

Mount Road BESS

Transport And Access Statement

Client: REWE 11 Ltd

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REPORT DETAILS

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1. INTRODUCTION

1.1 Overview

- 1.1.1 Apex Transport Planning Ltd (Apex) has been commissioned to provide transport support for a proposed approximately 200 Megawatt (MW) Battery Energy Storage System (BESS) on Land west of Mount Road, Mount Road, Rhigos, Aberdare (the 'site'). The site is known as Mount Road BESS.
- 1.1.2 The application site is situated within agricultural fields, approximately 520 metres to the west of Mount Road.
- 1.1.3 The proposed development description is for the installation and operation of battery energy storage system (BESS), together with high voltage sub station compound, underground cable route, transformer stations, inverters, site access, internal access tracks, security measures, access gates, other ancillary infrastructure, landscaping and biodiversity enhancements.
- 1.1.4 The proposed development will consist of an enclosed site comprising a BESS facility and a separate 400kV connection site. The BESS units will provide housing for battery infrastructure management systems, a power distribution system, and auxiliary systems such as fire suppression and alarm systems, ventilation and cooling systems, internal lighting and thermal control systems. Permeable access tracks will provide access to the battery storage units and associated infrastructure. The battery storage units will be set back from the site's boundary and secured within a perimeter fence, with CCTV camera poles located at intervals along the boundary. The proposed site layout is shown in Appendix A.
- 1.1.5 The BESS site, along with associated infrastructure, equipment, and fencing, would be removed and the land returned to agricultural use after approximately 40 years.
- 1.1.6 Access to the site will be obtained from Mount Road via an existing access, located within the vicinity of the existing agricultural access. This will provide direct access from the adopted highway and connect to the enclosed development via the existing and new internal permeable access tracks. The site will incorporate a looped road as well as suitable compounds and turning areas to allow construction and emergency vehicles to access and egress in forward gear.
- 1.1.7 Once constructed it will provide a reliable source of clean renewable energy which will be supplied to domestic and commercial consumers via the National Grid network. During the construction and decommissioning phases, temporary personnel units will be located within the site providing space for the site office and staff welfare facilities.
- 1.1.8 Due to the nature of the proposals, the impact on the highway will be temporary, attributed to vehicle movements required during the construction and decommissioning phases. During its operation, only a small number of vehicles (LGV's) will frequent the site for scheduled maintenance and servicing.
- 1.1.9 Rhondda Cynon Taf County Borough Council (RCTCBC) are both the Local Planning Authority (LPA) and the Local Highway Authority (LHA).

1.2 Scope

- 1.2.1 This Transport and Access Statement (TAS) has been prepared to demonstrate to RCTCBC that the proposals can be safely accessed from the adopted highway and will not have a material impact on the operation of the surrounding highway network or an unacceptable impact on highway safety.

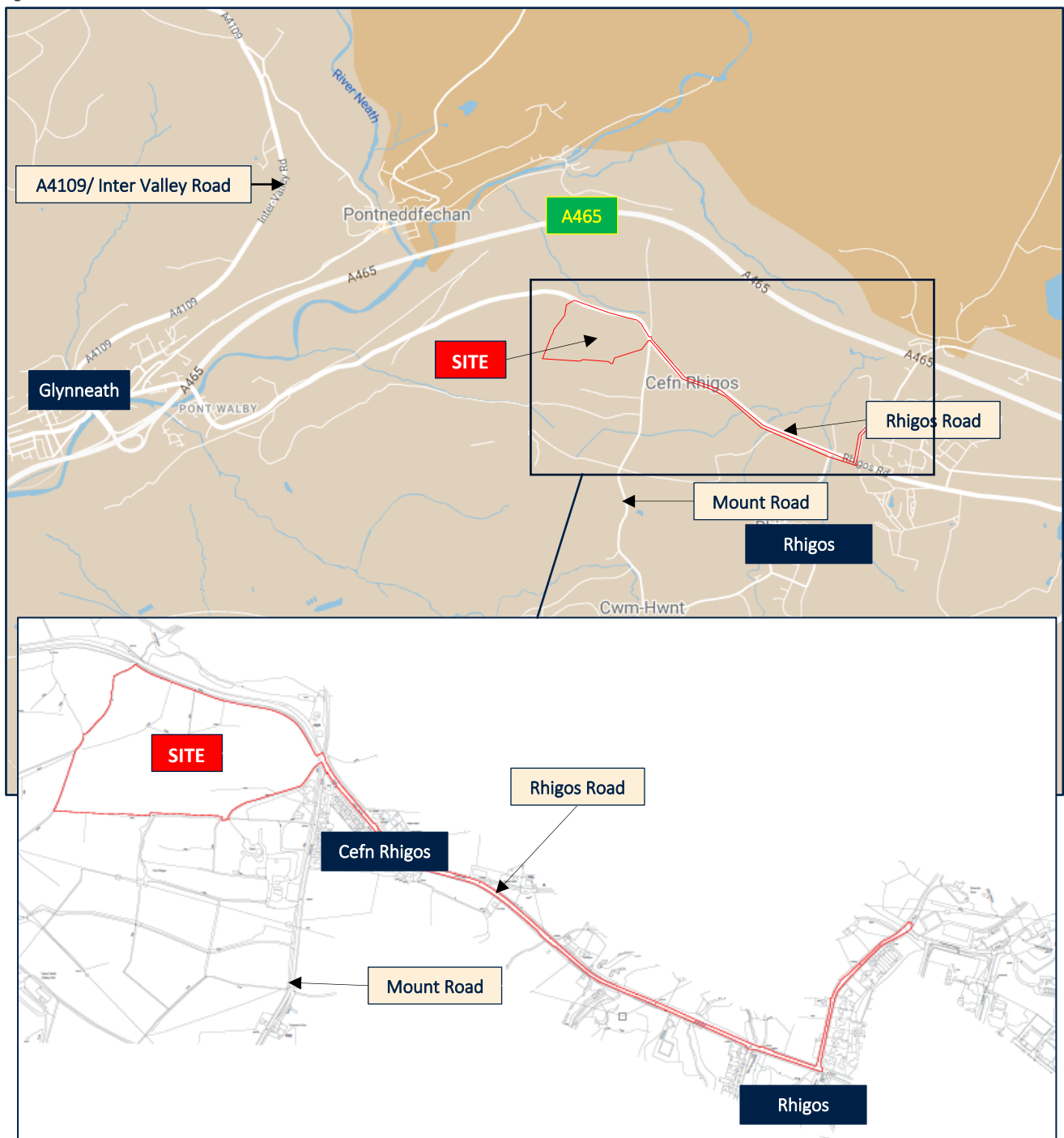
- 1.2.2 This TAS sets out the existing situation, detailing the surrounding transport infrastructure currently serving the site. It sets out the proposals and the anticipated number and composition of vehicle movements to and from the site during construction. It includes the general construction principles, the site layout and construction waste. It also provides details of the proposed site access and routing for vehicles.
- 1.2.3 This report details proposed traffic management measures that could be implemented in order to minimise any adverse effects of vehicular movements associated with the development on the surrounding highway network.
- 1.2.4 The TAS has been prepared in accordance with national planning policies including Future Wales, Planning Policy Wales 12 (PPW12), Technical Advice Note 18 (TAN18), and Active Travel (Wales) Act 2013. It has considered Manual for Streets (MfS) and the DfT's Design Manual for Roads and Bridges (DMRB), which are promoted by RCTCBC whilst its highway design guides are being updated.

2. EXISTING CONDITIONS

2.1 Site Location, Use and Access

- 2.1.1 The site is situated on agricultural land to the west of Mount Road and northwest of Rhigos in Aberdare. The site is bound by Rhigos Road to the north, Mount Road to the east and agricultural land to the south and west.
- 2.1.2 The site is accessed via an existing agricultural access from Mount Road and is currently used for agricultural purposes. The indicative site location is shown in Figure 2-1.

Figure 2-1: Indicative Site Location and Context Plan



Source: Google Maps

2.2 Existing Highway Network

Overview

- 2.2.1 As shown in Figure 2-1, the site is located within close proximity to the strategic road network, with the A465 located approximately 875m (crow-fly distance) to the north of the site's access. Construction vehicles will access and egress from the site via Mount Road. Records obtained from RCTCBC are included at Appendix B which show Mount Road to be adopted highway within the vicinity of the site.
- 2.2.2 The primary access routes would be to and from the north of the site via Rhigos Road (A4061) which connects to the A465 at Glynneath and Hirwaun.

Mount Road

- 2.2.3 Access to the adopted highway will be obtained from the existing access onto Mount Road to the east of the site, via the existing access tracks. Mount Road is a single carriageway road that measures between approximately 5.8m and 7.1m in width within the vicinity of the site, and routes in a north-south direction. As such, the route is considered appropriate for accommodating construction vehicles, and it also benefits from a good level of visibility for drivers in each direction. It is subject to a 60mph speed limit (national speed limit) within the vicinity of the site access. The speed limit reduces from 60mph to 40mph approximately 80m to the north of the site access.
- 2.2.4 Mount Road forms a junction with Rhigos Road at its northern extent, where it also serves c.12 residential dwellings located on its western side. As demonstrated in Section 2.3, Mount Road is a lightly trafficked road with recorded speeds lower than the posted speed limit.

Rhigos Road

- 2.2.5 Rhigos Road is a single carriageway road which generally routes in an east-west direction between Hirwaun to the east and Glynneath to the west. The carriageway measures between approximately 7.1m-8.0m in width. It is subject to a 50mph speed limit within the vicinity of the site.
- 2.2.6 Rhigos Road serves Hirwaun Industrial Estate to the east of the site, where a variety of industrial uses are located including manufacturing and warehouse storage units. Considering the nature of this area, the local highway network is already used by larger vehicles and HGVs. As such, it is considered appropriate for accommodating HGV traffic associated with the development and is an appropriate route to access the site from the strategic road network at the A465.

A465

- 2.2.7 The A465 Heads of the Valleys Road is situated c.2km to the east of the site access and forms part of the strategic road network, maintained by Welsh Government. The A465 provides a connection between Neath to the southwest and Hereford to the east, with links to several further strategic roads.
- 2.2.8 As part of the strategic road network, this route is suitable for accommodating HGV construction traffic associated with the proposed development.

2.3 Traffic Flows and Speeds

- 2.3.1 An automatic traffic count (ATC) was undertaken by independent specialist traffic survey company, Auto Surveys Ltd. The ATC collected traffic speeds and flows along Mount Road from a location

approximately 120m to the south of the existing site access. The survey was undertaken over a full 7 day period between 08/01/2025 and 14/01/2025.

- 2.3.2 The survey results provide an understanding of the current traffic conditions and were used to determine the visibility splays based on the observed speeds. The location of the ATC is shown in Figure 2-2.

Figure 2-2: ATC Location – Mount Road



Source: Google Maps

- 2.3.3 A summary of the survey results, in terms of the weekday average traffic flows in the network peak hours and over a daily period are set out in Table 2-1. A summary of the 85th percentile speeds (unadjusted for wet weather) is set out in Table 2-2. The full speed and traffic flow survey outputs are provided in Appendix C.

Table 2-1: 2025 Weekday Average flows on Mount Road

Period	Total vehicles (two-way)
Average weekday AM Peak Hour (08:00-09:00)	32
Average weekday PM Peak Hour (16:00-17:00)	40
Weekday average	421
7-day average	377
Average weekday HGV flow	42 (10%)

Table 2-2: Average 85th Percentile Traffic Speeds on Mount Road

Direction	85th Percentile Speed (mph)	Average Speed (mph)
Northbound	44.2	36.3
Southbound	45.0	38.0

- 2.3.4 The survey results show an average of 32 two-way movements in the weekday AM peak (08:00-09:00), and 40 two-way movements in the weekday PM peak (16:00-17:00), with an average weekday flow of 421 vehicles recorded. The survey also showed a weekday average of 42 daily HGV movements over the survey period, which equates to c.10% of the average daily weekday traffic flow along Mount Road. On this basis, HGV movements are already accommodated along this route, so it is therefore suitable for larger vehicles.
- 2.3.5 In relation to speeds, the surveys recorded maximum 85th percentile speeds of 44.2mph (71.1kph) for northbound traffic (approaching the access from the south) and 45.0mph (72.4kph) for southbound traffic (away from the access from north to south). As such, the survey shows that speeds are significantly lower than the posted speed limit for Mount Road in this location (60mph). Furthermore, the surveys recorded speeds largely during dry conditions and as such these are considered robust.
- 2.3.6 In accordance with Manual for Streets 2 (MfS2) visibility guidance (above 60kph) these speeds would require a desirable minimum visibility distance of 121.6m to and from the south. If the southbound speeds are used for the visibility to and from the north this would equate to 125.2m. However, the splay to the north would be within the 40mph section where vehicles are likely to be travelling slower than the location of the speed survey which was within a 60mph speed limit area. Section 4 provides further information in relation to the proposed access and calculation of visibility splays.
- 2.3.7 Baseline traffic data has also been obtained from the Department for Transport (DfT), which provides AADF (Annual Average Daily Flow) traffic data at locations across the highway network. Within the vicinity of the site, count data is only available for the A465 which forms part of the key local routes within the vicinity of the site. Data is also available on the A4059 on the eastern side of the A465. Although this is unlikely to be on the key construction route, it may provide a reflection of the likely traffic flows on Rhigos Road within the vicinity of the A465. Table 2-3 provides a summary of this data.
- 2.3.8 The flows have been shown for the most recent obtained year rather than the estimated flows in the future years. This shows a worst case for assessing the percentage impact of the development traffic flows against a lower background traffic flow.

Table 2-3: Baseline traffic flows

Location / Link	Source	Year	AADT Flow (two-way)		
			Total Vehicles	HGV	HGV %
A465	93260	2021 (Manual Count)	16,594	862	5%
A4059	40536	2017 (Manual Count)	22,908	1,415	6%

Source: DfT

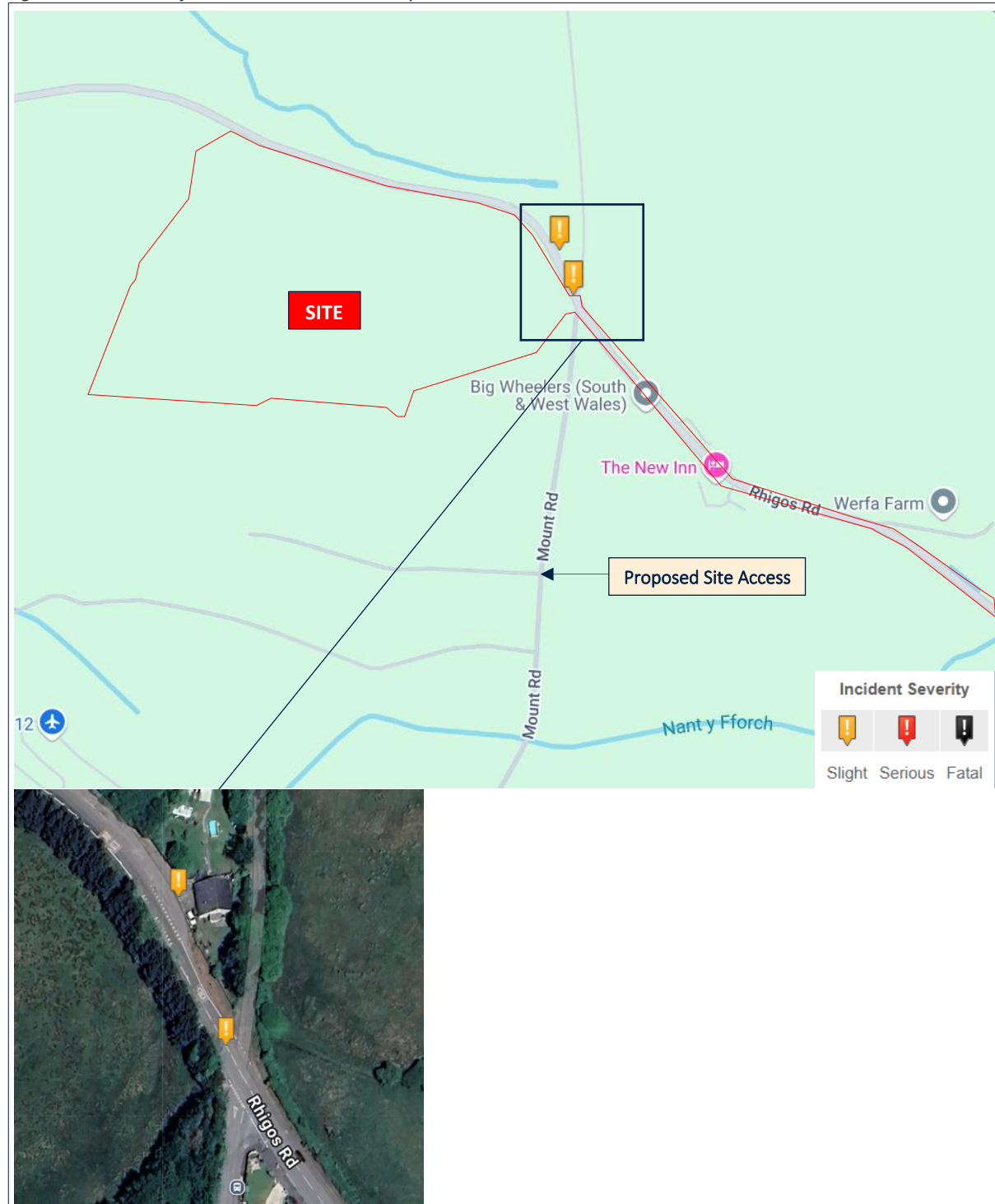
- 2.3.9 The data demonstrates that the A465 and A4059 currently accommodate HGVs at between 5%-6% of total traffic flows. As such, the routes already accommodate large vehicles (as does Mount Road) and would be appropriate for accommodating the low number of temporary construction traffic movements associated with the site.

2.4 Road Safety Analysis

- 2.4.1 Personal Injury Accident (PIA) data has been obtained from road safety data published annually by the Department for Transport (DfT). The statistics provide PIA data which has been recorded using the STATS19 accident reporting form. This review covers the four-year period prior to the pandemic between 1st January 2016 and 31st December 2019, data from the two years during the pandemic between 1st January 2020 and 31st December 2021, as well as the most recent publicly available data which covers up to 31 December 2023. The most recent eight years of data has therefore been reviewed, which includes the most recent five full years of data outside of the pandemic.

- 2.4.2 The study area considered within the analysis includes Mount Road which provides a connection to the site access and the priority junction between Mount Road and Rhigos Road. The PIA's recorded over the stated period within the study area are shown in Figure 2-3.

Figure 2-3: Location of Recorded PIA's Within Study Area



Source: Crashmap.com

- 2.4.3 Over the eight-year period, two slight incidents recorded within the study area, which took place in 2017 and 2023. Both incidents were located to the west of the Mount Road / Rhigos Road junction.
- 2.4.4 No PIA's occurred within the vicinity of the site, so there is no evidence of a road safety issue for vehicles accessing and egressing the site. Further analysis shows that there were no recorded incidents

at the site access location over the entire 25 year period of publicly available data covering between 1999 and 2023.

- 2.4.5 There were no PIAs involving pedestrians or cyclists to suggest a road safety issue for these user groups.
- 2.4.6 There are no clusters of four or more accidents in one location to suggest a pattern of re-occurring road safety issues.
- 2.4.7 As such, although all incidents are regrettable, the PIA's that occurred do not indicate a specific pattern or issue with the geometry of the highway that would be exacerbated by the proposals, particularly when considering that the majority of the site traffic generation would occur over a short-term temporary period and use well-established HGV routes.

3. SUSTAINABLE CONNECTIVITY

3.1 Introduction

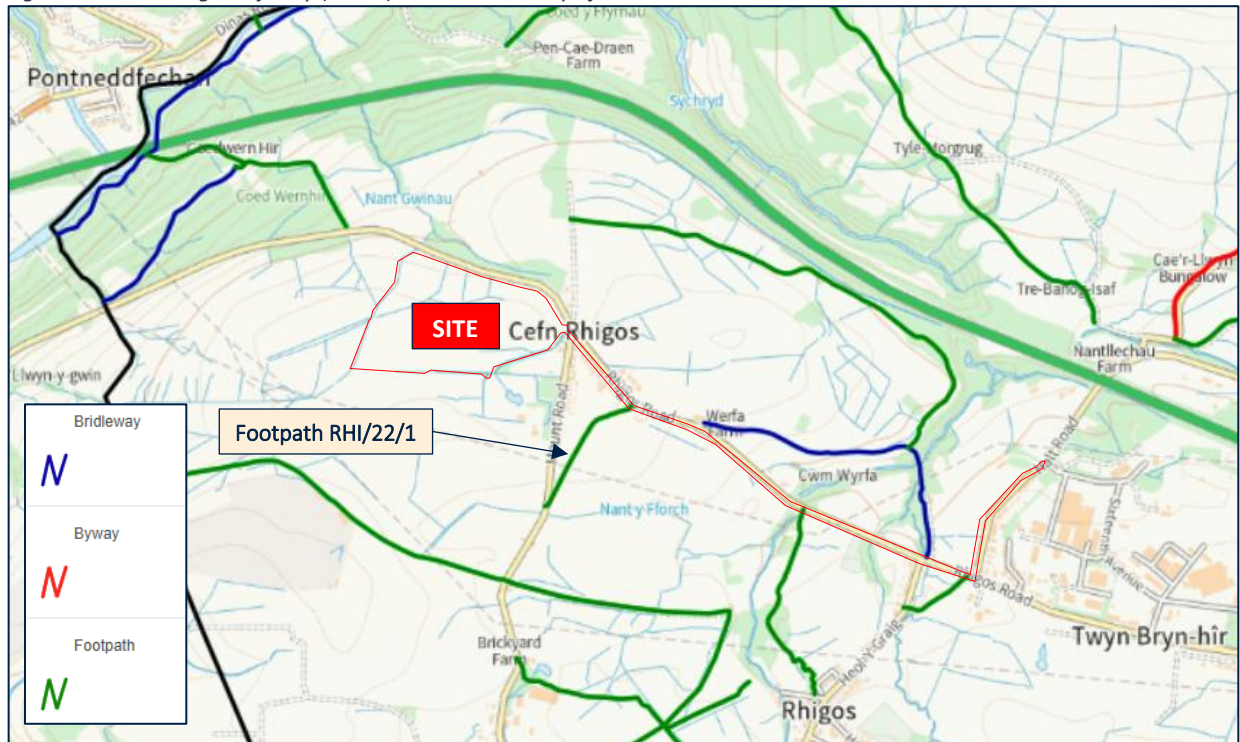
- 3.1.1 The site is situated in a rural location with limited accessibility by sustainable modes. Due to the nature of the proposed use, the development will only result in a temporary short-term peak in movements to and from the site, occurring during the construction and decommissioning phases. As such, there will not be a need to support sustainable travel from the site outside of the controlled and scheduled temporary construction and decommissioning phases. As part of the proposals, measures will be put in place to minimise vehicle movements from the construction workers, such as encouraging car sharing.
- 3.1.2 However, there are options for workers to travel to and from the site using sustainable modes of travel, and the level of provision is considered appropriate given its rural location. These options have been set out within this section.

3.2 Walking and Cycling

Walking

- 3.2.1 A footway connects to the site access onto Mount Road which routes south connecting to local bus stops and Rhigos. To the north of the access, the footway continues on the eastern side of the carriageway, providing access to Cefn Rhigos and further local bus stops. This footway connects to further footways on Rhigos Road which in turn link to additional bus stops within the vicinity of the site.
- 3.2.2 The footways provide access to Public Rights of Way (PRoW) to the south, providing alternative routes to surrounding locations.
- 3.2.3 The site benefits from being within close proximity to the PRoW network, as shown in Figure 3-1, which provides suitable alternative routes for pedestrians. Approximately 200m to the south of the site, public footpath RHI/22/1 is accessible and routes in a north-south alignment, providing an alternative route to Rhigos Road.

Figure 3-1: Public Rights of Way (PRoW) within the vicinity of the site

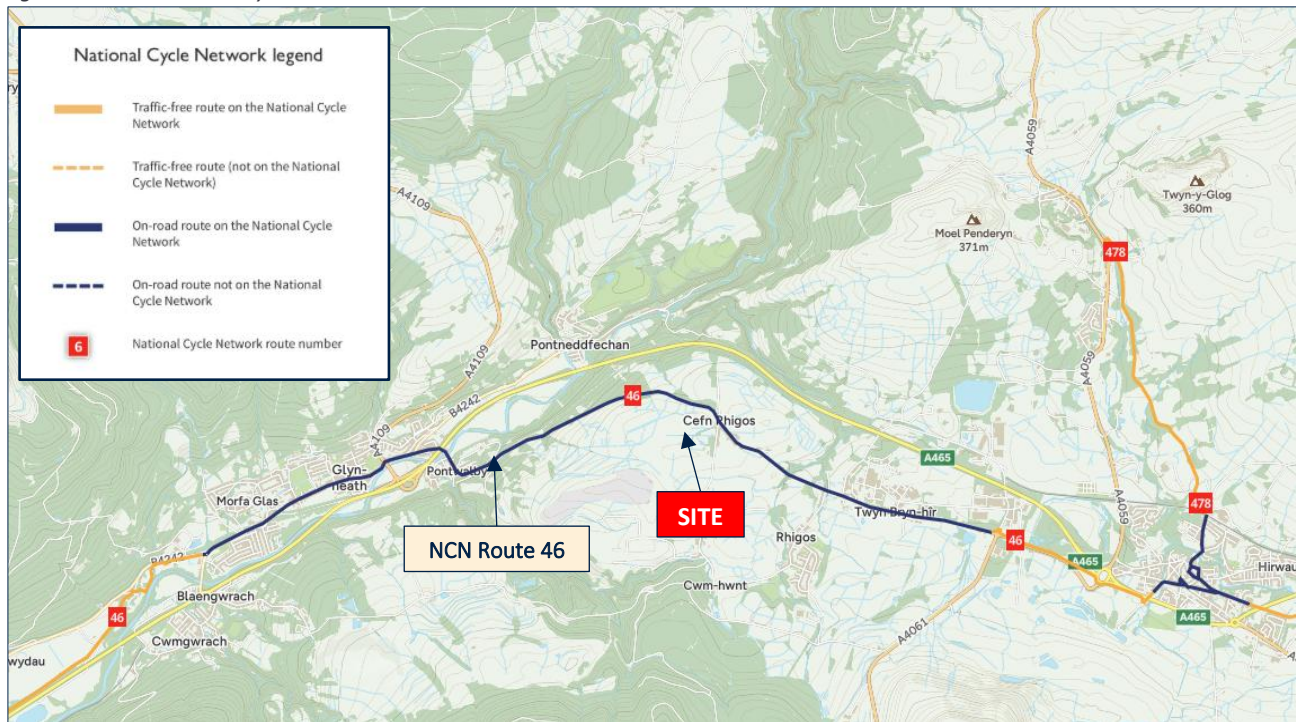


Source: RCTCBC

Cycling

- 3.2.4 As shown in Section 2, Mount Road is generally lightly trafficked between the site and Rhigos Road to the north. Cycling on-carriageway would therefore be a reasonable alternative, particularly within the 40mph speed limit area which starts approximately 80 metres to the north of the site access.
- 3.2.5 The site also lies within close proximity to the National Cycle Network (NCN) Route 46, located approximately 320m to the north of the site access. NCN route 46 utilises Rhigos Road within the vicinity of the site. The NCN route 46 routes in an east-west direction where it connects to Neath to the west and Hirwaun to the east via an on road and traffic free route. As such, there are some options for local contractors to cycle to and from the site. The cycle network within the vicinity of the site is shown in Figure 3-2.

Figure 3-2: The National Cycle Network



Source: Sustrans

3.3 Bus

3.3.1 The closest bus stops to the site are located on Mount Road, approximately 280m to the north of the site access and connected via the existing footways. These stops are served by services 8 and 8A, and are provided with timetable information, accessible kerbs, and a crossing point. A summary of the local bus services is provided in Table 3-1.

Table 3-1: Local Bus Service Summary

Route No.	Operator and Route	First/last	Frequency (mins)				
			Mon-Fri Peaks	Mon-Fri Daytime	Mon-Fri Evening	Sat	Sun
8	Stagecoach South Wales Aberdare Bus Station Stand 10 – Glynneath Fire Station	07:54/19:57	3*	60	60	60	No service
8A	Adventure Travel and Davies Coaches/ Aberdare – Cefn Rhigos	19:48/23:08	-	-	120	120	No service

*Number of Services

3.3.2 Travelling by bus to and from the site is therefore feasible for some journeys to and from the site by contractors.

3.4 Summary

3.4.1 The site is situated in a rural location and has some options for access by sustainable modes. The site access is connected by a footway, and it is possible to cycle to and from the site via the lightly trafficked roads. It is also in close proximity to local public rights of way.

3.4.2 There are local bus services within acceptable walking distances connected by suitable footways. As such, there are options for travel to and from the site by non-car modes.

- 3.4.3 In addition, given the nature of the proposals, car sharing will also be encouraged and promoted to contractors working on the site to encourage more sustainable travel.
- 3.4.4 As such, considering the rural location and the development proposals, appropriate opportunities for sustainable travel are available in accordance with relevant transport policies in Future Wales and PPW12.

4. CONSTRUCTION ACCESS, DESIGN AND SITE LAYOUT

4.1 Access Requirements

- 4.1.1 The proposed site access strategy has been designed to accommodate up to 16.5m long articulated vehicles for construction, which represent the largest vehicle size required to transport components and materials to the site. However, a large proportion of the construction vehicles are likely to be rigid HGVs of up to 10m in length, which are capable of transporting all construction materials and the majority of required components. These vehicles have been considered as part of the construction routing analysis.
- 4.1.2 Due to the modular nature of the site's construction and ability to partially assemble components on site, no abnormal load movements are anticipated to be required, and these have not been considered in this assessment. However, if this changes once the contractor is in place and large components are required to be delivered fully assembled, a full assessment of the routes to and from the site would be completed and included within a Construction Traffic Management Plan, which will require sign off from RCTCBC. All relevant consultees will be contacted, and the relevant abnormal loads order applied for, as required, prior to any abnormal load movements arriving at the site.

4.2 Proposed Construction Access Strategy

- 4.2.1 Access to the site will be obtained from Mount Road using the existing site access, which provides access to the internal access tracks that currently serve the site and adjacent land parcels. New access tracks will also be constructed to serve the development area, enabling the transportation of construction materials, components and BESS units. The Mount Road site access plan can be found at Appendix D.
- 4.2.2 The existing dropped kerb access measures approximately 8-9 metres in width as it connects with Mount Road, and serves the existing private farm access roads which proceed west to the site. The existing access road widens significantly immediately to the west of Mount Road, providing a large area for vehicles to manoeuvre when accessing and egressing the site. This area measures between 10m-13m in width for approximately 60 metres, which is suitable to allow construction vehicles to pass safely at the access and avoid any potential for waiting on the highway. The access location will be managed by a qualified banksman who will be located at the access during delivery times. The proposals will also include improvements and widening to the internal access tracks to appropriately accommodate up to 16.5m long articulated vehicles, which will be undertaken as part of the construction phase. The existing access and internal access tracks are shown on the site layout plan included at Appendix A.
- 4.2.3 As an existing agricultural access, it has safely accommodated larger farm vehicles and HGVs with no accidents occurring over the entire 25 years of publicly available data (as demonstrated in Section 2) from this location, and as such is considered safe for the proposed temporary construction and decommissioning periods.
- 4.2.4 In addition, RCTCBC Highways previously accepted this access following the recommendations of the planning inspector who dealt with an unsuccessful appeal decision on the site (App Ref: 20/0302/10, re-submitted as 20/1163/FUL). The inspector concluded that *"...a satisfactory means of access can be provided, and the proposed would therefore comply with Policy AW 5 of the Local Development Plan". The inspector stated that visibility requirements would be lower considering the proximity to the 40mph zone to the north, and from on-site observations stated "...taking all these site-specific factors into account it is considered that a visibility splay of around 150m would be appropriate".*

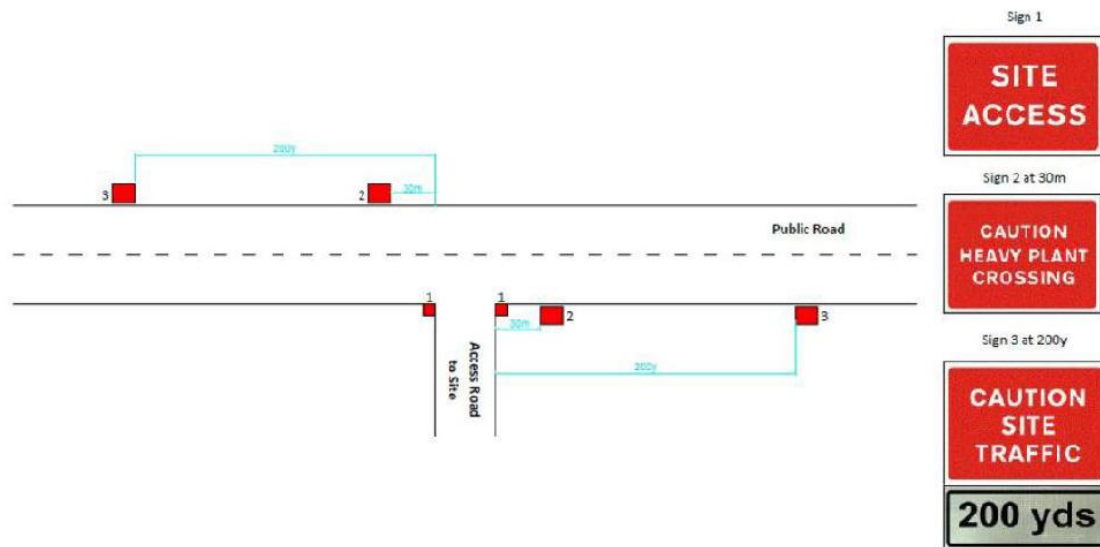
- 4.2.5 As outlined in Section 7, additional management measures would be in place at the access during the temporary construction period including the use of a banks person, signage, and a vehicle booking system to assist movements to the from the access. Regardless of this, a speed survey was undertaken, as outlined in Section 2, to consider appropriate visibility splays in each direction.
- 4.2.6 As outlined in Section 2, based on Manual for Streets 2 (MfS2) guidance, applying the recorded speeds to the south of the access, the desirable minimum visibility distances would be 121.6m to and from the south and 125.2m to and from the north of the access. MfS2 is considered the appropriate design guidance for an access in this location on Mount Road as this is not a trunk road. The MfS2 desirable minimum parameters provide the equivalent of the DMRB standards but applied for exact speeds rather than thresholds, and as such are considered robust. The calculation of the visibility splays in accordance with the guidance in MfS2 has been set out as follows.
- 4.2.7 The MfS2 equation for calculating SSDs in metres is set out in paragraph 10.1.5 of MfS2 and reproduced as follows.
- $$SSD = vt + v^2 / 2(d+0.1a)$$
- With the parameters being:
- v = wet weather 85th percentile speed (m/s)
 - t = driver perception–reaction time (seconds)
 - d = deceleration (m/s²)
 - a = longitudinal gradient (%) (+ for upgrades and - for downgrades).
- 4.2.8 The parameter values have been assumed as follows (based on Section 10.1 and Table 10.1 of MfS2 for above 60kph speeds):
- i. Speeds:
Southbound – 20.12 m/sec (45.0mph / 72.4kph)
Northbound – 19.76 m/sec (44.2mph / 71.1kph)
 - ii. Driver perception-reaction time: 2 seconds
 - iii. Deceleration rate: 0.25g which equates to approximately 2.45 metres per second
 - iv. There is a minimal gradient past the site, so no adjustment has been applied
- 4.2.9 The resultant formulas for calculating the visibility splays in each direction have been summarised as follows.
- $$\text{Southbound SSD} = (20.12 \times 2) + (20.12^2 / (2 \times 2.45)) = 122.8 \text{ metres}$$
- $$\text{Northbound SSD} = (19.76 \times 2) + (19.76^2 / (2 \times 2.45)) = 119.2 \text{ metres}$$
- 4.2.10 An additional 2.4 metres is added to allow for the distance between the driver and the front of the vehicle, therefore the appropriate 'y' distance at the junction would be **121.6 metres to the south** (northbound approaching vehicles) and **125.2 metres to the north** (southbound approaching vehicles).
- 4.2.11 The site access drawing in Appendix D shows visibility splays from the access from an 'x' distance of 2.4m back from the carriageway edge for 121.6m to the south and 125.2m to the north. The entire length of these splays can be accommodated entirely within the adopted highway. As such, the site access is fully in accordance with the most appropriate guidance in visibility in this location, which is MfS2.
- 4.2.12 This is also an existing access which has accommodated movements safely, including by larger agricultural vehicles, over an extended period of time and the splays have therefore been appropriate.

- 4.2.13 Further analysis of the site access location using OS mapping, topographical survey data, and adopted highway information shows that a greater level of visibility is available from the access, with up to c. 160m to and from the north and up to c. 193m to and from the south. In addition, drivers approaching the site access are provided with forward visibility to the access location from both directions to a level in excess of the MfS2 visibility recommendations, with approximately 200 metres available from both directions. As such, the level of visibility is considered appropriate for this existing access, and in line with recommended distances within the appropriate guidance.
- 4.2.14 The access will accommodate a low number of movements during the temporary construction period, which will be controlled through a Construction Traffic Management Plan (CTMP). Deliveries can also be scheduled via a booking system, avoiding peak hours and the access will be controlled by a qualified banksperson to ensure vehicles enter and exit the site safely. Furthermore, there is no evidence of a road safety issue in this location, as demonstrated in Section 2. As such, the visibility splays are considered appropriate for this location and proposed use.
- 4.2.15 The proposed access will form the only access and egress point for the site onto the highway during the temporary construction, operation, and decommissioning periods.
- 4.2.16 A minimal level of movements would be generated during the operational phase, and these will be associated with cars or vans. During operation, the proposed development will require approximately 1-2 maintenance visits per month (2-4 movements). These movements can be appropriately accommodated, as occurs for the existing use of the access.
- 4.2.17 Swept path analysis demonstrates that the access junction can accommodate up to 16.5m long articulated HGV's (the largest vehicle expected at the site for construction) accessing and egressing the site safely. The swept path analysis is provided in Appendix E. Operational vehicles would likely just be 4x4 or vans visiting the site for maintenance, so can be comfortably accommodated at the access.

4.3 Site Layout

- 4.3.1 Within the vicinity of the site access and on the surrounding highway network (where applicable), if needed the contractor would position appropriate signage to inform drivers of the increased likelihood of vehicles, especially HGVs turning into or out of the development site. This would include:
- Caution signs warning of works and construction traffic ahead
 - Signage denoting the construction traffic access to the site
- 4.3.2 Examples of the traffic signage which will be used are shown in Figure 4-1. The exact location, position and content of these signs will be agreed with RCTCBC, prior to the commencement of construction.

Figure 4-1: Indicative Signage Arrangements



On-Site Access Routes and Safety

- 4.3.3 A permeable access track will be constructed to enable the site to be served appropriately during construction, operation, and decommissioning stages. The new access track will be constructed with permeable materials to a standard which is suitable for carrying construction traffic.
- 4.3.4 During construction, the internal layout of both the BESS and HV substation development areas will provide opportunities for HGVs to turn within the site, using temporary construction compounds. Swept path analysis demonstrates a large 16.5m long articulated HGV, the largest vehicle type likely to deliver to the site, accessing and egressing the site compounds in forward gear (Appendix E). These are considered the largest vehicles to access each site during construction.
- 4.3.5 All reversing movements would be overseen by a banksperson, if needed. The turning areas are provided to enable components to be transported to the development areas and ensure space for maintenance. As set out within the HSE 'A Guide to Workplace Transport Safety' guidance, the banksperson directing vehicle movements (signallers) will be trained and authorised to do so. The access tracks and turning heads will remain on site during its operation.
- 4.3.6 Access to the construction site would be controlled and marshalled by a banksperson at the site entrance, who would also coordinate vehicle movements along the internal access track from Mount Road using the existing hardstanding area to the west of the access. The banksperson would ensure vehicles enter and exit the site in a safe and efficient manner. In the interests of safety and to minimise disturbance from construction traffic, all construction drivers would be requested to travel at a maximum speed limit of 10mph when travelling within the site and there would be appropriate advanced signage in place to enforce these limits.
- 4.3.7 When reversing is required (for example within the construction compound), in addition to a competent banksperson directing vehicle movements, as set out within the HSE guidance consideration will be given to:
- Aids for drivers - mirrors, CCTV cameras, reversing alarms and sensors that can help drivers can see movement all-round the vehicle
 - Vehicle visibility aids – beacons, additional lights, reflectors, beacons, and horns
 - Lighting - so that drivers and pedestrians on shared routes can see each other easily. Lighting may be needed after sunset or in bad weather

- Clothing - pedestrians on site should wear high-visibility clothing
- Excluding non-essential personnel from areas where vehicles are reversing

4.3.8 There would be no unloading or loading of materials on the highway network.

Temporary Construction Compound(s)

- 4.3.9 A construction compound(s) would be provided within the site and would remain during the construction period. The compound will be of sufficient size to store materials for the construction until they are required and would also enable vehicles to turn, separated from vehicles entering the site (such movements would be directed by a banks person and other safety measures implemented as set out above). Due to the relatively small number of deliveries each day, all delivery vehicles will be able to enter the site and unload within the compound area.
- 4.3.10 The temporary construction compound, which will be reinstated for decommissioning, will be used for all parking, turning, unloading / loading. There will be no queuing, parking, or unloading on the highway.
- 4.3.11 Potential locations for siting temporary construction compounds are shown at Appendix E. This includes swept path analysis which shows a 16.5m long articulated HGV accessing and egressing the site via the two suggested compound locations.

Staff Welfare

- 4.3.12 Facilities to obtain food and drink on site during the working day will be provided, where reasonably practicable, to minimise the need for personal to leave the site during the working day.

4.4 Security

- 4.4.1 The BESS development would be closed to the public throughout the construction, operation and decommissioning through use of security fencing and CCTV.

4.5 Site Design and Health and Safety

- 4.5.1 The appointed Site Manager will oversee Health and Safety on site. A Health and Safety board identifying potential hazards will be updated daily with all visitors required to sign in and adhere to on-site Health and Safety practices. All personnel working on site will be required to wear a high visibility vest or jacket, steel cap boots, and a hard hat as well as any other activity-specific safety wear.
- 4.5.2 It is intended that the security fence that will surround the BESS site for the duration of its life will be erected prior to the construction phase, thus ensuring the site is secure during this phase. However, if this is not possible, the site will have 24-hour security on patrol in order to adhere to health and safety regulations as well as prevent crime.
- 4.5.3 In terms of the site design, as far as possible, during the construction phase, pedestrians and vehicles will be separated and the HSE guidance will be adhered to. This will include scheduling collections and deliveries to avoid the start and end of shifts so that pedestrians and passenger cars do not conflict with HGV traffic. All visitors would also report to the site office before they are allowed into areas where vehicles operate.
- 4.5.4 The internal site design will consider the separation of pedestrians and vehicles through locating staff parking areas away from the HGV turning areas and the compound where the construction activity occurs. As far as possible, pedestrians will have access to the welfare facilities from the staff parking areas without crossing the path of construction traffic.

4.6 Workforce

- 4.6.1 It is expected that the number of staff required during the construction phase would vary depending on the activities undertaken during each week. It is estimated that there would be approximately 30 staff employed at the site on a typical day.

4.7 Parking

- 4.7.1 Vehicle parking for staff during the construction period would be accommodated on site and no vehicles associated with the construction would park on the highway network. In order to minimise the impact of personal car use, the staff parking area will be located away from work areas and HGV turning areas.

4.8 Construction Plant

- 4.8.1 In order to minimise road use as far as is possible, consideration will be given to retaining large items of plant on site for the duration of an activity, rather than the normal practice of plant coming and going from site to keep hire rates/standing time to a minimum, although this will be of a greater cost to the project. Consideration will be given to such measures where feasible.
- 4.8.2 Plant equipment would include but not be limited to the following:

Equipment	Primary Function
JCB Diggers	Trenching
Dump Trucks	Earth Removal
Vibrating Roller	Compacting access track / compound area
Piling machine (s)	Ramming piles
Telehandler (s) / Crawler (s)	Distributing materials
Crane	Lifting cabinets / housing into place and setting up welfare facilities
Fuel Bowser	Refuel plant as required

5. OUTLINE CONSTRUCTION PHASE

5.1 Overview

- 5.1.1 This section details the construction programme and associated vehicle movements, together with details on the routing of vehicles to the site and the potential impacts.

5.2 Estimated Construction Programme

- 5.2.1 The construction of the project is expected to take between 12 and 18 months. This is an estimate and would be dependent upon a range of factors, such as the shipping of materials, environment conditions (weather) and commissioning timescales. As such, the final construction programme and vehicle flows will be provided within a Construction Traffic Management Plan produced by the Contractor, and which can be conditioned as part of any forthcoming planning consent.
- 5.2.2 The construction period would be split into a number of different phases including site mobilisation, civil engineering, BESS construction and commissioning, landscaping phases and de-mobilisation. A small number of vehicular movements will also be associated and the arrival and departure of construction staff.
- 5.2.3 The delivery of construction components and materials would be mainly by HGVs, with staff trips mainly by cars or vans.

5.3 Construction Vehicle Types

- 5.3.1 The construction phase is anticipated to generate a variety of vehicle types that would travel to and from the site, which could include:
- 16.5m long articulated HGVs
 - Material transporters (10m rigid HGVs)
 - Cement trucks
 - Water tankers
 - Flatbed trucks
 - Mobile Cranes
 - Cars, vans, minibuses, and light goods vehicles

5.4 Working Hours and Deliveries

- 5.4.1 Deliveries to the site would be coordinated to avoid large numbers of vehicles arriving and departing from the site at the same time. The site deliveries would occur between 09:00 and 17:00 Monday to Friday and 08:00 and 12:00 on Saturdays.
- 5.4.2 All construction components and materials would be transported using HGVs within legal limits i.e. up to 16.5m long articulated vehicles. Due to the modular nature of the site's construction and ability to partially assemble some components on site, no abnormal load movements are required, and these have not been considered in this assessment.
- 5.4.3 Where feasible, deliveries will also be scheduled to avoid peak traffic times, such as network peak hours, contractor start/finish times and school pick up/drop off times.
- 5.4.4 During busier periods, deliveries to the site will be staged with drivers given specific time windows for arrival. To manage this, communication will be required between the site manager and the source company. This will prevent convoying of vehicles to and from the site and reduce the impact of

construction traffic on the local highway network by seeking to evenly spread vehicle movements throughout the day.

- 5.4.5 As far as possible and feasible, the shifts for construction workers will be scheduled to minimise the number of traffic movements on the local highway network between the peak periods of 08:00-09:00 and 17:00-18:00 to reduce the impact on the operation of the highway.

5.5 Estimated Construction Vehicle Movements

- 5.5.1 For the purposes of a robust assessment, it has been assumed that all construction vehicles would be generated by HGVs, with vehicles up to 16.5m long (i.e. articulated HGVs). However, the significant majority of construction vehicles are likely to be up to 10m long rigid HGVs, which are capable of transporting all construction materials and smaller components associated with the BESS.
- 5.5.2 The following provides a summary of the anticipated programme and subsequent vehicle movements which have been estimated to occur over a robust c. 52-week period (12 months), which is in line with the operators experience of other similar sites, considering the scale of the proposals:
- In **Weeks 1-5** it is expected that there would be deliveries relating to site set up, cabling, site compound set up and plant machinery (i.e. mobile cranes). Containers would be delivered to serve as offices and welfare facilities for staff, such as toilets. These components would be delivered in approximately 25 HGVs (50 two-way movements). At this time, deliveries would be required to secure the development site, which would include deliveries of the site security measures, such as security fencing to be placed around the perimeter of the site. It is estimated that the security fencing would require approximately 10 HGV deliveries (20 two-way movements) for the fencing panels.
 - During **Weeks 5-31** it is expected that some c.8,490 m3 of stone may be required to create the access roads and development compounds. The stone for the access roads is based on the length of access road and an allowance for turning areas based on the site layout plan in Appendix A. It has been assumed the depth of the road would be 0.3m, and that the stone would be transported to site in HGV deliveries that can carry 20m3 of material, therefore it is estimated that the stone would be transported in some 425 HGV deliveries (850 two-way movements) over this period. The access tracks will remain on site following construction throughout the operational and decommissioning phases.
 - During **Weeks 32-49** it is expected that all the components shown on the site layout plan would be delivered to the site, including the BESS units, invertors, transformers, switchgear units, spares units, control room, 400kV transformer and substation components, and harmonic filters. It is assumed that the BESS units would be broken down into two units and transported using one HGV, with the remaining components broken down in modular parts and transported using multiple HGVs. It is estimated that this would equate to approximately 200 HGV deliveries during this period (400 two-way movements). During this period, the concrete would be delivered to the site to construct the foundations for the BESS and substation components. It is estimated that some c. 450 m3 of concrete would be required, which would be delivered using approximately 56 concrete delivery vehicles (8 m3 capacity).
 - During **Weeks 50 & 52** commissioning and testing of the work would be undertaken, together with the demobilisation of the site including the removal of the site compound, temporary site welfare and office and plant machinery. This would generate approximately 30 HGV arrivals (60 two-way movements).

5.5.3 Table 5-1 provides a breakdown of daily and weekly deliveries expected, based on a c. 52-week (12 month) programme with 5.5 working days per week and deliveries that occur over an 8-hour period (four hours on a Saturday).

Table 5-1: Estimated weekly construction vehicle flows

Week	No. of Deliveries	No. of Movements	Av. Daily Deliveries	Av. Hourly Deliveries	Associated activity
1	9	18	2	0.3	Plant/set up/fencing
2	9	18	2	0.3	Plant/set up/fencing
3	9	18	2	0.3	Plant/set up/fencing
4	8	16	1	0.1	Plant/set up/fencing
5	16	32	3	0.4	Stone for access roads and development/compound areas
6	16	32	3	0.4	Stone for access roads and development/compound areas
7	16	32	3	0.4	Stone for access roads and development/compound areas
8	16	32	3	0.4	Stone for access roads and development/compound areas
9	16	32	3	0.4	Stone for access roads and development/compound areas
10	16	32	3	0.4	Stone for access roads and development/compound areas
11	16	32	3	0.4	Stone for access roads and development/compound areas
12	16	32	3	0.4	Stone for access roads and development/compound areas
13	16	32	3	0.4	Stone for access roads and development/compound areas
14	16	32	3	0.4	Stone for access roads and development/compound areas
15	16	32	3	0.4	Stone for access roads and development/compound areas
16	16	32	3	0.4	Stone for access roads and development/compound areas
17	16	32	3	0.4	Stone for access roads and development/compound areas
18	16	32	3	0.4	Stone for access roads and development/compound areas
19	16	32	3	0.4	Stone for access roads and development/compound areas
20	16	32	3	0.4	Stone for access roads and development/compound areas
21	16	32	3	0.4	Stone for access roads and development/compound areas
22	16	32	3	0.4	Stone for access roads and development/compound areas
23	16	32	3	0.4	Stone for access roads and development/compound areas
24	16	32	3	0.4	Stone for access roads and development/compound areas
25	16	32	3	0.4	Stone for access roads and development/compound areas
26	16	32	3	0.4	Stone for access roads and development/compound areas
27	16	32	3	0.4	Stone for access roads and development/compound areas
28	16	32	3	0.4	Stone for access roads and development/compound areas
29	16	32	3	0.4	Stone for access roads and development/compound areas
30	9	18	2	0.3	Stone for access roads and development/compound areas
31	16	32	3	0.4	Stone for access roads and development/compound areas
32	16	32	3	0.4	Concrete and component deliveries
33	16	32	3	0.4	Concrete and component deliveries
34	16	32	3	0.4	Concrete and component deliveries
35	16	32	3	0.4	Concrete and component deliveries
36	16	32	3	0.4	Concrete and component deliveries
37	16	32	3	0.4	Concrete and component deliveries
38	16	32	3	0.4	Concrete and component deliveries
39	16	32	3	0.4	Concrete and component deliveries
40	16	32	3	0.4	Concrete and component deliveries
41	16	32	3	0.4	Concrete and component deliveries
42	16	32	3	0.4	Concrete and component deliveries
43	12	24	2	0.3	Concrete and component deliveries
44	11	22	2	0.3	Concrete and component deliveries
45	11	22	2	0.3	Concrete and component deliveries
46	11	22	2	0.3	Concrete and component deliveries
47	11	22	2	0.3	Concrete and component deliveries
48	11	22	2	0.3	Concrete and component deliveries
49	13	26	2	0.3	Concrete and component deliveries
50	13	26	2	0.3	Demobilisation and commissioning of BESS
51	8	16	1	0.1	Demobilisation and commissioning of BESS
52	9	18	2	0.3	Demobilisation and commissioning of BESS
Total	746	1492	3	0.4	

- 5.5.4 In summary, the construction phase of the proposed development would result in approximately 746 HGV deliveries (1,492 two-way movements) over the estimated 52-week period.
- 5.5.5 During the peak weeks, it is estimated there would be up to 3 HGV deliveries per day (6 movements). This would equate to up to one HGV vehicle movement (arrival or departure) every 1-2 hours, on average, across the busiest weeks of construction (based on an 8-hour working day). This level of movements would not result in a severe impact on the operation of the local road network, or an unacceptable impact on highway safety.

Staff Movements

- 5.5.6 A maximum of 30 staff have been assumed during the construction phase. This equates to a maximum of 60 two-way movements on a typical day, if it is assumed all workers arrive in single occupancy vehicles and generate one trip to and from the site. It has been assumed that this level of trips occurs on each day of the construction phase for the purposes of this assessment. This is a robust assessment as car sharing would be encouraged.

5.6 Construction Access Route

Overview

- 5.6.1 Section 2 includes an assessment of the surrounding road network which has been used to determine the most appropriate route for construction vehicles to and from the Mount Road site access.
- 5.6.2 Two potential construction traffic routes have been identified to the A465 using Rhigos Road to the north of the site, routing via Glynneath to the west and Hirwaun to the east. These are summarised in the following section, and illustrated on Figure 5-1 and Figure 5-2.

Route A – Mount Road, Rhigos Road (East) and the A465 at Hirwaun

- 5.6.3 Travelling towards the site, vehicles would access Rhigos Road via the A465 at Hirwaun (available from the north and south), before proceeding west for approximately 3.8km to Mount Road / Rhigos Road junction. Vehicles would then turn left onto Mount Road before proceeding south for approximately 300 metres to the site access location.
- 5.6.4 As stated in Section 2, these roads are considered suitable for accommodating the minimal number of temporary construction vehicles predicted over the short term construction programme, and there are no movement restrictions prohibiting these movements.

Route B – Mount Road, Rhigos Road (East) and the A465 at Glynneath

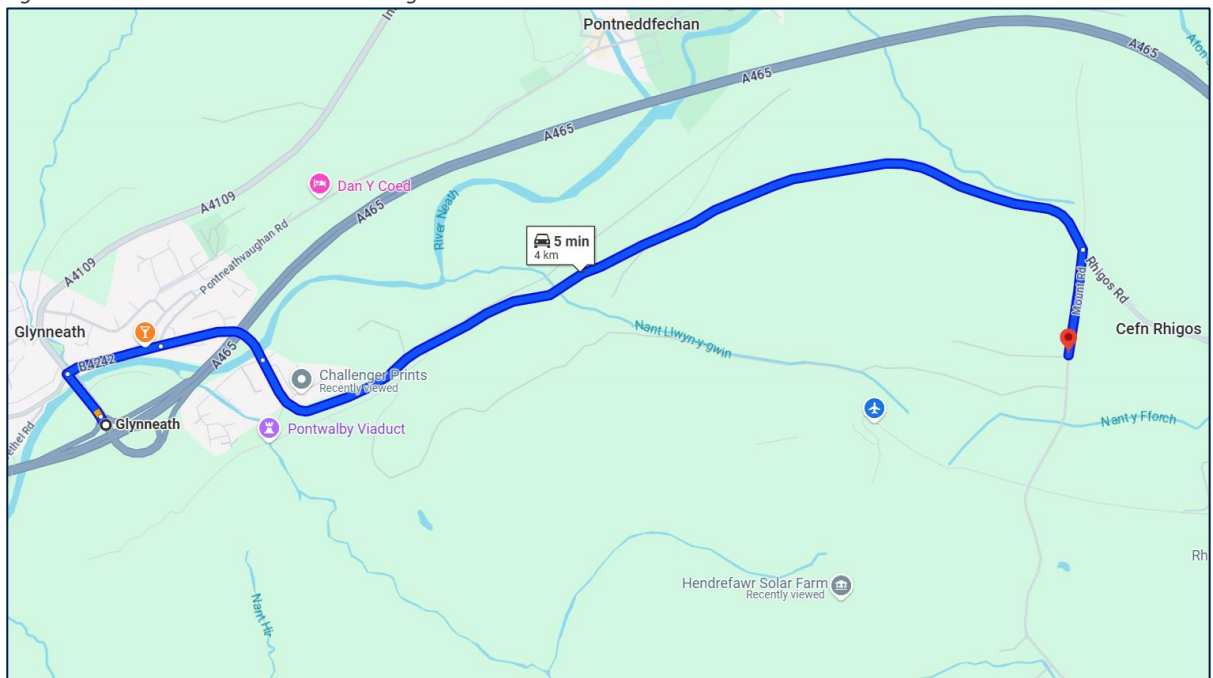
- 5.6.5 Travelling towards the site, vehicles would access the A4109 via the A465 at Glynneath (available from the north and south), proceeding north for approximately 160 metres before turning right onto the B4242. Vehicles would then proceed east for approximately 800 metres through Glynneath via Merthyr Road and continue along this road for approximately 2.6km to Mount Road. Vehicles would then turn right onto Mount Road before proceeding south for approximately 300 metres to the site access location.

Figure 5-1: Potential Access Route B – Rhigos Road East



Source: Google Maps

Figure 5-2: Potential Access Route B – Rhigos Road West



Source: Google Maps

Summary

- 5.6.6 There are no vehicle restrictions prohibiting access to the site via these routes. In addition, as demonstrated in Section 2, these roads already accommodate HGV movements. This includes Mount Road which also accommodates agricultural vehicles associated with the site's existing agricultural use. As such, both routes are considered suitable for accommodating the minimal number of temporary construction vehicle movements expected during the temporary construction phase.

- 5.6.7 In addition, Mount Road was utilised to construct Hendrefawr Solar Farm to the south of the site, and Rhigos Road was utilised to construct Bryngolwg Solar site to the east of the site. Although these are solar sites, there are similarities with the components used for a BESS site and the vehicle movements generated during construction, and as such these roads have previously accommodated similar construction vehicles. The Hirwaun Industrial Estate also generates HGV movements on Rhigos Road, including those generated as part of the construction of the Rhigos Electricity Substation. As such, Rhigos Road is a long established and appropriate HGV route connecting to the A465.
- 5.6.8 Consideration has been given to vehicles accessing and egressing the Mount Road / Rhigos Road junction when using Route A, which would require vehicles to undertake a tight left turn onto Mount Road upon accessing the site and a right turn onto Rhigos Road when egressing. Swept path analysis is included in Appendix E which shows a 16.5m long articulated HGV (the largest vehicle expected during the construction phase) accessing and egressing this junction from the east. This shows this vehicle can be accommodated within the extent of the junction. However, the analysis shows that the vehicle would require the majority of the junction when turning left onto Mount Road. As such, it is proposed that a banksperson would be located at this junction during delivery times to manage these movements, if Route A were taken forward. Due to the low level of background traffic experienced on Mount Road and the low level of predicted construction movements (one every 1 – 2 hours as outlined in Section 5), this is considered an appropriate to control measure.
- 5.7 Preferred Construction Access Route**
- 5.7.1 Based on a review of the two potential routing options, it has been considered that the preferred route for all construction vehicles would be via Route A shown in Table 5-1. Although both routes are considered appropriate to accommodate the low level of predicted construction movements, Route B would involve vehicles routing through residential areas within Glynneath, whereas Route A routes past limited properties and utilises routes which experience higher levels of HGV traffic including those associated with Hirwaun Industrial Estate. In addition, Route A utilises the same route, from Rhigos Road, as the recently consented Bryngolwg Solar Farm (App Ref: 23/0820/FUL) which has similar requirements to the proposed development.
- 5.7.2 The prescribed access route will be a condition of all supply orders and sub-contractors, and no other local roads within the vicinity of the site will therefore be impacted. If required, a log of regular drivers will be maintained, including records of agreements with organisations and the drivers to demonstrate their understanding of the prescribed access route. In the event of non-compliance, the subcontractor or supplier will be in breach of contract, potentially allowing disciplinary action against individual drivers.
- 5.7.3 A banksperson will be located at the site access junction with Mount Road to manage movements safely, although the access is able to successfully accommodate up to 16.5m long articulated HGVs (Appendix E). The banksperson would coordinate vehicle movements along the internal access track from Mount Road using the existing hardstanding area to the west of the access, maintaining communication with personnel and bankspeople within the site. The banksperson would ensure vehicles enter and exit the site in a safe and efficient manner. Signage will also be provided which shows the construction route for delivery vehicles and enables background traffic to be aware of the routing being used.
- 5.7.4 Further details on the proposed traffic management and mitigation measures to minimise the impact on existing vehicles using the network, are included in Section 7.

5.8 Temporary Construction Traffic Impacts

- 5.8.1 During the busiest peak periods of vehicle generation, there would be up to 6 two-way daily movements of HGV's and 60 two-way daily construction staff movements.
- 5.8.2 The impact of these movements on Mount Road, the A465 and the A4059, along which vehicles will likely travel, is set out in Table 5-2. The background traffic data has been informed by the ATC survey undertaken on Mount Road and available survey data and DfT count point data. For a worst-case analysis of the impacts, no traffic growth has been applied to the data.

Table 5-2: Daily Traffic Impacts

Link	Data Source / ID	Base Traffic Flow	Peak Dev Total Movements	% Increase	Base HGV Flow	Peak Dev HGV Movements	% Increase
Mount Road	ATC	377	66	17.5%	42	6	14.3%
A465	93260	16594	66	0.4%	862	6	0.7%
A4059	40536	22908	66	0.3%	1415	6	0.4%

Source: Base data from the 2025 ATC along Mount Road and DfT Count Point Data

- 5.8.3 Table 5-2 shows that during the worst-case peak demand for construction traffic, which would occur over a temporary period, the impact on total traffic movements and HGV movements would be minimal.
- 5.8.4 The impact on Mount Road is 17.5% of total traffic flows and 14.3% of HGVs. However, this is considered to be a consequence of low base traffic flows, rather than the vehicle generation from the construction traffic. The base data shows that Mount Road already accommodates HGV movements, and an addition of less than one additional vehicle per hour on this route relating to the construction traffic is likely to be imperceptible to existing users.
- 5.8.5 There is forecast to be less than a 1% increase in total traffic flows and HGVs on the A4059 and A465 over a daily period. This level of change would be imperceptible and well within daily variations of background traffic flows. The impact on the A4059 is assumed to be reflective of the likely minimal impact on Rhigos Road within the vicinity of the A465.
- 5.8.6 The scheduling of construction deliveries (HGVs) will also ensure that the temporary construction traffic is spread across the day (between 09:00-17:00), which will minimise vehicle movements to one vehicle on average every hour in either direction, on the peak days. As far as possible and feasible, the shifts for construction workers will be scheduled to minimise the number of traffic movements on the local highway network between the peak periods of 08:00-09:00 and 17:00-18:00 to further reduce the impact on the operation of the highway network. Car sharing would be encouraged, to reduce the number of construction staff trips.
- 5.8.7 As such, the level of temporary trip generation during construction would have a negligible impact on the operation of the local highway network and / or at key junctions and would not have an unacceptable impact on highway safety.

5.9 Construction Waste

- 5.9.1 The specialist contractor hired to construct the site will ensure all waste is disposed of responsibly from the site. The removal of waste products from site will be minimised by recycling of excess materials wherever possible. The guidelines contained in the statutory guidance, Waste duty of care; Code of Practice, 2018 will be adhered to.

5.9.2 The potential waste generated during the construction process will primarily be related to packaging and potential measures to minimise the impact of construction waste are set out as follows:

- **The pallets that the components are transported on.** These will be either wood crates, or cardboard boxes. These will be removed from the site on a regular basis. If they arrive on wooden pallets – then these will be returned to the manufacturers. If they arrive packaged in cardboard boxes, then these will be removed from site on a regular basis through a hired skip/s.
- **Packing materials for various components**, such as screws, cabling, and fixings. Any non-recyclable waste will be stored in a skip for regular removal to an appropriate landfill.
- **Food waste from workers.** Personal rubbish will be collected along with non-recyclable packaging materials, for appropriate disposal.
- **Portable toilets** will be hired for the duration of the construction period.
- The site involves some **ground works** for access tracks, cable trenching, cabinet platforms. Excavated soil will be used for backfilling activities. Excess subsoil will be removed from the site and disposed of appropriately or sold to a landowner needing additional soil.
- All spoil or waste that needs to be transferred out of the site for reuse, recycling or disposal purposes will be collected and transferred by vehicles from registered licensed contractors.

5.9.3 A more detailed Construction Waste Management Plan can be conditioned and produced by the contractor, potentially as part of a combined Construction Traffic Management Plan (CTMP) or a Construction Environmental Management Plan (CEMP).

6. SITE OPERATION AND DECOMMISSIONING STAGES

6.1 Operation

6.1.1 The traffic generated by the BESS site during its operation would be negligible, as there would be no staff based at the site and movements would be limited to periodic routine maintenance activities, such as routine maintenance checks in relation to the electrical components and general site maintenance. These visits would typically be made by Light Goods Vehicles (LGVs), and it is expected that approximately 12 trips per year would be required (one per month on average). Due to the low number of vehicular movements expected to and from the site during the operational period, the site would have a negligible impact on the local highway network and SRN.

6.1.2 The operational site layout will be designed to ensure that a light vehicle can turn appropriately.

6.2 Fire Safety

6.2.1 As stated in Sections 4.2 and 4.3, the proposed site access and internal access roads are suitable for enabling emergency vehicles to access and egress the site safely, including the BESS facility. This is in accordance with Approved Document Part B (fire safety) Volume 2: Buildings other than dwellings (2019), which provides statutory guidance. It is also in accordance with the Outline Battery Safety Management Plan (OBSMP) for the development.

6.2.2 The proposals also consider the National Fire Chief's Council (NFCC) guidance for Fire and Rescue Services in relation to BESS facilities. A new version of this guidance is currently being considered by the NFCC following consultation and is due to be published in 2025. In relation to access, the following recommendations have been considered within the current NFCC guidance:

- At least two separate access points to the site to account for opposite wind conditions/direction
- Roads/hard standing capable of accommodating fire service vehicles in all weather conditions. As such there should be no extremes of grade.
- A perimeter road or roads with passing places suitable for fire service vehicles.
- Road networks on sites must enable unobstructed access to all areas of the facility.
- Turning circles, passing places etc size to be advised by FRS depending on fleet.

6.2.3 The proposed site access and internal roads will provide unobstructed access to the development areas and will be constructed with suitable materials and constructed to suitable gradients with no obstructions. With a minimum width of 6.0m, the internal access roads can safely accommodate passing vehicles including fire appliances with obstruction. Turning heads are also provided within the site which are capable of accommodating 10m long rigid HGVs, and as such suitable for emergency vehicles.

6.2.4 Consideration was given to the provision of a secondary access, although one access is compliant with the NFCC guidance. A single site access has been reviewed and confirmed as appropriate by ARC who have prepared the OBSMP. The design of the site supports this by ensuring the BESS units are appropriately spaced within separate groups, providing opportunities for emergency vehicles to access these locations from all sides, as well as circulate the site safely. This has also been considered as appropriate as set out in the OBSMP. The BESS units will include fire safety measures to mitigate any potential fire related issues, including fire suppression, alarm systems, ventilation and cooling.

6.2.5 The suitability of the proposed access arrangements has been demonstrated through swept path analysis included at Appendix E, showing a fire appliance accessing and egressing in forward gear. As such, the proposals are in line with these recommendations.

6.3 Decommissioning

6.3.1 The BESS units, associated infrastructure and components, would be removed and the land returned to agricultural use after 40 years. The decommissioning of the site is expected to follow the principles of the construction as set out in this document, however given the expected life of the BESS site, these would be reviewed prior to decommissioning. The number of HGVs required for decommissioning would be at similar levels as the construction phase and such the impacts would remain as set out for construction.

6.3.2 Vehicles would use the same routes as for the construction although this would be discussed and agreed with RCTCBC prior to decommissioning.

7. MITIGATION

7.1 Traffic Management Measures – Mount Road / Rhigos Road

- 7.1.1 Consideration has been given to vehicles accessing and egressing Mount Road / Rhigos Road junction when using the preferred Route A, which would require vehicles to undertake a tight left turn onto Mount Road upon accessing the site and a right turn onto Rhigos Road when egressing the site location. Swept path analysis is included in Appendix E which shows a 16.5m long articulated HGV (the largest vehicle expected during the construction phase) accessing and egressing this junction from the east. This shows this vehicle can be accommodated within the extent of the junction.
- 7.1.2 However, the analysis shows that the vehicle would require the majority of the junction when turning left onto Mount Road. Mount Road and Rhigos Road already accommodate HGV movements, and the analysis presented in Section 2.4 shows no evidence of any road safety issues at this junction that would be exacerbated by the minimal level of construction vehicles proposed during the temporary construction period. Regardless of this, it is proposed that a banksperson would be located at this junction during delivery times to manage these movements, if Route A were taken forward. Due to the low level of background traffic experienced on Mount Road and the low level of predicted construction movements (one every 1 – 2 hours as outlined in Section 5), this is considered an appropriate mitigation measure.
- 7.1.3 Alternatively, Route B could be considered as the preferred route, and this is shown to be suitable for accommodating the low level of construction movements expected during the construction period.

7.2 Vehicle Management

- 7.2.1 The impact to the surrounding area will be minimised by routing traffic movements as outlined within the previous sections. Fuel consumption will be minimised by encouraging the use of local materials and sub-contractors, where feasible. It is recognised that there are specialist materials and equipment used in the construction and as such there may be less potential for using local materials.
- 7.2.2 The deliveries to the site would be co-ordinated to avoid large numbers of vehicles arriving and departing from the site at the same time. If required, a vehicle booking system can be implemented so that vehicles do not pass within the site or at the site access during peak periods. A banksperson will be located at the access during delivery times to manage movements to and from the adopted highway, preventing queuing, parking, or unloading on the highway. An additional banksperson will be located within the temporary construction compound to assist with vehicle movements during the construction period.

7.3 Vehicle Emissions

- 7.3.1 All construction vehicles are required to comply with relevant European standards. Suppliers and drivers will be required to:
- Switch off their vehicle's engine when stationary to prevent exhaust emissions
 - Maintain vehicles including engines in tune and catalysts working efficiently
 - All vehicles used by contractors must always comply with MOT emission standards

7.4 Travel planning

- 7.4.1 To minimise the number of vehicles travelling to and from the site on a daily basis, staff would be encouraged to vehicle share, where feasible. They will also be encouraged to travel by sustainable modes of travel (particularly cycling), where this is feasible.

7.5 Parking

- 7.5.1 Vehicle parking for staff during the construction period would be accommodated on site and no vehicles associated with the construction will park on the highway network.

7.6 Noise

- 7.6.1 There will always be some noise associated with a building project, however this will be temporary and can be controlled by limiting the hours of noise generating activities to limit disruption for neighbouring properties.
- 7.6.2 In order to limit potential noise impacts, noise generating construction and decommissioning works shall only be undertaken between:
- 08:00 and 18:00 Monday to Friday
 - 08:00 to 12:00 on Saturdays.
- 7.6.3 No noise generating works will be undertaken outside of those hours.
- 7.6.4 Contractors will be required to conform to the construction noise code of practice.
- 7.6.5 HGV movements will be restricted to between 09:00 and 17:00 to ensure noise impacts from large vehicles is kept to a minimum.

7.7 Mud on roads

- 7.7.1 During construction most delivery vehicles will be constrained to the permeable site access tracks and construction compound area (exceptions may include the piling rig and small vehicles for on-site transport). As and when necessary, vehicle wheels will be manually cleaned prior to release onto the highway. The site construction manager will monitor the highway conditions and will assess if further measures are required to maintain road cleanliness, such as road sweeping. Road sweeping would involve the use of an approved mechanical road sweeper to clean the site of any mud or debris deposited by site vehicles within the vicinity of the site.
- 7.7.2 By segregating the on-site traffic from the delivery vehicles, the potential for mud can be reduced. Adequate sheeting of vehicles carrying waste materials will also be adopted to reduce the impact from mud.

7.8 Air Quality and Dust Management

- 7.8.1 It is not anticipated that any significant dust issues would arise during construction or decommissioning. If conditions on site are very dry, then water misting/spraying will be employed to dampen ground to avoid any dust nuisance.
- 7.8.2 Specific measures will be adopted on the site relating to vehicles entering and leaving the site to reduce any impact of dust on the local highway network and these will include:
- Easily cleaned hardstanding areas for vehicles
 - Maintain haul roads and hardstanding by regular brushing and water spraying
 - All vehicles carrying soil and other dusty materials to be fully sheeted
 - Enforcing site speed limit of 10mph

7.9 Local Environment Protection

7.9.1 The contractor would undertake mitigation measures to protect the local environment during construction, such as:

- All marshalling areas and site offices would be included within the site boundary
- Provision of adequate storage space within the site, to ensure the site entrance does not become blocked at any time
- All loads to be properly stowed and secured

7.10 Monitoring

7.10.1 The contractor would be responsible for monitoring the operation of the site during construction, the construction routes, delivery timings and access arrangements, as well as to ensure the mitigation measures are implemented effectively. Monitoring would be undertaken continuously, in order to ensure efficient operation and to minimise the impacts on the local environment.

8. SUMMARY AND CONCLUSIONS

8.1 Summary

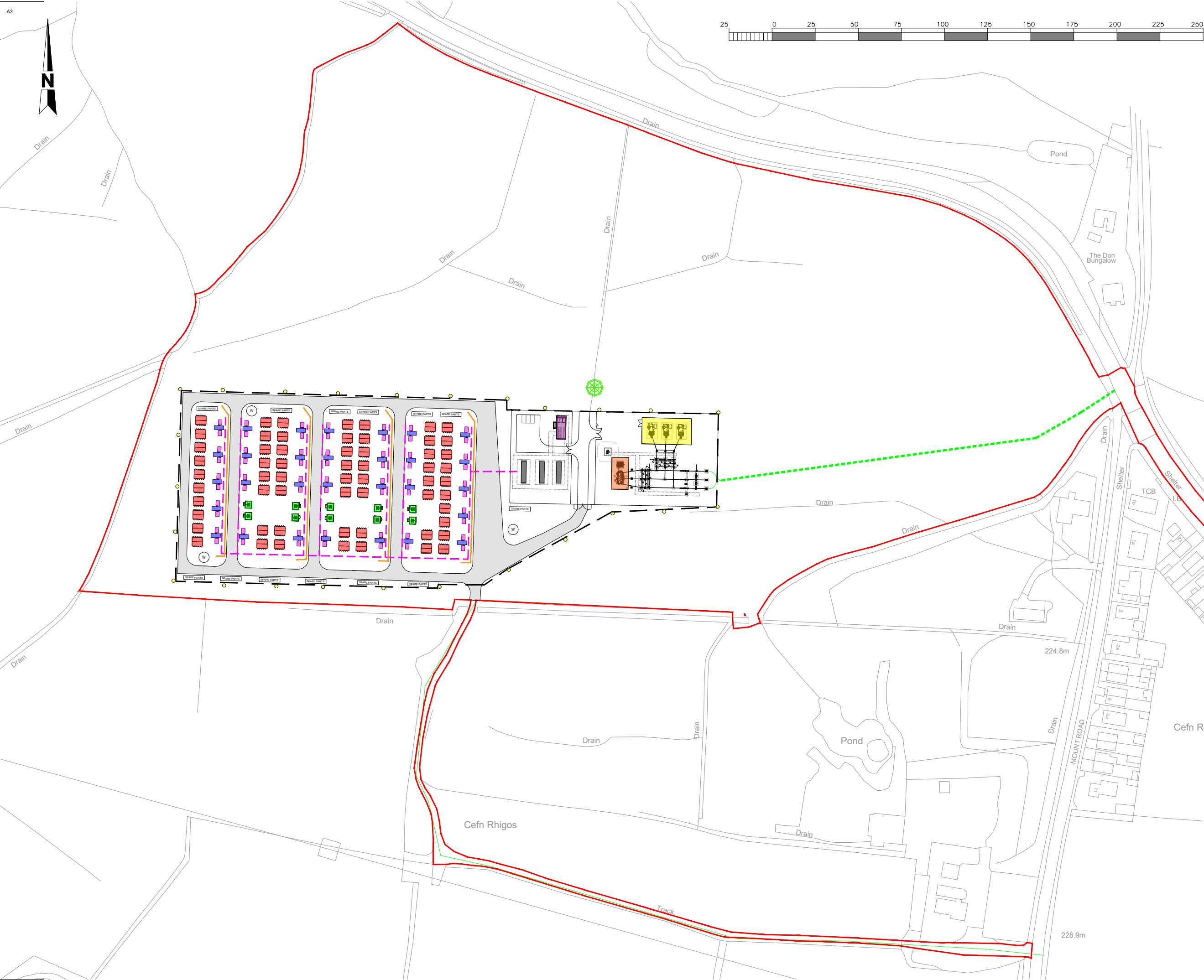
- 8.1.1 Apex Transport Planning Ltd (Apex) has been commissioned to provide transport support for a proposed approximately 200 Megawatt (MW) Battery Energy Storage System (BESS) on Land west of Mount Road, Mount Road, Rhigos, Aberdare (the 'site'). The site is known as Mount Road BESS.
- 8.1.2 The proposed development description is for the installation and operation of battery energy storage system (BESS), together with high voltage substation compound, underground cable route, transformer stations, inverters, site access, internal access tracks, security measures, access gates, other ancillary infrastructure, landscaping and biodiversity enhancements.
- 8.1.3 The proposed development will consist of an enclosed site comprising a BESS facility and a separate 400kV connection site. The BESS units will provide housing for battery infrastructure management systems, a power distribution system, and auxiliary systems such as fire suppression and alarm systems, ventilation and cooling systems, internal lighting and thermal control systems. Permeable access tracks will provide access to the battery storage units and associated infrastructure. The battery storage units will be set back from the site's boundary and secured within a perimeter fence, with CCTV camera poles located at intervals along the boundary.
- 8.1.4 The battery storage units, along with associated infrastructure, equipment, and fencing, would be removed and the land returned to agricultural use after approximately 40 years.
- 8.1.5 Due to the nature of the proposals, the impact on the highway will be temporary, attributed to construction vehicle movements required during the construction and decommissioning phases. During its operation, only a small number of vehicles (LGV's) will frequent the site for scheduled maintenance and servicing.
- 8.1.6 Access to the site will be obtained from Mount Road via an existing access, located within the vicinity of the existing agricultural access. This connects the adopted highway and the enclosed development via the existing and new internal permeable access tracks. The site will incorporate a looped road as well as suitable compounds and turning areas to allow construction vehicles to access and egress in forward gear.
- 8.1.7 The site access can accommodate up to 16.5m long articulated HGVs for the construction period, which represent the largest vehicles required to transport components and materials to the site. The site access is provided with suitable visibility and geometry in accordance with observed 85th percentile speeds. The site access and access tracks will be surfaced appropriately to accommodate construction traffic, as agreed with RCTCBC. The materials will create a suitable permeable surface.
- 8.1.8 The access arrangements are also suitable and compliant with the NFCC guidance on fire safety and confirmed as suitable within the Outline Battery Safety Management Plan prepared by ARC.
- 8.1.9 All vehicle movements would route to and from the site location from the north via Mount Road, Rhigos Road and the A465. Mount Road and Rhigos Road are both of sufficient width for a HGV to pass a car and there are no restrictions along these routes. The route to the A465 largely passes employment, industrial and agricultural uses and as such already accommodates HGV movements.
- 8.1.10 Road safety data has been analysed and there is no evidence of a highway safety issue within the vicinity of the site access, which would be exacerbated by the proposals. The proposals would not have an unacceptable impact on highway safety.

- 8.1.11 There are options available for sustainable travel to the site. In addition, vehicle movements will be minimised through car sharing which will be encouraged and promoted.
- 8.1.12 The construction phase of the development is programmed to take approximately 12 months (c. 52 weeks). During the peak weeks, it is estimated there would be up to 3 HGV deliveries per day (6 movements). This would equate to up to one HGV vehicle movement (arrival or departure) every 1-2 hours, on average, across the busiest weeks of construction (based on an 8-hour working day). This level of movements would not result in a material impact on the operation of the local road network, or an unacceptable impact on highway safety.
- 8.1.13 Appropriate traffic management and mitigation measures will be put in place to ensure that vehicle movements can be accommodated at the site access, on the highway and safely within the site itself. These measures will also minimise any impact from development traffic on noise, highway capacity, mud and dirt and air quality.
- 8.1.14 The contractor would position appropriate signage to inform other road users of the presence of construction traffic, especially HGVs turning into or out of the site.

8.2 Conclusions

- 8.2.1 The proposed development complies with the following key policies and guidance in relation to transport and highways matters:
- Welsh Government - Future Wales
 - Welsh Government - Planning Policy Wales 12 (PPW12)
 - Welsh Government – Technical Advice Note 18 (TAN18)
 - CIHT - Manual for Streets 2 (MfS2)
 - National Fire Chief's Council (NFCC) Guidance for Fire and Rescue Services in relation to BESS facilities
- 8.2.2 The proposals offer a choice of travel options, considering the type and rural location of the development, as well as promoting car sharing, and as such is in line with transport policies in Future Wales and PPW12.
- 8.2.3 The site access is safe and suitable in accordance with TAN18, MfS2 and the NFCC BESS guidance.
- 8.2.4 The development will not have a material impact on the operation of the surrounding highway network or an unacceptable impact on highway safety, in accordance with TAN18.
- 8.2.5 It is therefore considered that there are no reasons relating to transport or highways for objecting to the application.

Appendix A Proposed Site Layout Plan



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- NOTES:
1. ALL DIMENSIONS TO BE CONFIRMED ON SITE PRIOR TO INSTALLATION
 2. ALL DIMENSIONS ARE INDICATIVE AND IN METERS (M) UNLESS STATED OTHERWISE

- LEGEND:
- BESS CONTAINER
 - TWIN SKID INVERTER
 - TWIN SKID TRANSFORMER
 - AUXILIARY TRANSFORMER
 - SWITCHGEAR
 - HARMONIC FILTERS
 - HV 33/400KV TRANSFORMER
 - CONTROL ROOM
 - RED LINE BOUNDARY
 - FENCELINE
 - MV CABLING INDICATIVE
 - 400KV CABLE INDICATIVE
 - CCTV POLE
 - ACOUSTIC SCREENING BARRIER

04	23-01-25	WS	MS	LS
AMENDED TO INCLUDE ACOUSTIC SCREENING				
03	13-12-24	WS	MS	LS
AMENDED FOLLOWING EPC REVIEW				
02	03-12-24	WS	MS	LS
ORIENTATION AMENDED				
01	06-11-24	WS	MS	LS
FIRST ISSUE				
REV	DATE	BY	CHECKED	APPROVED


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CLIENT
REWE 11 LTD

PROJECT TITLE
RHIGOS BESS

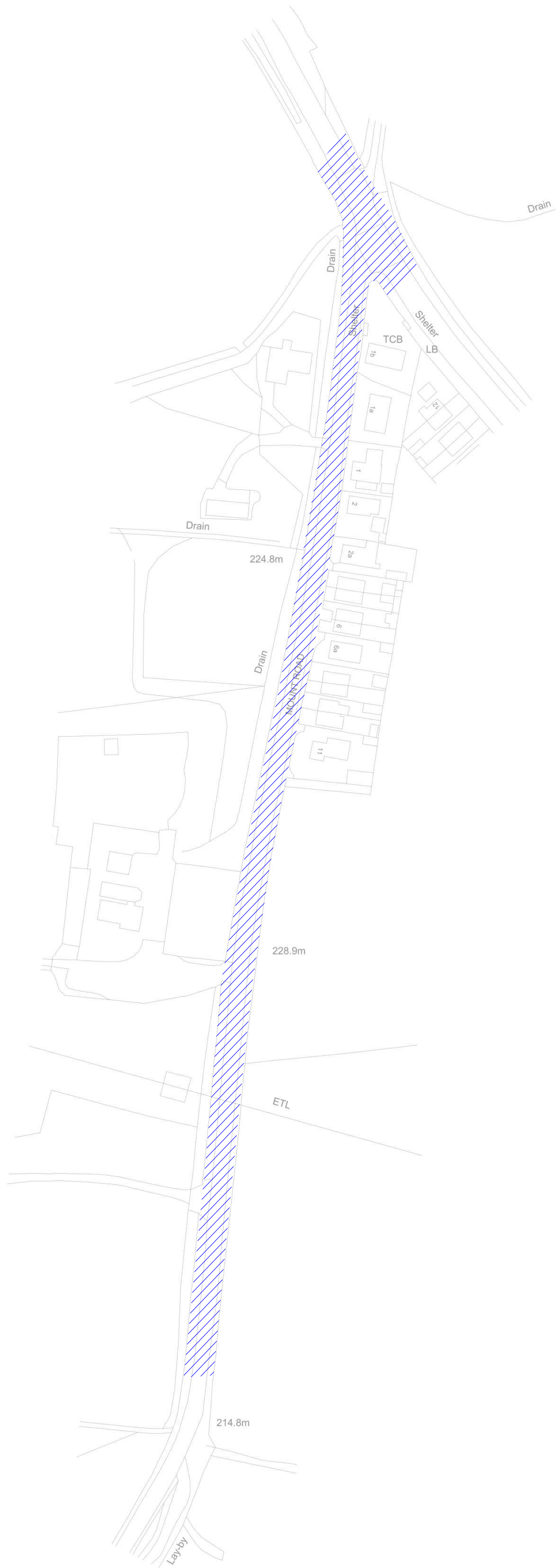
DRAWING TITLE
BESS LAYOUT - KEY

SCALE @ A3
1:2000

JOB No.	REV.
11	04

DRAWING No.
WIN-BES-CEFN-DR-02

Appendix B Extent of Adopted Highway Plan – Mount Road



Appendix C Traffic Survey Data

14034		CEFN RHIGOS								
JANUARY 2025					Posted Speed Limit	Total			Average	Average
Site	Location	Direction	Start Date	End Date	(PSL)	Vehicles	5 Day Ave.	7 Day Ave.	85%ile Speed	Mean Speed
Site No: 14034001	Mount Road Cefn Rhigos (South of Cefn Farm) 51.746992, -3.573697	Channel: Northbound	Wed 08-Jan-25	Tue 14-Jan-25	NSL	1284	203	183	44.2	36.3
		Channel: Southbound	Wed 08-Jan-25	Tue 14-Jan-25		1358	218	194	45.0	38.0

14034	CEFN RHIGOS	Site No: 14034001	Location	Mount Road, Cefn Rhigos (South of Cefn Farm)							
Wed 08-Jan-25 to Tue 14-Jan-25		Channel: Northbound									
TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Wed 08-Jan-25											
00:00	0	0	-	0	-	0	-	0	-	0	-
01:00	0	0	-	0	-	0	-	0	-	0	-
02:00	0	0	-	0	-	0	-	0	-	0	-
03:00	0	0	-	0	-	0	-	0	-	0	-
04:00	0	0	-	0	-	0	-	0	-	0	-
05:00	1	0	0.0	0	0.0	1	100.0	0	0.0	0	0.0
06:00	4	0	0.0	4	100.0	0	0.0	0	0.0	0	0.0
07:00	17	0	0.0	13	76.5	3	17.7	1	5.9	0	0.0
08:00	15	0	0.0	13	86.7	1	6.7	1	6.7	0	0.0
09:00	13	0	0.0	10	76.9	2	15.4	1	7.7	0	0.0
10:00	10	0	0.0	8	80.0	1	10.0	1	10.0	0	0.0
11:00	10	0	0.0	8	80.0	0	0.0	2	20.0	0	0.0
12:00	16	0	0.0	13	81.3	2	12.5	1	6.3	0	0.0
13:00	12	0	0.0	8	66.7	3	25.0	1	8.3	0	0.0
14:00	16	0	0.0	15	93.8	0	0.0	1	6.3	0	0.0
15:00	19	0	0.0	12	63.2	2	10.5	3	15.8	2	10.5
16:00	17	0	0.0	14	82.4	2	11.8	1	5.9	0	0.0
17:00	16	0	0.0	12	75.0	3	18.8	1	6.3	0	0.0
18:00	9	0	0.0	8	88.9	0	0.0	1	11.1	0	0.0
19:00	6	0	0.0	4	66.7	1	16.7	1	16.7	0	0.0
20:00	2	0	0.0	1	50.0	1	50.0	0	0.0	0	0.0
21:00	3	0	0.0	2	66.7	1	33.3	0	0.0	0	0.0
22:00	0	0	-	0	-	0	-	0	-	0	-
23:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
12H,7-19	170	0	0.0	134	78.8	19	11.2	15	8.8	2	1.2
16H,6-22	185	0	0.0	145	78.4	22	11.9	16	8.7	2	1.1
18H,6-24	186	0	0.0	146	78.5	22	11.8	16	8.6	2	1.1
24H,0-24	187	0	0.0	146	78.1	23	12.3	16	8.6	2	1.1

14034		CEFN RHIGOS			Site No: 14034001		Location		Mount Road, Cefn Rhigos (South of Cefn Farm)			
Wed 08-Jan-25 to Tue 14-Jan-25					Channel: Northbound							
TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %	
Thu 09-Jan-25												
00:00	0	0	-	0	-	0	-	0	-	0	-	
01:00	0	0	-	0	-	0	-	0	-	0	-	
02:00	0	0	-	0	-	0	-	0	-	0	-	
03:00	0	0	-	0	-	0	-	0	-	0	-	
04:00	0	0	-	0	-	0	-	0	-	0	-	
05:00	2	0	0.0	1	50.0	1	50.0	0	0.0	0	0.0	
06:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0	
07:00	6	0	0.0	4	66.7	1	16.7	1	16.7	0	0.0	
08:00	22	0	0.0	17	77.3	4	18.2	1	4.6	0	0.0	
09:00	14	1	7.1	10	71.4	2	14.3	1	7.1	0	0.0	
10:00	17	0	0.0	12	70.6	4	23.5	1	5.9	0	0.0	
11:00	12	0	0.0	10	83.3	1	8.3	1	8.3	0	0.0	
12:00	16	0	0.0	12	75.0	3	18.8	1	6.3	0	0.0	
13:00	7	0	0.0	6	85.7	1	14.3	0	0.0	0	0.0	
14:00	13	0	0.0	12	92.3	0	0.0	1	7.7	0	0.0	
15:00	16	0	0.0	8	50.0	3	18.8	4	25.0	1	6.3	
16:00	18	0	0.0	16	88.9	1	5.6	1	5.6	0	0.0	
17:00	10	0	0.0	9	90.0	1	10.0	0	0.0	0	0.0	
18:00	14	0	0.0	11	78.6	0	0.0	3	21.4	0	0.0	
19:00	10	0	0.0	8	80.0	1	10.0	1	10.0	0	0.0	
20:00	5	0	0.0	5	100.0	0	0.0	0	0.0	0	0.0	
21:00	1	0	0.0	0	0.0	1	100.0	0	0.0	0	0.0	
22:00	0	0	-	0	-	0	-	0	-	0	-	
23:00	0	0	-	0	-	0	-	0	-	0	-	
12H,7-19	165	1	0.6	127	77.0	21	12.7	15	9.1	1	0.6	
16H,6-22	182	1	0.6	141	77.5	23	12.6	16	8.8	1	0.6	
18H,6-24	182	1	0.6	141	77.5	23	12.6	16	8.8	1	0.6	
24H,0-24	184	1	0.5	142	77.2	24	13.0	16	8.7	1	0.5	

14034		CEFN RHIGOS			Site No: 14034001		Location		Mount Road, Cefn Rhigos (South of Cefn Farm)		
Wed 08-Jan-25 to Tue 14-Jan-25					Channel: Northbound						
TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Fri 10-Jan-25											
00:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
01:00	0	0	-	0	-	0	-	0	-	0	-
02:00	0	0	-	0	-	0	-	0	-	0	-
03:00	0	0	-	0	-	0	-	0	-	0	-
04:00	0	0	-	0	-	0	-	0	-	0	-
05:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0
06:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
07:00	13	0	0.0	11	84.6	1	7.7	1	7.7	0	0.0
08:00	15	0	0.0	11	73.3	3	20.0	1	6.7	0	0.0
09:00	13	0	0.0	9	69.2	2	15.4	2	15.4	0	0.0
10:00	17	0	0.0	14	82.4	2	11.8	1	5.9	0	0.0
11:00	12	0	0.0	9	75.0	2	16.7	1	8.3	0	0.0
12:00	11	0	0.0	10	90.9	0	0.0	1	9.1	0	0.0
13:00	13	0	0.0	10	76.9	1	7.7	2	15.4	0	0.0
14:00	27	0	0.0	23	85.2	3	11.1	1	3.7	0	0.0
15:00	16	0	0.0	10	62.5	3	18.8	2	12.5	1	6.3
16:00	21	0	0.0	20	95.2	0	0.0	1	4.8	0	0.0
17:00	11	0	0.0	9	81.8	0	0.0	2	18.2	0	0.0
18:00	11	0	0.0	7	63.6	3	27.3	1	9.1	0	0.0
19:00	11	0	0.0	7	63.6	3	27.3	1	9.1	0	0.0
20:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0
21:00	2	0	0.0	1	50.0	1	50.0	0	0.0	0	0.0
22:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
23:00	0	0	-	0	-	0	-	0	-	0	-
12H,7-19	180	0	0.0	143	79.4	20	11.1	16	8.9	1	0.6
16H,6-22	196	0	0.0	154	78.6	24	12.2	17	8.7	1	0.5
18H,6-24	197	0	0.0	155	78.7	24	12.2	17	8.6	1	0.5
24H,0-24	200	0	0.0	158	79.0	24	12.0	17	8.5	1	0.5

14034		CEFN RHIGOS			Site No: 14034001		Location		Mount Road, Cefn Rhigos (South of Cefn Farm)			
Wed 08-Jan-25 to Tue 14-Jan-25		Channel: Northbound										
TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %	
Sat 11-Jan-25												
00:00	0	0	-	0	-	0	-	0	-	0	-	
01:00	0	0	-	0	-	0	-	0	-	0	-	
02:00	0	0	-	0	-	0	-	0	-	0	-	
03:00	0	0	-	0	-	0	-	0	-	0	-	
04:00	0	0	-	0	-	0	-	0	-	0	-	
05:00	2	0	0.0	1	50.0	1	50.0	0	0.0	0	0.0	
06:00	0	0	-	0	-	0	-	0	-	0	-	
07:00	3	0	0.0	2	66.7	0	0.0	1	33.3	0	0.0	
08:00	9	0	0.0	5	55.6	3	33.3	1	11.1	0	0.0	
09:00	10	0	0.0	8	80.0	1	10.0	1	10.0	0	0.0	
10:00	14	0	0.0	10	71.4	3	21.4	1	7.1	0	0.0	
11:00	20	1	5.0	16	80.0	1	5.0	2	10.0	0	0.0	
12:00	10	0	0.0	9	90.0	0	0.0	1	10.0	0	0.0	
13:00	16	0	0.0	14	87.5	1	6.3	1	6.3	0	0.0	
14:00	12	0	0.0	10	83.3	1	8.3	1	8.3	0	0.0	
15:00	9	0	0.0	7	77.8	0	0.0	2	22.2	0	0.0	
16:00	11	0	0.0	8	72.7	2	18.2	1	9.1	0	0.0	
17:00	8	0	0.0	7	87.5	0	0.0	1	12.5	0	0.0	
18:00	7	0	0.0	4	57.1	1	14.3	2	28.6	0	0.0	
19:00	9	0	0.0	6	66.7	1	11.1	2	22.2	0	0.0	
20:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0	
21:00	4	0	0.0	3	75.0	1	25.0	0	0.0	0	0.0	
22:00	3	0	0.0	3	100.0	0	0.0	0	0.0	0	0.0	
23:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0	
12H,7-19	129	1	0.8	100	77.5	13	10.1	15	11.6	0	0.0	
16H,6-22	144	1	0.7	111	77.1	15	10.4	17	11.8	0	0.0	
18H,6-24	149	1	0.7	116	77.9	15	10.1	17	11.4	0	0.0	
24H,0-24	151	1	0.7	117	77.5	16	10.6	17	11.3	0	0.0	

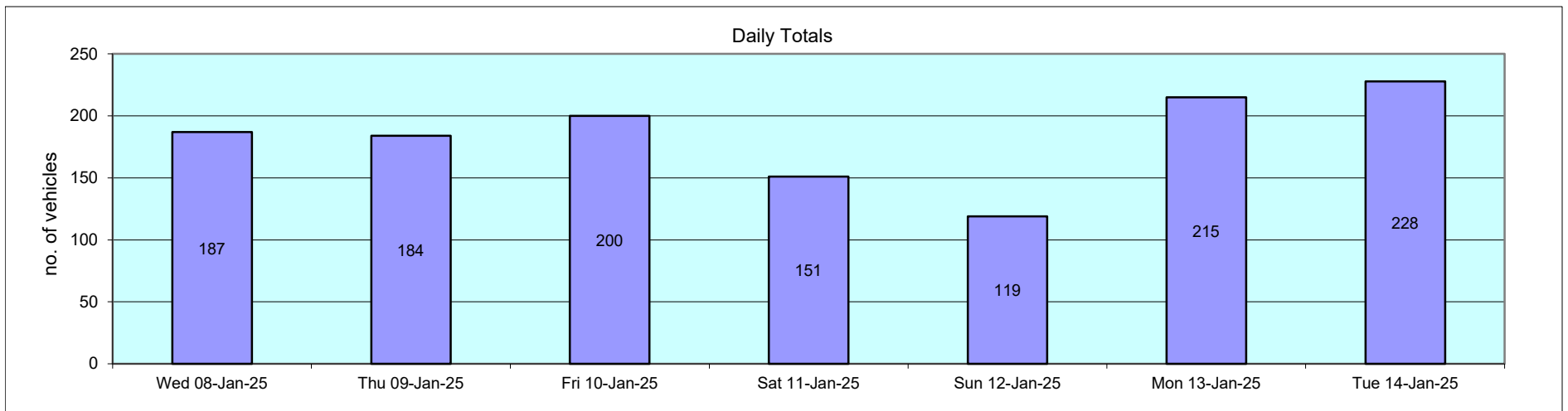
14034		CEFN RHIGOS			Site No: 14034001		Location		Mount Road, Cefn Rhigos (South of Cefn Farm)			
Wed 08-Jan-25 to Tue 14-Jan-25					Channel: Northbound							
TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %	
Sun 12-Jan-25												
00:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0	
01:00	0	0	-	0	-	0	-	0	-	0	-	
02:00	0	0	-	0	-	0	-	0	-	0	-	
03:00	0	0	-	0	-	0	-	0	-	0	-	
04:00	0	0	-	0	-	0	-	0	-	0	-	
05:00	0	0	-	0	-	0	-	0	-	0	-	
06:00	0	0	-	0	-	0	-	0	-	0	-	
07:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0	
08:00	4	0	0.0	3	75.0	1	25.0	0	0.0	0	0.0	
09:00	10	0	0.0	9	90.0	1	10.0	0	0.0	0	0.0	
10:00	13	0	0.0	11	84.6	1	7.7	1	7.7	0	0.0	
11:00	12	0	0.0	11	91.7	1	8.3	0	0.0	0	0.0	
12:00	16	0	0.0	14	87.5	1	6.3	1	6.3	0	0.0	
13:00	18	0	0.0	17	94.4	1	5.6	0	0.0	0	0.0	
14:00	7	0	0.0	6	85.7	1	14.3	0	0.0	0	0.0	
15:00	11	0	0.0	9	81.8	1	9.1	1	9.1	0	0.0	
16:00	9	0	0.0	7	77.8	2	22.2	0	0.0	0	0.0	
17:00	5	0	0.0	4	80.0	0	0.0	1	20.0	0	0.0	
18:00	4	0	0.0	4	100.0	0	0.0	0	0.0	0	0.0	
19:00	3	0	0.0	3	100.0	0	0.0	0	0.0	0	0.0	
20:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0	
21:00	3	0	0.0	3	100.0	0	0.0	0	0.0	0	0.0	
22:00	0	0	-	0	-	0	-	0	-	0	-	
23:00	0	0	-	0	-	0	-	0	-	0	-	
12H,7-19	111	0	0.0	97	87.4	10	9.0	4	3.6	0	0.0	
16H,6-22	118	0	0.0	104	88.1	10	8.5	4	3.4	0	0.0	
18H,6-24	118	0	0.0	104	88.1	10	8.5	4	3.4	0	0.0	
24H,0-24	119	0	0.0	105	88.2	10	8.4	4	3.4	0	0.0	

14034		CEFN RHIGOS			Site No: 14034001		Location		Mount Road, Cefn Rhigos (South of Cefn Farm)			
Wed 08-Jan-25 to Tue 14-Jan-25					Channel: Northbound							
TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %	
Mon 13-Jan-25												
00:00	0	0	-	0	-	0	-	0	-	0	-	
01:00	0	0	-	0	-	0	-	0	-	0	-	
02:00	0	0	-	0	-	0	-	0	-	0	-	
03:00	0	0	-	0	-	0	-	0	-	0	-	
04:00	0	0	-	0	-	0	-	0	-	0	-	
05:00	3	0	0.0	3	100.0	0	0.0	0	0.0	0	0.0	
06:00	0	0	-	0	-	0	-	0	-	0	-	
07:00	13	0	0.0	12	92.3	0	0.0	1	7.7	0	0.0	
08:00	13	0	0.0	11	84.6	0	0.0	2	15.4	0	0.0	
09:00	12	0	0.0	8	66.7	3	25.0	1	8.3	0	0.0	
10:00	14	0	0.0	12	85.7	0	0.0	2	14.3	0	0.0	
11:00	18	0	0.0	14	77.8	3	16.7	1	5.6	0	0.0	
12:00	31	0	0.0	27	87.1	0	0.0	4	12.9	0	0.0	
13:00	13	1	7.7	6	46.2	2	15.4	4	30.8	0	0.0	
14:00	21	0	0.0	18	85.7	2	9.5	1	4.8	0	0.0	
15:00	23	0	0.0	16	69.6	3	13.0	3	13.0	1	4.4	
16:00	19	0	0.0	17	89.5	1	5.3	1	5.3	0	0.0	
17:00	14	0	0.0	11	78.6	0	0.0	3	21.4	0	0.0	
18:00	6	0	0.0	4	66.7	1	16.7	1	16.7	0	0.0	
19:00	8	0	0.0	6	75.0	1	12.5	1	12.5	0	0.0	
20:00	4	0	0.0	4	100.0	0	0.0	0	0.0	0	0.0	
21:00	2	0	0.0	1	50.0	1	50.0	0	0.0	0	0.0	
22:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0	
23:00	0	0	-	0	-	0	-	0	-	0	-	
12H,7-19	197	1	0.5	156	79.2	15	7.6	24	12.2	1	0.5	
16H,6-22	211	1	0.5	167	79.2	17	8.1	25	11.9	1	0.5	
18H,6-24	212	1	0.5	168	79.3	17	8.0	25	11.8	1	0.5	
24H,0-24	215	1	0.5	171	79.5	17	7.9	25	11.6	1	0.5	

14034		CEFN RHIGOS			Site No: 14034001		Location		Mount Road, Cefn Rhigos (South of Cefn Farm)			
Wed 08-Jan-25 to Tue 14-Jan-25					Channel: Northbound							
TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %	
Tue 14-Jan-25												
00:00	0	0	-	0	-	0	-	0	-	0	-	
01:00	0	0	-	0	-	0	-	0	-	0	-	
02:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0	
03:00	0	0	-	0	-	0	-	0	-	0	-	
04:00	0	0	-	0	-	0	-	0	-	0	-	
05:00	2	0	0.0	1	50.0	1	50.0	0	0.0	0	0.0	
06:00	4	0	0.0	4	100.0	0	0.0	0	0.0	0	0.0	
07:00	10	0	0.0	9	90.0	0	0.0	1	10.0	0	0.0	
08:00	21	0	0.0	17	81.0	3	14.3	1	4.8	0	0.0	
09:00	12	0	0.0	9	75.0	0	0.0	3	25.0	0	0.0	
10:00	28	0	0.0	21	75.0	4	14.3	3	10.7	0	0.0	
11:00	15	0	0.0	12	80.0	1	6.7	2	13.3	0	0.0	
12:00	24	1	4.2	18	75.0	2	8.3	3	12.5	0	0.0	
13:00	18	0	0.0	16	88.9	1	5.6	1	5.6	0	0.0	
14:00	20	0	0.0	14	70.0	2	10.0	4	20.0	0	0.0	
15:00	21	0	0.0	15	71.4	0	0.0	5	23.8	1	4.8	
16:00	20	0	0.0	15	75.0	2	10.0	3	15.0	0	0.0	
17:00	11	0	0.0	9	81.8	1	9.1	1	9.1	0	0.0	
18:00	9	0	0.0	4	44.4	4	44.4	1	11.1	0	0.0	
19:00	5	0	0.0	2	40.0	2	40.0	1	20.0	0	0.0	
20:00	4	0	0.0	4	100.0	0	0.0	0	0.0	0	0.0	
21:00	3	0	0.0	1	33.3	1	33.3	1	33.3	0	0.0	
22:00	0	0	-	0	-	0	-	0	-	0	-	
23:00	0	0	-	0	-	0	-	0	-	0	-	
12H,7-19	209	1	0.5	159	76.1	20	9.6	28	13.4	1	0.5	
16H,6-22	225	1	0.4	170	75.6	23	10.2	30	13.3	1	0.4	
18H,6-24	225	1	0.4	170	75.6	23	10.2	30	13.3	1	0.4	
24H,0-24	228	1	0.4	172	75.4	24	10.5	30	13.2	1	0.4	

14034	CEFN RHIGOS	Site No: 14034001	Location	Mount Road, Cefn Rhigos (South of Cefn Farm)
Wed 08-Jan-25 to Tue 14-Jan-25		Channel: Northbound		

TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Daily Totals											
Wed 08-Jan-25	187	0	0.0	146	78.1	23	12.3	16	8.6	2	1.1
Thu 09-Jan-25	184	1	0.5	142	77.2	24	13.0	16	8.7	1	0.5
Fri 10-Jan-25	200	0	0.0	158	79.0	24	12.0	17	8.5	1	0.5
Sat 11-Jan-25	151	1	0.7	117	77.5	16	10.6	17	11.3	0	0.0
Sun 12-Jan-25	119	0	0.0	105	88.2	10	8.4	4	3.4	0	0.0
Mon 13-Jan-25	215	1	0.5	171	79.5	17	7.9	25	11.6	1	0.5
Tue 14-Jan-25	228	1	0.4	172	75.4	24	10.5	30	13.2	1	0.4
Total Vehicles											
[--]	1284	4	0.3	1011	79.3	138	10.7	125	9.3	6	0.4



14034		CEFN RHIGOS			Site No: 14034001		Location		Mount Road, Cefn Rhigos (South of Cefn Farm)		
Wed 08-Jan-25 to Tue 14-Jan-25					Channel: Southbound						
TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Wed 08-Jan-25											
00:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
01:00	0	0	-	0	-	0	-	0	-	0	-
02:00	1	0	0.0	0	0.0	1	100.0	0	0.0	0	0.0
03:00	0	0	-	0	-	0	-	0	-	0	-
04:00	0	0	-	0	-	0	-	0	-	0	-
05:00	1	0	0.0	0	0.0	0	0.0	1	100.0	0	0.0
06:00	0	0	-	0	-	0	-	0	-	0	-
07:00	12	0	0.0	10	83.3	0	0.0	1	8.3	1	8.3
08:00	11	0	0.0	8	72.7	1	9.1	2	18.2	0	0.0
09:00	16	0	0.0	11	68.8	4	25.0	1	6.3	0	0.0
10:00	14	0	0.0	10	71.4	2	14.3	2	14.3	0	0.0
11:00	12	0	0.0	11	91.7	0	0.0	1	8.3	0	0.0
12:00	12	0	0.0	7	58.3	3	25.0	2	16.7	0	0.0
13:00	16	0	0.0	14	87.5	1	6.3	1	6.3	0	0.0
14:00	12	0	0.0	9	75.0	2	16.7	1	8.3	0	0.0
15:00	21	0	0.0	15	71.4	5	23.8	1	4.8	0	0.0
16:00	17	0	0.0	13	76.5	1	5.9	3	17.7	0	0.0
17:00	15	0	0.0	12	80.0	1	6.7	2	13.3	0	0.0
18:00	12	0	0.0	9	75.0	1	8.3	2	16.7	0	0.0
19:00	13	0	0.0	13	100.0	0	0.0	0	0.0	0	0.0
20:00	11	0	0.0	10	90.9	1	9.1	0	0.0	0	0.0
21:00	3	0	0.0	2	66.7	1	33.3	0	0.0	0	0.0
22:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
23:00	0	0	-	0	-	0	-	0	-	0	-
12H,7-19	170	0	0.0	129	75.9	21	12.4	19	11.2	1	0.6
16H,6-22	197	0	0.0	154	78.2	23	11.7	19	9.6	1	0.5
18H,6-24	198	0	0.0	155	78.3	23	11.6	19	9.6	1	0.5
24H,0-24	201	0	0.0	156	77.6	24	11.9	20	10.0	1	0.5

14034		CEFN RHIGOS			Site No: 14034001		Location		Mount Road, Cefn Rhigos (South of Cefn Farm)		
Wed 08-Jan-25 to Tue 14-Jan-25		Channel: Southbound									
TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Thu 09-Jan-25											
00:00	0	0	-	0	-	0	-	0	-	0	-
01:00	0	0	-	0	-	0	-	0	-	0	-
02:00	1	0	0.0	0	0.0	1	100.0	0	0.0	0	0.0
03:00	0	0	-	0	-	0	-	0	-	0	-
04:00	0	0	-	0	-	0	-	0	-	0	-
05:00	1	0	0.0	0	0.0	0	0.0	1	100.0	0	0.0
06:00	2	0	0.0	1	50.0	0	0.0	1	50.0	0	0.0
07:00	6	0	0.0	3	50.0	0	0.0	2	33.3	1	16.7
08:00	16	0	0.0	11	68.8	4	25.0	1	6.3	0	0.0
09:00	16	0	0.0	12	75.0	3	18.8	1	6.3	0	0.0
10:00	23	0	0.0	19	82.6	3	13.0	1	4.4	0	0.0
11:00	9	1	11.1	4	44.4	2	22.2	2	22.2	0	0.0
12:00	14	1	7.1	7	50.0	4	28.6	2	14.3	0	0.0
13:00	12	0	0.0	10	83.3	1	8.3	1	8.3	0	0.0
14:00	13	0	0.0	12	92.3	0	0.0	1	7.7	0	0.0
15:00	14	0	0.0	10	71.4	3	21.4	1	7.1	0	0.0
16:00	21	0	0.0	17	81.0	3	14.3	1	4.8	0	0.0
17:00	10	0	0.0	8	80.0	1	10.0	1	10.0	0	0.0
18:00	8	0	0.0	7	87.5	0	0.0	1	12.5	0	0.0
19:00	5	0	0.0	4	80.0	1	20.0	0	0.0	0	0.0
20:00	5	0	0.0	4	80.0	1	20.0	0	0.0	0	0.0
21:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
22:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
23:00	0	0	-	0	-	0	-	0	-	0	-
12H,7-19	162	2	1.2	120	74.1	24	14.8	15	9.3	1	0.6
16H,6-22	175	2	1.1	130	74.3	26	14.9	16	9.1	1	0.6
18H,6-24	176	2	1.1	131	74.4	26	14.8	16	9.1	1	0.6
24H,0-24	178	2	1.1	131	73.6	27	15.2	17	9.6	1	0.6

14034		CEFN RHIGOS			Site No: 14034001		Location		Mount Road, Cefn Rhigos (South of Cefn Farm)		
Wed 08-Jan-25 to Tue 14-Jan-25					Channel: Southbound						
TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Fri 10-Jan-25											
00:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0
01:00	0	0	-	0	-	0	-	0	-	0	-
02:00	1	0	0.0	0	0.0	1	100.0	0	0.0	0	0.0
03:00	0	0	-	0	-	0	-	0	-	0	-
04:00	0	0	-	0	-	0	-	0	-	0	-
05:00	1	0	0.0	0	0.0	0	0.0	1	100.0	0	0.0
06:00	0	0	-	0	-	0	-	0	-	0	-
07:00	14	0	0.0	10	71.4	1	7.1	3	21.4	0	0.0
08:00	16	0	0.0	9	56.3	5	31.3	2	12.5	0	0.0
09:00	15	0	0.0	10	66.7	3	20.0	2	13.3	0	0.0
10:00	14	0	0.0	12	85.7	1	7.1	1	7.1	0	0.0
11:00	15	0	0.0	14	93.3	0	0.0	1	6.7	0	0.0
12:00	11	0	0.0	8	72.7	2	18.2	1	9.1	0	0.0
13:00	19	0	0.0	16	84.2	2	10.5	1	5.3	0	0.0
14:00	22	0	0.0	20	90.9	1	4.6	1	4.6	0	0.0
15:00	25	0	0.0	22	88.0	2	8.0	1	4.0	0	0.0
16:00	20	0	0.0	16	80.0	3	15.0	1	5.0	0	0.0
17:00	22	0	0.0	21	95.5	0	0.0	1	4.6	0	0.0
18:00	6	0	0.0	4	66.7	1	16.7	1	16.7	0	0.0
19:00	8	0	0.0	7	87.5	1	12.5	0	0.0	0	0.0
20:00	3	0	0.0	3	100.0	0	0.0	0	0.0	0	0.0
21:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
22:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
23:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0
12H,7-19	199	0	0.0	162	81.4	21	10.6	16	8.0	0	0.0
16H,6-22	211	0	0.0	173	82.0	22	10.4	16	7.6	0	0.0
18H,6-24	214	0	0.0	176	82.2	22	10.3	16	7.5	0	0.0
24H,0-24	218	0	0.0	178	81.7	23	10.6	17	7.8	0	0.0

14034		CEFN RHIGOS			Site No: 14034001		Location		Mount Road, Cefn Rhigos (South of Cefn Farm)			
Wed 08-Jan-25 to Tue 14-Jan-25					Channel: Southbound							
TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %	
Sat 11-Jan-25												
00:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0	
01:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0	
02:00	1	0	0.0	0	0.0	1	100.0	0	0.0	0	0.0	
03:00	0	0	-	0	-	0	-	0	-	0	-	
04:00	0	0	-	0	-	0	-	0	-	0	-	
05:00	1	0	0.0	0	0.0	0	0.0	1	100.0	0	0.0	
06:00	0	0	-	0	-	0	-	0	-	0	-	
07:00	6	0	0.0	5	83.3	0	0.0	1	16.7	0	0.0	
08:00	7	0	0.0	5	71.4	1	14.3	1	14.3	0	0.0	
09:00	12	0	0.0	10	83.3	1	8.3	1	8.3	0	0.0	
10:00	13	0	0.0	10	76.9	2	15.4	1	7.7	0	0.0	
11:00	14	0	0.0	10	71.4	2	14.3	2	14.3	0	0.0	
12:00	12	0	0.0	8	66.7	2	16.7	2	16.7	0	0.0	
13:00	8	0	0.0	6	75.0	1	12.5	1	12.5	0	0.0	
14:00	9	0	0.0	6	66.7	1	11.1	2	22.2	0	0.0	
15:00	6	0	0.0	4	66.7	1	16.7	1	16.7	0	0.0	
16:00	15	0	0.0	12	80.0	1	6.7	2	13.3	0	0.0	
17:00	13	1	7.7	10	76.9	0	0.0	2	15.4	0	0.0	
18:00	10	0	0.0	7	70.0	2	20.0	1	10.0	0	0.0	
19:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0	
20:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0	
21:00	4	0	0.0	4	100.0	0	0.0	0	0.0	0	0.0	
22:00	4	0	0.0	3	75.0	0	0.0	1	25.0	0	0.0	
23:00	4	0	0.0	4	100.0	0	0.0	0	0.0	0	0.0	
12H,7-19	125	1	0.8	93	74.4	14	11.2	17	13.6	0	0.0	
16H,6-22	132	1	0.8	100	75.8	14	10.6	17	12.9	0	0.0	
18H,6-24	140	1	0.7	107	76.4	14	10.0	18	12.9	0	0.0	
24H,0-24	145	1	0.7	110	75.9	15	10.3	19	13.1	0	0.0	

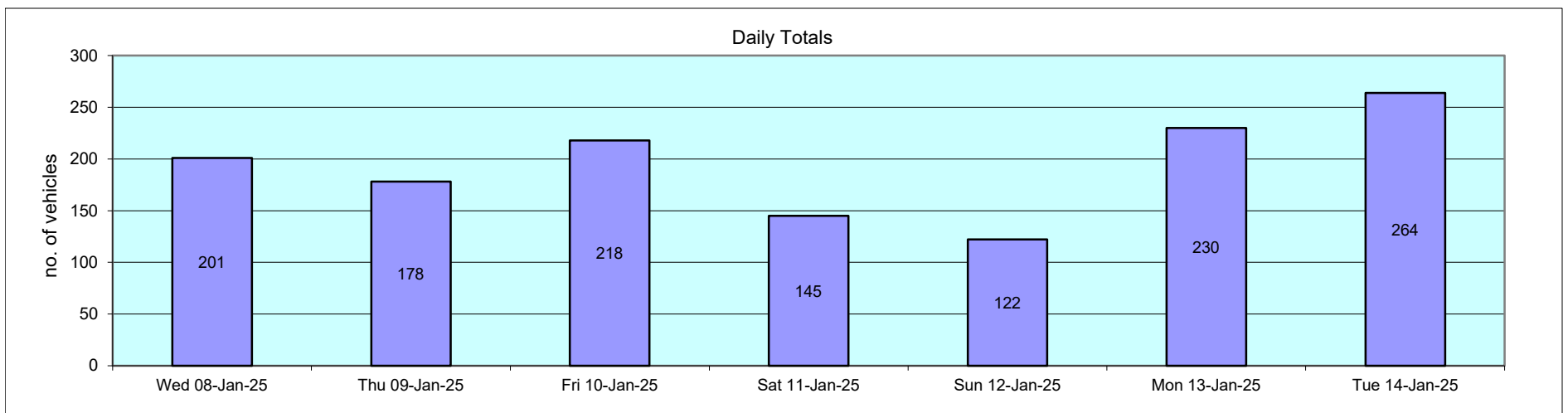
14034		CEFN RHIGOS			Site No: 14034001		Location		Mount Road, Cefn Rhigos (South of Cefn Farm)		
Wed 08-Jan-25 to Tue 14-Jan-25					Channel: Southbound						
TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Sun 12-Jan-25											
00:00	4	0	0.0	3	75.0	1	25.0	0	0.0	0	0.0
01:00	0	0	-	0	-	0	-	0	-	0	-
02:00	1	0	0.0	0	0.0	1	100.0	0	0.0	0	0.0
03:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
04:00	0	0	-	0	-	0	-	0	-	0	-
05:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
06:00	0	0	-	0	-	0	-	0	-	0	-
07:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0
08:00	5	0	0.0	5	100.0	0	0.0	0	0.0	0	0.0
09:00	3	0	0.0	3	100.0	0	0.0	0	0.0	0	0.0
10:00	6	1	16.7	5	83.3	0	0.0	0	0.0	0	0.0
11:00	14	1	7.1	11	78.6	1	7.1	1	7.1	0	0.0
12:00	10	0	0.0	9	90.0	1	10.0	0	0.0	0	0.0
13:00	20	2	10.0	16	80.0	2	10.0	0	0.0	0	0.0
14:00	11	0	0.0	11	100.0	0	0.0	0	0.0	0	0.0
15:00	8	0	0.0	8	100.0	0	0.0	0	0.0	0	0.0
16:00	12	0	0.0	8	66.7	3	25.0	1	8.3	0	0.0
17:00	8	0	0.0	8	100.0	0	0.0	0	0.0	0	0.0
18:00	6	0	0.0	6	100.0	0	0.0	0	0.0	0	0.0
19:00	4	0	0.0	4	100.0	0	0.0	0	0.0	0	0.0
20:00	0	0	-	0	-	0	-	0	-	0	-
21:00	4	0	0.0	4	100.0	0	0.0	0	0.0	0	0.0
22:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0
23:00	0	0	-	0	-	0	-	0	-	0	-
12H,7-19	105	4	3.8	92	87.6	7	6.7	2	1.9	0	0.0
16H,6-22	113	4	3.5	100	88.5	7	6.2	2	1.8	0	0.0
18H,6-24	115	4	3.5	102	88.7	7	6.1	2	1.7	0	0.0
24H,0-24	122	4	3.3	107	87.7	9	7.4	2	1.6	0	0.0

14034		CEFN RHIGOS			Site No: 14034001		Location		Mount Road, Cefn Rhigos (South of Cefn Farm)			
Wed 08-Jan-25 to Tue 14-Jan-25					Channel: Southbound							
TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %	
Mon 13-Jan-25												
00:00	0	0	-	0	-	0	-	0	-	0	-	
01:00	0	0	-	0	-	0	-	0	-	0	-	
02:00	1	0	0.0	0	0.0	0	0.0	1	100.0	0	0.0	
03:00	0	0	-	0	-	0	-	0	-	0	-	
04:00	0	0	-	0	-	0	-	0	-	0	-	
05:00	1	0	0.0	0	0.0	0	0.0	1	100.0	0	0.0	
06:00	0	0	-	0	-	0	-	0	-	0	-	
07:00	14	0	0.0	10	71.4	0	0.0	3	21.4	1	7.1	
08:00	19	0	0.0	14	73.7	1	5.3	3	15.8	1	5.3	
09:00	20	0	0.0	18	90.0	1	5.0	1	5.0	0	0.0	
10:00	13	0	0.0	11	84.6	1	7.7	1	7.7	0	0.0	
11:00	21	0	0.0	18	85.7	2	9.5	1	4.8	0	0.0	
12:00	18	0	0.0	14	77.8	2	11.1	2	11.1	0	0.0	
13:00	17	0	0.0	14	82.4	1	5.9	2	11.8	0	0.0	
14:00	12	0	0.0	10	83.3	1	8.3	1	8.3	0	0.0	
15:00	22	0	0.0	17	77.3	4	18.2	1	4.6	0	0.0	
16:00	20	0	0.0	18	90.0	1	5.0	1	5.0	0	0.0	
17:00	16	0	0.0	13	81.3	3	18.8	0	0.0	0	0.0	
18:00	12	0	0.0	11	91.7	0	0.0	1	8.3	0	0.0	
19:00	18	0	0.0	18	100.0	0	0.0	0	0.0	0	0.0	
20:00	3	0	0.0	3	100.0	0	0.0	0	0.0	0	0.0	
21:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0	
22:00	0	0	-	0	-	0	-	0	-	0	-	
23:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0	
12H,7-19	204	0	0.0	168	82.4	17	8.3	17	8.3	2	1.0	
16H,6-22	227	0	0.0	191	84.1	17	7.5	17	7.5	2	0.9	
18H,6-24	228	0	0.0	192	84.2	17	7.5	17	7.5	2	0.9	
24H,0-24	230	0	0.0	192	83.5	17	7.4	19	8.3	2	0.9	

14034		CEFN RHIGOS			Site No: 14034001		Location		Mount Road, Cefn Rhigos (South of Cefn Farm)			
Wed 08-Jan-25 to Tue 14-Jan-25					Channel: Southbound							
TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %	
Tue 14-Jan-25												
00:00	0	0	-	0	-	0	-	0	-	0	-	
01:00	0	0	-	0	-	0	-	0	-	0	-	
02:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0	
03:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0	
04:00	0	0	-	0	-	0	-	0	-	0	-	
05:00	1	0	0.0	0	0.0	0	0.0	1	100.0	0	0.0	
06:00	4	0	0.0	3	75.0	0	0.0	1	25.0	0	0.0	
07:00	16	0	0.0	15	93.8	0	0.0	1	6.3	0	0.0	
08:00	15	0	0.0	8	53.3	3	20.0	3	20.0	1	6.7	
09:00	20	0	0.0	14	70.0	4	20.0	2	10.0	0	0.0	
10:00	19	0	0.0	16	84.2	1	5.3	2	10.5	0	0.0	
11:00	21	0	0.0	19	90.5	0	0.0	2	9.5	0	0.0	
12:00	31	1	3.2	28	90.3	1	3.2	1	3.2	0	0.0	
13:00	26	0	0.0	23	88.5	2	7.7	1	3.9	0	0.0	
14:00	17	0	0.0	16	94.1	0	0.0	1	5.9	0	0.0	
15:00	25	0	0.0	23	92.0	0	0.0	2	8.0	0	0.0	
16:00	26	0	0.0	23	88.5	2	7.7	1	3.9	0	0.0	
17:00	12	0	0.0	9	75.0	2	16.7	1	8.3	0	0.0	
18:00	13	0	0.0	12	92.3	0	0.0	1	7.7	0	0.0	
19:00	3	0	0.0	2	66.7	1	33.3	0	0.0	0	0.0	
20:00	6	0	0.0	6	100.0	0	0.0	0	0.0	0	0.0	
21:00	4	0	0.0	4	100.0	0	0.0	0	0.0	0	0.0	
22:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0	
23:00	0	0	-	0	-	0	-	0	-	0	-	
12H,7-19	241	1	0.4	206	85.5	15	6.2	18	7.5	1	0.4	
16H,6-22	258	1	0.4	221	85.7	16	6.2	19	7.4	1	0.4	
18H,6-24	260	1	0.4	223	85.8	16	6.2	19	7.3	1	0.4	
24H,0-24	264	1	0.4	226	85.6	16	6.1	20	7.6	1	0.4	

14034	CEFN RHIGOS	Site No: 14034001	Location	Mount Road, Cefn Rhigos (South of Cefn Farm)
Wed 08-Jan-25 to Tue 14-Jan-25		Channel: Southbound		

TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Daily Totals											
Wed 08-Jan-25	201	0	0.0	156	77.6	24	11.9	20	10.0	1	0.5
Thu 09-Jan-25	178	2	1.1	131	73.6	27	15.2	17	9.6	1	0.6
Fri 10-Jan-25	218	0	0.0	178	81.7	23	10.6	17	7.8	0	0.0
Sat 11-Jan-25	145	1	0.7	110	75.9	15	10.3	19	13.1	0	0.0
Sun 12-Jan-25	122	4	3.3	107	87.7	9	7.4	2	1.6	0	0.0
Mon 13-Jan-25	230	0	0.0	192	83.5	17	7.4	19	8.3	2	0.9
Tue 14-Jan-25	264	1	0.4	226	85.6	16	6.1	20	7.6	1	0.4
Total Vehicles											
[--]	1358	8	0.8	1100	80.8	131	9.8	114	8.3	5	0.3

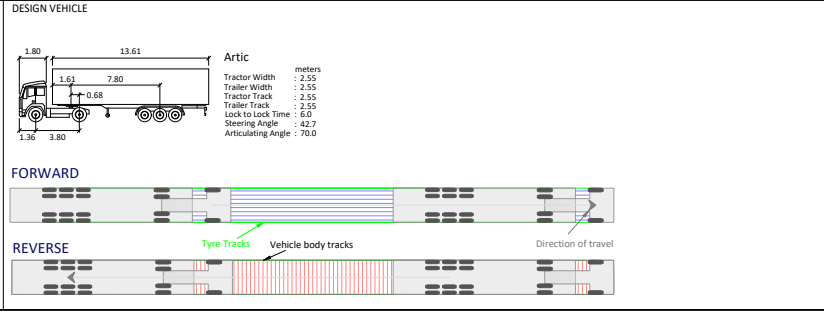
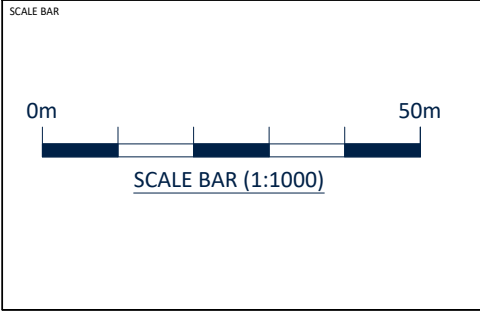
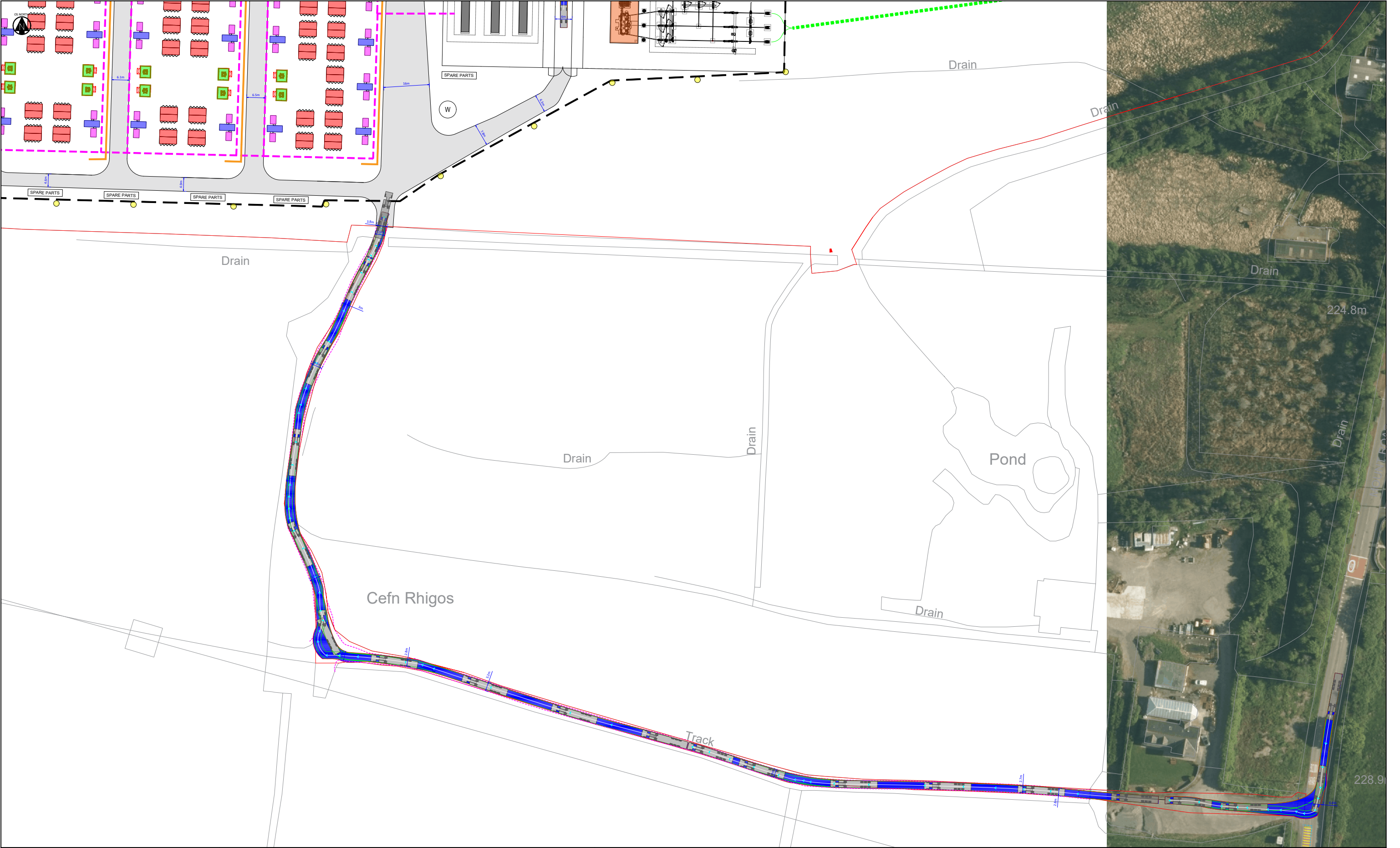


Appendix D Site Access and Visibility Splay Plan – Mount Road



SCALE BAR 0m 50m SCALE BAR (1:1000)	NOTES 1. General arrangement drawing suitable for planning purposes only. This drawing is not suitable for construction. 2. Drawing is based on OS mapping and topographical survey data provided by Landmark Surveys Wales. Ordnance Survey, (c) Crown Copyright 2025. All rights reserved. Licence number 100022432. 3. Extent of adopted highway has been based on information provided by RCTCBC. 4. Please do not scale from this drawing.	REVISIONS (CONTINUED) <table><tr><th>Rev</th><th>Date</th><th>Description</th><th>By</th><th>App</th></tr><tr><td>P01</td><td>30/01/25</td><td>First Issue</td><td>GP</td><td>DC</td></tr></table>	Rev	Date	Description	By	App	P01	30/01/25	First Issue	GP	DC	REVISIONS <table><tr><th>Rev</th><th>Date</th><th>Description</th><th>By</th><th>App</th></tr><tr><td>P01</td><td>30/01/25</td><td>First Issue</td><td>GP</td><td>DC</td></tr></table>	Rev	Date	Description	By	App	P01	30/01/25	First Issue	GP	DC	Apex TRANSPORT PLANNING CLIENT WINDEL ENERGY PROJECT CEFN FARM BESS CLOCKWISE BRUNEL HOUSE CARDIFF CF24 0HA 012020 619 361 0117 427 0414 0117 427 0414 0117 427 0414 RUNWAY EAST 351 VICTORIA STREET BRISTOL BS1 6PU 0117 427 0414 0117 427 0414 0117 427 0414 0117 427 0414	SITE SITE ACCESS VISIBILITY SPLAY PLAN PROJECT NO. C24-166 SCALE @ A2 1:1000 (AS STATED) STATUS DESCRIPTION INFORMATION DRAWING NO. C24166-ATP-DR-TP-001 STATUS S2
			Rev	Date	Description	By	App																		
			P01	30/01/25	First Issue	GP	DC																		
			Rev	Date	Description	By	App																		
P01	30/01/25	First Issue	GP	DC																					

Appendix E Swept Path Analysis



- NOTES
1. Drawing suitable for planning purposes only. This drawing is not suitable for construction.
 2. The content of this drawing is subject to detailed design considerations such as ground conditions, utilities, drainage and signage.
 3. Drawing is based on OS and aerial mapping, and topographical survey data provided by Landmark Surveys Wales. Ordnance Survey (c) Crown Copyright 2025. All rights reserved. Licence number 100022432.
 4. All land ownership details and rights of way to be confirmed.
 5. Assumes all landscaping can be altered and no trees are subject to TPO.
 6. Please do not scale from this drawing.

REVISIONS

Rev	Date	Description	GP	DC
P01	30/01/25	First Issue		

Apex
TRANSPORT PLANNING

CLOCKWISE
BRUNEL HOUSE
CARDIFF
CF24 0HA
t: 02920 619 361
e: cardiff@apexp.co.uk

RUNWAY EAST
101 VICTORIA STREET
BRISTOL
BS1 6PU
t: 0117 427 0414
e: bristol@apexp.co.uk

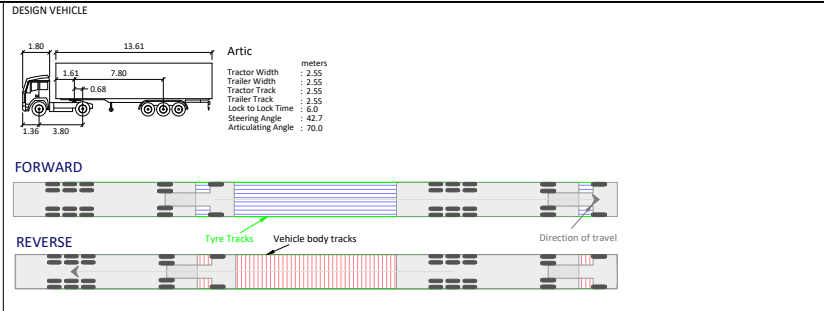
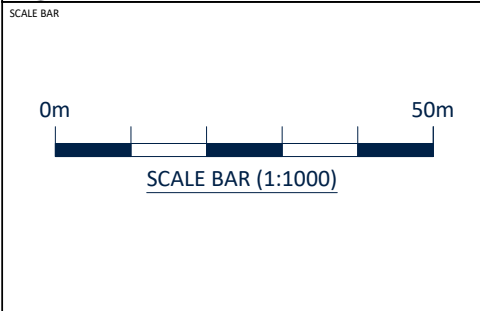
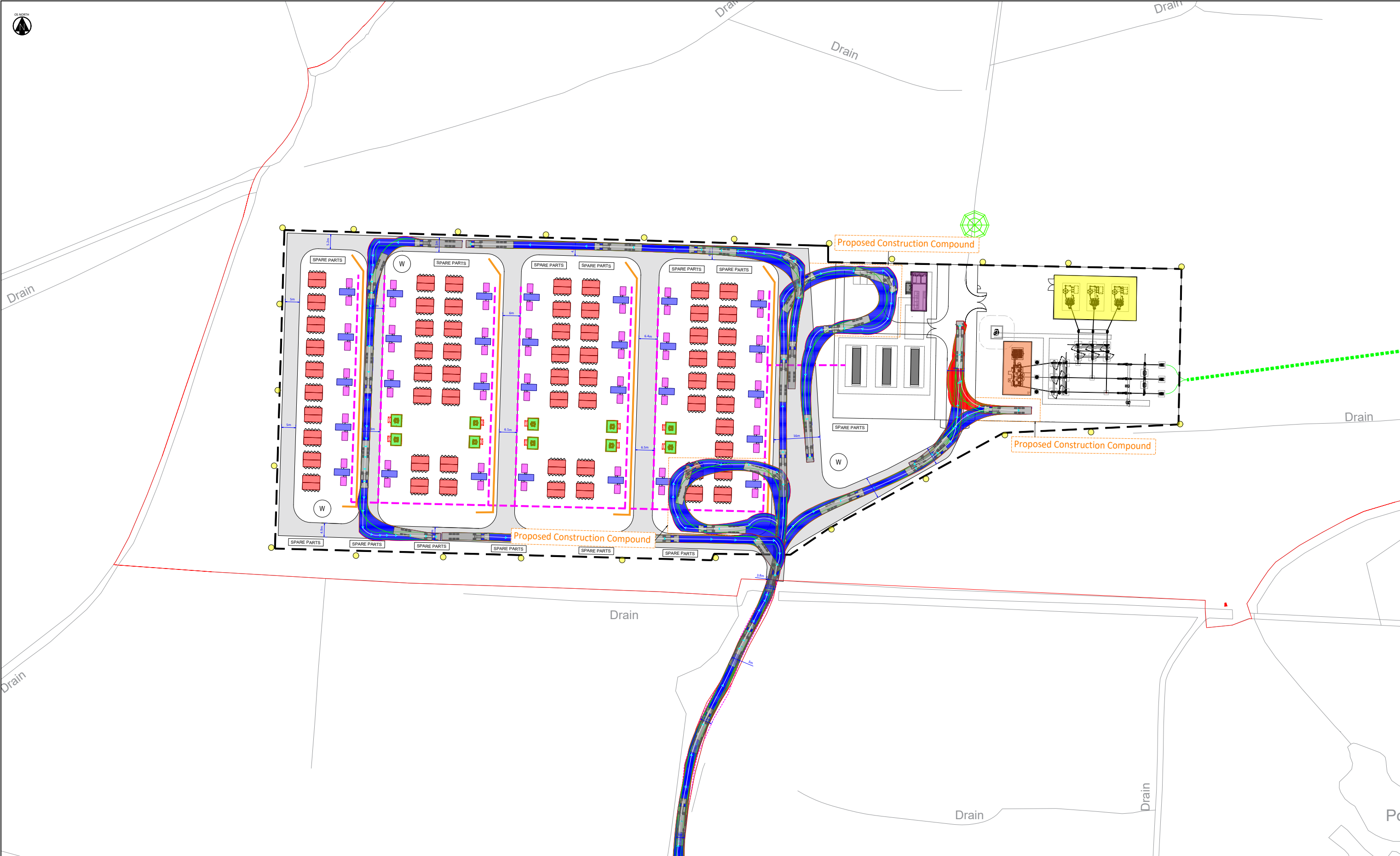
CLIENT
WINDEL ENERGY

PROJECT
CEFN FARM BESS

TITLE
SWEEP PATH ANALYSIS USING A 16.5M
LONG ARTICULATED HGV

PRIVATE ACCESS ROAD LEADING TO SITE

PROJECT NO. C24-166	SCALE @ A3 1:1000
STATUS DESCRIPTION INFORMATION	STATUS S2
DRAWING NO. C24166-ATP-DR-TP-03	



- NOTES
1. Drawing suitable for planning purposes only. This drawing is not suitable for construction.
 2. The content of this drawing is subject to detailed design considerations such as ground conditions, utilities, drainage and signage.
 3. Drawing is based on OS mapping, and topographical survey data provided by Landmark Surveys Wales. Ordnance Survey (c) Crown Copyright 2025. All rights reserved. Licence number 100022432.
 4. All land ownership details and rights of way to be confirmed.
 5. Assumes all landscaping can be altered and no trees are subject to TPO.
 6. Please do not scale from this drawing.

REVISIONS

Rev	Date	Description	By	App
P01	30/01/25	First Issue	GP	DC

Apex
TRANSPORT PLANNING

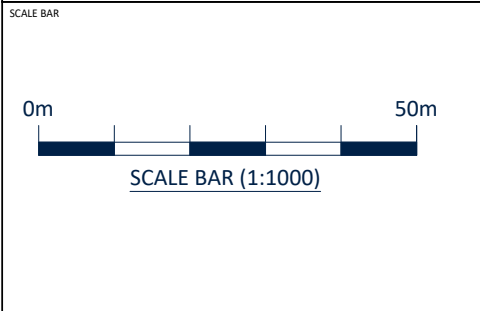
CLOCKWISE
BRUNEL HOUSE
CARDIFF
CF24 0HA
t: 02920 619 361
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RUNWAY EAST
101 VICTORIA STREET
BRISTOL
BS1 6PU
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e: bristol@apextp.co.uk

CLIENT
WINDEL ENERGY

PROJECT
CEFN FARM BESS

TITLE SWEPT PATH ANALYSIS USING A 16.5M LONG ARTICULATED HGV INSIDE THE INTERNAL SITE LAYOUT	
PROJECT NO. C24-166	SCALE @ A3 1:1000
STATUS DESCRIPTION INFORMATION	STATUS S2
DRAWING NO. C24166-ATP-DR-TP-04	



DESIGN VEHICLE

Fire Tender - Scania One

Width : 2.45 metres
Track : 2.45
Lock to Lock Time : 6.0
Steering Angle : 33.7

FORWARD

Tyre Tracks Direction of travel

REVERSE

Vehicle body tracks

- NOTES
1. Drawing suitable for planning purposes only. This drawing is not suitable for construction.
 2. The content of this drawing is subject to detailed design considerations such as ground conditions, utilities, drainage and signage.
 3. Drawing is based on OS mapping, and topographical survey data provided by Landmark Surveys Wales. Ordnance Survey (c) Crown Copyright 2025. All rights reserved. Licence number 100022432.
 4. All land ownership details and rights of way to be confirmed.
 5. Assumes all landscaping can be altered and no trees are subject to TPO.
 6. Please do not scale from this drawing.

REVISIONS

P01	30/01/25	First Issue	GP	DC
Rev	Date	Description	By	App

Apex
TRANSPORT PLANNING

CLIENT
WINDEL ENERGY

PROJECT
CEFN FARM BESS

CLOCKWISE
BRUNEL HOUSE
CARDIFF
CF24 0HA
t: 02920 619 361
e: cardiff@apextp.co.uk

RUNWAY EAST
101 VICTORIA STREET
BRISTOL
BS1 6PU
t: 0117 427 0414
e: bristol@apextp.co.uk

TITLE SWEPT PATH ANALYSIS USING A FIRE APPLIANCE	
INTERNAL SITE LAYOUT	
PROJECT NO. C24-166	SCALE @ A3 1:1000
STATUS DESCRIPTION INFORMATION	STATUS S2
DRAWING NO. C24166-ATP-DR-TP-05	