendment) Order 2016, the current proposals were the subject of pre-application consultations. A draft of this Design and Access Statement was made available in support of the consultation exercise.

#### THIS DOCUMENT

#### **Purpose**

- 1.16 This statement has been prepared in accordance with the Town and Country Planning (Development Management Procedure) (Wales) Order 2012, as amended by the Town and Country Planning (Development Management Procedure) (Wales) (Amendment) Order 2016, according to which a design and access statement must:
- a). explain the design principles and concepts that have been applied to the development;
- b). demonstrate the steps taken to appraise the context of the development and how the design of the development takes that context into account;
- c). explain the policy or approach adopted as to access, and how policies relating to access in the development plan have been taken into account; and
- d). explain how any specific issues which might affect access to the development have been addressed.
- 1.17 This statement has been prepared in accordance with the Welsh Government's Technical Advice Note 12: *Guidance on Design and Access Statements* (TAN12, March 2016) and the Welsh Government's guidance *Design and Access Statements in Wales* (April 2017). According to paragraph A2.2 of TAN12, the main roles of a DAS are:
- to ensure that the developer can provide evidence to justify proposals in terms of planning policy (national and local) and in terms of the factors listed in Table 1;
- to explain how the objectives of good design have been applied, or where they have not been applied, the reasons for that;



- to clearly set out the established vision and principles for the scheme;
- to demonstrate that the principles of sustainability have been addressed and used to inform the design of the development;
- to illustrate how the developer has considered conflicting demands and the extent to which these considerations have influenced the proposed development;
- to ensure that the developer has satisfactorily considered design issues (such as those considered in section 5 of TAN 12) early in the design process and that potential problems are highlighted before detailed design work commences;
- to demonstrate how design decisions have been influenced through the reappraisal of the design.
- 1.15 This updated DAS sets out the rationale for the stack redesign and explains how the revised structure would relate to consented developments on the Enviroparks site.

#### Contents of this document

- 1.16 Table 1.1 of the Welsh Government's TAN12: Guidance on Design and Access Statements advises that 'the DAS must explain the design principles and concepts that have been applied to the development or works; and that a DAS should also:
- demonstrate the steps taken to appraise the physical, social, economic and policy context of the development;
- explain how the design of the development takes that context into account in relation to its proposed use.
- 1.17 This approach has been followed in the current document.

## Chapter Two PROJECT BRIEF, SITE ANTALYSIS AND DESIGN EVOLUTION

#### **INTRODUCTION**

- 2.1 Chapter three of the ES Addendum 2020 that accompanies the current planning application provides a detailed description of the buildings and processes in the 2010 scheme and the 2019 scheme for which EWL already has planning permission.
- 2.2 The current planning application is concerned only with the relocation and an increase in height of the consented stack that would serve the consented gasification hall.

#### **SUMMARY OF THE PROPOSAL**

- 2.3 Emissions from the consented gasification plant would be expelled via a main stack. In its consented form the stack would be 45 metres high and 3.5 metres in diameter, and would occupy the verge between the northern side of the Gasification Hall and an internal spine road, which is already constructed. This is a confined space, close to the main thoroughfare along which lorries would pass.
- 2.4 The current proposal is for a stack 90 metres high and 3.95 metres in diameter. The increase in stack height follows further studies on the emissions profile of the Enviroparks plant, particularly in relation to acid and nutrient nitrogen deposition on nearby Special Areas of Conservation (SAC), as the ES Addendum 2020 explains.
- 2.5 To facilitate access for emissions monitoring in conjunction with Natural Resource Wales (NRW), a continuous emissions monitoring systems (CEMS) gantry is proposed around the stack at a deck height of 18.5 metres above local ground level. Access to the CEMS gantry would be by means of a permanent steel frame ladder.
- 2.6 The CEMS gantry would be a cantilevered platform 10.5 metres in diameter, meaning that it would overhang the existing access road if the stack were to remain in its current, consented, location. Given these space restrictions the applicant decided to relocate the stack to the service yard on the eastern side of the Gasification Hall. This location would provide more space in which to maintain the stack, and promotes the mutual safety of access road users and staff working on the stack.
- 2.7 The proposed stack would be finished in a smooth, flangeless external cladding in a graded colour scheme intended to give the stack a regressive appearance in the local landscape. If aviation warning lights are required, these would be of the infra-red type, invisible to the human eye. The adjacent Gasification Hall would be connected to the stack my means of pipework, above head height and below the CEMS gantry.

2.8 Vehicular access to the stack would be by means of the existing internal access road from Ninth Avenue and across the partly built service yard between the existing Fuel Preparation Building and the consented Gasification Hall.

**Stack construction** 

2.9 The stack would stand on an impermeable reinforced concrete slab. Stack components would be brought to the Enviroparks site by lorry in modular sections fabricated off-site, and erected with the assistance of a crane. Final stack assembly is likely to be completed within a month.

#### Stack decommissioning

2.10 The stack is intended to be a permanent structure. However, as and when the stack needs to be removed, it would be disassembled with the assistance of a crane in a process that is effectively a reversal of the construction process described above. The stack will be manufactured from high quality materials that would be recycled.

#### THE BRIEF AND VISION

- 2.11 Since the 2019 approval, the proposals for phase 2 have been reviewed by the applicant in response further modelling of the anticipated emissions from the gasification process. As explained, in pursuit of a superior operational and environmental performance the applicant decided to seek planning permission to relocate the main stack with the Enviroparks site and to increase the height of the structure from 45 metres, as currently consented, to 90 metres.
- 2.12 There is inherent environmental benefit in this in respect of the dispersion of emissions to the atmosphere and the reduced potential for nutrient nitrogen deposition on protected habitats. However, this comes at the price of a taller structure and an important design consideration was how this would be accommodated in local and distant views, including views from local residential properties and from the Brecon Beacons National Park.
- 2.13 The brief was thus to find a design solution for the taller stack that meets operational, air quality and habitat protection objectives whilst presenting an acceptable landscape and visual solution.

#### **SITE CONTEXT AND ANALYSIS**

2.14 The Enviroparks site lies within the Hirwaun Industrial Estate, which lies to the north of the A465 'Heads of the Valley' east-west trunk road, close to its junction with the A4059 / A4061 north-south route between Brecon and the Rhondda Valley. Road access to the site is gained from the A465(T) Heads of the Valley road via the A4061 Rhigos Road, which leads onto Fifth Avenue. The site has existing road accesses from Fifth Avenue to the south and Ninth Avenue to the east. These are currently sealed to deter unauthorised access.

- 2.15 The nearest large settlements in the area are Merthyr Tydfil 11 km to the east, and Aberdare, 7 km to the south-east. Local settlements include Hirwaun, 2 km to the south-east of the site, the village of Penderyn 2 km to the north-north-east, and Rhigos, which lies 1.7 km to the south-west of the application site. There are isolated smaller dwellings closer to the site, and two hotels.
- 2.16 The site is located in an area of varied terrain. Whereas the Hirwaun Industrial Estate occupies a generally level area of land, the land rises gently to the south and east, and more steeply to the east and north, into the National Park. Established land uses in the locality are also diverse, with a variety of manufacturing, storage and waste reclamation activities taking place on the industrial estate itself, and with a large area to the south-east of the industrial estate occupied by the workings of the former Tower Colliery. Across Ninth Avenue from the application site stands a large industrial complex operated by Eden Industries. On the southern side of Fifth Avenue to the south-east of the site are other industrial sheds and storage yards. The area to the north and west of the planning application site is more rural in character, comprising woodlands and well-defined fields used for pasture.
- 2.17 Water storage, transfer and treatment facilities are a notable feature of the locality. Immediately to the north of the planning application site is the Penderyn reservoir, a lake formed by high artificial embankments. The reservoir is used for fishing by the Mountain Ash Fly Fishers Association (MAFFA). In addition to the reservoir there are operational pumping station and treatment facilities at the northern end of Ninth Avenue and on both sides of Fifth Avenue to the south-west of the application site.
- 2.18 The Enviroparks site itself contains a first phase of development with the following built elements.
- A large building, known as the Fuel Preparation Hall, in the south-east part of the site, with a
  gatehouse, temporary construction laydown and parking areas and foul and surface water
  drainage works.
- Internal site access roads, running from the site entrance on Ninth Avenue, westwards across the central area of the site and then southwards to Fifth Avenue at the south-western corner of the site.
- 2.19 Other areas of the site are covered in grass with some trees and shrubs inside the northern and western site boundaries.
- 2.20 Recent developments in the locality are listed in chapter two: *Site Description* of the ES Addendum 2020 and include the following.
- i). Pen y Cymoedd wind farm on an upland ridge 3.5 km to the south of the application site. This 76 turbine development is located on land managed by Natural Resources Wales in the county boroughs of Rhondda Cynon Taf and Neath Port Talbot.
- ii). An electricity sub-station required to connect Pen y Cymoedd wind farm to the electricity distribution network, located 475 metres to the west of the Application site on land at Fourteenth Avenue on Hirwaun Industrial Estate, on the southern side of the A465 Heads of the Valleys Road.

- iii). A diesel-powered generation station operated by Green Frog Connect Limited, providing short-term operating reserve power supply on land off Main Avenue on Hirwaun Industrial Estate, 400 metres to the south of the Enviroparks site (planning reference 11/1191/10).
- 2.21 Proposed and impending developments in the locality include the following.
- i). The Abergorki wind farm (7.4 km distant), for which planning permission has been granted for three wind turbines with overall tip height of 149.9m, is yet to be constructed (planning references 13/0663/10 and 18/0523/15).
- ii). The Hirwaun Generating Station Order 2015 (SI 2015 No. 1574), a Development Consent Order under the Planning Act 2008, was made on 23 July 2015 for an open cycle gas turbine power station to the north of Main Avenue on Hirwaun Industrial Estate, on the site of existing storage and distribution buildings. This consent was subject to non-material changes through the Hirwaun Generating Station (Amendment) Order 2017 (2017 No. 1009 (W.258)). The site is to be developed by Hirwaun Power Limited (HPL), a subsidiary business of Drax Group. Demolition of existing buildings is due to commence shortly and power station construction work is expected to take approximately 24 months to complete. The proposed power station would be 340 metres to the south of the Enviroparks site at its closest point, and when complete will feature up to four flue stacks up to 35 metres in height and up to ten metres in width.
- iii). Open-cast coal mining at Tower Colliery, 1.5 km to the south of the site, has ceased and the site is in the process of being restored. Planning permission was granted in 2019 for an Environmental Resources Centre on a part of the site (RCT planning application reference 19/0087/10). An EIA Scoping Report was submitted in December 2019 (planning reference 19/1318/35) for the proposed development of land south of Hirwaun (the area covered by the former Tower Colliery works) in accordance with RCT's Local Development Plan (LDP) allocation 'Northern Strategic Area 8 Land South of Hirwaun'. The proposed development will incorporate approximately 1.5 hectares (ha) of residential land, approximately 25 ha of employment land, approximately 5 ha of commercial land with associated open space, access, infrastructure and engineering works.
- iv). Planning permission has been granted for the erection of three zip wire courses and associated infrastructure on the former Tower Colliery site (RCT reference 19/1192/10).
- v). Planning permission was granted for the change of use of Unit 43-44 Seventeenth Avenue on Hirwaun Industrial estate to a wood pyrolysis unit (planning reference 13/0416/10). This has now been developed and is operational. This site is a minimum 580 metres to the south-west of the Enviroparks site.
- vi). Highway upgrade works have continued on the A465 Heads of the Valley Road, which provides strategic road access to Hirwaun Industrial Estate. Upgrades to sections of the A465 between Dowlais and Brynmawr to the east of Hirwaun are complete. Work on the section between Dowlais and Hirwaun have yet to commence, with the contracts due to be awarded and construction likely to commence later in 2020.

#### INTERPRETATION

- 2.22 The Enviroparks site is in a transitional position between the National Park to the north and the Hirwaun Industrial Estate to the south and east. The wider landscape to the south of the site contains a range of structures with a vertical emphasis, including electricity pylons, wind turbines and the stacks of a proposed gas-fired station. Structures of an industrial appearance are to be expected in a large and long-established employment area.
- 2.23 Hirwaun Industrial Estate effectively sits in an open bowl in the landscape. As a consequence many views towards the Enviroparks site are from more elevated positions. This is evident in the zones of theoretical visibility (ZTV) plan in the landscape and visual chapter of the ES addendum 2020, reproduced at the end of this document, which shows how views towards the application are contained by rising terrain.
- 2.24 Based on this analysis it was concluded that the design focus should be on a stack that looks clean, sleek and modern when seen from viewpoints closest to the site, and regressive in its visual prominence in more distant views, from where the stack is as likely to be seen against other industrial structures and more distant valley slopes as much as the open sky.

#### DESIGN DEVELOPMENT

- 2.25 Detailed computer modelling of the emissions from the Enviroparks site confirmed that an increase in stack height from 45 metres to 90 metres would provide the desired outcomes in terms of emissions dispersion and reduced nutrient nitrogen deposition on protected habitats. The technical substantiation of this conclusion is presented in the air quality and ecology and biodiversity chapters of the ES Addendum 2020 that accompanies the current planning application.
- 2.26 Detailed consideration of the engineering design and operation of the stack highlighted a need for a continuous emissions monitoring system (CEMS) gantry. The gantry would comprise a cantilevered platform 10.5m in diameter. In the stack's current consented location, this gantry would overhang the existing access road. Consideration of alternative stack locations, once more informed by emissions modelling, led EWL to conclude it would be preferable to relocate the stack to the service yard on the eastern side of the Gasification Hall. This location provides enough space in which to maintain the stack and is considered to be safer for road users and staff working at the stack than the consented stack location close to the main internal spine road. The revised stack location is readily accessible from the consented site access off Ninth Avenue, which has already been built. In this location the CEMS gantry would generally be screened in most external views by surrounding buildings.
- 2.27 It was acknowledged that a taller stack has the propensity to give rise to landscape and visual effects over a larger area. This is of particular interest given the location of the Enviroparks site on the edge of the Brecon Beacons National Park. To understand the likely effects, EWL commissioned landscape architects Pleydell Smithyman to identify and compare the zone of theoretical visibility (ZTV) for a 45 metre and 90 metre high stack. The outcome of this assessment is shown in the plan reproduced at the end of this document. Because of factors including the bowl-like nature of the local



topography, described above, the ZTV for a 90 metre stack was found to be only incrementally different than the ZTV for a 45 metre stack.

- 2.28 Options for stack design and construction materials were also considered. The preferred approach was determined to be the use of a smooth flangeless external cladding in a graded colour scheme, intended to give the stack a smooth finish regressive appearance in the local landscape.
- 2.29 Another visual consideration has been the specification of any aviation warning lights, should these be required. In order to reduce the visual effect the proposed development would use infra-red warning lights, which are invisible to the human eye and will therefore have less visual impact than standard aviation warning lights. This is a relevant consideration in respect of the international dark sky reserve status enjoyed by the National Park.

## Chapter Three THE PROPOSAL

#### **INTRODUCTION**

3.1 This chapter considers the propose stack under the headings that reflect the objectives of good design set out in figure 7 of Planning Policy Wales (Edition 10, December 2018 page 28), namely character, access, movement, environmental sustainability and community safety. The chapter concludes with a section on the response to planning policy.

#### **CHARACTER**

- 3.2 A stack is inevitably a functional structure, rarely capable of being disguised or concealed. On advice, EWL concluded that simplicity was the best design approach. A stack with a smooth flangeless finish and a graded colour scheme would result in a structure that, though visible, would be easily assimilated in a visual sense and a feature within the realm of what the viewer might expect to see on a large industrial estate.
- 3.3 The stack would be visible from the banks of the Penderyn Reservoir, which are used by anglers, but as explained has been designed not to detain the eye. The reservoir itself is a heavily engineered and plainly artificial structure.

#### **ACCESS AND MOVEMENT**

- 3.4 The stack would be inside the security fence of the Enviroparks plant and would never be open for public access. In operation it would only require access for occasional maintenance and monitoring. Most emissions monitoring would be undertaken automatically and remotely.
- 3.5 Vehicular and pedestrian access to the stack for operational purposes would be by means of an existing internal access road from Ninth Avenue and across the partly built service yard between the existing Fuel Preparation Building and the consented Gasification Hall.

#### **ENVIRONMENTAL SUSTAINABILITY**

- 3.6 The purpose of the proposed stack is to support the operation of an advanced waste gasification plant that would promote the more sustainable management of waste and the recovery of a renewable source of energy.
- 3.7 The stack itself would be constructed largely of high-grade metals that would be recycled once the stack reaches the end of its life.



#### **COMMUNITY SAFETY**

3.8 As noted, the stack would be located well within the secure outer cordon of the Enviroparks site and would be inaccessible to members of the public.

#### **RESPONSE TO PLANNING POLICY**

- 3.9 It would be inappropriate to consider the planning policy context for the stack entirely in isolation of the consented and much more extensive development of which it would form a part. Chapter five of the ES Addendum 2020 that accompanies the current planning application identifies the policy context for the Enviroparks development in the round.
- 3.10 For the stack specifically the following design policy cues relevant to the proposed stack were identified.

#### Planning Policy Wales (PPW) – Edition 10, December 2018

- 3.11 PPW chapter 3: Strategic and spatial choices contains guidance on the definition of good design. PPW paragraph 3.8 states that 'addressing environmental risks can make a positive contribution to environmental protection and improvement, addressing land contamination, instability and flood risk and providing for biodiversity, climate protection, improved air quality, soundscape and water resources benefits'. As noted, improved air quality and habitat protection are the core drivers of the proposal for a raised stack.
- 3.12 PPW section 5.4 concerns economic development. Paragraph 5.4.13 advises local planning authorities to 'deliver physical regeneration and employment opportunities to disadvantaged communities'. As demonstrated later in this chapter, both RCTCBC and BBNPA have allocated the Enviroparks site for employment development in their local development plans, and the Hirwaun area is an acknowledged area of economic need. PPW paragraphs 5.4.16-5.4.18 proceed to promote the development of business clusters. Hirwaun Industrial estate is recognised as a hub for sustainable energy and energy-related developments.
- 3.13 PPW section 6.3 highlights the importance of valued and protected landscapes including national parks. According to PPW paragraph 6.3.6, 'In National Parks, planning authorities should give great weight to the statutory purposes of National Parks, which are to conserve and enhance their natural beauty, wildlife and cultural heritage, and to promote opportunities for public understanding and enjoyment of their special qualities. Planning authorities should also seek to foster the social, economic and cultural well-being of their local communities'. The proposed stack is outside the Brecon Beacons National Park but is close to the boundary. This DAS has explained how the visibility of the proposed stack from the Brecon Beacons National Park has been taken into account in the design of the structure.
- 3.14 Section 6.4 of PPW draws attention to the 'section 6 duty' to enhance biodiversity and protect ecosystems introduced by the Environment (Wales) Act 2016. The duty is of particular relevance in

the context of statutorily protected wildlife sites such as the Blaen Cynon SSSI and SCA and other designated areas in the locality.

3.15 In response to PPW policy, EWL has sought in its design approach to balance the economic and sustainability benefits of the Enviroparks project in the round with the protection of air quality, European-designated habitats and the statutory purposes of National Park designation. In some respects the cited PPW policies pull in different directions and the proposed stack design is intended as a reasonable compromise.

#### **Technical Advice Note 12: Design (TAN12, March 2016)**

- 3.16 TAN12 elaborates upon the design advice in PPW. According to paragraph 6, 'The purpose of this TAN is to equip all those involved in the design of development with advice on how 'Promoting sustainability through good design' and 'Planning for sustainable building' may be facilitated through the planning system'.
- 3.17 Within the constraints of what the proposed development entails, EWL has sought to follow the design approach set out in TAN12, including an appreciation of the local context. However, it would be misleading to focus on the stack in isolation and a better appreciation of the overall design solution should take into account the Enviroparks development as a whole.
- 3.18 From its inception, EWL has placed a strong emphasis on design quality. The built and consented buildings on the site use a colour palette derived from the local setting and which takes account of seasonality, weathering and contrast with its built and natural surroundings. Building elevations feature wood shingle panels and the Enviroparks site will have a strong boundary landscape treatment, in contrast with most development on Hirwaun Industrial Estate. This approach is consistent with the advice in paragraphs 5.12.1 5.12.3 of TAN12 on the design of employment and commercial areas. The stack itself will be the most prominent feature on the site but would be set back from publicly-accessible locations and finished in smooth materials and a regressive colour scheme, so as not to detain the eye.

#### Rhondda Cynon Taf County Borough Local Development Plan

- 3.19 The RCTLDP was adopted in March 2011. Policy CS9 confirms that Hirwaun Industrial Estate is an appropriate location for in-building waste management uses of the type consented in the current application.
- 3.20 Chapter five of this plan sets out RCT's area-wide ('AW') policies, three of which are relevant in a design and access context policies AW5, AW6 and AW10.

#### Policy AW 5 - New Development

Development proposals will be supported where:-

1). Amenity

- a). The scale, form and design of the development would have no unacceptable effect on the character and appearance of the site and the surrounding area;
- b). Where appropriate, existing site features of built and natural environment value would be retained;
- c). There would be no significant impact upon the amenities of neighbouring occupiers;
- d). The development would be compatible with other uses in the locality;
- e). The development would include the use of multi-functional buildings where appropriate;
- f). The development designs out the opportunity for crime and anti-social behaviour.
- 2). Accessibility
- a). The development would be accessible to the local and wider community by a range of sustainable modes of transport;
- b). The site layout and mix of uses maximises opportunities to reduce dependence on cars;
- c). The development would have safe access to the highway network and would not cause traffic congestion or exacerbate existing traffic congestion;
- d). Car parking would be provided in accordance with the Council's Supplementary Planning Guidance on Delivering Design and Placemaking: Access, Circulation and Parking Requirements.

#### Policy AW 6 - Design and Placemaking

Development Proposals will be supported where:-

- 1. They are of a high standard of design, which reinforces attractive qualities and local distinctiveness and improves areas of poor design and layout;
- 2. They are appropriate to the local context in terms of siting, appearance, scale, height, massing, elevational treatment, materials and detailing;
- 3. In the case of extensions to buildings, they reflect, complement or enhance the form, siting, materials, details and character of the original building, its curtilage and the wider area;
- 4. In the case of proposals for new and replacement shop fronts and signage, they make a positive contribution to the street scene;
- 5. In the public realm and key locations such as town centres, major routes, junctions and public spaces, the character and quality of the built form is to a high standard of design;
- 6. They include public art;
- 7. Landscaping and planting are integral to the scheme and enhance the site and the wider context;
- 8. They include an integrated mixture of uses appropriate to the scale of the development;
- 9. They include the efficient use of land, especially higher-density residential development on sites in proximity to local amenities and public transport;
- 10. Open space is provided in accordance with the Fields in Trust Standards;
- 11. A high level of connectivity and accessibility to existing centres, by a wide range of modes of sustainable transport;
- 12. Schemes incorporate a flexibility in design to allow changes in use of buildings and spaces as requirements and circumstances change;
- 13. The development reflects and enhances the cultural heritage of Rhondda Cynon Taf;
- 14. The design protects and enhances the landscape and biodiversity;
- 15. The development promotes energy efficiency and the use of renewable energy; and

16. The design promotes good water management, including rainwater storage, sustainable urban drainage, porous paving etc.

Developers will be required to submit comprehensive master plans for residential proposals of 50 dwellings and over; for commercial developments of 10,000m² net and over; and for schemes where the Council considers the issue of place making can only be fully considered through the submission of a master plan. Master plans must have regard to the need to create high quality, sustainable and locally distinct places.

3.22 Insofar as policies AW5 and AW6 can be applied to a stack at the heart of a larger built complex in isolation, it is evident that the main policy consideration in respect of design arises from the scale of the structure and relates to the effects of the stack on landscape and local character. In these terms, reference is made to the landscape and visual impact assessment chapter of the ES Addendum 2020 that accompanies the current planning application, which concludes that:

....no significant changes upon landscape elements or landscape character would occur. The increase of stack would typically be most noticeable from close-range locations. However at no location would the proposed development result in significant adverse effects upon visual amenity where there were no significant effects as a result of the permitted scheme. The LVIA states that the revised stack could be accommodated in the landscape with only localised significant landscape and visual effects.

3.23 RCTLDP policy AW10 is relevant to the purpose of the proposed stack.

#### Policy AW 10 - Environmental Protection and Public Health

Development proposals will not be permitted where they would cause or result in a risk of unacceptable harm to health and / or local amenity because of:-

Air pollution;
 Noise pollution;
 Contamination;
 Landfill gas;
 Land instability;

7. Water pollution; 8. Flooding;

- 9. Or any other identified risk to the environment, local amenity and public health or safety unless it can be demonstrated that measures can be taken to overcome any significant adverse risk to public health, the environment and / or impact upon local amenity.
- 3.24 As explained earlier in this document, the sole purpose of the stack is to achieve superior emissions dispersion from a consented waste gasification plant and to reduce nutrient nitrogen deposition on protected habitats. As such, the current proposals comply with policy AW10.

#### RCT Supplementary Planning Guidance - Design and Place Making

3.25 Detailed guidance in respect of place making, site planning, design and master planning is contained in Supplementary Planning Guidance (SPG) entitled *Design and Place Making*, adopted by RCT in March 2011. Much of the SPG addresses development in residential or mixed use



neighbourhoods as opposed to the primarily functional considerations applicable on industrial estates. Nonetheless, the SPG provides guidance on the contents of DASs and this has been followed in the current document.

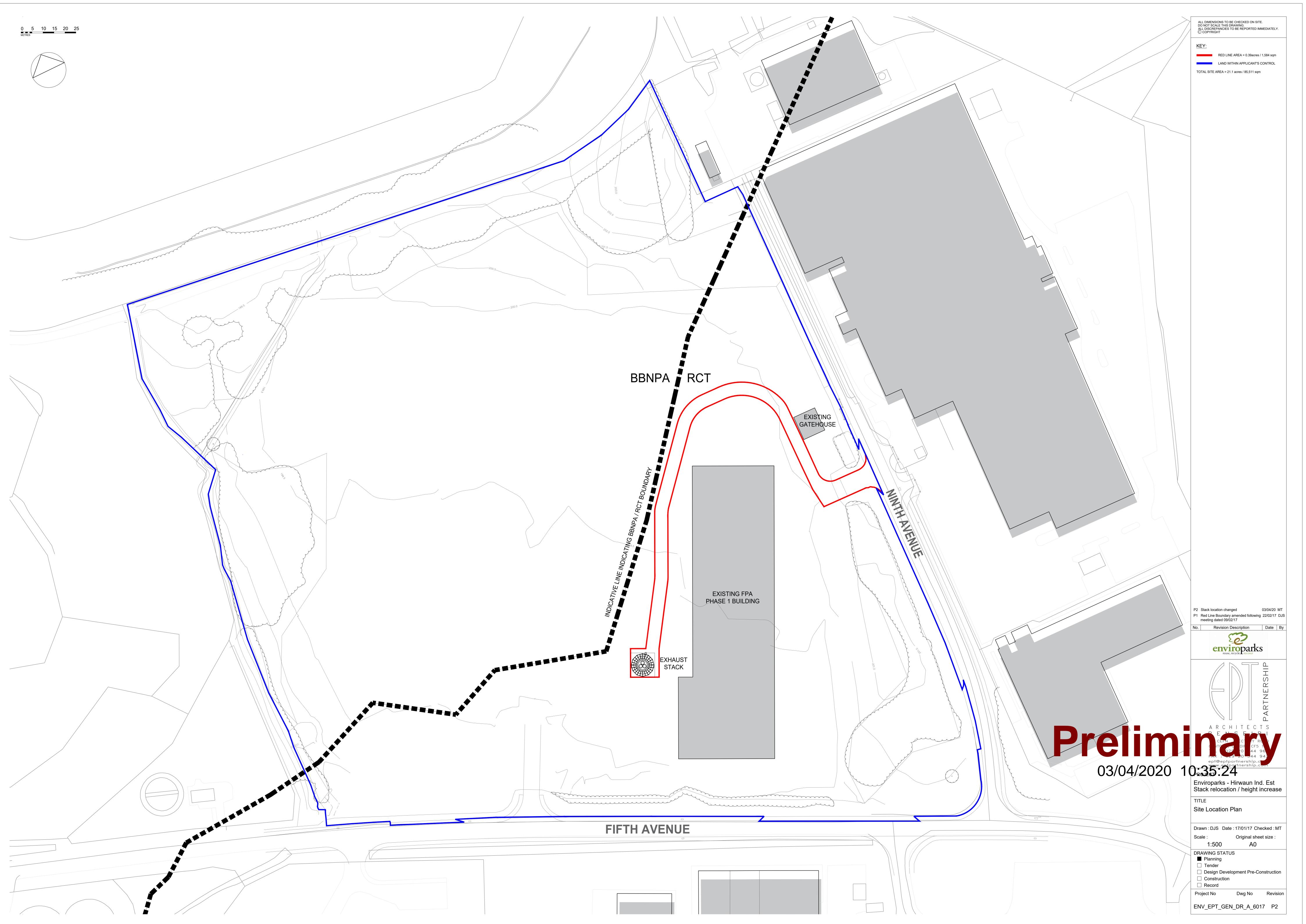
## Chapter Four CONCLUSION

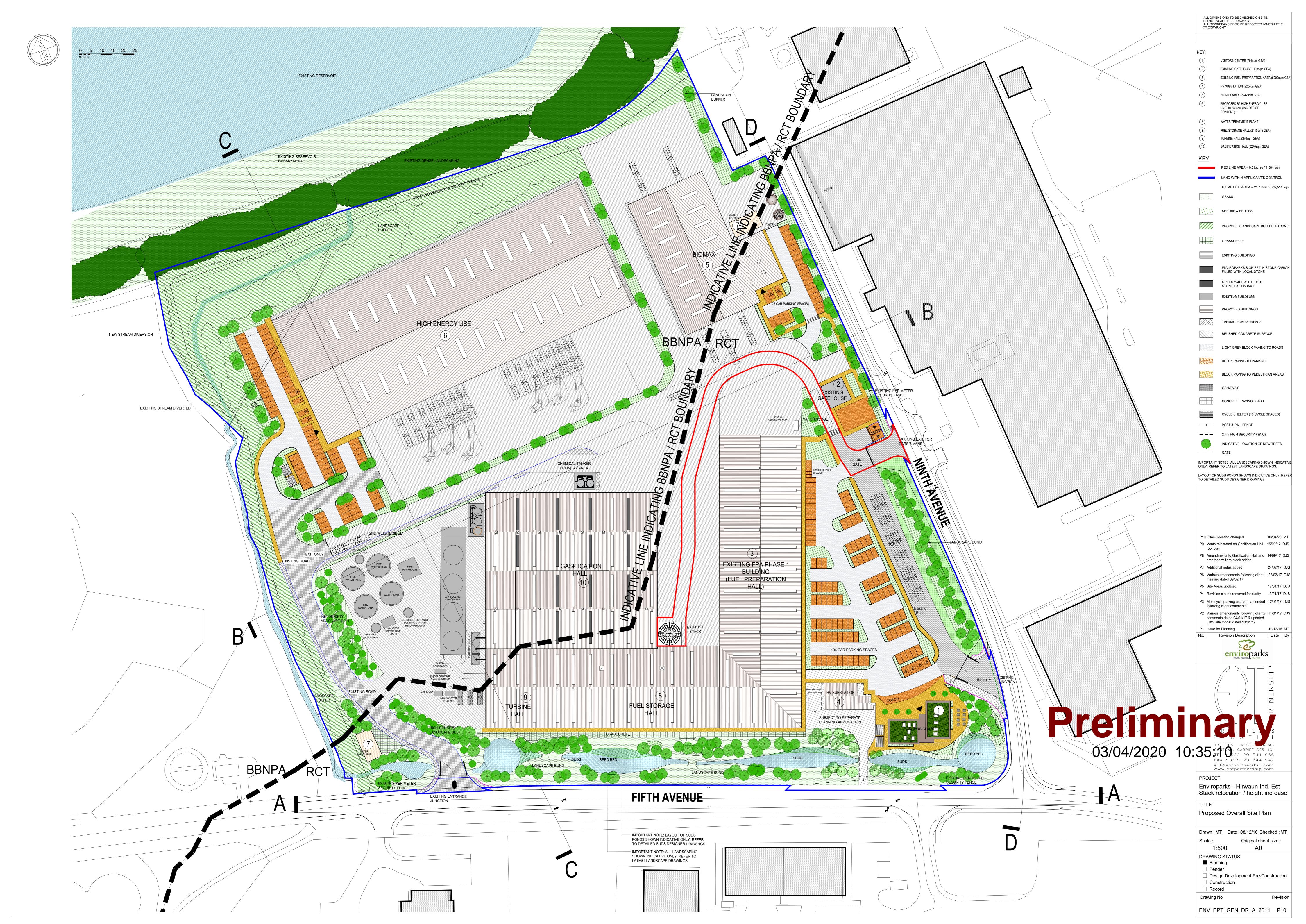
- 4.1 EWL's design philosophy for its Hirwaun site has always been to employ high-quality and innovative site planning, architecture and landscape design to render the Enviroparks development a visually coherent development, responsive to its setting on a major industrial estate but visible from the Brecon Beacons National Park.
- 4.2 The proposed stack is a necessary functional element of the overall development. Within the constraints of what a stack is, EWL has formulated a design solution that embraces simplicity. A stack with a smooth flangeless finish and a graded colour scheme would result in a structure that, though visible, would be within the realm of what the viewer might expect to see on a large industrial estate, and which would not detain the eye.
- 4.3 Importantly from a planning perspective, the proposed stack seeks a balance between air quality and habitat protection benefits and the landscape and visual effects of a taller structure in the immediate industrial estate surroundings and from the National Park. When the employment, sustainability and economic benefits of the Enviroparks operation are taken in to account, it is concluded that the increment of additional visibility associated with the proposed 90 metre high stack in comparison with the consented 45 metre stack falls within the bounds of acceptability in planning and design terms.
- 4.4 In view of this conclusion, the scheme is considered to meet all statutory and development plan requirements in terms of design and access.

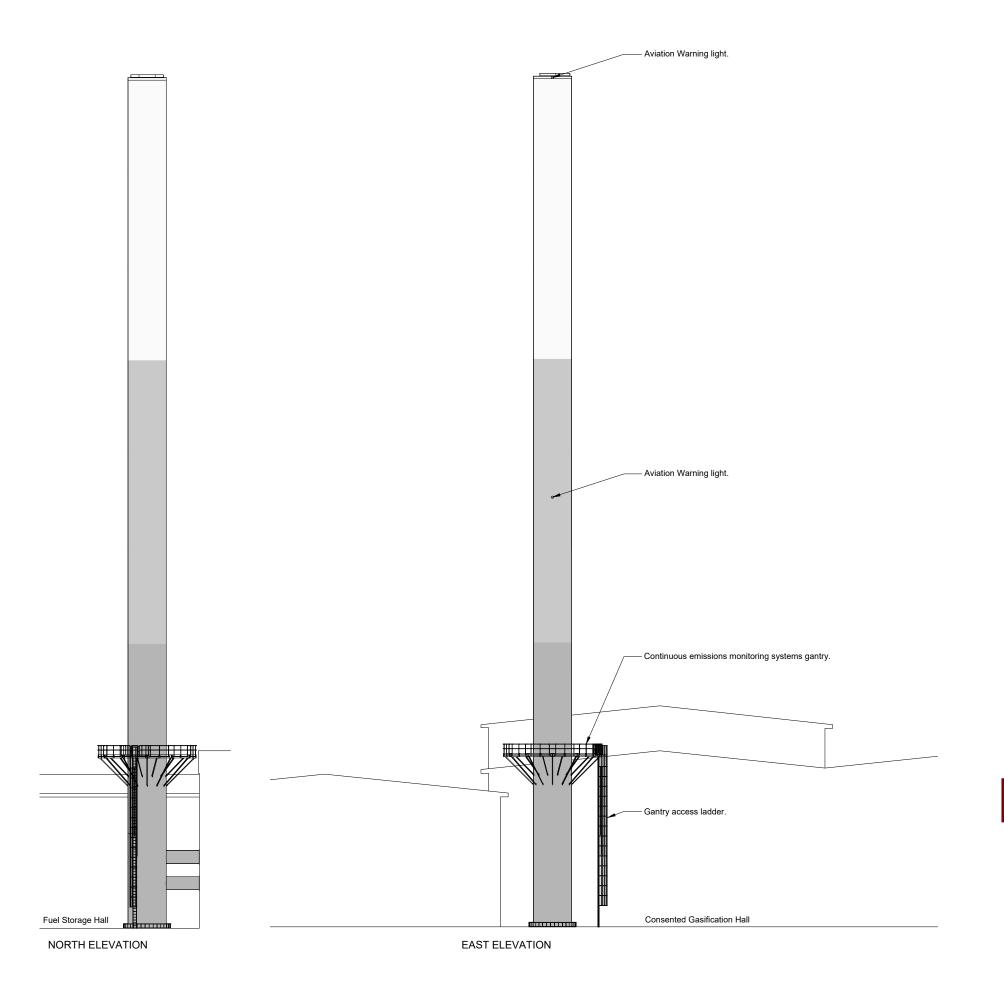
**Planning application drawings** 

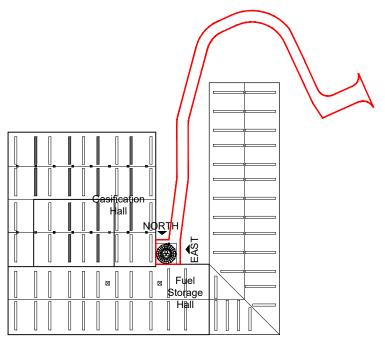
and

**Zone of Theoretical Visibility plan** 









ELEVATION KEY PLAN

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**METRES** 

