

DESIGN AND ACCESS STATEMENT: ELECTRIC VEHICLE CHARGING FACILITY

LAND TO THE SOUTH OF MINERS ROAD | LLAY INDUSTRIAL ESTATE



PREPARED BY



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PREPARED FOR



Terra Firma

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DRAWING SCHEDULE

Drawing Number	Drawing Title	Scale
TFE1002/01/01	Site Location Plan	1:500, 1:20,000
TFE1002/01/02	Planning Application Boundary	1:500
TFE1002/01/03 R1	Site Layout	1:200
TFE1002/01/04 R1	Wider Site Context	1:500
TFE1002/01/05 R1	GRP Kiosk Unit Details	1:500
TFE1002/01/06	EV Charge Point Details	1:10
TFE1002/01/07	Security Fence Details	1:25



1. INTRODUCTION

1.1 FORWARD

- 1.1.1 Sirius Planning has been commissioned by SEDG (Miners) Ltd (an SPV of Terra Firma Energy Ltd) to prepare a planning application for an Electric Vehicle Charging Facility (EVCF) on land to the south of Miners Road, Llay Industrial Estate, Wrexham.
- 1.1.2 The purpose of this Design and Access Statement (DAS) is to allow the applicant to demonstrate that development proposals are based on a thoughtful design process and a sustainable approach to access. The DAS should also demonstrate how the development proposals have evolved during the design process.
- 1.1.3 This statement sets out the design and access principles for the proposed development in accordance with the Chartered Association of Building Engineers (CABE) guidance.

1.2 LOCATION

- 1.2.1 The application site is situated within Llay Industrial Estate and comprises an area of land, measuring approximately 701m², situated within a wider plot on the edge of the industrial estate. The site is approximately 1km to the north-west of the village of Llay and 6.5km north of Wrexham. The site is centred on approximate National Grid Reference 332516, 356390. The location of the site is shown on Drawing No. **TFE1002/01/01** and **Figure 2.1** below.

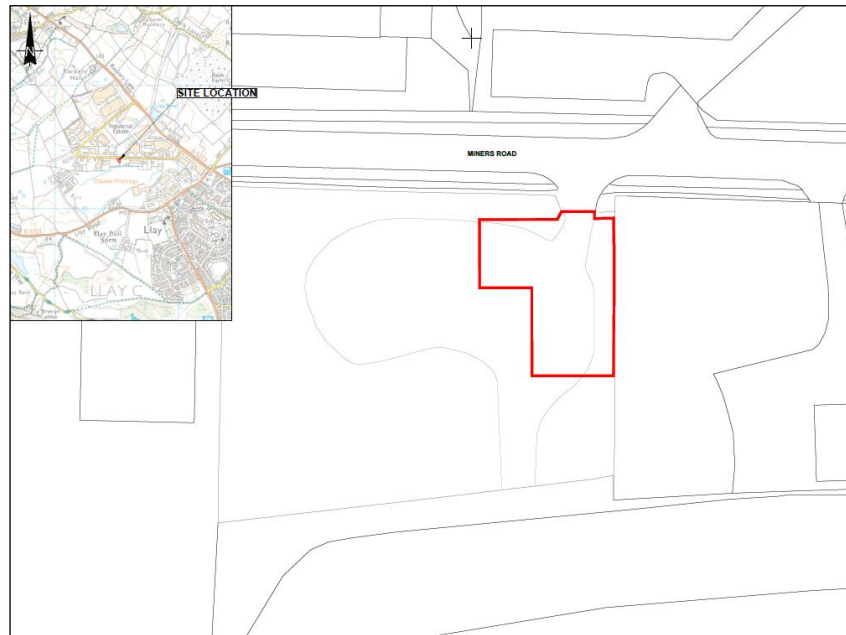


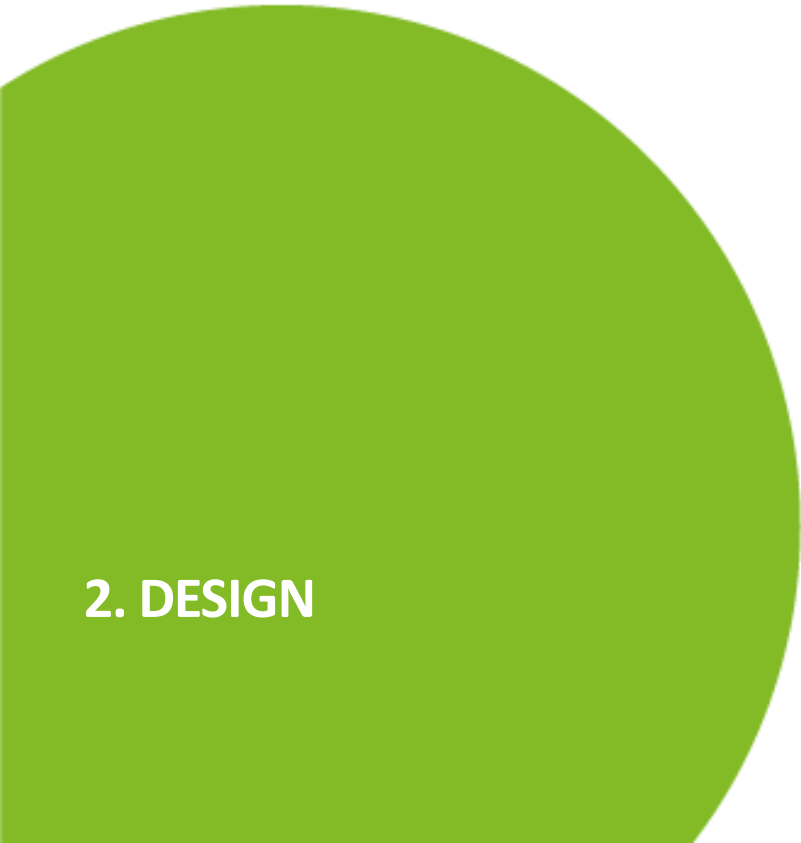
Figure 1.1: Site Location

1.3 CONTEXT

- 1.3.1 The industrial estate was previously the Llay Main Colliery which ceased operations in 1996 and the site was redeveloped as an industrial estate in the early 1970's.
- 1.1.1 The site was most recently used as a storage facility for a road haulage business. The site is no longer actively used and has been cleared. Planning permission was granted for an industrial building; however, this was never constructed, and the permission has since lapsed. The site is enclosed by fencing and scrub vegetation along the perimeter boundaries. A series of conifer trees also line the boundary to the west.
- 1.1.2 The wider site has two extant planning permissions for a 9.9MW Reverse Power Plant (P/2022/0200) and a 9.95MW extension (P/2022/0199). Separate Section 73 planning applications have recently been consented to amend the site layout of the approved Reserve Power Plant, in order to accommodate the proposal. The proposed design of the EVCF has been developed to co-exist with the consented

Reserve Power Plant.

- 1.1.3 Access to the site is via an existing access point off Miners Road.



2. DESIGN

2.1 USE

1.1.4 In November 2020, the UK government announced the acceleration of the phasing-out of petrol and diesel cars and brought forward a ban on the sale of such cars by 2030. Electric Vehicle (EV) ownership is on an upward trajectory with forecasts of significant growth over the next decade.

2.1.1 EV charging points are vital infrastructure in facilitating the transition to EV's and securing net zero carbon targets. A good supply and distribution of charging points is essential to encourage more drivers to purchase EV's and use them on a day-to-day basis. Specifically locating charging points on industrial estates, business parks and arterial routes such as the proposed location, will ensure EV drivers can travel with confidence that they can recharge when required, whilst also having the required welfare facilities available. Thus, making electric cars an attractive alternative to conventional fossil fuelled vehicles.

2.1.2 The proposed development is for an Electric Vehicle Charing Facility to provide a new EV charging facility to meet the increasing number of EV's on the road and further encourage EV use in Wrexham.

2.1.3 The proposed Electric Vehicle Charging Facility, as shown on **Figure 2.1** below and Drawing No. **TFE1002/01/03 R1** will consist of:

- 10 EV charging bays including two disabled bays;
- 10 EV charging points;
- 2 GRP Kiosk Units measuring 3m x 4.4m x 3m;
- 2 staff parking bays;
- Bin storage area.

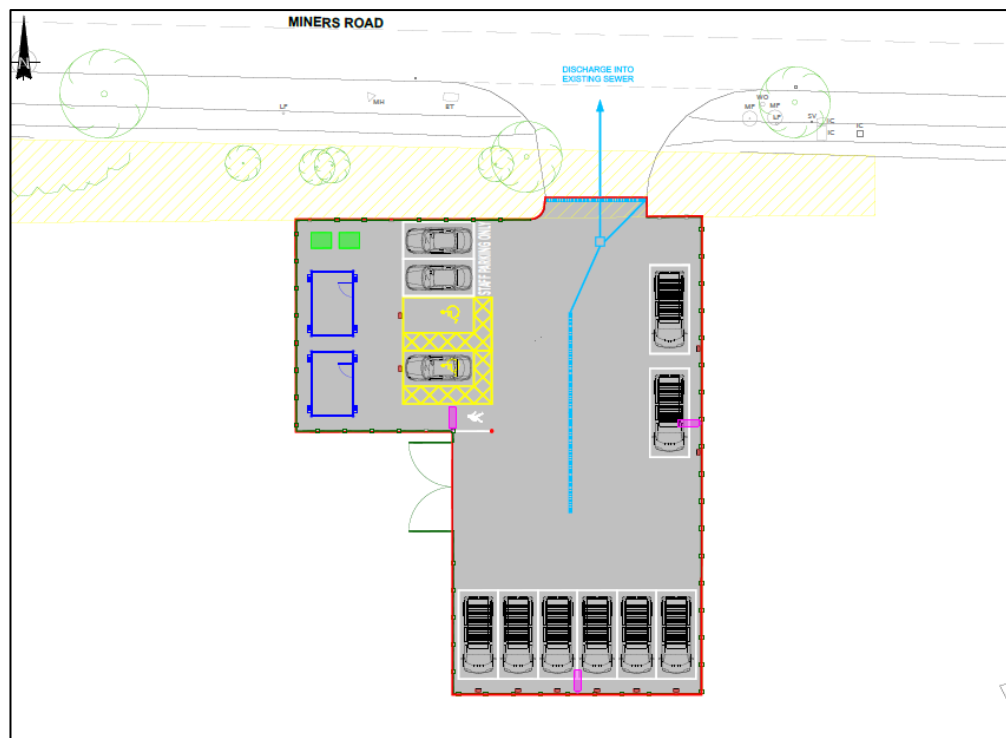


Figure 2.1: Proposed Site Layout

2.2 SCALE

1.1.5 The proposed development is located within a plot on the Llay Industrial Estate measuring approximately 701m². The largest structure on site will be the GRP kiosk units measuring 3m x 4.4m x

3m each, Drawing No. **TFE1002/01/04 R1** and **Figure 2.2** below provides the GRP kiosk unit details. The GRP units will house the EV control panels and equipment.

- 1.1.6 The scale of the proposed service area reflects a number of factors including localised site constraints such as available space and location of sensitive receptors. It is considered that the site and the proposed infrastructure is of a suitable scale.

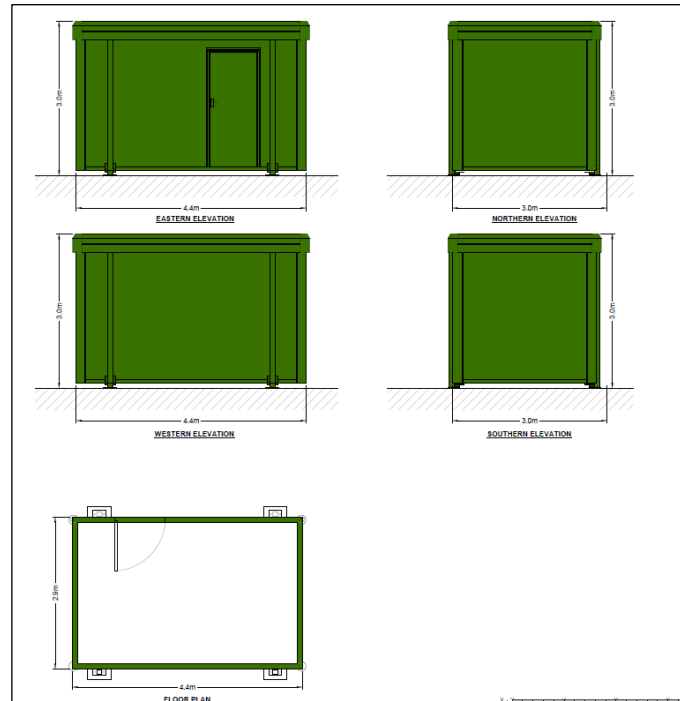


Figure 2.2: GRP Kiosk Unit Details

2.3 AMOUNT

- 2.3.1 The proposed service area will comprise 10 EV charging points and 10 associated parking bays, two of which are disabled parking bays. The location of the charging points are identified on Drawing No. **TFE1002/01/03 R1** and have been scaled to accommodate a van or small goods vehicle, and are therefore larger than a typical parking bay to reflect the a typical visitor to the Llay Industrial Estate. The charging points will be circa 1.4m in height, **Figure 2.3** and Drawing No. **TFE1002/01/06** provides the charging point details.



Figure 2.3: Electric Vehicle Charging Point Details

- 2.3.2 The required size of an EV parking space is driven by the fact that there is no standardised location for charging port position on an EV. Therefore, to enable EV's of all shapes and sizes to comfortably charge, the EV parking bays are generally wider than a standard parking bay. Given the location of the site on a well-used industrial estate, the parking bays are also large enough for commercial EV vans typically used in the area. The charging bays will measure 6 metres x 2.75 metres.

2.4 DESIGN PRINCIPLES

- 2.4.1 The wider site plot includes existing planning consents for a Reserve Power Plant including a 9.9MW (P/2022/0200) and a 9.95MW (P/2022/0199) extension. Separate Section 73 applications have recently been consented to amend the site layouts of the approved Reserve Power Plant following a re-configuration of equipment and to accommodate the proposed EV charging facility. The proposed design of the Electric Vehicle Charging Facility has been developed to co-exist with the consented Reserve Power Plant.
- 2.4.2 The proposal has been designed to maximise the available space on site whilst keeping within the defined working area of the site as agreed for the Reserve Power Plant under planning permission P/2022/0200 in association with ecological mitigation in the form of an GCN mitigation strategy.

Visual Appearance

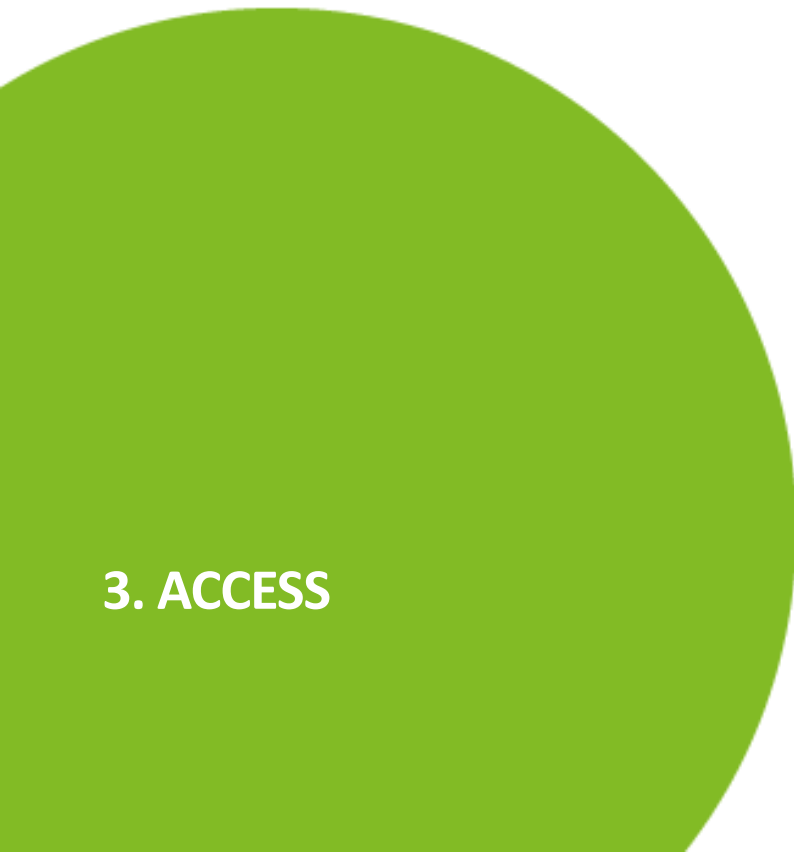
- 2.4.3 The proposed development has been designed to be compatible to the nature of its surroundings. The proposed development is located on a former storage facility for a road haulage business and is no longer actively used. This proposal would not extend the footprint of the site beyond the current overall plot boundary.
- 2.4.4 The GRP kiosk units will be a typical modular prefabricated building, coloured moss green. Given the position of the proposal, minimal construction and the limited footprint of the service area compared with the wider industrial estate it is considered that the scale and appearance of the proposed development is in-keeping with the surrounding area.

Drainage

- 2.4.5 The application site will be surfaced with tarmac, with falls to a channel drain in the centre of the parking area and across the site entrance. The drain will to an interceptor before being discharged into the existing sewer. Drawing No. **TFE1002/01/03 R1** illustrates the proposed drainage design.

Boundary Treatments

- 2.4.6 The wider plot of land will be secured by a consented 2.4m paladin perimeter fencing under planning permission P/2022/0200. The EV charging area will be separated from the consented Reserve Power Plant by an additional 2.4m paladin fencing between the developments, as shown on Drawing No. **TFE1002/01/03 R1**. Details of the fencing is shown on Drawing No. **TFE1002/01/07**.
- 2.4.7 Infra-red (non-visible at night), inward facing pole mounted CCTV cameras (2.5m in height) will also be provided at appropriate intervals along the boundary fence. These will enable remote surveillance of the site. The CCTV cameras will be positioned to avoid views of private property.



3. ACCESS

- 3.1.1 Access and egress to and from the site will utilise the existing site access point off Miners Road which serves Llay Industrial Estate.
- 3.1.2 The existing access point will be shared by both the EVCF and the consented Reserve Power Plant development. The consented access gate for planning permission P/2022/0200 has been re-located to the new entrance of the Reserve Power Plant.

3.2 TRAFFIC GENERATION

Construction Phase

- 3.2.1 Vehicle movements associated with the temporary construction phase of the facility will be contractor's vans and delivery of machinery to install the cable ducting required and installation of the charging units.
- 3.2.2 Light Goods Vehicles (LGV) will be the main source of transport to the site for the workforce. The extent of LGV movements will vary at different stages of the construction work in response to the activities taking place at any given time, but will be minimal.

Operational Phase

- 3.2.3 Vehicle charging times will depend on the type of vehicle and the rate of charging to be applied. i.e. super/ultra-rapid charging - typical full charge time of <30 minutes; rapid charging, typical full charge time of > 30 minutes; standard charging – typical charge period of >1 hour.
- 3.2.4 Based on a super/ultra-rapid charging time speed (fastest), each bay could generate a theoretical maximum of three, two-way vehicle movements an hour. Assuming 100% occupancy of the 10 vehicle bays, the EVCF could generate up to a maximum of 30 one-way movements either in or out of the site per hour it fully utilised. It should be noted that this would be the worst-case scenario.
- 3.2.5 It is considered that traffic generation from the proposal will not have a significant impact on the local highway and will be utilised in the main by vehicles using Llay Industrial Estate.

3.3 CAR PARKING

- 3.3.1 During construction it is expected that the existing site will provide sufficient available land for temporary parking and lay-down for the construction phase.
- 3.3.2 Once fully operational, the site will provide 10 EV charging bays in connection with the proposed 10 EV charging points, of which two will be disabled bays. The layout of the car parking bays is illustrated on Drawing No. **TFR1002/01/03 R1**. The location of the charging points has been designed to enable sufficient room for vehicles to manoeuvre around the site including maintenance vans associated with the adjacent Reserve Power Plant. In addition, two staff car parking spaces are included on the layout for maintenance purposes.
- 3.3.3 It is anticipated that both commercial vans and vehicles already accessing the area to the surrounding businesses will use the facility. The parking bays are large enough for commercial electric vans typically used on the industrial estate to help assist in increasing the uptake of EV usage.



Figure 3.1: Access along Miners Road



4. CONCLUSION

- 4.1.1 This statement describes a proposal by SEDG (Miners) Ltd (an SPV of Terra Firma Energy Ltd) for an Electric Vehicle Charging Facility on land to the south of Miners Road, Llay Industrial Estate, Wrexham.
- 4.1.2 The DAS demonstrates that the extent of the works can be contained within a small plot footprint within the existing Llay Industrial Estate. Given the nature of the existing commercial 'businesses' surrounding the site, it is considered that the scale and appearance of the proposed development is not out of character with the local setting. The layout of the site has been designed in response to the function of the facility and to maximise the available space whilst keeping within the defined working area of the site.

