

Land at Tyn-y-Caeau, Margam

Framework Construction Traffic Management Plan

Client: **Western Bio-Energy Limited**

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REPORT DETAILS

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1. INTRODUCTION

1.1 Background

- 1.1.1 This Framework Construction Traffic Management Plan (CTMP) accompanies a full planning application (ref: P2025/0187) submitted to Neath Port Talbot County Borough Council (NPT) for a new data centre on the site known as Tyn-y-Caeau. The site is located to the south of the A48 Margam Road and northwest of Junction 38 of the M4 in Margam, Port Talbot.
- 1.1.2 The proposals are for a full application for a new data centre and conversion of existing dwelling on the site to serve as its ancillary office use. The site would be operational for 24 hours a day between 6 and 7 days a week. The site is accessed broadly from the location of an existing established vehicular access with the A48 Margam Road and is within proximity of the strategic road network, which will assist in minimising the impact of the development on the local network.
- 1.1.3 Access for construction traffic will be provided via the site's existing access with the A48 Margam Road, with vehicles arriving from the south and departing to the north due to the dual carriageway arrangement. However, it is proposed that the access will be partially constructed as soon as possible in the programme to ensure large vehicles associated with the construction phase are accommodated appropriately from the outset.
- 1.1.4 The impact on the highway will be temporary, attributed to the relatively low vehicle movements required during the construction phase of the development. The duration of the construction phase would be finalised once a contractor is formally appointed.
- 1.1.5 As such, this Framework CTMP will be updated and amended to a full version prior to commencement of works on site. The full version is typically produced by a contractor once they are appointed, at which point more information will be available regarding the construction schedule, vehicle movements, operatives and compound. This will form a condition of any forthcoming planning approval and would build upon and adopt the measures set out in this plan.
- 1.1.6 This framework demonstrates the applicant's commitment to minimising the impact of the construction traffic on the surrounding highway network.

1.2 Scope of Report

- 1.2.1 The CTMP has been prepared to alleviate concerns raised by Welsh Government (WG) requiring a CTMP to be prepared prior to any planning permission being granted for the scheme.
- 1.2.2 Additionally, in May 2025 NPT in their role of as the Local Highway Authority (LHA) requested that a Construction Method Statement (CMS) be prepared, which sets out specific operational requirements:
- *“the parking of vehicles of site operatives and visitors*
 - *loading and unloading of plant and materials*
 - *storage of plant and materials used in constructing the development*
 - *the erection and maintenance of security hoarding including decorative displays and facilities for public viewing, where appropriate*
 - *wheel washing facilities*
 - *measures to control the emission of dust and dirt during construction*
 - *a scheme for recycling/disposing of waste resulting from demolition and construction works*
 - *scheme for the erection of temporary/semi temporary signage warning drivers of speed restrictions.*

- *Scheme for controlling construction traffic associated with the development which should include the following:*
- *Number of HGV vehicles associated with the construction phase*
- *What days and times deliveries will be permitted to enter the site*
- *Construction traffic route*
- *What mitigation measure are proposed to minimise the impact on disruption and highway safety.*
- *The Construction Method Statement shall be signed by a competent person(s)."*

1.2.3 A CMS and CTMP are broadly similar in context and content setting out the strategy and approach to managing construction activities on the site on a day to day basis, whilst aiming to minimise impact on the local highway network.

1.2.4 As such, this Framework CTMP fully considers the comments sets out by both WG and the LHA.

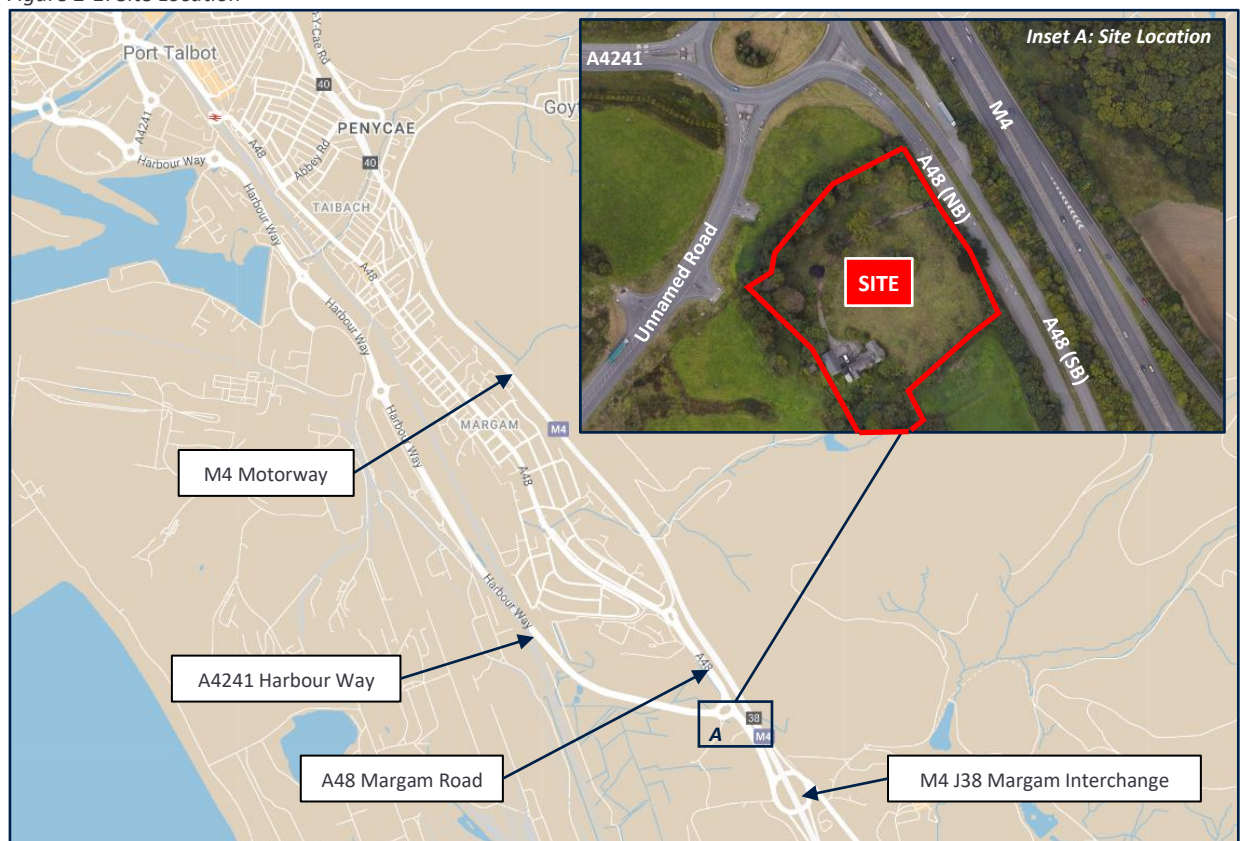
2. EXISTING SITUATION

2.1 Site Location, Use and Access

Site Location

- 2.1.1 The site is located approximately 6.5km to the south of Port Talbot centre. It is situated to the northwest of Junction 38 of the M4 and has an existing access directly onto the A48 northbound carriageway from its eastern boundary.
- 2.1.2 The site is currently used as a private residence. To the immediate west of the site are Margam Green Energy Plant and Western Bio Energy Plant and to the southwest the BOC gas site. As such, there are existing industrial uses situated within the immediate vicinity of the site. The indicative location of the site is shown in Figure 2-1.

Figure 2-1: Site Location



Source: Google Maps

Existing Site Use / Planning Use

- 2.1.3 The lawful use of the site is contested but would appear to be a combination of a private residence (Use Class C3 - main house) and guest accommodation (the annexe).

Existing Access

- 2.1.4 The site is provided with an existing access onto the A48 Margam Road, which is c.110m south of the A4241 Harbour Way / A48 Margam Road roundabout. The access is in a location where only northbound flows are permitted, due to the dual carriageway arrangement. As such, even prior to the implementation of the 'Port Talbot Peripheral Distributor Road' the access operated as a left in and left out access.

- 2.1.5 In terms of its geometry, the existing site access at its frontage with the A48 is c.7m in width and provided with a c.4m corner radii at its southern boundary and a c.6m radii to the northern boundary. As the access heads west from the A48, it is c.5m in width. Entrance gates are provided at the access, which are set back c.9.5m from the carriageway edge.
- 2.1.6 An existing shared user pedestrian and cycle route passes the site access frontage, which is c.3.0m in width within immediate vicinity of the site access. To the north and south varies to a minimum of c.2.0m. A dropped kerb crossing facility is provided at the existing site access.
- 2.1.7 The existing access can achieve visibility at 2.4m x 160m to the south, subject to vegetation maintenance within land in the adopted highway. The highway authority has a responsibility for maintaining this visibility within the verge to ensure the splays from the existing access remain appropriate. There is a road sign within the visibility splay, although it is not considered to be an obstruction for drivers as the signage height either offers a minimum clearance of c.2m or does not provide a significant obstruction to the overall visibility splay envelope.

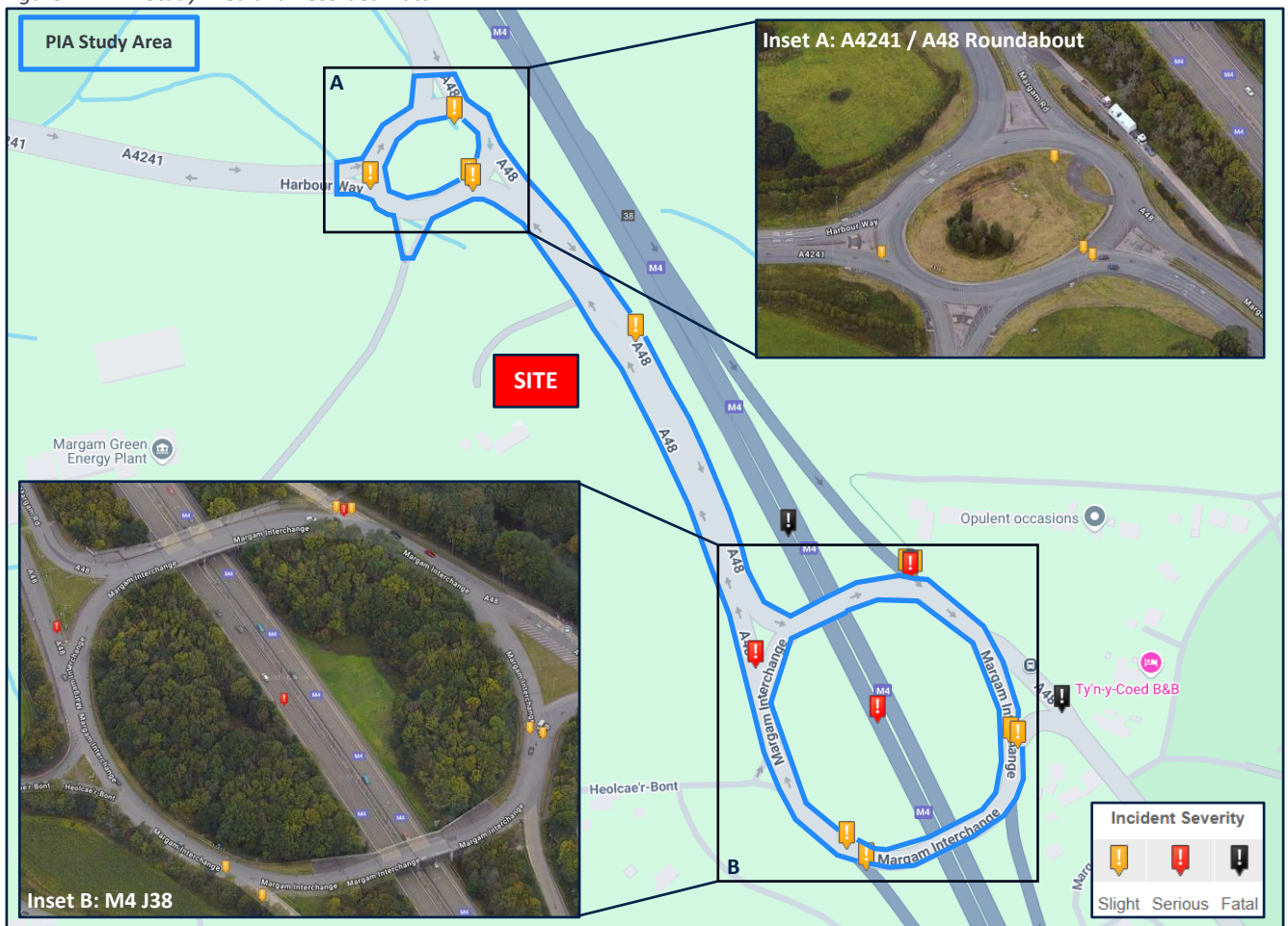
2.2 Existing Highway Network

- 2.2.1 The site is situated to the northwest of Junction 38 of the M4 and is accessed from the northbound carriageway of the A48 Margam Road, which to the north links to the A48 / A4241 roundabout.
- 2.2.2 To the north of the existing site access, the A48 continues for c.110m where it meets the A48 / A4241 roundabout. To the north of the roundabout, the A48 continues into central Margam and to the west of the roundabout the A4241 Harbour Way forms a key dual carriageway link which routes to the south of Margam and Port Talbot connecting to industrial areas and Baglan. South of the roundabout, the A48 continues for c.400m where it meets Junction 38 of the M4 at a grade separated junction also known as the Margam Interchange.

2.3 Road Safety Analysis

- 2.3.1 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 2022 (on Crashmap). In addition, the data from 2023 has been reviewed on the DfT 'Mapping Application for Visualising Road Injury Casualties', which provides the most up to date publicly available data. As such, the most recent 8 years of data has therefore been reviewed, which includes the most recent six full years of data outside of the pandemic.
- 2.3.2 The study area considered within the analysis covers the north and southbound section of the A48 along with the A4241 Harbour Way and A48 Margam Road roundabout and J38 Margam Interchange. The study area does not include the M4 or A38 south of the strategic road network as shown at Figure 2-2.

Figure 2-2: PIA Study Area and Recorded Data



Source: Crash Map

- 2.3.3 Over the eight year period there were a total of 14 PIAs within the entire study area. Two of these were recorded as serious, and 12 were classified as slight injury accidents. There were no fatal PIAs within the study area.
- 2.3.4 The accident analysis has been split into three locations, which include the A48 Margam Road between both roundabout junctions, the A48 Margam Road / A4241 Harbour Way roundabout and the M4 J38 Margam Interchange.
- 2.3.5 Context should be given to the Welsh Government Transport Wales 'Guidelines for the submission of Road Safety Schemes' (Revised October 2011) and Welsh Government Statistical Bulletin 'accident cluster sites and fatal road accidents on the Welsh TransEuropean Road Network' which provides clarification on cluster identification as:
- "The current criterion used for considering clusters has been 4 personal injury collisions in a 3-year period within a 100m radius"*
- 2.3.6 The 'Guidelines for the submission of Road Safety Schemes' also states that *"The assessment of the network should involve the study of collision patterns for a specified period (e.g. 3 years) according to location, circumstances and the vehicles and casualties involved"*.

A48 Margam Road

- 2.3.7 No accidents have occurred on the northbound carriageway of the A48 Margam Road where the existing and proposed site accesses are located. As such, there is no evidence of a safety issue in relation to the existing site access.
- 2.3.8 A single slight collision occurred on the southbound carriageway of the A48 Margam Road, approximately 180m south of the A4241 Harbour Way and A48 Margam Road roundabout, which involved a car and a cyclist.
- 2.3.9 There were no other collisions within a 100m radius of this recorded accident. As such, there is no evidence of an existing road safety issue on the A48 Margam Road within the study area.

A48 / A4241 Roundabout

- 2.3.10 A total of four collisions have occurred at the A48 / A4241 roundabout, which were all recorded as slight in severity.
- 2.3.11 In 2016 a single collision occurred on the roundabout adjacent to the A4241 Harbour Way arm of the roundabout. This involved a motorcyclist who lost control of the vehicle when traversing the roundabout.
- 2.3.12 A further single collision occurred 2020, adjacent to the A48 Margam Road northern arm of the roundabout, which involved a single motorcyclist losing control of the vehicle whilst traversing the roundabout.
- 2.3.13 Two collisions occurred adjacent to the A48 Margam Road southern arm of the roundabout. In 2016, an accident occurred involving a single goods vehicle and in 2022 a collision between a car and cyclist occurred.
- 2.3.14 On review of the collisions at this existing roundabout, whilst all are within a 100m radius, these did not occur within a three year period, and they are all located on different arms of the junction with varying factors and vehicle types. As such, when considering the severity of collisions, time periods, patterns and vehicles involved it is not considered that there is an existing road safety issue at this roundabout.

M4 J38 Margam Interchange

- 2.3.15 A total of nine collisions have occurred at the Margam Interchange within the study area and review period, which have been summarised at Table 2-1.

Table 2-1: Summary of Severity Type at the M4 J38 Margam Interchange

Year	Slight	Serious	Fatal	Totals
2016	1	0	0	1
2017	0	0	0	0
2018	2	1	0	3
2019	1	0	0	1
2020	1	0	0	1
2021	2	1	0	3
2022	0	0	0	0
2023	0	0	0	0
Totals	7	2	0	9

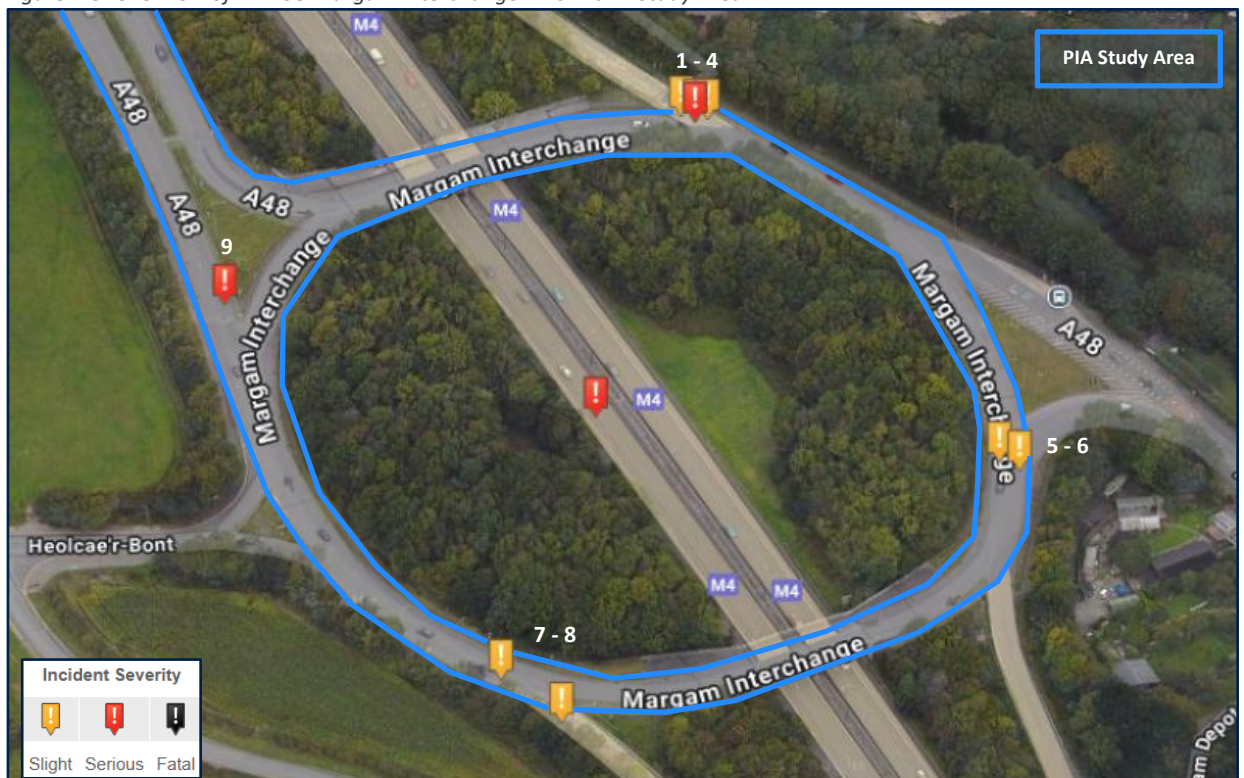
- 2.3.16 A summary of the casualty severities by vehicle type has also been reviewed and summarised at Table 2-2.

Table 2-2: Summary of Casualty Type by Severity at the M4 J38 Margam Interchange

Vehicle Type	Slight	Serious	Fatal	Totals
Pedestrian	0	0	0	0
Cyclist	1	1	0	2
Motorcycle	1	0	0	1
Car	5	1	0	6
Bus	0	0	0	0
Good Vehicle	0	0	0	0
Totals	7	2	0	9

- 2.3.17 Figure 2-3 provides an overview of the M4 J38 Margam Interchange and the study area.

Figure 2-3: Overview of M4 J38 Margam Interchange PIAs within Study Area



Source: Crashmap

2.3.18 In context to Figure 2-3, Table 2-3 provides a summary of the collision by date, location and vehicles involved.

Table 2-3: PIA Summary of location, vehicle type and vehicles involved at the M4 J38 Margam

Collision Ref	Date	Location	Severity	Vehicles Involved					
				Ped.	Cyclist	M/C	Car	Bus	Goods Vehicle
1	2021	M4 Southbound Entry Arm	Serious	0	1	0	0	0	1
2	2021	M4 Southbound Entry Arm	Slight	0	0	0	2	0	0
3	2018	M4 Southbound Entry Arm	Slight	0	0	0	2	0	0
4	2016	M4 Southbound Entry Arm	Slight	0	0	0	2	0	0
5	2019	A48 Northbound Entry Arm	Slight	0	0	0	2	0	0
6	2018	A48 Northbound Entry Arm	Slight	0	0	1	1	0	0
7	2021	M4 Northbound Entry Arm	Slight	0	1	0	1	0	0
8	2020	M4 Northbound Entry Arm	Slight	0	0	0	2	0	0
9	2018	A48 Northbound Exit Arm	Serious	0	0	0	1	0	0

2.3.19 The analysis indicates that no collision involved more than two vehicles, none were fatal, and none involved pedestrians or public transport vehicles. Additionally, when considering the geometric layout of the grade separated junction, only recorded collisions 1 to 4 as set out at Table 2-3 have occurred within 100m of one another and these occurred over a longer period than four years on the southbound off-slip entry to the roundabout. As such, these do not represent a cluster of incidents.

2.3.20 There was also only one incident involving an HGV at the junction.

Road Safety Summary

2.3.21 No pedestrians were involved in any of the PIAs and there were no clusters of four or more PIAs occurring in the same location that represent a repeat occurrence, therefore there is no evidence to suggest a re-occurring road safety issue within the study area.

2.3.22 Although all incidents are regrettable, the PIAs that occurred do not indicate a specific pattern or issue with the geometry of the highway, particularly for vulnerable road users, that would be exacerbated by the construction of the site.

3. SUSTAINABLE CONNECTIVITY

3.1 Introduction

- 3.1.1 This section describes the opportunities to make trips to and from the site by non-car modes. It considers the likelihood of trips being made on foot, by cycle, bus and rail.
- 3.1.2 There are alternative modes to the car available to construction staff at the site which will assist in minimising the level of vehicle trips to and from the site. Public transport services can be accessed by continuous walking and cycling routes.

3.2 Walking and Cycling

- 3.2.1 At the top of the PPW12 hierarchy is the consideration of active travel (walking and cycling). Walking and cycling are the most important modes of travel at a local level and offer the greatest potential to replace short car journeys.

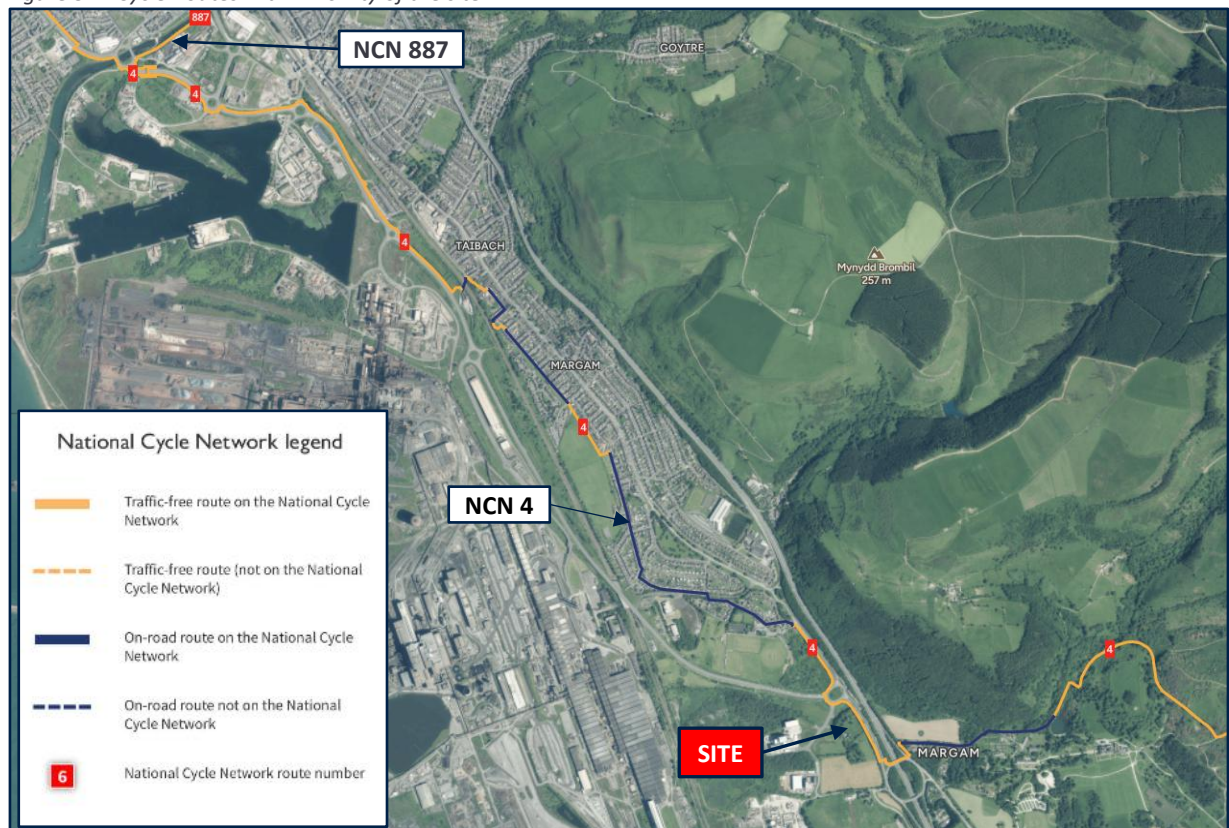
Walking infrastructure and Routes

- 3.2.2 The development site is connected by a shared footway / cycleway, which is provided on the western side of the A48 Margam Road, adjacent to the northbound carriageway. To the north, the existing shared user path, which is 3.0m in width, continues for c.110m where it meets the A48 / A4241 roundabout. At the roundabout, tactile crossing facilities are provided on the unnamed western arm and the Harbour Way arms of the roundabout, which enable a route to the north via the A48 Margam Road towards central Margam.
- 3.2.3 South of the site access, the existing shared user path continues for c.240m where a tactile crossing facility is provided immediately north of Junction 38 of the M4 at the Margam Interchange. A footway / cycleway route is provided on the northern side of the interchange, where a further tactile crossing is provided to the eastern side of the A48 Margam Road.
- 3.2.4 The A4241 Harbour Way or the southbound dual carriageway of the A48 Margam Road are not provided with footway (or cycle) facilities.
- 3.2.5 There are no public rights of way which intersect the development site.

Cycling Infrastructure and Routes

- 3.2.6 At the sites frontage with the A48 Margam Road a cycleway forms part of the National Cycle Network (NCN) route 4, as shown at Figure 3-1. The NCN route 4 provides a link to Margam and Port Talbot to the north via a on road and traffic free route. In addition, the NCN route 4 also connects to NCN route 887 within Port Talbot which provides further connections to Cwmafan and Pontrhydyfen to the northeast.
- 3.2.7 The cycle routes within the vicinity of the site, taken from the National Cycle Network Route map, are shown in Figure 3-1.

Figure 3-1: Cycle Routes within vicinity of the site



Source: Sustrans

3.3 Active Travel Network

- 3.3.1 The Welsh Government have produced active travel maps to identify existing suitable routes for walking and cyclists and suggests other proposed future routes that would help create an integrated network of active travel routes in Margam.
- 3.3.2 The Active Travel Network Map (ATNM) shows the active travel routes in proximity to the site. As shown in Figure 3-2, the current active travel routes within close proximity to the site are walking routes approximately 2.5km north of the site.
- 3.3.3 There are future proposals to introduce a formal ATNM walking and cycling route directly adjacent to the site, recognising that a shared route already exists which runs north to south along the A48. This formal ATNM route would connect to a comprehensive active travel network to the north of the site which would allow for a wider number of facilities to be accessed to the north of the site via walking and cycling.
- 3.3.4 These routes would therefore provide active travel connections linking to Margam and Port Talbot from the site.
- 3.3.5 The ATNM routes have been considered appropriate by NPTCBC for walking and cycling. The site is therefore positioned to benefit from an existing high-quality walking / cycling link, which connects to proposed further ATNM routes, as well as key local residential areas and facilities. This will encourage potential future employees to walk and cycle to and from the site as well as reduce the reliance on travelling by car.
- 3.3.6 The ATNM showing the existing and proposed routes within the vicinity of the site has been reproduced in Figure 3-2.

Figure 3-2: Active Travel Network Maps



Source: DataMapWales

3.4 Distances

Overview

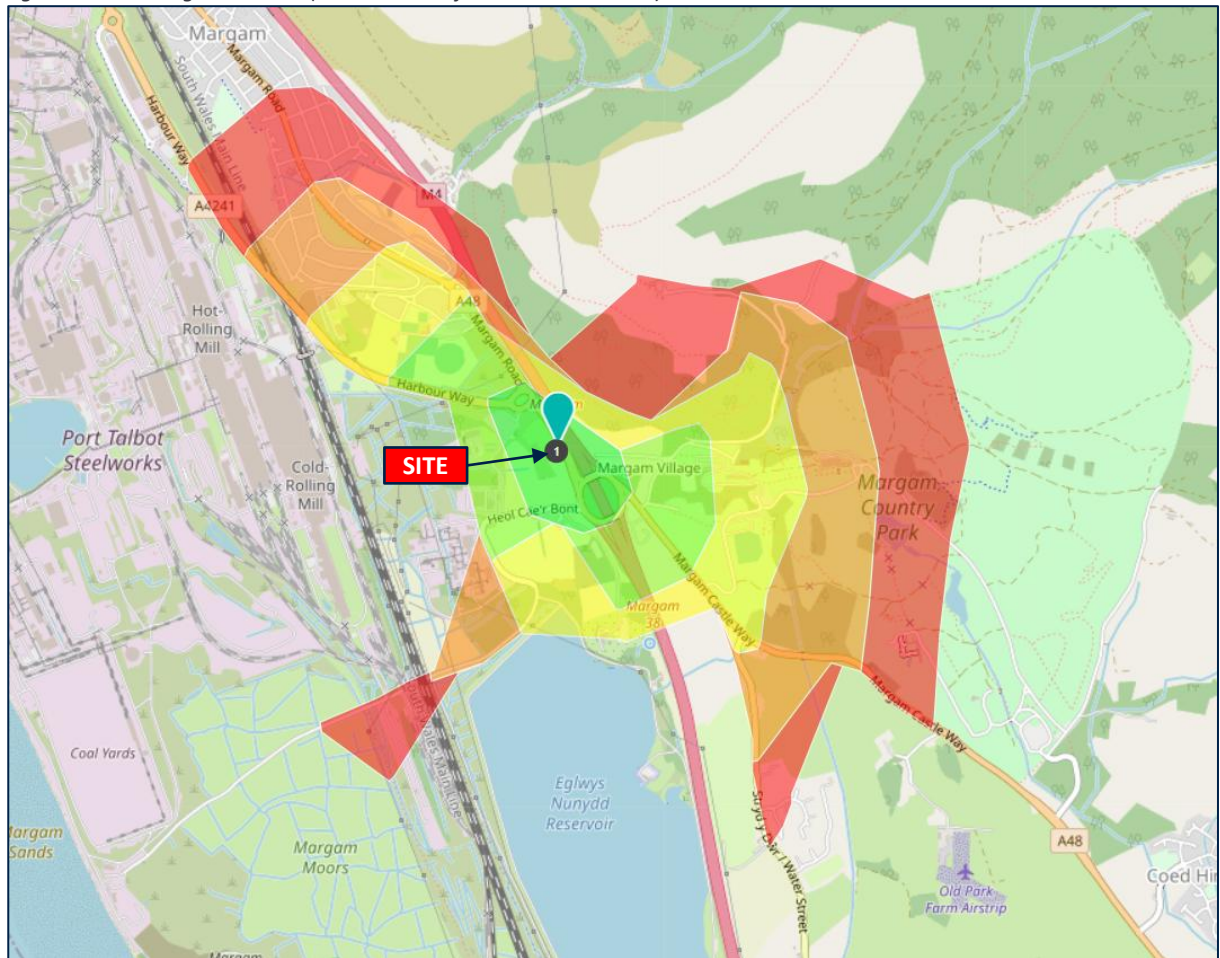
- 3.4.1 To enable an assessment of the viability of walking between the site and residential areas, it is appropriate to establish the maximum distance that people are generally prepared to walk or cycle for work purposes.
- 3.4.2 There are a number of publications which suggest guidance for appropriate and acceptable walking and cycling distances to facilities. For reference, these have been summarised as followed:
- Welsh Government - Active Travel (Wales) Act 2021: It is stated within paragraph 4.1.5 that *“Walking is most suitable for journeys of less than two miles whilst cycling is also convenient for longer journeys, typically up to five miles for regular utility journeys”*. This equates to distances for walking of up to 3.2km and cycling of up to 8km.
 - It is considered that journeys of up to 8km are within a suitable cycling distance. A cycling journey of 8km would equate to approximately a 25-minute travel time.
 - DfT – LTN1/20 Cycle Infrastructure Design (paragraph 2.2.2) – states that *“Two out of every three personal trips are less than five miles in length, an achievable distance to cycle for most people”* (c.8km).
 - CIHT - Guidelines for Providing for Journeys on Foot (2000): suggests preferred maximum distances for commuting journeys are up to 2km.
 - This also states in paragraph 9.5.3 that *“Walkable neighbourhoods also referred to as ‘low-traffic neighbourhoods’, or ‘active neighbourhoods’, (see figure 9.6) are characterised by having a range of facilities within 20 minutes’ walking distance which people may access comfortably on foot.”* This would equate to c. 1.6km.

- CIHT (2015) – Planning for Walking: In relation to shorter trips in particular, (section 2.1) states that across Britain about *‘80% of journeys shorter than 1 mile (1.6km) are made wholly on foot’*.
- Department for Transport (DfT) – Manual for Streets (2007): MfS states that *‘walkable neighbourhoods’* are typically characterised by having a range of facilities within 10 minutes walking distance (c. 800 metres). MfS also acknowledges that this is not an upper limit and references previous planning policy guidance in that it is generally acknowledged that walking offers the greatest potential to replace short car trips, particularly under 2km.

Walking

- 3.4.3 Based on guidance, it is considered that suitable walking distances could be up to 3.2km. This equates to around a 40-minute walk travelling at 3mph. However, distances of 2km are considered more likely for walking journeys and residential areas within 800m are considered to be within ‘walkable neighbourhood’ distances.
- 3.4.4 The Openroute Service maps have been used to generate pedestrian isochrones at five-minute (c.400m) intervals from the main access as shown in Figure 3-3. This is based on walking speeds of 5km per hour (c.3mph) via the road network. A journey time of 25 minutes is broadly equivalent to a 2km distance.
- 3.4.5 The isochrones demonstrate a significant proportion of Margam is accessible within a 25-minute walk from the site (c. 2km). This includes Margam Village, the southern half of Margam and Margam Country Park. This shows that there is a potential for employees to be situated within potential walking distance of the site. As such, some construction staff could travel to the site on foot.

Figure 3-3: Walking Isochrones (25 minutes at five-minute intervals)

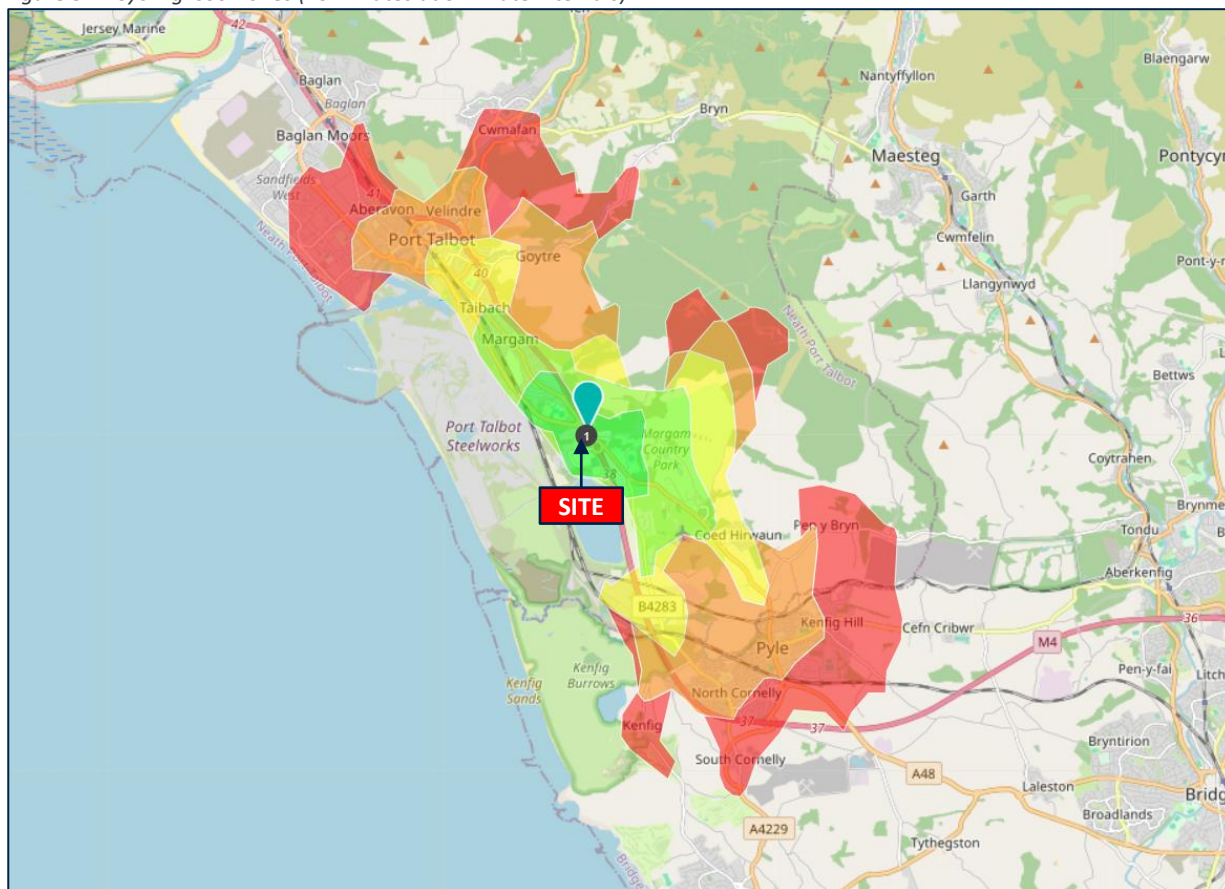


Source: Openroute Service

Cycling

- 3.4.6 It has been assumed that journeys of up to 8km are within an acceptable cycling distance. A cycling journey of 8km would equate to approximately a 25 minute trip.
- 3.4.7 The Openroute Service has been used to generate cycle isochrones at five minute intervals up to a total of 25 minutes (c.8km) using roads and cycle routes (i.e. not straight line distances). This has been shown in Figure 3-4.
- 3.4.8 The isochrones are generated based on speeds dependent on the surface and highway type. The majority (if not all) of the routes used would be paved and as such would be subject to an 18kph speed based on the parameters in the software. A five minute isochrone would therefore cover a distance of 1.5km, with a 25 minute isochrone therefore covering a distance of 7.5km. As such, this is broadly in accordance with the relevant design guidance (indeed, cycle journeys to the site could originate from slightly greater distances, up to 8km from the site, in accordance with the guidance).
- 3.4.9 The isochrones show the entire of Margam is accessible within an appropriate cycling distance in addition to Port Talbot, Sandfields, Baglan Moors, Goytre, Cornelly, Cwmafan and Kenfig. Most of the areas within and around Port Talbot can be accessed by suitable and recommended cycling routes, as shown within Figure 3-4.

Figure 3-4: Cycling Isochrones (25 minutes at 5 minute intervals)



Source: Openroute Service

3.5 Public Transport

- 3.5.1 The closest bus stops to the site are within a c.500m walk from the access onto the A48. These are situated to the southeast of the site, adjacent to J38 of the M4. Further stops are available on the A48 Margam Road approximately 1.2km to the northwest of the main site access. The closest stops are served by the X1, with the stops on Margam Road also served by the 87. Bus shelters, seating and lighting are provided at all stops closest to the site.
- 3.5.2 The services provide a link into Port Talbot centre within approximately 8-10 minutes.
- 3.5.3 A summary of the services provided within the vicinity of the site are provided in Table 3-1. These are shown in a single direction, with the other direction providing the same frequency of service.

Table 3-1: Local Bus Services

Service	Route / Operator	First/Last	Frequency (min)					
			Mon - Fri				Sat	Sun
			AM Peak	Inter-peak	PM Peak	Evening		
87	First Cymru – Neath Victoria Gardens (10) – Margam (Tollgate Park)	08:42/18:33	1*	30	2*	30	30	-
	First Cymru - Margam (Tollgate Park) - Neath Victoria Gardens (10)	08:44/18:45	1*	30	2*	30	30	-
X1	First Cymru - Swansea City Bus Station to Bridgend Bus Station via Port Talbot Bus Station, Margam Park and Pyle.	07:22/18:27	1*	60	1*	60	60	-

* No. services per hour

3.5.4 Both of the bus services connect to Port Talbot bus station as well as Port Talbot Parkway Rail Station, which offer interchange opportunities to a significant number of other services to wider destinations.

3.5.5 The site is served by buses which connect to Bridgend, Port Talbot and Swansea throughout the day, which provide start and finish times suitable for commuting. As such, travelling by bus would be a suitable option for some journeys to and from the site for construction staff.

3.6 Summary

3.6.1 The site is situated in a sustainable location, it is well suited to accommodate the proposals, being located in an area surrounded by existing industrial uses. It is connected by existing pedestrian, cycle and public transport networks.

3.6.2 There is a choice of modes of travel, which will assist in constraining the level of vehicle generation in relation to the construction of the site and minimise the impact of traffic generated during construction.

3.6.3 The site location will encourage sustainable travel behaviour, attract some construction staff who choose to travel by sustainable modes and is fully in accordance with transport policies in Future Wales, PPW12, TAN18 and the Active Travel Act.

4. CONSTRUCTION ACCESS AND SITE LAYOUT

4.1 Construction Vehicles

- 4.1.1 A topographical survey and desktop study has been undertaken of the A48 Margam Road, to consider the existing geometry for accommodating construction vehicles. The A48 Margam Road is a strategic link road, which is provided in a dual carriageway arrangement providing a connection to the M4 motorway. There are also no vehicle restrictions (height or weight) within the immediate vicinity of the site access and the A48 already carries existing HGV movements.
- 4.1.2 It is proposed that the site access with the A48 Margam Road will be partially constructed during the construction phase of the development, such as its geometric principles, with surfacing and final details delivered following completion on-site. The proposed access has been assessed with swept path analysis set out within the Transport Assessment which demonstrates that a 16.5m long articulated HGV can enter and exit the site in a forward gear.
- 4.1.3 The details of construction vehicle's will be confirmed following the formal appointment of a contractor to manage the construction phase and included within an updated CTMP, although a 16.5m long articulated vehicles is likely to be the largest vehicle type to access the site.

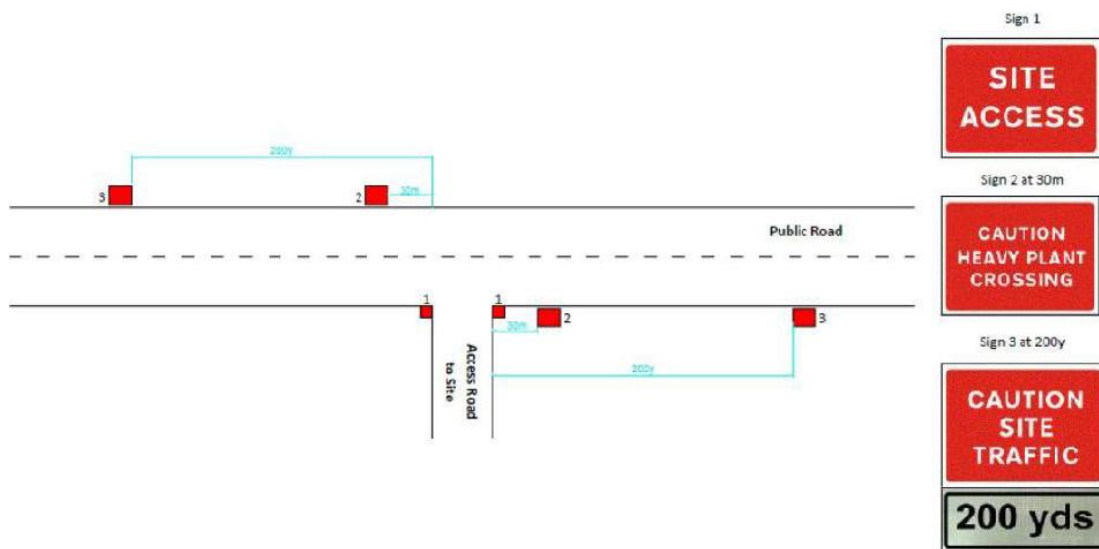
4.2 Proposed Construction Access

- 4.2.1 The existing established access with the A48 Margam Road will be retained for construction access purposes, although it is proposed that widening and geometry alterations would be undertaken as soon as possible in the construction programme.
- 4.2.2 As such, similar to the approved site access, the temporary construction access will follow the same principles in terms of its width and geometry, which will allow the approved access to be partially/informally constructed prior to any construction takes place on the site. This will also allow the final completion and remediation of the access to align with the detailed design of the access once construction within the site has been largely completed.
- 4.2.3 The temporary construction access will be provided at the site's eastern frontage and will be secured by a gated entrance to allow access to the internal site compound during the construction phase. All vehicles will be directed to and from this access via a suitably qualified banksman to ensure that vehicles enter and exit safely.
- 4.2.4 The swept path analysis set out within the Transport Assessment shows the width required at the access point to enable vehicles to enter and exit. A general arrangement and visibility plan of the proposed temporary site access will be provided within the final CTMP prior to commencement.
- 4.2.5 The site will accommodate some construction worker vehicles, and these will access the site from the proposed temporary access. Access to and from the site compound will be achieved by opening the gated entrance, as required and this would be controlled by a suitably qualified banksman.
- 4.2.6 The temporary arrangement will form the only access and egress point for vehicles during the construction phase. No vehicles associated with the development will wait on A48 Margam Road.
- 4.2.7 Appropriate temporary signage would be positioned by the contractor to inform drivers of the temporary access arrangements and other road users of construction traffic turning into or out of the site. This would include:
- Caution signs warning of works and construction traffic ahead; and

- Signage denoting the construction traffic access to the site

- 4.2.8 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 LHA / WG, prior to the commencement of construction. Temporary lighting of the access could be considered as a possible mitigation measure, if required.
- 4.2.9 It is expected that any site access enabling works will be undertaken first to minimise the impact on the adjacent highway network from delivery vehicles. There may also be a requirement for temporary works to close the nearside lane on the A48 to enable the construction access to be constructed, although the majority of the works can be completed offline.

Figure 4-1: Indicative Signage Arrangements



4.3 Proposed Construction Traffic

- 4.3.1 At this stage, the level of construction trips is not yet known, this will be set out within the final CTMP prepared by the contractor along with the phasing of construction program. However, to assist in considering trips on the highway network during peak construction periods, evidence of another approved data centre sites has been considered.
- 4.3.2 In December 2020, a planning application (ref: 20/1176) was submitted to Newport County Council (NCC) seeking permission a new 25,500 sqm data centre. The proposal was approved in March 2021 and accompanying the submission a Transport Statement (TS) (ref: 5197938) dated October 2020 prepared by Atkins included details of a Framework Construction Traffic Management Plan (Section 6).
- 4.3.3 The TS sets out that over the daily period there would be approximately 30 HGV deliveries and 100 construction staff vehicles on-site. The report set out that this is the worst-case construction period, which is expected to be across a 12 week period.
- 4.3.4 The development proposals seek permission for a c.8,700 sqm new data centre, as such applying a pro-rata approach to the approved 25,000 sqm data centre, Table 4-1 indicates the typical daily vehicle movements for HGVs and construction staff vehicles.

Table 4-1: Daily Peak Construction Traffic Movements (Pro-rata)

Site	SQM	HGVs			Construction Staff Vehicles		
		Arrivals	Departures	Two-way	Arrivals	Departures	Two-way
NCC Data Centre	25,500	30	30	60	100	100	200
Proposed Data Centre	8,700	10	10	20	34	34	68

- 4.3.5 Over the daily period a total of 20 HGV movements are estimated to occur during the peak construction period (which could last around 12 weeks). As deliveries to the site will be managed by a vehicle booking system over a six hour period (09:00-16:00) this suggests that 1-2 arrivals would occur per hour. This level of traffic would not result in a material impact upon the operation of the A48 Margam Road or the M4 motorway.
- 4.3.6 Construction traffic levels during the typical construction period are expected to be notably lower than the peak construction traffic levels.
- 4.3.7 Staff would be able to access the site from the construction access with ease and without the need for any banksman. Construction staff would be on site prior to 09:00 and depart post 17:00, as such these vehicles may arrive and depart during the typical highway network peak hours (08:00-09:00 and 17:00-18:00). However, not all staff would arrive or depart at the same time period as such, in reality staff movements would be diluted further depending on their time on the site, such as arriving or departing during inter-peak periods. These movements would not have a material impact upon the operation of the A48 or M4. In addition, construction movements would occur over a temporary short term period.

4.4 Temporary Construction Compound

- 4.4.1 The site will be utilised for activities related to construction including contractor parking, storage of building materials, skip/waste locations and contractor welfare facilities. The final CTMP prepared by the contractor would set out the details of the construction compound, which will provide informal parking spaces for construction workforce vehicles as well as large panel vans. Any parking area would include a six metre aisle width, which will be maintained behind these parking spaces to ensure vehicles can turn in and out appropriately. Any workforce vehicles larger than this will not be allowed onto the site.
- 4.4.2 The temporary compound will ensure space for contractor welfare facilities such as toilet and washing facilities.

4.5 Site Safety Measures

Vehicle Manoeuvring

- 4.5.1 Access for workforce vehicles and construction HGV's will be controlled and manned by a banksman at the site entrance, ensuring safe access and egress from the site. As set out within the HSE 'A Guide to Workplace Transport Safety' guidance, the banksman directing vehicle movements (signallers) will be trained and authorised to do so.
- 4.5.2 The banksman would ensure construction vehicles enter and exit the site in a safe and efficient manner using the temporary construction access as well as the private section of carriageway that gives access to the A48 Margam Road. In the interests of safety and to minimise disturbance from construction traffic it may be appropriate to seek a temporary lane closure on the A48 during peak construction period, which would be agreed with the LHA.
- 4.5.3 When reversing is required for the construction traffic, in addition to a competent banksman directing vehicle movements, consideration will be given to:

- Aids for drivers - mirrors, 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 can see each other easily. Lighting may be needed after sunset or in bad weather
- Clothing - pedestrians on site should wear high-visibility clothing

4.5.4 There would be no unloading or loading of materials on the A48 Margam Road.

Site Design and Health and Safety

4.5.5 The appointed Site Manager will be in charge of 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.

4.5.6 It is intended that the temporary steel mesh fencing, will be erected prior to the construction phase of the site, thus ensuring the site is secure during this phase.

4.5.7 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 light vehicles do not conflict with HGV traffic. In addition, contractor welfare facilities will be located away from construction movements. Where possible, it is proposed that any workers accessing the site on foot would do so via the temporary construction access.

4.6 Construction Plant

4.6.1 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. Consideration will be given to such measures where feasible. For example, excavators and mini diggers would likely be stored on site during the construction.

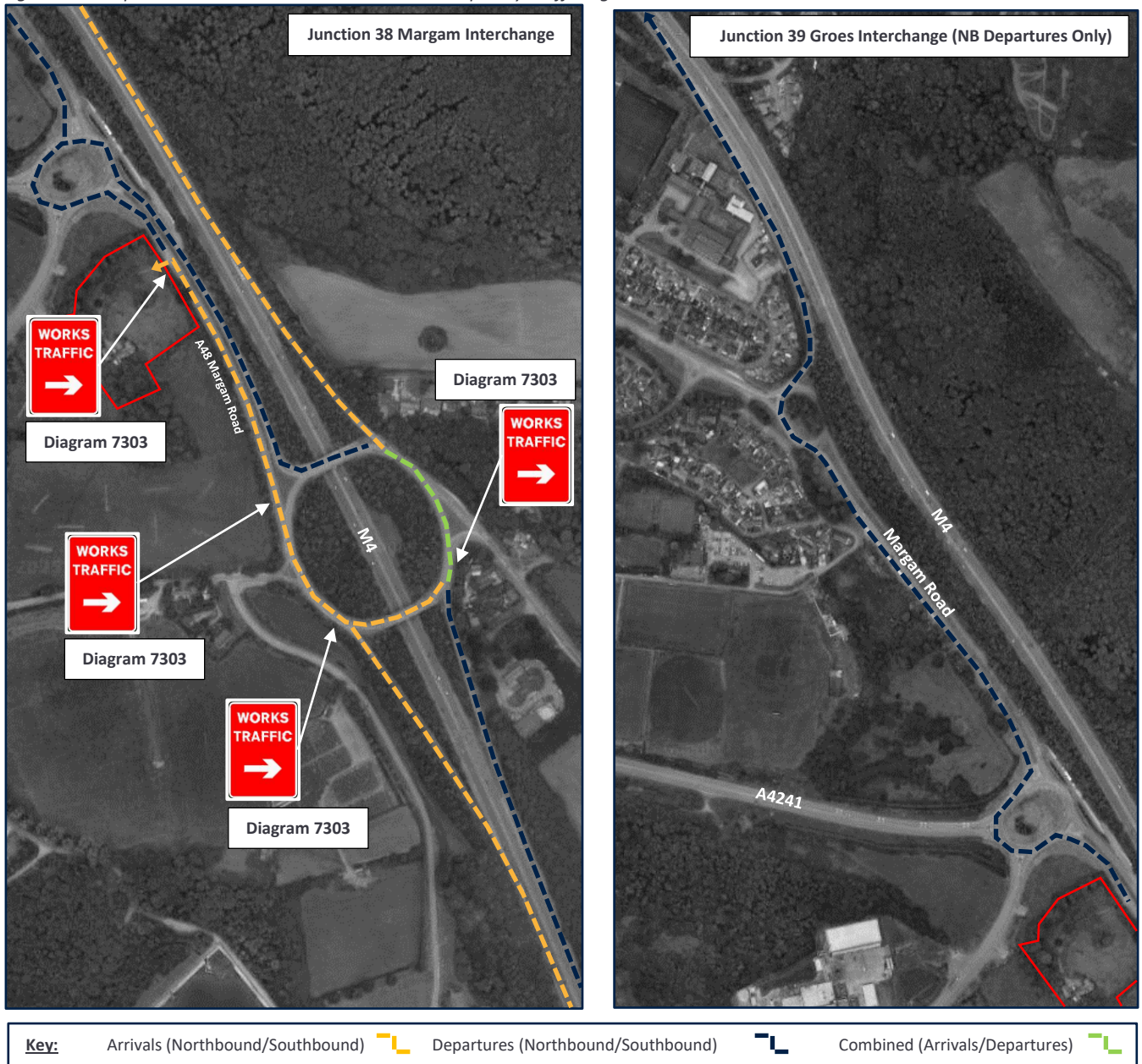
5. CONSTRUCTION PHASING

- 5.1.1 The construction phase of the development and programme will be finalised once a formal contractor is appointed.
- 5.1.2 However, it is expected that during the initial construction phase there would be a small number of vehicular movements to the site, associated with the delivery and removal of construction materials and waste, together with the arrival and departure of construction workers.
- 5.1.3 The final construction programme and vehicle flows will be provided within the final Construction Traffic Management Plan produced by the Contractor, which can be conditioned as part of any forthcoming planning consent.

6. CONSTRUCTION ACCESS ROUTE

- 6.1.1 All vehicle movements associated with the construction phase will access and egress the site using the existing site access arrangement off the A48 Margam Road (with improvements). The final construction access route will be set out within an updated CTMP prepared by the appointment contractor. As such, this section considers at a high-level the likely approach to construction traffic routing.
- 6.1.2 Construction traffic arriving from the north would utilise the M4 J39 Margam Interchange, a grade separated roundabout junction and the A48 Margam Road when accessing the site, which is also the case for arrivals from the south.
- 6.1.3 All site departures would leave the site via its access with the A38 Margam Road to the north. However, those travelling north towards the M4 are required to travel c.1.4km along the A48 Margam Road where access to the M4 J39 Groes Interchange slip road is provided.
- 6.1.4 Departures travelling south from the site seeking access to the M4, will do so at the M4 J39 Margam Interchange. There is a short section (c.170m) of the grade separated roundabout where construction traffic arrivals and departures may be combined on the road network. The proposed construction routing for all vehicles travelling to and from the site is shown in Figure 6-1.
- 6.1.5 The prescribed access route to and from the A48 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.
- 6.1.6 A temporary signage strategy will be in place for the duration of the construction programme to notify users of the site, other road users and members of the public of the proposed construction access arrangements. This will consist of traffic signs placed strategically along the route from the M4 J39 Margam Interchange to guide construction vehicles to the site via the prescribed routing arrangement.
- 6.1.7 An indicative strategy is shown on Figure 6-1, with full details of the strategy to be finalised in agreement with NPT / WG and in accordance with Chapter 8 of the DfT's Traffic Signs Manual. This will be in addition to the temporary site access signage discussed in Section 4.

Figure 6-1: Proposed Construction Access Route and Temporary Traffic Sign Locations



Source: Google Maps

7. MITIGATION

7.1 Vehicle Management and Booking System

- 7.1.1 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.
- 7.1.2 The deliveries to the site would be co-ordinated to avoid more than one vehicle arriving and departing from the site at the same time. A vehicle booking system will be implemented to ensure sufficient time is given for each delivery and would enforce strict time slots including a requirement that no vehicles would arrive before 09:00. The delivery slots would be for a 30-minute duration, between 09:00 and 16:00 from Monday to Friday, enabling up to 12 deliveries per day to the site (including a one-hour break). Deliveries would occur between 09:00 and 12:00 on Saturdays.
- 7.1.3 To manage the vehicle booking, communication will be required in advance between the site manager and the source company. The delivery / collection firm will have a full understanding of the time slot and booking system which has been booked and would schedule accordingly. If they arrive outside of this time, they will be informed to leave the site and wait away from the site in an appropriate location, not blocking the highway, until their booking time, unless another free time is available.
- 7.1.4 This will ensure vehicles do not pass on or block the highway adjacent to the site and minimise the impact on the A48 from construction vehicles.

7.2 Working Hours

- 7.2.1 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 0800-0900 and 17:00-18:00 to reduce the impact on the operation of the highway. However, the level of movements would be low and construction workers will also need to avoid delivery / collection times so it is recognised the shift times will need to be flexible.

7.3 Vehicle Emissions

- 7.3.1 All construction vehicles are required to comply with relevant 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 comply with emission standards at all times

7.4 Promotion of Sustainable Travel

- 7.4.1 In order to minimise the number of vehicles travelling to and from the site on a daily basis, contractors would be encouraged to vehicle share, where feasible and the site manager will informally arrange matches where appropriate and subject to GDPR. Any workers car sharing to the site would be given priority for the on-site parking bays.
- 7.4.2 Workers will also be encouraged to travel by public transport. Section 3 demonstrates that local bus services provide a realistic option for travel to the site and contractors will be encouraged to use these services. Full details of the services will be provided within the compound areas and workers will be informed of the services in advance. In addition, local workers will be able to walk to and from the site via appropriate routes.

7.4.3 A secure area on site will also be made available for storage of bikes.

7.5 Parking

7.5.1 Vehicle parking for contractors during the construction period would be accommodated on site and no contractors will be permitted to park on the surrounding highway network including the A48 Margam Road, or the unnamed road to the west of the site, which serves existing commercial/industrial uses.

7.5.2 This will help ensure that these local strategic routes can be kept clear from obstruction at all times and minimises the risk of vehicles stopping or reversing back onto the A48. The site manager will be responsible for ensuring that contractor vehicles are parked legally and responsibly and be contactable by members of the public where any issues arise.

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 17:00 Monday to Friday
- 09:00 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 16:00 to ensure noise impacts from large vehicles is kept to a minimum.

7.7 Preventing the deposit of material on the highway

7.7.1 During construction, most delivery vehicles will be constrained to a proposed hardstanding area within the site which will reduce the likelihood of depositing material onto the highway. However, a strategy of prevention will be put in place to reduce the depositing of materials on the highway. Measures will be implemented on site as follows;

- Open back tipper trucks will be sheeted when travelling to and from the site
- The delivery area within the site will be maintained as a bound surface (tarmac or concrete). This will be kept clear of dirt and mud and, wherever possible, deliveries will be kept within this area to prevent tracking onto mud or debris
- Use of a street sweeper will be utilised in the event any material is deposited onto the public highway. This will be used regularly and as necessary.

7.7.2 The site manager will monitor the highway conditions and will assess if further measures are required to maintain road cleanliness.

7.8 Air Quality and Dust Management

7.8.1 Given the ground condition of the site, it is not anticipated that any significant dust issues would arise during construction.

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 hardstanding by regular brushing and water spraying
- All vehicles carrying soil and other dusty materials to be fully sheeted

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 or highway network 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.

7.11 Site Information

7.11.1 Site information boards with contact details, telephone number (for comments and complaints) and information on the works programme will be provided at the site frontage. The contractor would respond promptly to enquiries from members of the public regarding construction or issues with vehicle movements or parking.