Design and Access Statement Date: 24.07.2012

Micheldever Rail sidings,

Micheldever Station, Hampshire.

Statement prepared on behalf of Clean Power Properties Ltd and Network Rail Infrastructure Ltd.

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Introduction

Fig.1. Aerial photo with site red line.

This Design and Access Statement has been prepared by AlmC_a Architecture + Design on behalf of Clean Power Properties Ltd and Network Rail Infrastructure Ltd in support of a planning application for the site at Micheldever Rail Sidings, Micheldever Station, Hampshire.

The application seeks approval for an Energy Recovery Centre that utilises Advanced Conversion (ACT) and Anaerobic Digestion (AD) Technologies. The ERC will recover all materials that can be recycled and utilise the rest to generate renewable energy.

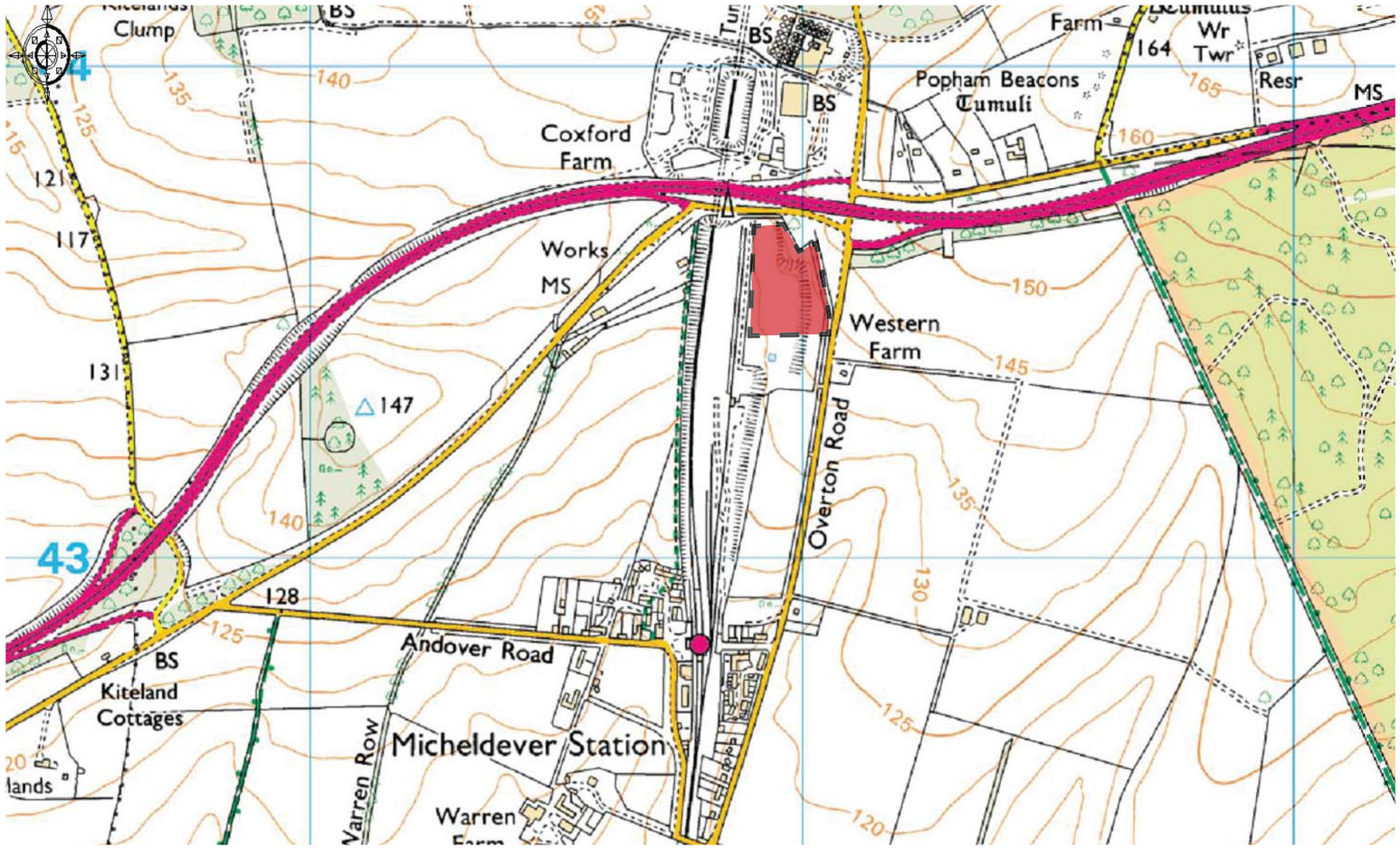


Fig.2. OS map location - site marked in red

Historic context.

As the name suggests Micheldever Station is a village that established around the location of the station. Micheldever is the only station between Basingstoke and Winchester. The seemingly remote existence of the station, 4.5 Km north of Micheldever, is explained by its original name of Andover Road. This being the nearest point on the Southampton to London line to Andover. The town of Andover, 16.6 Km to the west did not receive its own station until much later.

The station was built in 1840. It is not know precisely when the sidings were added. The OS map of 1894 shows a straight line of track while the OS of 1911- 12 shows widening of the track and the addition of an embankment. Further excavation of the hillside for the oil storage tanks appears on the 1985 OS map but not on the 1956 map and would therefore have been added sometime between the two dates.

The location of the station and later the upgrading of the main road has generated some focused industrial activity. The village of Micheldever is located 4.5 Km to the south of the site.

Historic map location - application site marked in red.

Fig.3. 1897

Fig.4. 1911-12

Fig.5. 1956

Fig.6. 1985

Location

The application site consists of approximately 6 acres or 2.42 Hectares and is located to the north of Mecheldever Station and south of the A303 trunk road. The site was previously railway sidings and contained large oil storage tanks. It is now disused.
Micheldever Station lies 16 Km east of Andover,13 Km south west of Basingstoke and 13 Km north of Winchester. The village of Micheldever lies 4.5 Km to the south.

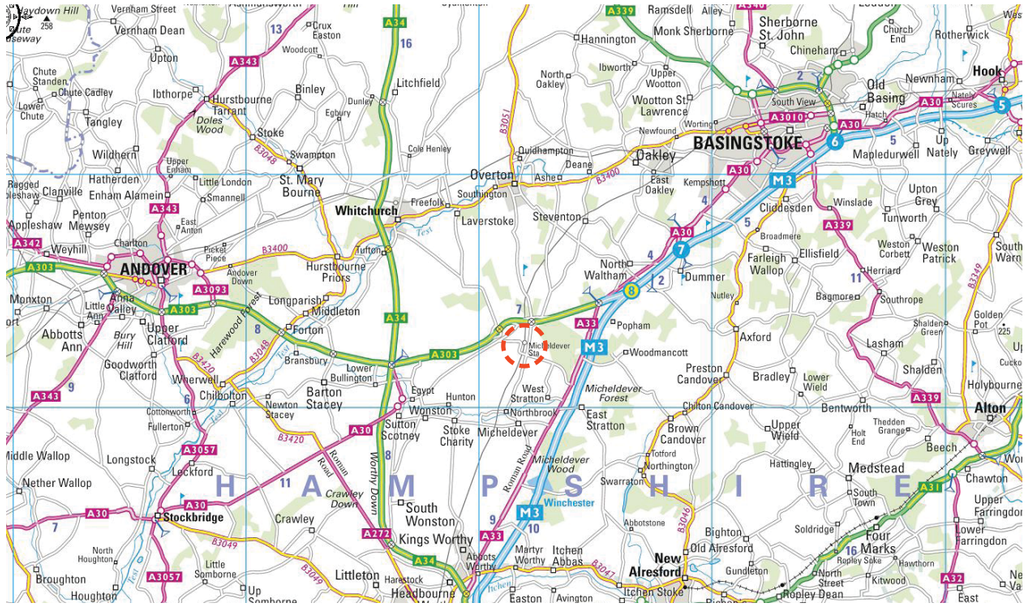


Fig.7. Wider area location plan.

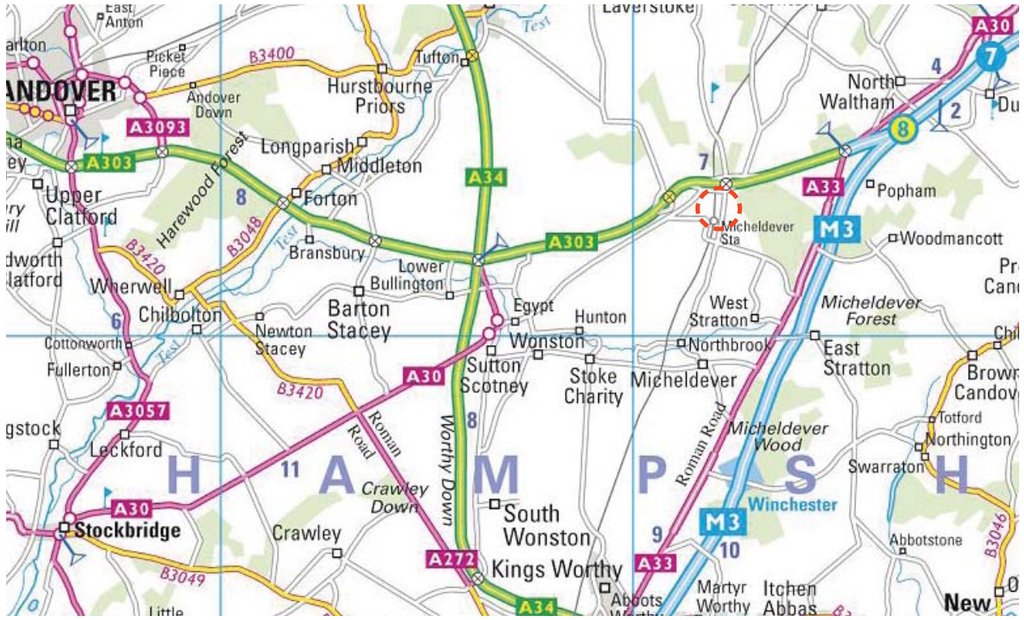


Fig.8. Wider area location plan.

Site context

1 Overton Road looking north

2 Overton Road looking towards junction with A303 slip..

3 Junction of Overton Road and A303 slip road.

4 A303 slip towards Overton road..

This application site is surrounded by rural land. This is mostly occupied by fields delineated by hedgerow, however the sites to the west and the north are more industrial in nature. The main vehicle access to the application site is from Overton Road. This gives good vehicle access from the local and regional road network via the A303 to the north.

1 Overton Road looking north with the sole local residential property on the right.

2 Overton Road approximately adjacent to new access to the application site. Note hedgerow density and topography keep site hidden from road even in winter.

3 Junction of A303 slip roads, both east and west and Overton Road

4 Sweep of A303 slip road going towards Overton Road.

5 A303 slip road with A303 on right.

6 Approach lane to Micheldever Depot

7 Entrance to Michedever Depot.

8 Typical hedgerow boundary to site.

5 Western A303 slip road approaching connection to main A303 dual carriageway. A303 on right.

6 A303 slip road showing approach lane to Micheldever Depot.

7 Entrance to Micheldever Depot.

8 A303 slip road showing density of hedgerow surrounding site.

9 Micheldever Station..

10 Dove Inn.

11 Brunel Close - recent housing Micheldever Station.

12 Older housing, New Road Micheldever Station .

9 Micheldever Station, Sir William Tite 1840 with carpark in foreground.

10 Dove Inn Micheldever Station.

11 Brunel Close. Recent housing in Micheldever Station built on hillside adjacent to railway cutting. Approximately 550m from site. Due to topography the application site is visible only from the rear of properties at top of the hill.

12 Older houses in New Road Micheldever Station. The site is approximately 580m from the rear of these properties. They are separated by woodland and by landform which obscures any view so the proposed buildings. New Road currently gives access to the application site. This access will be discontinued with all access to the Energy Recovery Centre being from Overton Road closer to the A303.

Context plan

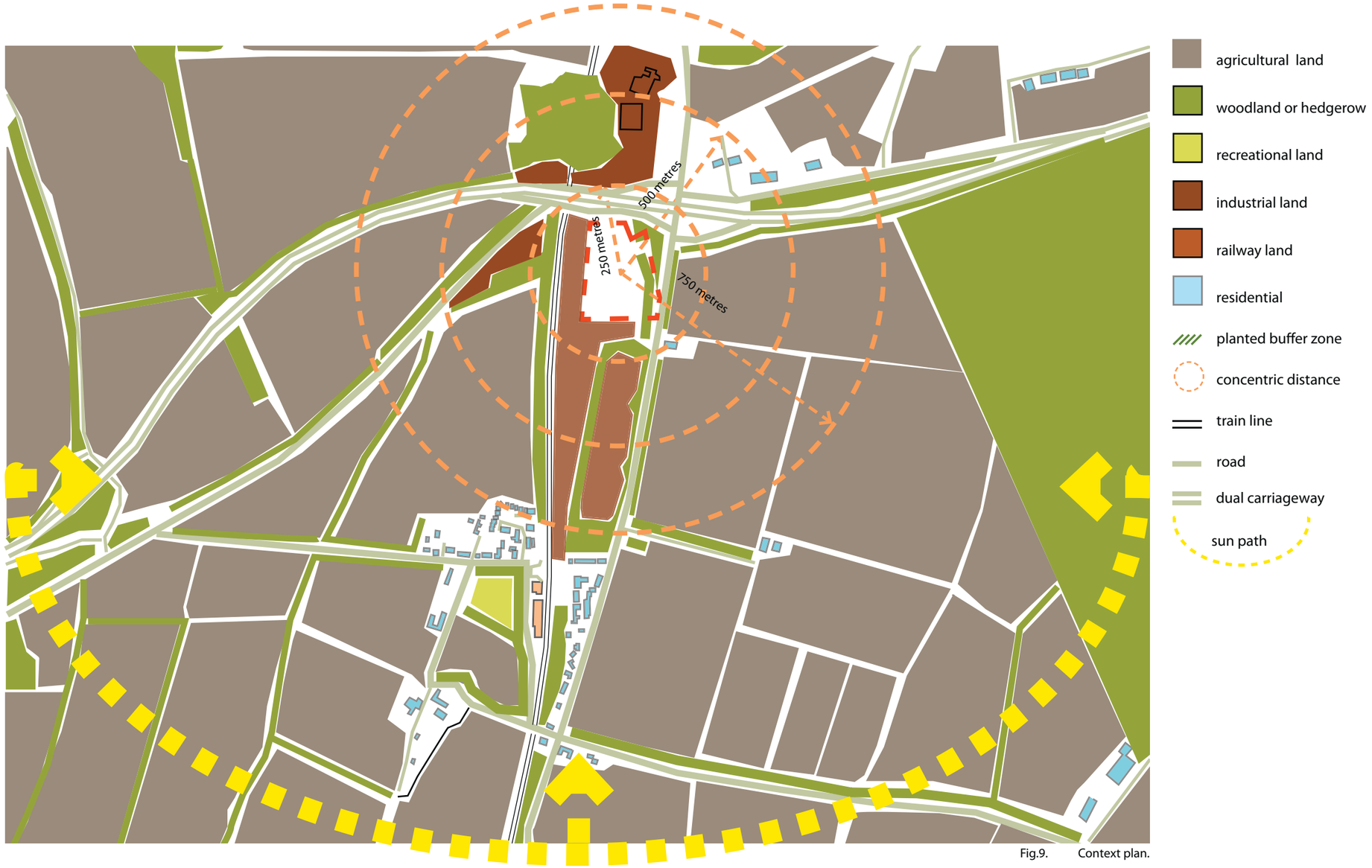


Fig.9. Context plan.

Site Analysis.

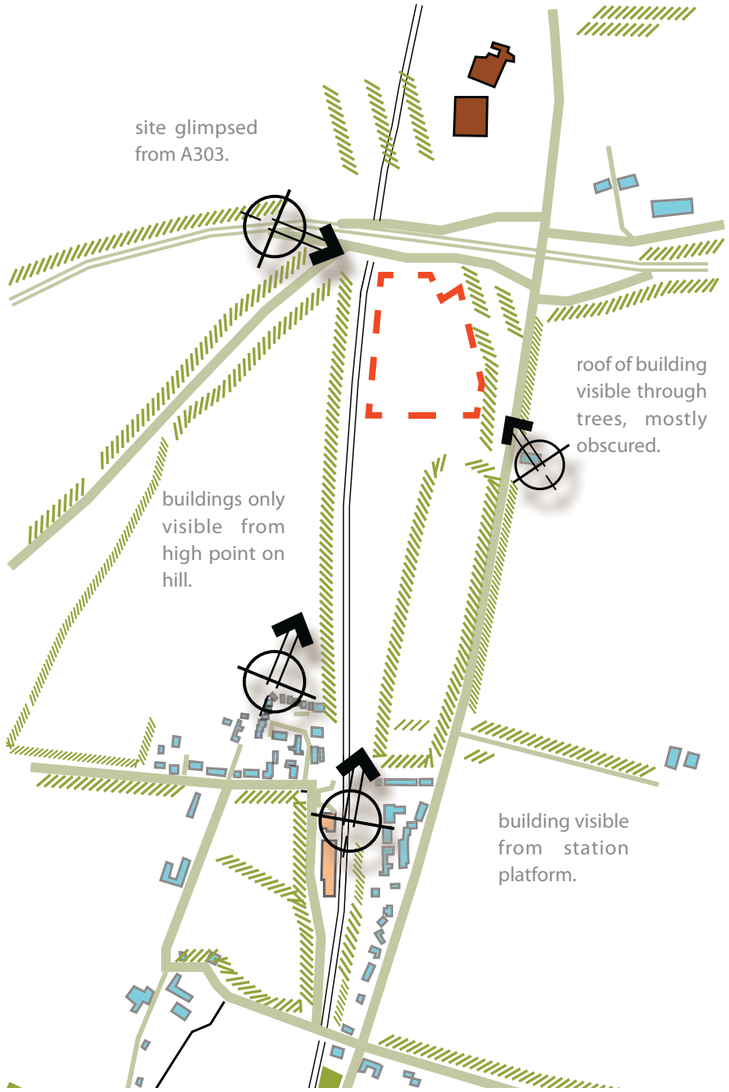


Fig.11. Local visbillity

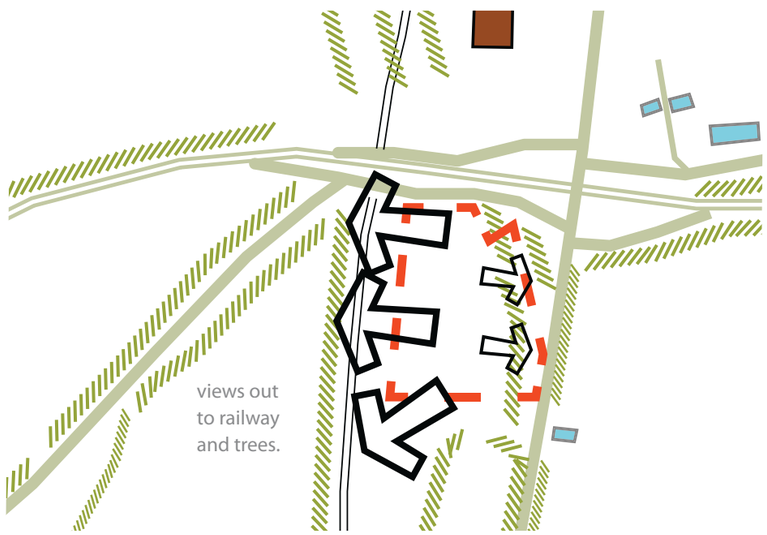


Fig.10. Aspect

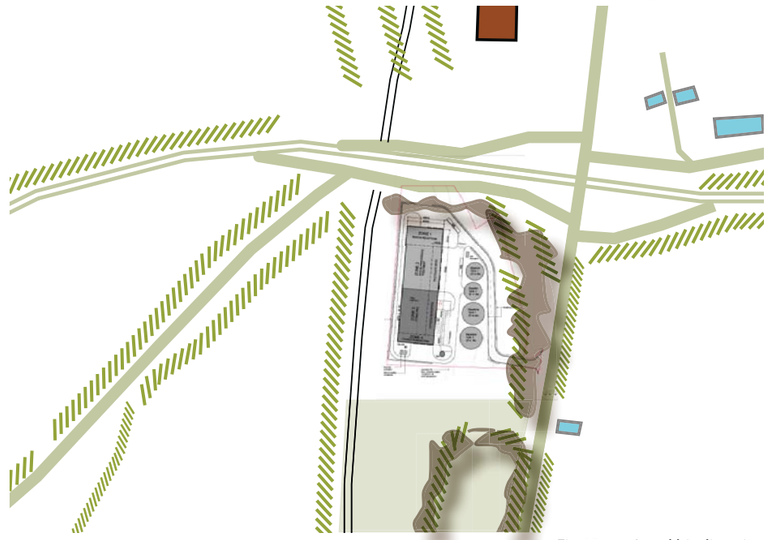


Fig.12. Local biodiversity.

Local visibility

The application site is some distance from the village of Micheldever Station. The land rises behind the houses. It is possible to see the site from the top of the hill at a distance of 500 to 600 metres to the centre of the site. From all other vantage points the site is screened by landscape features. Technical visibility studies which discount vegetation show additional visibility from the edge of Western Farm and from the council depot on the west of the site. The site is also visible from the station platform to the south.

Aspect

The proposed buildings are sited in the middle of the old industrial plot. The building will look directly at the established tall hedgerow. The principal aspect is across the railway and obliquely south towards Micheldever Station.

Area of local biodiversity

The application site was previously industrial but has lain disused and become important locally for ecological habitats, being designated as a SINC. Bringing the site back into productive use will not preclude biodiversity from thriving. Landscape proposals will reinstate the existing habitat of native species. The north and east boundaries of the site are dense natural hedgerows with both ground cover and trees. Mitigation measures have been designed into the scheme including a green roof and a conservation management plan.

key

road
hedgerow
trees
access
planting
site

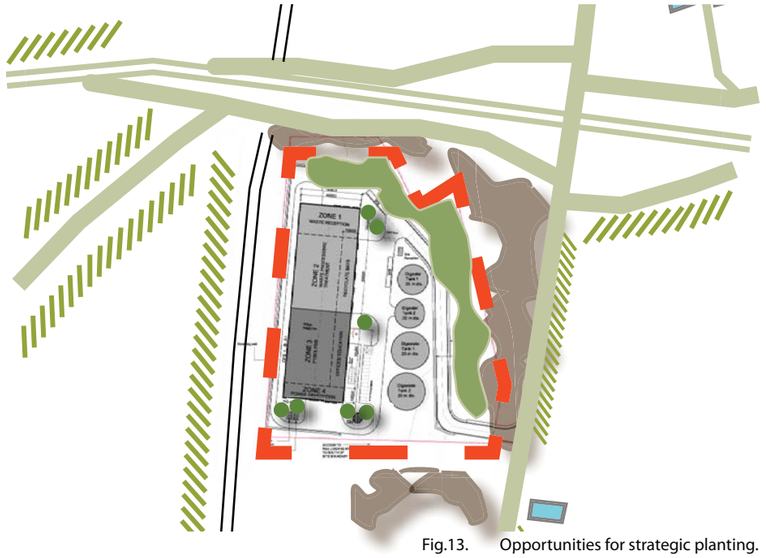


Fig.13. Opportunities for strategic planting.

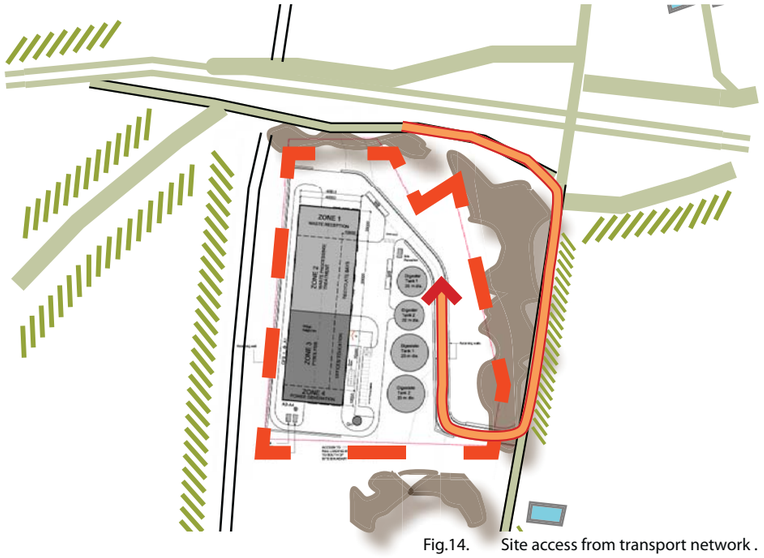


Fig.14. Site access from transport network .

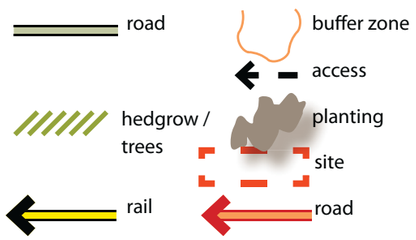
Opportunity for strategic tree planting.

Any landscape proposal will include the planting of trees as part of establishing the site as soon as possible. Tree planting on the southern boundary will help to screen the building from the hill behind Micheldever Station. We are seeking to retain existing vegetation, including areas of chalk grassland.

Site access from transport network.

The site is well connected to the highway network. A good junction to the A303 immediately to the north of the site allows connection to the wider local area. The A303 is a continuation of the M3 which allows national connection if required. A new junction for access will be created on Overton Road. All traffic will arrive and depart north to and from the A303.

key



Opportunities

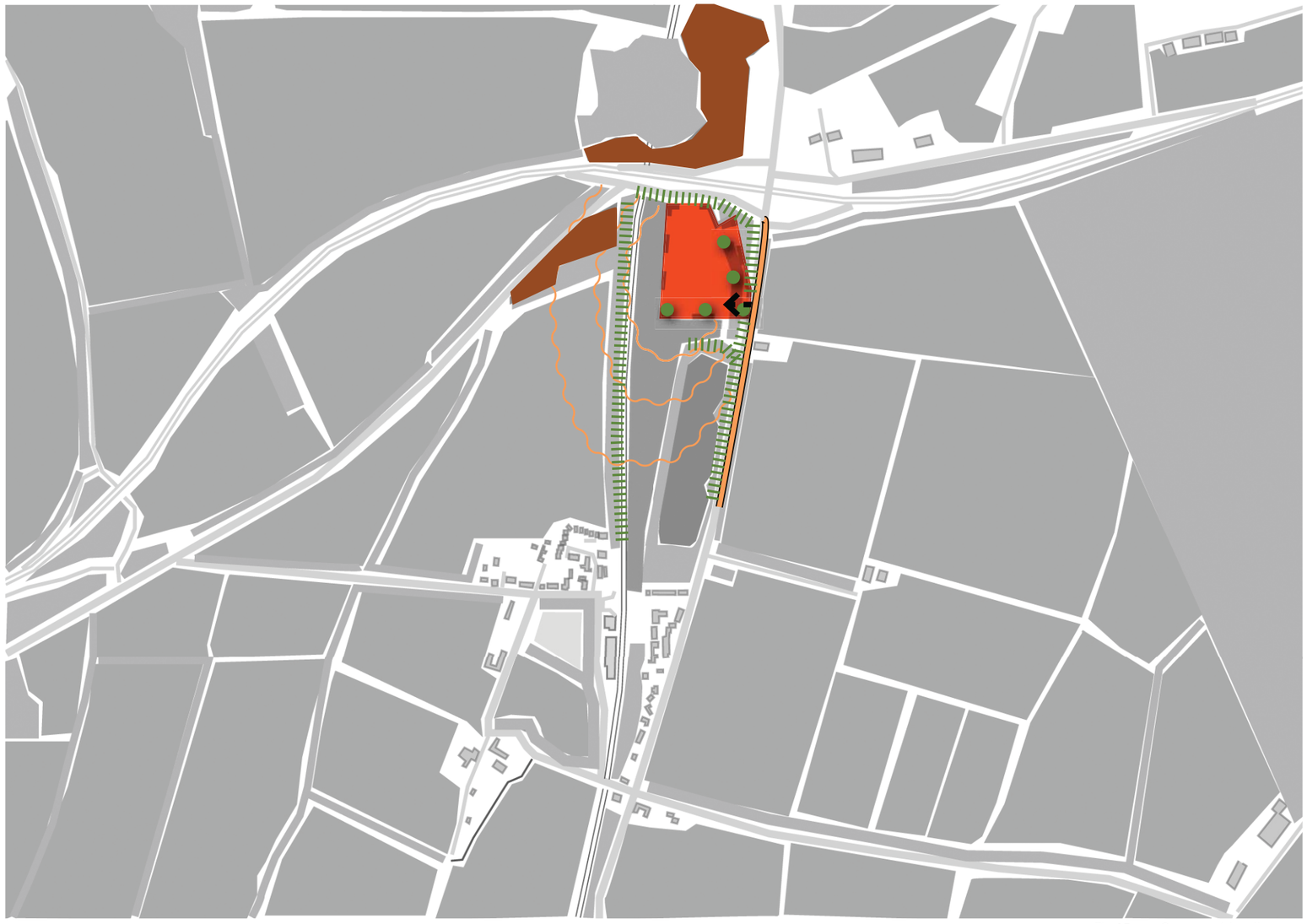


Fig.15. Opportunities diagram.

- Ex-industrial site – suited to highly mechanised 'high tech' industrial process.
- Site distant from residential properties.
- Access to the site can be shifted from New Road in the village to Overton Road closer to the A303.
- Site well connected to national and local highway network.
- Site adjacent to rail lines – future uses of rail network available to service site.
- The site is well screened from the local village by physical features such as hills and land banks, and by good natural landscape screening.
- Public interest in Micheldever Sidings site is welcomed. The building will have an educational facility where the processes can be viewed.
- The site is Brownfield and currently vacant. The land will be brought into productive use.
- Site has the scope to provide plentiful heating – future development in the area can take advantage of a plentiful supply of heat. In industrial and agricultural terms this can be used for heating or cooling and may help to attract new activity to the area.
- The ERC requires skilled operators to run it. Around 30 skilled jobs will be created.
- The good site area of the plot allows the opportunity to enhance local environmental conditions.

key

road
buffer zone
barrier
access
planting
site
industrial sites

Constraints

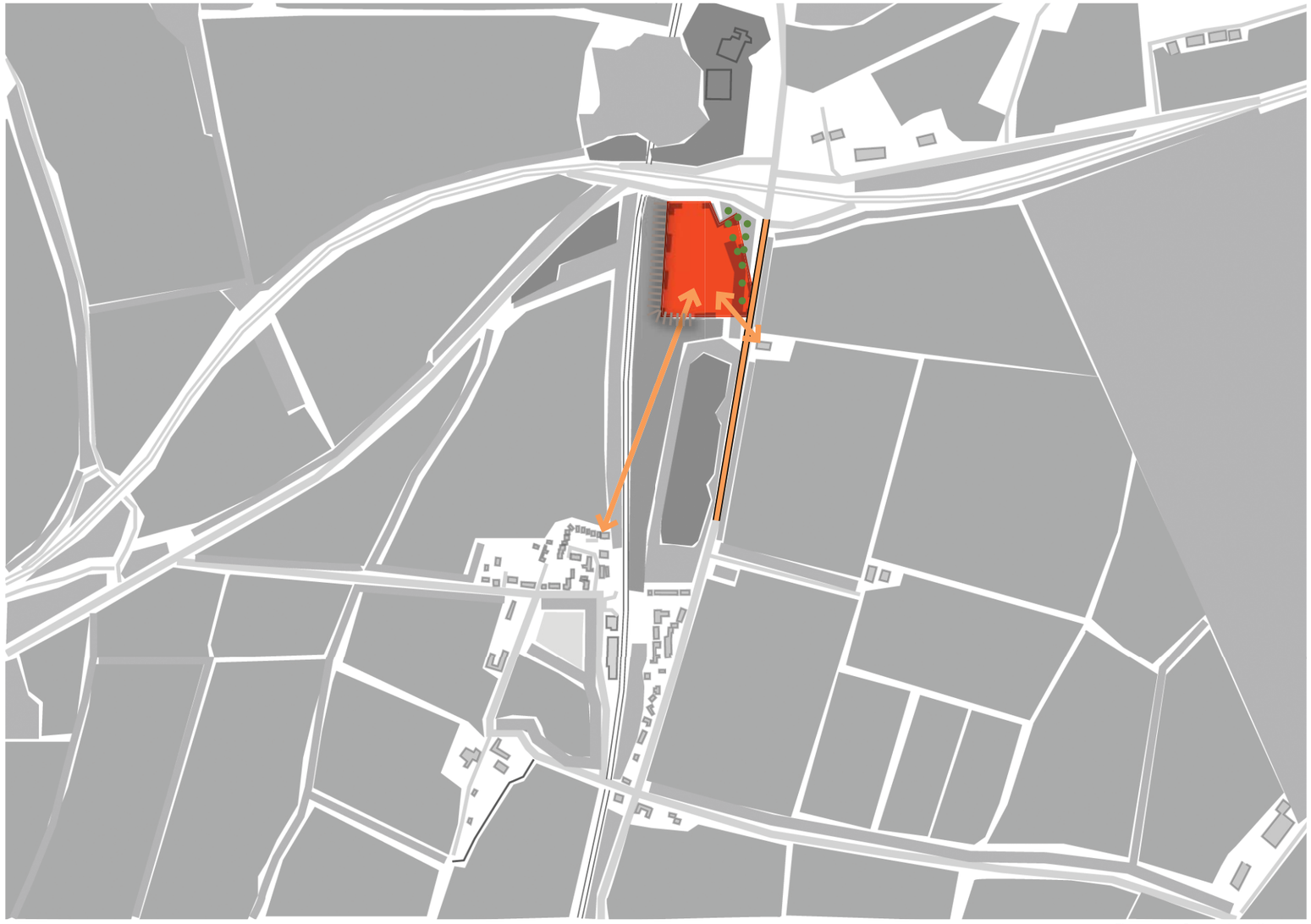


Fig.16. Constraints diagram.

- Site has only one road access and this is a country lane. Careful consideration of access is provided in the Transport Section of the Environmental Assessment document.
- Site is defined by physical feature such as roads, railways and landforms. The site area is sufficient to successfully contain the ERC building and tanks.
- The site topography is challenging. The levels drop 10 metres between Overton Road and the escarpment bank along the railway cutting.
- Site has nothing on it at present. The site previously had an industrial use. The new building will be low profile similar in scale to a large farm building. A quality well maintained building will help to reduce the sense of dereliction a disused site creates.
- The site is currently a site of local biodiversity. A careful study of biodiversity on the site will help inform the development. Areas where no building is required will be landscaped to enhance both the visual impact of the new development and, in responding to local biodiversity, a green environment.
- Proximity of rural environment. Great care will be taken to ensure no adverse impact is felt from the development. All recovery activities take place in a sealed environment and very little residue remains after recovery.
- A TPO exists in respect of the line of beech trees on the eastern boundary of the site.

key

- road
- separation
- physical constaints
- access
- existing woodland with some protected trees.
- site

Design

Use.

The Proposed Energy Recovery Centre comprises a single purpose designed building which houses two complementary waste technologies. The design of the building and configuration of internal equipment, ensures that the smallest possible building footprint and height can be achieved. Accordingly, the appearance and form of the building will be that a modern warehouse building with a ridge height of 9 metres and gross floorspace of circa 5000sq.m.

The Proposed Development will also include 4 external anaerobic digestion tanks which will be sited close the main building and have a maximum height of 9.5 metres. These tanks comprise a pair of digestion tanks (20m dia) and a pair of digestate storage tanks (25m dia), these tanks are similar in look and design to agricultural storage tanks and have a sealed membrane roof.

The main building is a double skinned, sealed portal frame construction and is clad using proprietary composite curtain walling system to ensure very high building permeability and acoustic performance. The main building is subdivided internally and contains the main processing plant and equipment.

The key technologies used by the proposed development are Advanced Conversion Technology (ACT) which is coupled with autoclave pre-processing to segregate and recycle all recoverable materials; and Anaerobic Digestion (AD) which is used for to generate bio-methane from food waste. The ACT plant converts all non recyclable biomass materials into a synthesis gas which is subsequently combusted along with the bio-methane produced by the Anaerobic Digestion process within combined heat and power (CHP) plant to produce renewable electrical and heat energy.

Nominally, the autoclave and ACT processes have the capacity to recover up to 128,000 tonnes per annum whilst the AD facility has the capacity to recover approximately 67,000 tonnes per annum. Both the ACT and the AD processes are certified renewable technologies that are eligible for Renewables Obligation Certificates (ROCs).

The associated infrastructure includes four 20 metre high flues, a small Gas Holder Tank, an emergency gas flare, electrical substation, two weighbridges, wheel washing apparatus and security gatehouse building.

Fig.17. diagramatic 3D of Energy Recovery Center buildings.

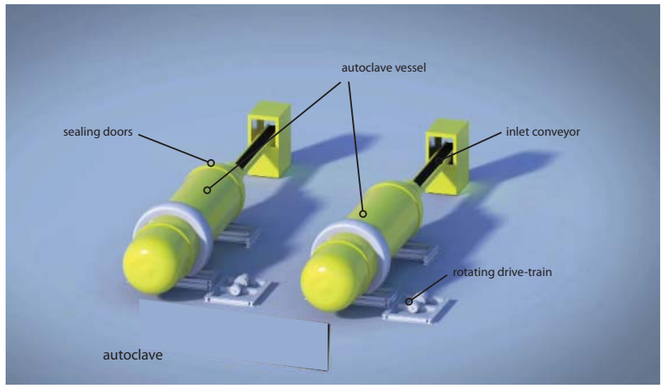


Fig.18. autoclave

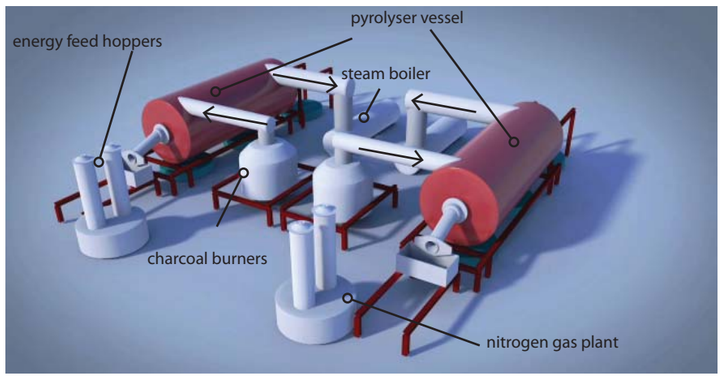


Fig.19. pyrolyser

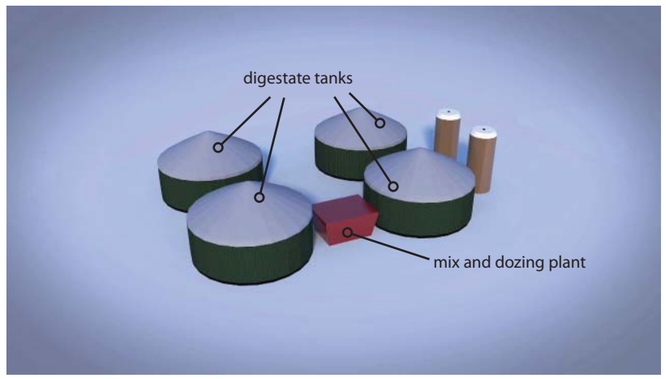


Fig.20. anaerobic digester tanks.

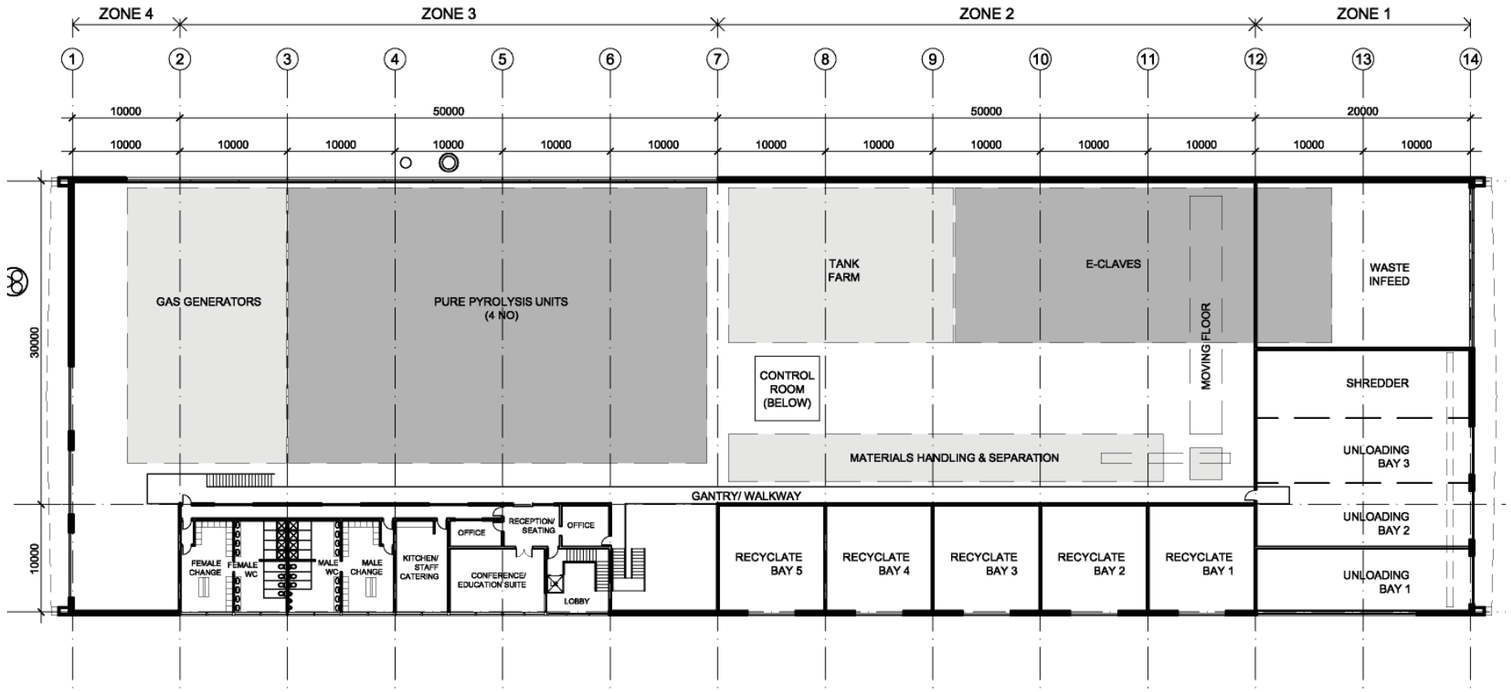


Fig.21. first floor plan

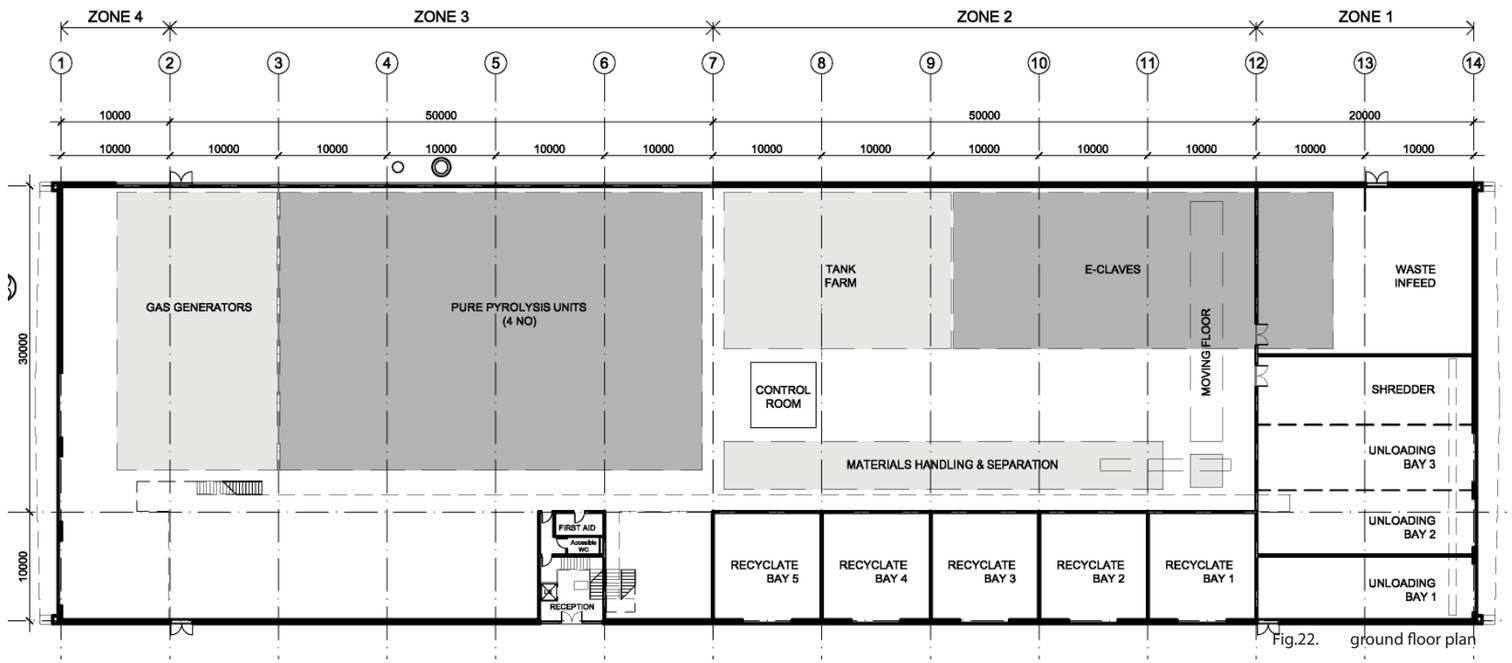


Fig.22. ground floor plan

Use.

The proposed building will be subdivided into four zones. All waste entering the site (irrespective of the nature of transit) will be received and prepared within the Waste Reception Area (Zone 1). Zone 1 is a sealed building area which is operated under negative pressure to control odour emissions. Within Zone 1, there will be a dedicated reception bay for the processing and pumping of pure biomass wastes and slurries directly to the digester tanks for anaerobic digestion treatment.

All other waste streams will be transferred into a Waste Processing and Treatment Area (Zone 2) where the waste will pass through an autoclaving and mechanical separation processing line that will remove and segregate all potential recyclates (plastic, metal, glass etc) into recyclate bays for off –site recycling.

The remaining biomass material will then be conditioned to create a fibre flocculent that will be advanced to the Pyrolysis Area (Zone 3).

Pyrolysis Plant Systems will pyrolyse the fibre flocculent in Zone 3 and convert it to synthesis gas ('syngas'). The pyrolisers are heated through a solid fuel burner system which utilises the char residues from the pyrolisis processas fuel to create the heat for the system. The syngas then passes through a gas cleaning line and is stored in a gas holding vessel (gasometer) prior to combustion.

The Power Generation Zone (Zone 4) is the final component of the operation with the AD and ACT gases are fed to the three gas engines that are coupled to an electrical generation plant producing approximately 10MWe. The electrical generation will be provided for the National Grid network. The facility shall be designed to ensure that all usable generated heat can be exported to local heat distribution networks, nearby commercial or residential users should they be available.

Design analysis

In a rural setting assessment of the built environment has a different emphasis to that in an urban context. In Micheldever Station we can assess the proximity of habitation in figure ground, see Fig 23. This clearly shows that the site is distant from most local habitation and close to one house. This does not however present a matrix for assessing footprint, relative scale and relation to neighbours as might be the case in a more developed location.

We have included a field pattern diagram that better shows the nature of how the rural landscape is perceived; large areas of open space under agricultural management bounded by hedgerows. This is similar to assessing street pattern and urban grain in cities and gives a feel for the relative scale of the development plot. In that context the site is rather smaller than a typical field size.

What can't be shown in this analysis is the effect of topography. The local area landscape generally slopes up towards the north and east, which is why the railway sits in a cutting and enters a tunnel directly to the north of the site. The site topography places the building and tanks below a steep incline on the eastern and part southern boundary. This analysis shows the site as an atypical plot which sits below the level of the prevailing landscape and which is therefore more concealed from it.

Fig.23. Figure ground analysis.

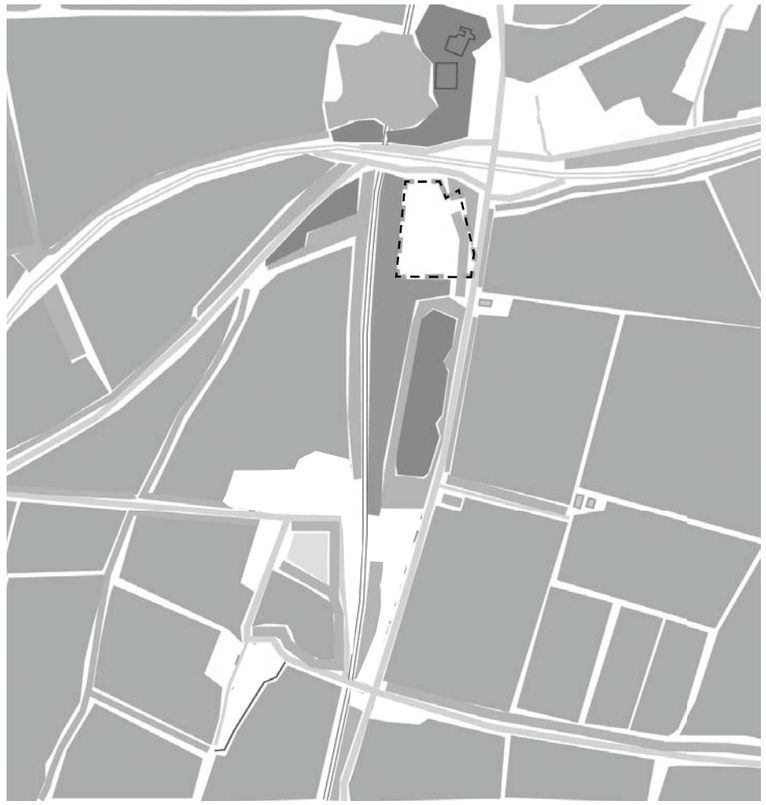


Fig.24. Field pattern analysis.

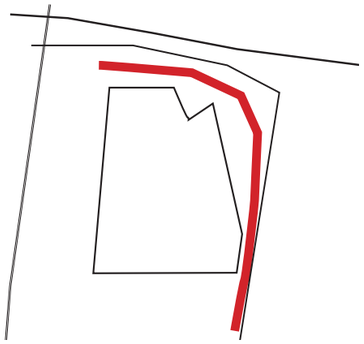


Fig.25. Diagrammatic site

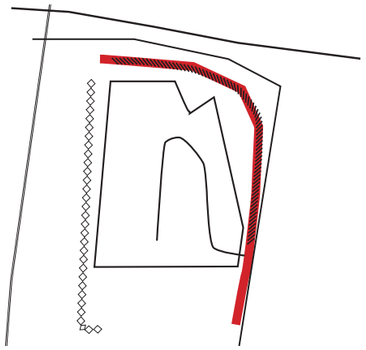


Fig.26. Site and natural boundaries.

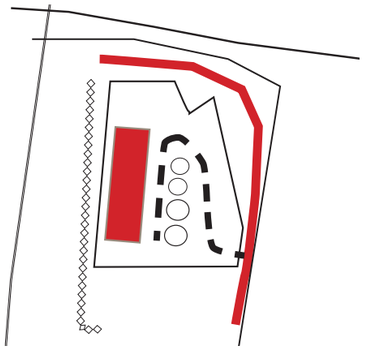


Fig.27. Location of shed and tanks around access

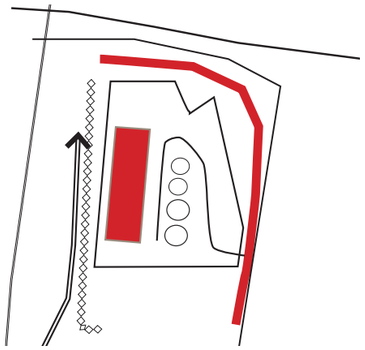


Fig.29. Potential access by rail.

Fig.28. Site plan in context.

Layout

The site is part of a rural landscape which is interspersed with industrial development, including a large grain store to the north of the A303. The application site has been defined by the railway for over a hundred years. The station is 500 metres to the south. The site contains sidings and industrial storage making it a point of interest along the line. On deeper analysis the rural landscape itself has been defined by industrial activity. The high ground to the north of the A303 was created from spoil from the railway excavations. Sites to the north and west both house industrial activities. However unchanging it seems this is a landscape in subtle flux.

The site is defined by the strong linear axis of the railway running north to south and by the land occupied by the sidings and industrial storage. The landform on the site and the landscape features are strong determinators of the design.

The other defining feature is the proximity of the A303, a major regional highway.

The site is relatively broad with strong linear generators. A linear layout has been adopted for the main plant and the anaerobic digester tanks.

The layout of the building is linear and has been set parallel to the main railway line and located as far to the west as possible. This gives the building a strong relationship to the masonry embankment along the western edge and allows as much space as possible between the building and the hedgerow on the eastern boundary of the site. In contrast to the strong geometric forms of the buildings, the access road snakes in from Overton Road forming a sinuous curve round the Anaerobic Digester tanks, which are laid out in landscape parallel to the main building.

In order to sit well within its context the ERC building is located hard to the strong line of the railway. This allows the maximum space on the public side to provide visitor parking, and a quality landscape treatment to the grounds and entrance area.

Scale

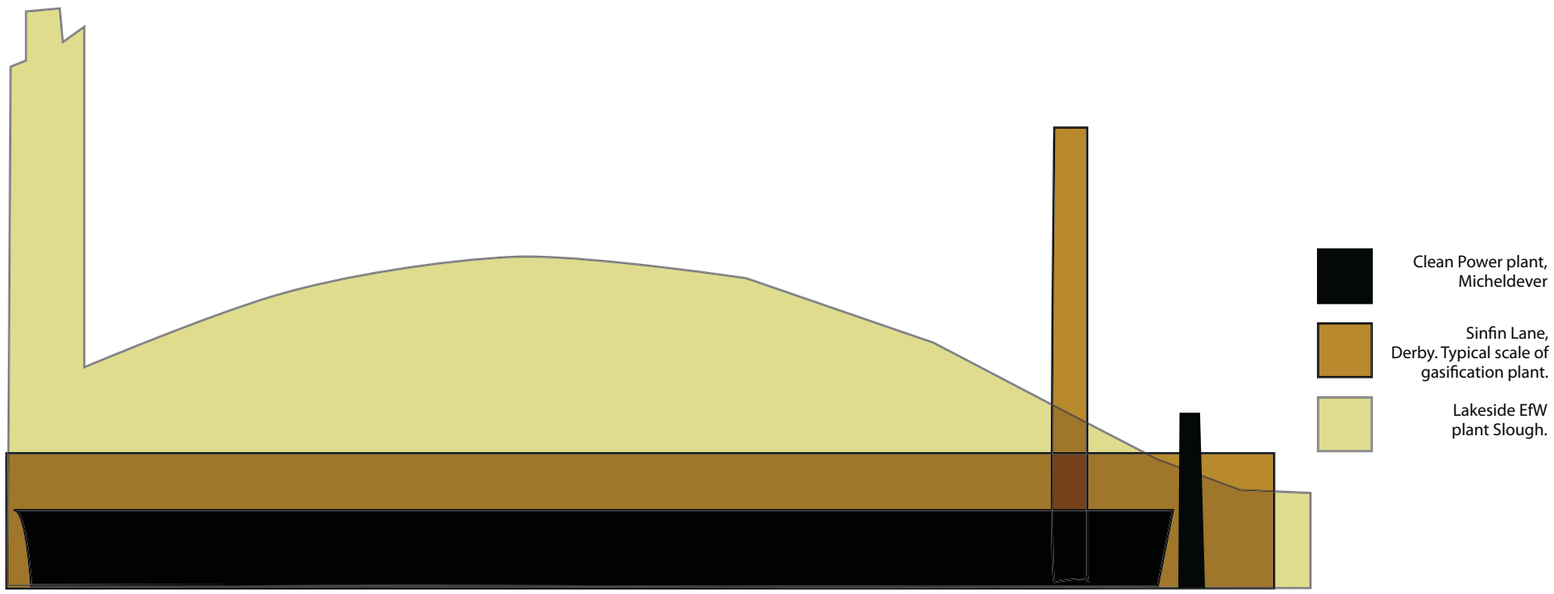


Fig.31. Comparative scale of proposal and other comparable technolo-

The development on the site will be low rise. The only building with any height will be the main industrial building housing the processing plant. This will be around 9 metres to the ridge of the building, which is equivalent to the ridge height of a two storey Victorian house.

The exhaust flue will rise to 20 metres but this will be a slim point.

From the point of access on Overton Road the site slopes steeply and the lowest corner of the site is approximately 10 metres below road level. This means the ridge of the main building will be below the level of any pedestrians.

The processes involved in this plant reduce waste to a manageable component at each stage of the transformation thus there is no need for large hoppers and conveyor to remove fly ash or slag as none is produced. Thus the buildings are half the scale of comparable processes. See comparison fig 31.

Likewise, due to the avoidance of incineration and the recycling of steam and the cleansing of air, the flues need only be 20 metres high to deal with the emissions from the engines, which is the equivalent of a modern industrial gas engine.

The scale of the flue compares favourably with other industrial processes found in more rural settings. For example a brick works kiln would typically be 25 metres in height and much more bulky.

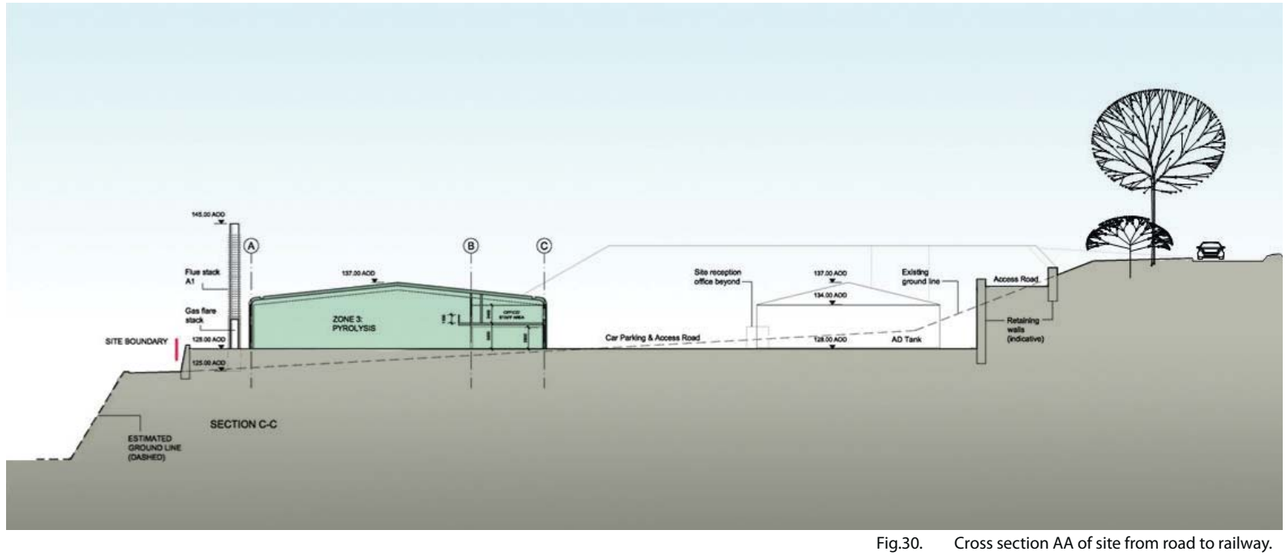


Fig.30. Cross section AA of site from road to railway.

Site layout

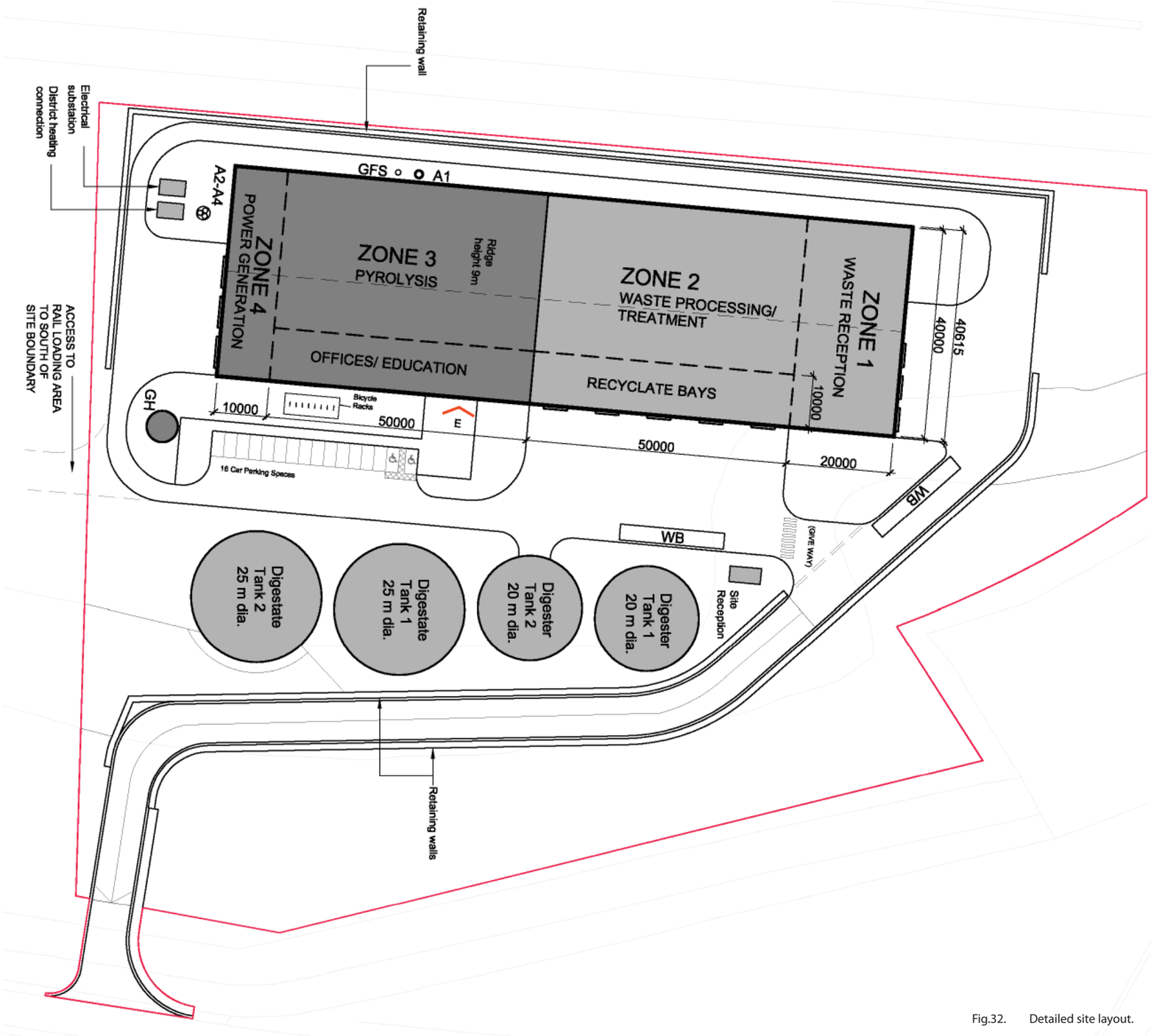


Fig.32. Detailed site layout.

The plant consists of two distinct installations.
The first is the industrial building which houses the process from raw material intake to energy production.
Zone 1 Waste reception. Sorts and separates the raw material into recyclable and usable fuel. Food waste is pumped to the anaerobic digester tanks in this stage.
Zone 2 waste processing / treatment. Turns the waste into clean recyclable material and inert bio fuel.
Zone 3 turns the biomass into gas.
Zone 4 generates electricity from the gas from zone 3 and from the digester tanks.
This plant is housed in a contemporary industrial building with a floor area of approximately 5700m^2 .
The second is the anaerobic digester tanks. As the name suggests these are sealed tanks which digest liquid raw materials and food wastes in the absence of oxygen to produce methane which is fed into the gas engine which in turn generates the electricity. These tanks will take up an area of 142 m^2.

Traffic on site will follow a one way system first delivering waste to zone one before picking up recyclate from zone 2 recyclate bays.
A lightweight cabin structure provides the site reception. This is located at the bottom of the access road adjacent to the AD storage tanks ensuring no vehicles will sit on Overton Road waiting to access the site. Here all vehicles are logged in and out. A weighbridge quantify materials in is located adjacent to zone one of the main building and one quantifying recyclate out on the hard standing by zone 2. This covers the technical layout of the site.
In recognition that the public will have access to the site, it is intended that planting will be incorporated adjacent to the building to soften the development. The remainder of the site will be returned as close as possible to a natural landscape with new planting matching existing. See landscape section of the Environmental Statement for more detail.

Landscape

Fig.33. Landscape diagram.

As the site sits in a rural setting, landscape features such as hedgerows and planted field boundaries, banks and ditches predominate.

Other more industrial sites in the area have been carved out of farmland and bounded by hedgerows to conceal their presence. The rail sidings were originally carved into the hillside creating an embankment to the existing hill. When this was further extended to accommodate the oil storage tanks an amphitheatre form was created.

Site boundaries, where they meet roads, comprise of hedgerows planted with native species and dense undergrowth. Access to the site will require a new junction incorporating visibility splays for safety reasons. This will be achieved with minimum removal of planting. Where the continuity of the hedgerow has been disturbed work will be done to re-establish the edge condition using native species to create as natural a break as possible.

Within the boundary marked by existing hedgerows the aim is to keep the site as natural as possible. The new access road snakes down the hill to the building more than 10 metres below road level. This new access will be formed between retaining walls to minimise the disruption to existing planting. Any new planting will comprise contiguous scrub to blends it into the adjoining existing landscape.

Closer to the building new trees and native shrubs will be planted more formally in response to the layout of the building.

Details of exiting landscape assessment and proposals are contained in the landscape section of the Environmental Statement.

key

- native planting
- retained dense scrub native planting
- existing hedgerow
- new feature tree planting

Appearance.

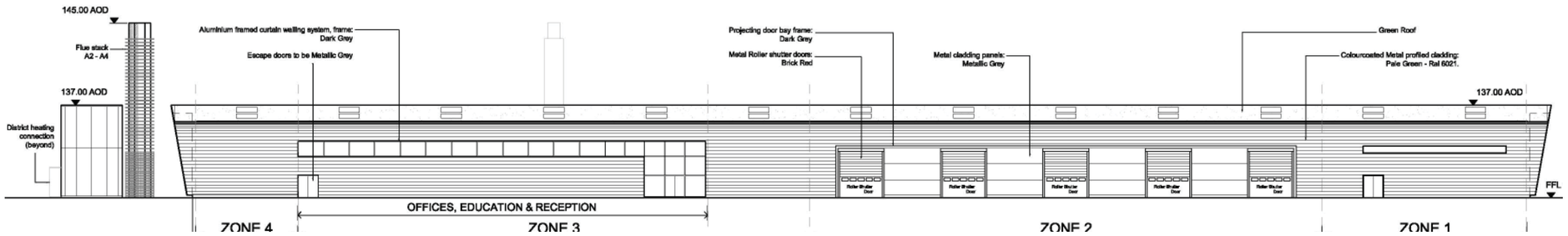


Fig.34. East elevation.

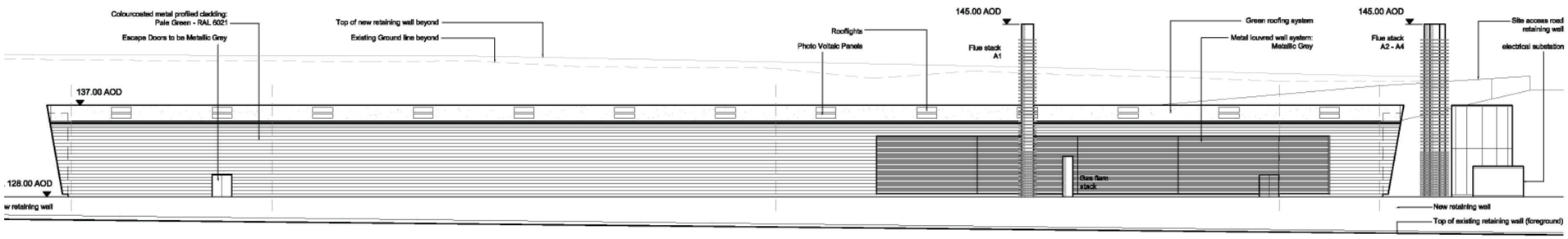


Fig.35. West elevation.

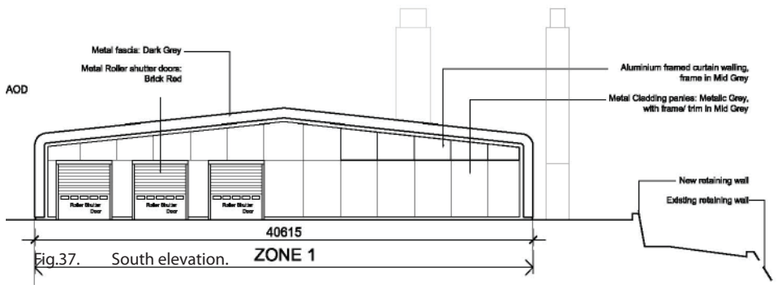


Fig.37. South elevation.

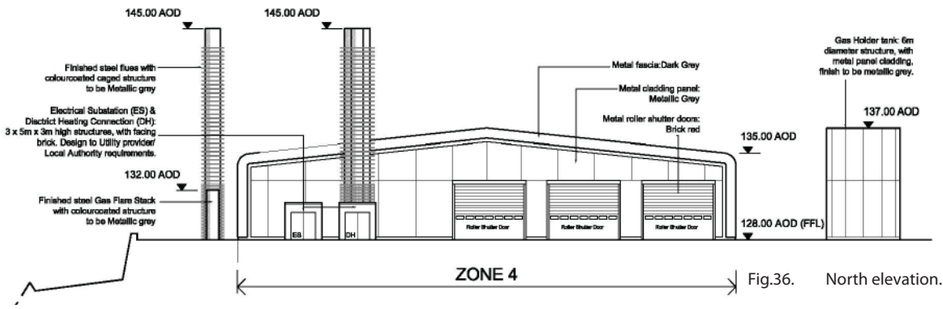


Fig.36. North elevation.

Although the building associated with this proposal is set in a rural context the processes it houses are modern. As such it is designed to be a modern industrial building. Even though the building is not visible from most points of view it is important that when it is seen it gives the impression of an efficient well managed industry in a rural setting.

The building is 130 metres long and 40 metres wide. It is 9 metres high to the ridge. The flue is 20 metres tall. The flue is carefully designed to be an elegant feature visible from mainline trains that pass close by but capable of blending in when seen from further a field. The building features a green roof to allow it to blend into the landscape. This will be most visible on entering the site where the building can be seen from above.

It is considerably smaller than other power generation facilities of comparable technologies and similar in scale to recycling only MRF plants. The modern, crisply detailed clad approach to appearance compares favourably with other industrial buildings that are typically set in rural context such as brickworks where design is often a minor consideration and broad brick kiln flue heights rise to 25 - 30M.

Fig.38. CGI - 3D visualisation.

The building is not a blank industrial shed. The entrance, reception, offices as well as the education facility are grouped together on the long facade providing an area of glazing to the elevation. This is visible to users as they enter the site and wind down to the building. Also clearly visible is the visitors parking area. The public are welcome to visit the education facility, by appointment and view the processes by which waste is transformed on the site.

As the building can be viewed from above a green roof has been incorporated. This contributes to the visual amenity as well as forming part of the rainwater mitigation strategy. The cladding material has been carefully chosen to blend into a landscaped surrounding. The gentle green colour further diminishes the impact of the building on the site. This has been chosen to work with the green roof in the overall aesthetic. Viewed from the passing train this will appear an sympathetic development and should be welcomed as a contributor to a mixed economy in the area.

Access

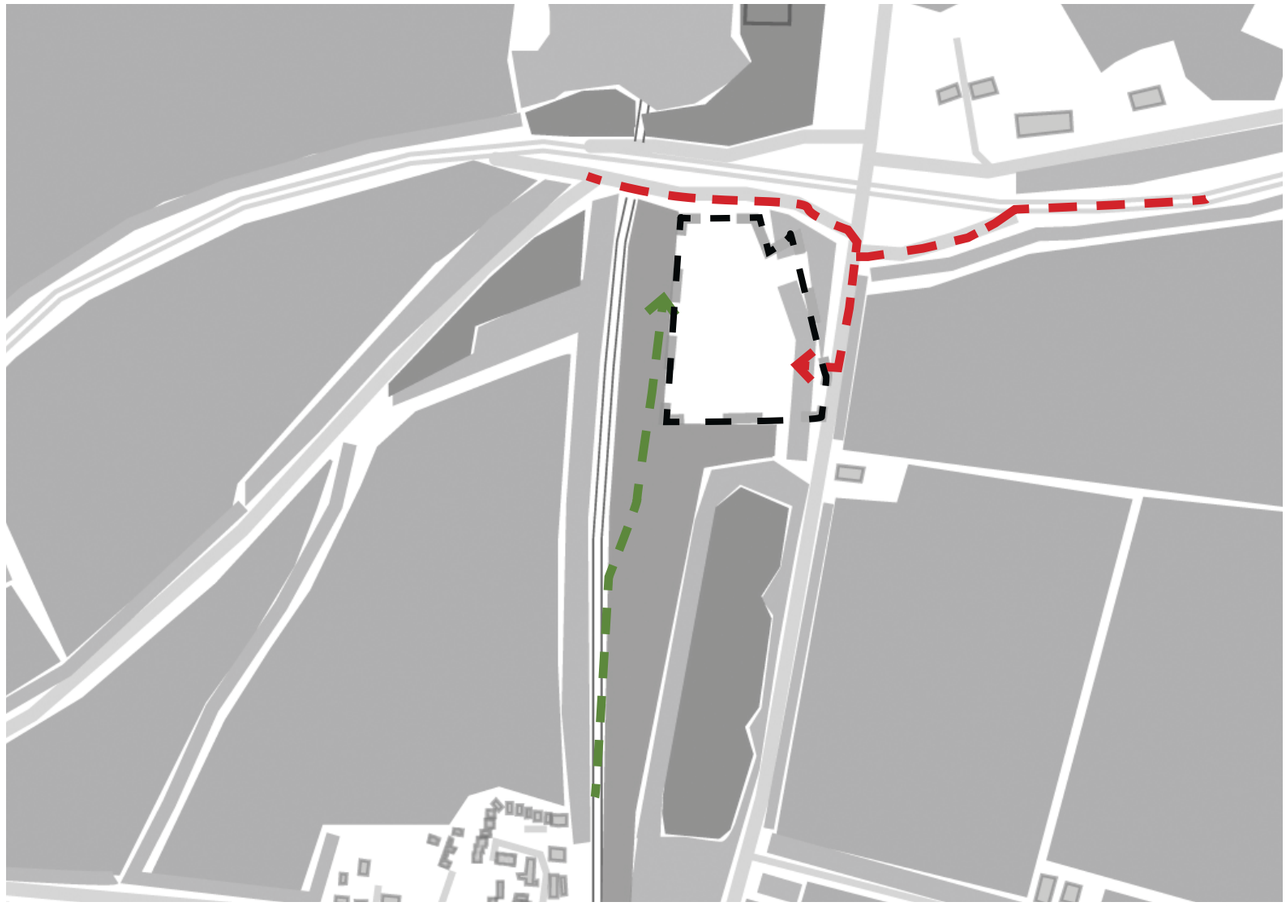


Fig.39. Access diagram.

Vehicle access

Vehicle flows will be dependent on the type, volume and origin of material brought to the site. The facility is predicted to generate 134 HGV trips (67 lorries) and 25 car trips (12 cars) per day. Vehicle access is from the A303 via Overton Road. A new access junction to the application site will be formed from Overton Road. The new access and local road improvements will be designed to safely and efficiently accommodate the envisaged level of traffic and size of vehicle.

Vehicle access will be from the north only. Assessment of Overton Road and the east and west slip roads to the A303 is contained in the Transport section of the Environmental Statement.

Rail access.

The site can accommodate a rail delivery bay utilising existing railway sidings. The transportation of material to and from the site by rail could substantially reduce the impact on the road network. Rail transport is most viable for longer distance journeys so if the ECR processes waste from the local area only, rail could still be used for transporting recyclate for reprocessing further afield.

Traffic flow is detailed in the Transport Assessment within the Environmental Statement.

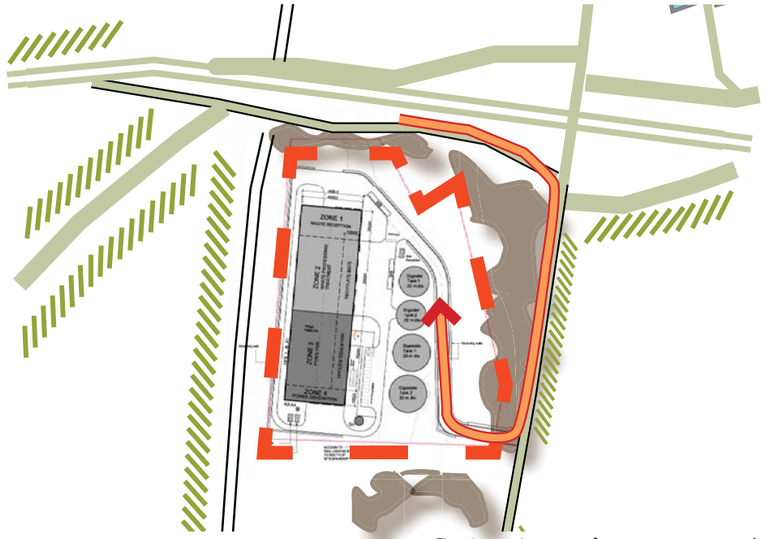


Fig.40. site access from transport network

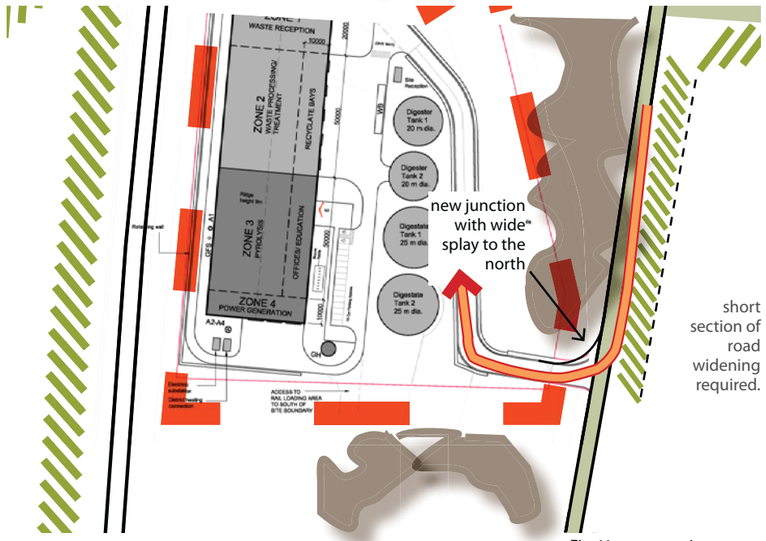
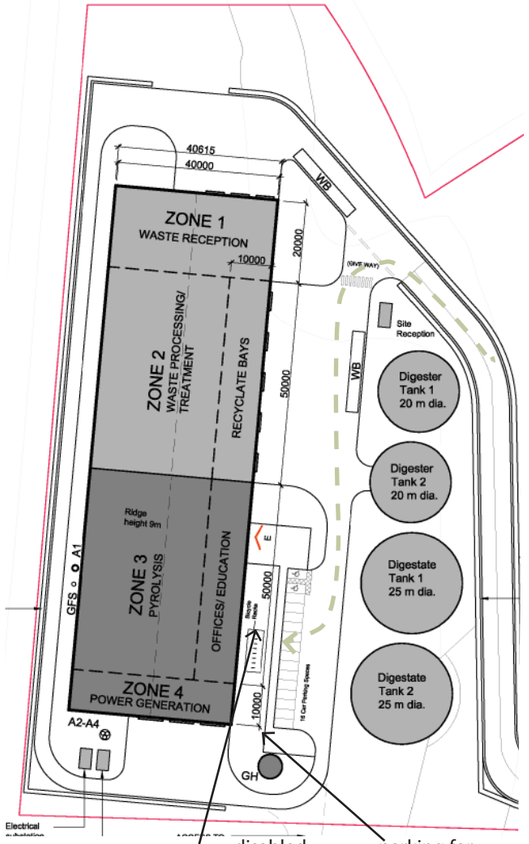


Fig.41. new site access.

HGV Vehicle access will be restricted to a turn in from the north only. This will result in no HGV traffic passing through Micheldever Station. This will relieve any potential pressure on the existing access to the site in New Road within the village itself.

Overton Road will require a new junction access. This will be designed to safely accept the delivery vehicles required to service the ERC. This junction will be designed to have the minimum impact on the natural environment around the junction. The junction geometry will be structured with a wide turn-in radius from the north and a standard vehicle radius from the south to reinforce the designated traffic flow to and from the A303.

A short section of Overton Road will require to be widened. To ensure safety for all road users, work will be carried out to Overton Road to lessen the impact of a crest and hidden dip between the application site access and the A303. Details of this are contained in the Transport section of the Environment Statement.



KEY

car / cycle

Fig.43. Disabled access

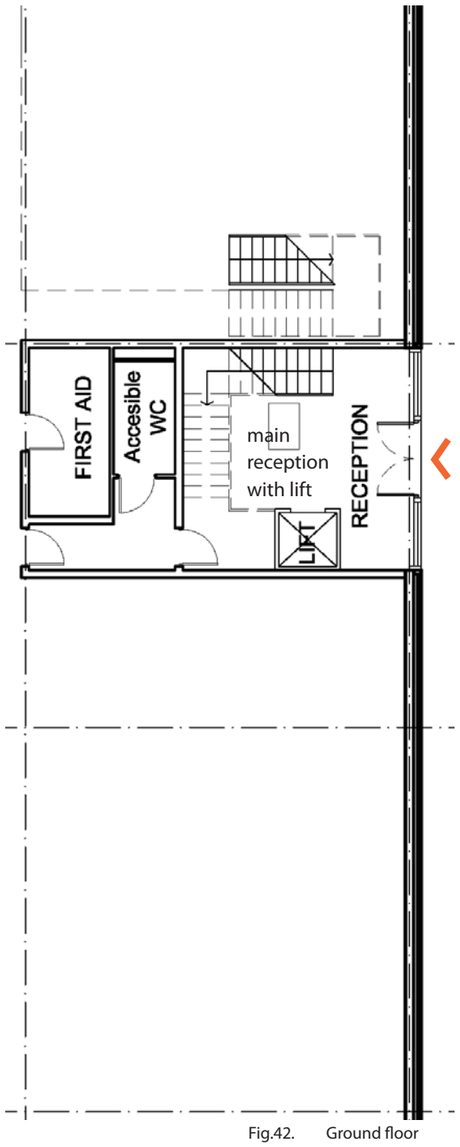


Fig.42. Ground floor

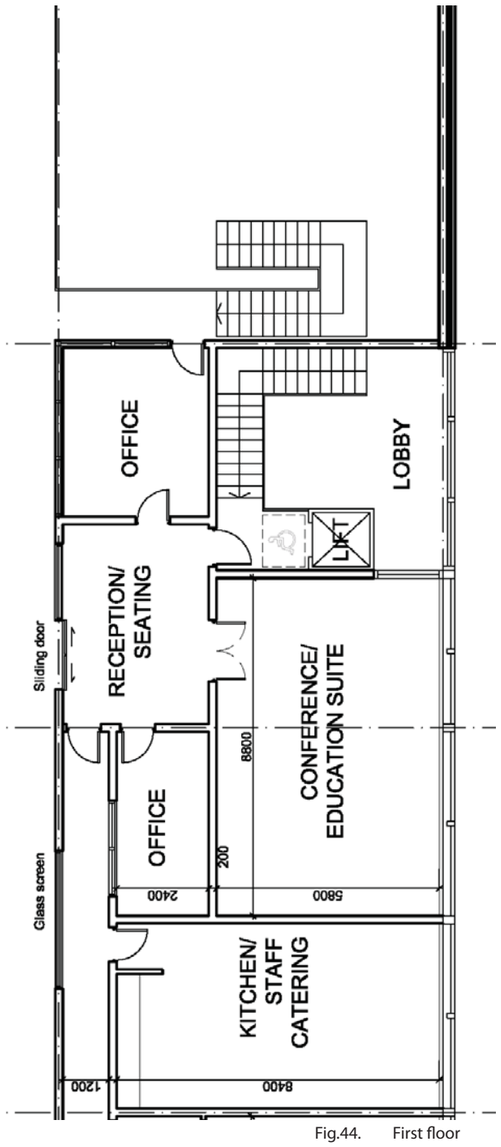


Fig.44. First floor

Visitor access

The public are encouraged to visit the ERC. An education facility is provided where the process can be explained to organised parties and the public can view how the building works from a viewing gallery. It is assumed that visitors would arrive by motor vehicle and park in the bays provided. Access to the site is shared by all traffic. Visitor and staff parking is located beside the main entrance on the long side of the building.

Staff access

The site is not well connected to public transport., however staff may live locally or can find means other than car to travel to work. A Staff Travel Plan will be instigated to assist staff in this process. Car sharing and other ways to minimise trips will be explored as part of staff induction.
Cycle parking has been provided by the main entrance.

Disabled access.

The building will be fully wheelchair accessible (DDA/ Part M compliant) with level threshold access on the ground floor to the reception area. The principle education facility is on the first floor. It is accessed directly from the first floor reception lobby/ waiting area, which provides sufficient clear area for wheelchair manoeuvrability/ waiting.
On the upper lever a viewing gallery gives sight of the building in operation from an elevated vantage point.
Corridor widths are all 1200mm and circulation doors are to be minimum 1000mm doorsets, with Part M compliant clear opening widths. A 1200mm width staircase has also been provided, with handrails either side, and is to be Part M compliant for ambulant disabled visitors.
Provision for a Part M compliant accessible WC has been made at ground floor, adjacent to the entrance/ reception area.
Externally, extra width car parking spaces are provided for disabled visitors, and those spaces closest to the building entrance will be allocated for this purpose.

Sustainability

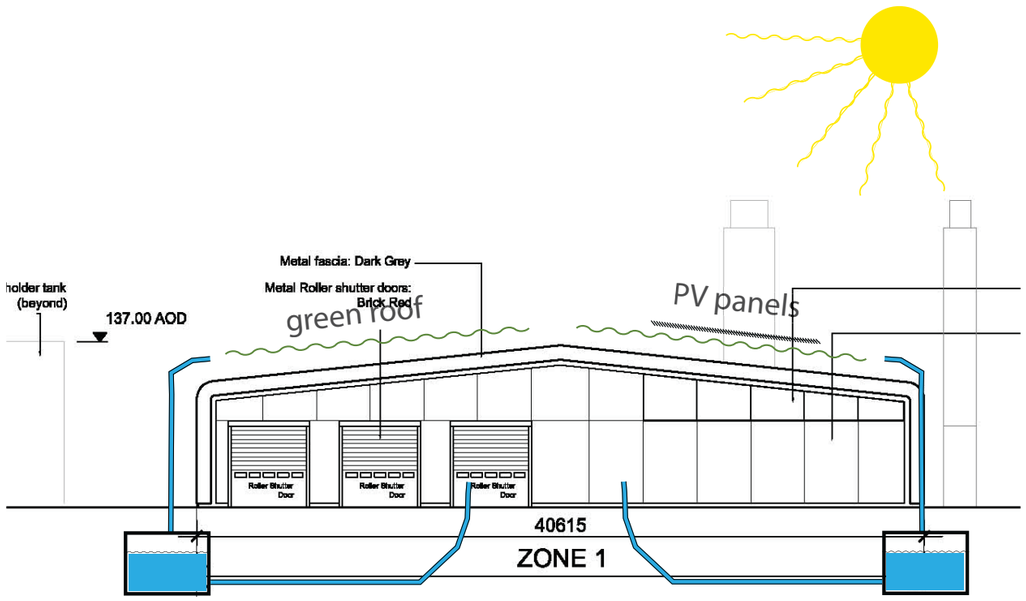


Fig.45. External sustainability measures.

Sustainable process.

The Proposed Development has been designed to provide a sustainable alternative to traditional waste management practices. The technologies selected will provide a means to recover all available recyclable materials whilst providing significant renewable energy in the form of heat and electricity from the remaining non recyclable biomass fraction.

Due to the design of the Proposed Development it will be possible to accept, treat and process non-hazardous commercial and municipal wastes which would typically be sent to landfill of incineration. Neither of these traditional waste disposal techniques recover or recycle the recyclable content of the waste stream and have significant documented environment impacts.

The proposed development will makes bulk recycling more efficient by recovering and sterilising all metals, plastics and glass materials in a form that is suitable for further recycling. All non recyclable organic material is converted to a fibrous biomatter which is then pyrolysed to create synthesis gas and charcoal to create heat and power.

The following key sustainability measures have been incorporated in the design of the plant:

· Recovery of recyclates: All plastics, metals and glass will be recovered from the waste stream and sent to third parties for recycling.

· Energy Conservation: The chars created by the pyrolyser are used as the primary thermal energy source for all treatment processes and syngas generation.

· Use of Waste Heat; The waste heat from the pyrolyser is used to produce the steam for the autoclave, AD tank heating, waste sterilisation processes, space heating and hot water.

· Water Conservation: All rainwater and process greywater is harvested and recovered for use in the process plant to minimise the need for main supplied water.

· Liquid Effluents: There are no liquid effluent discharges from the plant or releases to controlled waters.

· Recyclable Waste Products: The waste ash produced by the pyrolysation process is vitrified and turned into inert aggregate material suitable for use in the construction sector.

· Production of agricultural fertilisers: All liquid digestate produced by the Anaerobic Digestion process will be used as agricultural liquid fertilisers.

Both the ACT and the AD processes are certified renewable technologies that are eligible for Renewables Obligation Certificates (ROCs).

Sustainable building.

The proposed development has been designed to achieve a BREEAM 'Very Good' Rating and scores very highly in all areas. The key sustainability measures are as follows:

· Energy / CO2:

- The incorporation of highly efficient building fabric and photovoltaic panels achieves a 100% improvement on the Target Emission Rates as required by Part L of the Building Regulations.
- All internal and external lighting systems have been specified to have high efficiency LED fitting and will be automatically controlled to reduce energy consumption.

· Water:

- All rainwater will be harvested by the scheme and used for industrial and domestic uses;
- High efficiency fittings are specified and installed to reduce the demand for potable water within the development;

· Materials:

- The majority of the key building elements (by volume percentage) will achieve a Green Guide rating of A+ to B and the Developer and Contractor will ensure that procurement practices are in accordance with corporate and government procurement policy;
- The building will incorporate a green roof to reduce the rainwater run-off rate of the building and to enhance ecology

· Transport:

- A comprehensive Travel Plan has been compiled for the proposed development which amongst other measures includes the provision of electric vehicle charging points (EVCP's) to encourage the uptake of electric vehicles.

· Management:

- The main construction contractor will have a comprehensive Environmental Management System in place and adhere to the Considerate Construction Code.

Public Consultation

Fig.46. Consultation event.

Energy Recovery Centre plans for Micheldever Station

Welcome to our Exhibition

We are holding this exhibition so proposals before we make a plan County Council.

Everyone will be aware that energy prices are increasing and that our existing power generat capabilities are not as efficient as they could ar should be. We need new methods to cope wi demand that is likely to increase as the econo recovers and new methods to generate powe without compromising carbon reduction targe

The information on display here today shows Clean Power Properties are planning to use w to generate power without adding to the carb footprint. This brings numerous benefits which outlined here. Please take the opportunity to any questions and chat to the development te who are here to help.

Your questions answered

Will it be noisy?
There will be no noise impacts beyond the site boundary. This will be regulated by the Environment Agency and we will not be allowed to operate without their approval.

How will the waste be transported to the site?
It is expected that the majority will arrive by road. This will require a new access route to allow lorries to enter and exit from the site directly from the Overton Road. We are also exploring rail routes for the efficient transportation of recyclables away from the site.

What sort of buildings will form the plant?
The main building will be a modern warehouse style building which will be around 9 metres in height.

Will there be any smells?
No.

Will there be any smoke?
None of the site will release any smoke emissions.

How many lorries will come and go to the plant?
If at full capacity, there will be around 60 HGVs arriving each day. It would be unusual for the site always to operate at full capacity.

How much electricity will be generated?
Up to 8MW. The usual rule of thumb is that 8MW is enough powerto support around 8,000 homes.

How much CO_2 will be saved?
These technologies are classified by Ofgem (the UK's power sector regulator) as being renewable, because they do not release any carbon emissions derived from non-renewable (fossil fuel) sources. Based on the emissions from a 'typical' coal fired power station, the proposed facility will save the equivalent of over 78,000 tonnes of CO_2 per annum.

Will this mean more pylons?
No; connections to the local distribution network will be via underground cable.

Will the plants provide heat to the local community?
There is potential for heat to be supplied to municipal, industrial or residential properties within 5km of the plants. To lodge your interest in being able to connect to the heat loop please fill in the feedback form. There is also potential for the gas produced to be captured for local use.

Will there be any other community benefits?
It could relieve the need to separate household waste into organic/recyclable/non-recyclable waste as controlled separation will take place internally at the plant. Local authorities will potentially benefit from reduced landfill taxes.

Will there be a community fund for local good causes?
Negotiations will be needed with the County Council to work out how it would like contributions to be allocated, but the developer is very happy to receive applications for suggestions from the local community.

How many jobs will be created?
Around 30 skilled, operational and management jobs.

Will the waste be local waste or national?
All of the waste will be sourced locally. It will not be brought long distances to the facility.

What about pollution?
Unlike incineration, AD/Advanced Conversion Technology does not produce fly ash and does not damage local air quality.

AD/Advanced Conversion Technology are approved by the Environment Agency.

Clean Power Properties Ltd

What effect would it have on the wider environment?
Overall, an excellent environmentally friendly effect. The technology will reduce reliance on fossil fuels and prevent methane escaping into the atmosphere as found with landfill waste.

The proposed development may potentially provide heat to the local community and other neighbouring facilities - please fill in our form if you are interested in learning more.

What effect will it have on local wildlife and nature conservation areas? What studies have you done?
Environmental studies have been carried out for the site and will be submitted to the County Council for their consideration.

Our studies and proposed designs must meet the County Council's and the Environment Agency's approval before the energy recovery centre could go ahead.

We would like to hear from you

Before we submit any planning application, we would like to hear your comments about the scheme.

Please fill in the COMMENT CARDS available and return them to the project team, either here or via the Freepost address.

Our next steps will be to look at your feedback, review our plans and then submit a planning application to Hampshire County Council. Once a planning application is submitted, the Council will conduct its own consultation.

Thank you for coming today.

Feedback can be provided by:
Filling in the comment card
Call us on
0800 458 6976 or
020 7587 3049 from a mobile
Texting
07797 806 537
E-mailing
micheldeverenergy@yourshout.org
Website
www.micheldeverenergy.info

Clean Power Properties Ltd

Micheldever Station site

The site is alongside the railway sidings at Micheldever Station. It was formerly used as a rail freight yard. Land immediately adjoining the site has been identified in the Draft Hampshire Minerals and Waste Plan as suitable for use as an aggregate rail depot and as having some potential for waste uses.

- It is not close to local housing - and in fact is even further away from local housing than the existing land identified by the county council as suitable for waste
- It will be screened by mature trees
- Our plans include creating a new access point for the rail sidings through our site. This would mean New Road would not need to be used for rail sidings access

Clean Power Properties Ltd

Fig.47. Consultation boards.

It has been important to disseminate information about the proposal to the public in as wide a manner as possible. Given that there are no immediate neighbour two approaches were used to reach local people.

Local leaflets were distributed by hand within the residential areas to the north, south, west and east of the site informing people of the planning application and the project website. This has been created to provide information about the application and includes a short video that explained the process.
Residents were also invited to an open exhibition displaying details of the project. This took place on Friday 8th and Saturday 9th June 2012 in the Warren Hall, Micheldever Station. Members of the planning team and representative of the design team were on hand to explain the proposal and to answer questions raised by the scheme.

A total of 130 people attended including the local MP, the two local county councillors and members of the district and parish councils . Comment sheets were made available to all. In total 25 people responded either on the day or by post or email later. Details of the responses along with A4 versions of the boards pictured here can be found in the Statement of Community Involvement submitted as part of this planning application.

Conclusion

Fig.48. CGI - 3D visualisation.

- - The application site lies adjacent to the A303. The site boundaries are defined by the road and rail transport network. The location is well connected to local, regional and national road networks.
- - Traffic management will ensure that no deliveries to and from the application site pass through Micheldever Station village.
- - The site currently accommodates railway sidings and oil storage tanks that are surplus to requirements.
- - The site benefits from access onto the A303. The proposal will have a negligible impact on the highway network.
- - The linear nature of the railway, which defines the eastern edge of the site, naturally derives a linear building alongside it to exploit the option for rail freight transfer. The linear form of the building also expresses the linear nature of the waste operation contained within.
- The building is only truly visible from the west by train due to the shielding effect of the local topography. The building has been designed with a green roof and with a sympathetic colour scheme to the cladding such that it will blend into the existing environment.
- - The scheme has been designed in accordance with the relevent local planning policies which requires that the facility should be situated in an appropriate location and should be sited in order to minimise any adverse impact on the local communities, the environment and the local transport network. The proposal is well removed from residential all but one properties (minimum 500 metres). The design of the development is sustainable, energy efficient and will have no carbon impact. The development is designed in accordance with the Secure by Design requirements.

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