



**Proposed Energy From Waste & Recycling Facility  
Trident Park, Cardiff**

**Outline Travel Plan**



**January 2010  
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Drawing 8-1	Site Location
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Drawing 8-3	Proposed Development



## **1.0 INTRODUCTION**

### **1.1 Background**

This outline Travel Plan (TP) has been prepared by SLR Consulting on behalf of Viridor Waste Management Limited (Viridor) in support of their Planning Application for an Energy from Waste and recycling facility (EfW) at Trident Park in Cardiff (the site location is shown on Drawing 8-1). This TP is produced in conjunction with SLR's Transport Assessment for the same proposed development.

The proposed development comprises two key elements each of which have different implications so far as transportation is concerned. The construction period is anticipated to take place between 2011 and 2013. This short-term phase will be characterised by a high proportion of car and small van trips associated with the workforce that would amount to an estimated 250 people at its peak (2012-2013).

The subsequent operational period is dominated by the delivery of waste using refuse collection vehicles and bulk transfer lorries. The car-based workforce will be restricted to approximately 50 staff on a shift basis.

The requirement for the preparation of a Travel Plan is driven by a realisation by Viridor that in order to deliver a sustainable option for waste management in accordance with the aspirations of Project Gwyrdd, the facility needs to deliver sustainability at all levels. This includes transportation and travel.

In this context, the planning application and its associated documents consider the potential for the delivery of waste to the Trident Park site by means other than by road. The conclusion is reached that the distribution of waste arisings in the Project Gwyrdd area, and the limitations of the railway network in the sub-region are such that this must be discounted at this stage.

The focus is therefore placed on the potential to minimise travel to the site by staff during the construction and operation of the facility, and it is essential that senior management is seen to support the TP.

The ability to prepare a detailed TP at this stage in the project is limited by the uncertainty of there not being contractors and sub-contractors in place for the construction period, and the absence of a current workforce at the completed facility. This TP therefore establishes the principle of sustainable techniques, and will be refined at various stages in the progress of the development. This commitment to prepare a TP will be supplemented by its implementation and monitoring during the construction and operation periods.

### **1.2 Policy Framework**

#### ***1.2.1 City of Cardiff Local Plan including Waste Polices, adopted January 1996***

The City of Cardiff Local Plan continues to form part of the statutory development plan for the City.

#### ***POLICY 13: ENERGY USE***

Proposals for new development at locations other than those identified on the proposals map will only be permitted where:-

(i) resultant traffic flows, travel patterns, energy use and other emissions would be minimised; and

(ii) they would be well located by reference to public transport and for those wishing to travel other than by car.

*POLICY 14: FACILITIES FOR PUBLIC TRANSPORT SERVICES*

The design and layout of development proposals will be required to accommodate necessary facilities for public transport services.

*POLICY 16: TRAFFIC CALMING*

The design and layout of development proposals will be required to incorporate necessary traffic calming or similar traffic management measures.

*POLICY 17: PARKING AND SERVICING FACILITIES*

Development proposals will be required to provide parking and servicing facilities in accordance with the city council's adopted guidelines.

*POLICY 18: PROVISION FOR CYCLISTS*

Development proposals will be required to make convenient and safe provision for cyclists, including cycle parking facilities in accordance with the city council's adopted guidelines.

*POLICY 19: PROVISION FOR PEDESTRIANS*

The design and layout of new development will be required to retain and/or create a safe and convenient environment for pedestrians.

*POLICY 20: PROVISION FOR SPECIAL NEEDS GROUPS*

Development proposals which may be used or visited by the general public will be required to make provision for special needs groups including people with disabilities, parents with young children and elderly.

**1.2.2 Cardiff Unitary Development Plan (to 2016)**

*POLICY 1.K: MOVEMENT AND TRANSPORT PRIORITIES*

Priority will be given to improving accessibility in Cardiff in ways that:

- a) minimise travel demand and dependence on the car;
- b) facilitate walking, cycling and use of public transport;
- c) provide safe and convenient access for all;
- d) support the movement of freight by rail or water; and
- e) benefit or minimise harm to the environment.

*POLICY 1.L: PUBLIC TRANSPORT INFRASTRUCTURE AND SERVICES*

Priority will be given to improving public transport infrastructure and services in Cardiff, including the provision of:

- a) the Core Bus Network (Express and Feeder Networks) and other bus priority measures;
- b) development of the rail network;
- c) new rail stations on existing and new lines;
- d) new park and ride facilities;
- e) a Personal Rapid Transit system, initially serving the City Centre and Bay Waterfront; and
- f) nodes/interchange facilities in public transport and connecting networks.

*POLICY 1.M: IMPROVEMENTS TO THE PRIMARY ROAD NETWORK*

Priority will be given to the following additions to the primary road network that will support public transport, road safety and environmental improvements:

- a) the Eastern Bay Link;
- b) the St Mellons-Wentloog Link Phase 2;
- c) the Ely Spur;
- d) the Thornhill M4 Interchange.

*POLICY 1.N: CAR PARKING*

Provision for car parking will be reduced in line with improvements in public transport accessibility with particular emphasis on the Central and Waterfront Business Areas and other locations with good accessibility by public transport.

**1.2.3 Technical Advice Note 18: Transport**

An efficient and sustainable transport system is a requirement for a modern, prosperous and inclusive society. However, transport, in particular road traffic, can also have negative impacts on human health and the environment. Road traffic growth is a cause of increased local air pollution, green house gas emissions contributing to global warming and climate change and, in some areas, congestion, which can affect economic competitiveness.

Section 2 of TAN 18 focuses on Integration between Land Use Planning and Transport and drives to adopt a sustainable approach to transport planning.

Planning Policy Wales and the Wales Transport Strategy both aim to secure the provision of transport infrastructure and services, which improve accessibility, build a stronger economy, improve road safety and foster more sustainable communities. This includes:

- integration of transport and land use planning;
- integration between different types of transport;
- integration of transport policy with policies for the environment, education, social justice, health, economic development and wealth creation.

Integration of land use planning and development of transport infrastructure has a key role to play in addressing the environmental aspects of sustainable development, and in particular climate change and the outcomes identified in the WAG's Environment Strategy. Integration can help the WAG achieve these environmental outcomes, together with its wider sustainable development policy objectives by:

- promoting resource and travel efficient settlement patterns;
- ensuring new development is located where there is, or will be, good access by public transport, walking and cycling thereby minimising the need for travel and fostering social inclusion;
- managing parking provision ensuring that new development and major alterations to existing developments include appropriate provision for pedestrians (including those with special access and mobility requirements), cycling, public transport, and traffic management and parking/servicing;
- encouraging the location of development near other related uses to encourage multi-purpose trips;
- promoting cycling and walking;
- supporting the provision of high quality, inclusive public transport;
- supporting provision of a reliable and efficient freight network;
- promoting the location of warehousing and manufacturing developments to facilitate the use of rail and sea transport for freight; encouraging good quality design of streets that provide a safe public realm and a distinct sense of place; and
- ensuring that transport infrastructure or service improvements necessary to serve new development allow existing transport networks to continue to perform their identified functions.

Section 10 of the ES sets out the assessment of the transport impact of the proposed facility.

It considers the scheme in the context of the general sustainable objectives set out above as well as more specific requirements and assessments.

Bus services in the area are sub-standard at present with only a skeletal service operating during the morning and evening. There are no buses operating throughout the day-time.

Cardiff Bus has indicated that the low bus frequency reflects the existing demand and that new services will have to be funded by Cardiff Council or developers.

A TP is a package of measures that is designed to bring transport and other business issues together in a coordinated way and that aims to promote sustainable travel with an emphasis

on reducing reliance on single occupancy car travel. WAG require that TPs are specifically tailored to the circumstances of a development and its operation, taking into account such factors as size, location, staff numbers, visitor numbers, and deliveries to the site.

Cardiff Council's general Travel Plan policy requires that:

*“Where there is no occupation of a site, the plan should reflect a commitment to undertake the above when occupation has taken place. This is particularly pertinent to any Travel Plans that are required as a condition (or other agreement) through the Planning Process”.<sup>1</sup>*

## 2.0 BACKGROUND

A TP is a structure for the delivery of sustainable transport objectives which seek to:-

- reduce the need to travel to and from the site;
- reduce the number of vehicles, with emphasis on single occupancy vehicles travelling to the site;
- reduce costs associated with on-site parking provision and congestion;
- provide minimum possible parking provision;
- improve safety and security for people who use the site;
- promote active transport and public transport usage and encourage a change of attitudes to these modes;
- promote coordination and cooperation between and within developments;
- improve overall accessibility;
- promote the existing public transport system that works to enhance the environment; and
- support a sustainable economy for Cardiff and the region.

A TP includes a strategy and targets for the proportion of employees who will travel to the site by means other than single occupancy car and a method for monitoring progress. There are many benefits to be gained from implementing TPs. Some of the main benefits are:-

- **Direct cost savings**
  - Car parking and business travel costs can be reduced;
  - Car mileage systems can be restructured.
- **A healthier, more motivated workforce**
  - improved recruitment and retention;
  - improved health can reduce absenteeism.

### 2.1 Local Government Advice

Cardiff Council's web site provides advice to developers on the best way to deliver an effective TP. The following is an extract from the web site:-

*“A Travel Plan should have a clear format reflecting:*

1. *Key motivations for the Plan and SMART Aims/Objectives*
2. *A site audit and details of the organisation*
3. *The results of a travel survey ( we suggest the survey is included in an appendix)*

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<sup>1</sup> Cardiff Council web site ([www.cardiff.gov.uk](http://www.cardiff.gov.uk))

4. *Plans, measures and targets clearly based on a modal share analysis.*
5. *A process and implementation plan.*
6. *A monitoring strategy and commitment to regular updating of the plan.*
7. *An outline of roles and responsibilities - including the designation or appointment of a travel plan coordinator.*
8. *Management support.*
9. *A Marketing strategy*
10. *An outline of any proposed key partnerships for delivery.*

*One of the key elements often missing from Travel Plans is attention to detail in ensuring that references are quoted where necessary.*

*The plan should be pitched to communicate at all levels with any technical detail contained in appendices so as not to distract from the key information contained in the text.*

*It would be very positive to see a commitment to ensuring that the Local Authority has an annual update on the Travel Plan. This is important for the Council to be able to monitor the uptake and effectiveness of Travel Plans within the Local Authority. Cardiff Council will send a reminder regarding updates for Travel Plans it holds on file.*

*SMART: Specific;Measurable;Appropriate/Achievable;Realistic/Relevant;Timely/Timescaled'*

It is the intention that, prior to the commencement of construction, a TP will be in place that would follow the advice given above and be used throughout the duration of the construction process. Similarly, prior to the site becoming fully operational in 2014, an Operational Phase Travel Plan would be put in place that would also follow the advice provided by Cardiff Council.

## **2.2 Travel Plan Aims and Objectives**

The overall aim of the TP is to provide measures which will influence behaviour and achieve a shift towards increased use of sustainable travel modes such as walking, cycling, public transport and car sharing. In order for the TP to be successful it will need to reflect Viridor's specific needs and characteristics.

This outline TP gives consideration to the various types of travel that will be associated with Viridor's activities. These activities include:-

- commuter journeys;
- business travel;
- construction traffic;
- visitors; and
- fleet vehicles.

The TP contains three specific objectives:

- to demonstrate Viridor's commitment to planning the way in which people travel to and from the site, and to promote the use of sustainable transport to all that require access to Trident Park;
- to provide opportunities for travelling to and from the site using sustainable modes and reduce unnecessary travel by car, particularly where the journey involves a single occupant; and

- to raise the awareness of the TP for staff and visitors in the context of access to the site.

### **2.3 The Site**

The application site is a brownfield site which was, until recently occupied by a Nippon Electronic Glass factory. The area of the application site extends to around 45,000m<sup>2</sup>.

The application site is located in Trident Park, Cardiff approximately 1.6 kilometres southeast of Cardiff City Centre. There is good access to the primary road network via Lamby Way (to the east) or the A4232 Periphery Distributor Road (to the west).

The nearest residential properties to the site (The Water Quarter) are approximately 550m to the southwest of the site. A similar distance to the north of the site are the recently built apartments on Lewis Road which are 0.9km from Trident Park.

### **2.4 Proposed Development**

The proposed development at Trident Park would involve the construction and operation of an Energy from Waste and Recycling Facility that would treat residual waste arisings (waste that cannot be recycled) by means of combustion. It would also include a materials reception area and an incinerator bottom ash (IBA) treatment area. It is proposed that the EFW & RF will be operational by 2014 based on the following timetable:

- January 2010 Planning application submitted;
- Late 2011 Construction commences;
- Late 2013 Commissioning; and
- 2014 Fully operational.

The site is located on the former Nippon Electric Glass factory located between Ocean Way and the Port of Cardiff. The application site extends to 4.6 hectares, with sole access being gained via Glass Avenue, a dedicated single carriageway road off Ocean Way. Drawing 8-2 illustrates the boundary of the application site.

The facility will consist of the following key elements/operations:-

- a tipping hall;
- dry flue gas treatment;
- an administration building, workshops and visitors centre;
- a turbine;
- electrical rooms;
- air cooled condenser;
- water treatment; and
- bottom ash storage.

The technology employed at the facility is such that two identical lines of plant would operate on a 24-hour basis, each accepting 175,000 tonnes of waste per annum.

### **2.5 Travel Plan Co-ordinator**

A key aspect of the implementation is the effective review and management of travel patterns at the site. This role is undertaken, at the developer or contractors risk, by a designated Travel Plan Co-ordinator (TPC).

The TPC will play a key role in putting the TP into practice and implementing it in the work place. The TPC will be responsible for the day-to-day running of the TP and provide the overall co-ordination needed to ensure its success.

The TPC will be appointed by the site manager at an early stage to ensure that the TP is implemented from the outset. The TPC will be a full-time member of Viridor's staff and will undertake TPC duties for 1 – 2 hours per week. The TPC's responsibilities will include:-

- overseeing the TP implementation;
- obtaining commitment from senior personnel;
- designing and implementing marketing and promoting of the TP;
- co-ordinating the data collection (i.e. staff survey) required to develop the TP;
- acting as point of contact for any travel / TP queries;
- co-ordinating the monitoring program and the setting of targets;
- updating the TP as necessary; and
- preparing a business case to secure a budget for the TP development.

The TPC will be known to Viridor as being an individual capable of accepting the above responsibilities. Advice is available to assist the TPC carry out his/her duties in the document 'A Travel Plan Resource Pack for Employers' which is available from The Department for Transport.

The committee report for the previous planning application for an EfW on Trident Park (ref 08/02616) included the following condition:

No part of the development permitted by this consent shall be brought into beneficial use until a revised Travel Plan has been submitted to and approved by the Local Planning Authority. The Travel Plan shall set out proposals and targets, together with a timetable, to limit or reduce the number of single occupancy journeys to the site, and to promote travel by sustainable modes. The Travel Plan shall be implemented in accordance with the timetable unless otherwise agreed in writing by the local planning authority. Reports demonstrating progress in promoting sustainable transport measures shall be submitted annually on each anniversary of the date of the first.

### **3.0 SITE ASSESSMENT**

#### **3.1 Introduction**

It is proposed that the waste facility will become fully operational during 2014 and therefore this can only demonstrate at the application stage that full consideration has been given to promoting sustainable modes of travel.

The following describes the existing background information available on methods of transport other than car. It is inevitable in any city environment that public transport provision evolves over time, and the five-year programme for the implementation of the facility exacerbates this. Furthermore, the location of Trident Park is an area that continues to be subject to regeneration and change is such that changes to the public transport network and usage patterns are more likely. This emphasises the need to undertake regular reviews of any TP.

This outline TP details the known transport related aspects of the proposed development in respect of both the construction and operational workforce, and comments on these overleaf.

## **3.2 Pedestrian access and facilities**

The application site itself is located within an environment typified by heavy industry and more recent commercial and retail development. However, the wider context is the densely populated residential areas that are within the theoretical walking or cycling distance of the application site. These include Splott, Adamsdown, the Bay, Newtown and Butetown. A proportion of all of these areas lie within a 1km radius of the application site.

SLR visited the application site and surrounding areas to assess the potential for employees to walk or cycle to work from various directions within a kilometre of the site.

### **3.2.1 Access from Splott**

Footways are satisfactory along Lewis Road, which will be the main route for those wishing to walk or cycle from the Splott area of Cardiff. Pedestrians will be required to cross Ocean Way in order to access Trident Park and there are suitable locations for doing so approximately 38 metres east of the junction of Lewis Road with Ocean Way and at the Glass Avenue roundabout itself. Both locations provide dropped kerbs and pedestrian refuges.

### **3.2.2 Access from Ocean Way**

Footways are provided along the entire length of Ocean Way. However, the speed of which traffic travels along the road and the position of dropped kerbs at occasional points along the route provide an uncomfortable environment for pedestrians when negotiating crossing Ocean Way. The informal pedestrian crossing facility (i.e. dropped kerbs) near the junction of Nettlefold Road with Ocean Way has restricted visibility to the right when standing on the northern side of Ocean Way. The recent planning applications within Trident Park for office space is likely to deliver a formal crossing point on Ocean Way at or near to the junction with Nettlefold Road. When implemented, this will provide the only controlled crossing facility on Ocean Way.

### **3.2.3 Access from the west (The Bay and Butetown)**

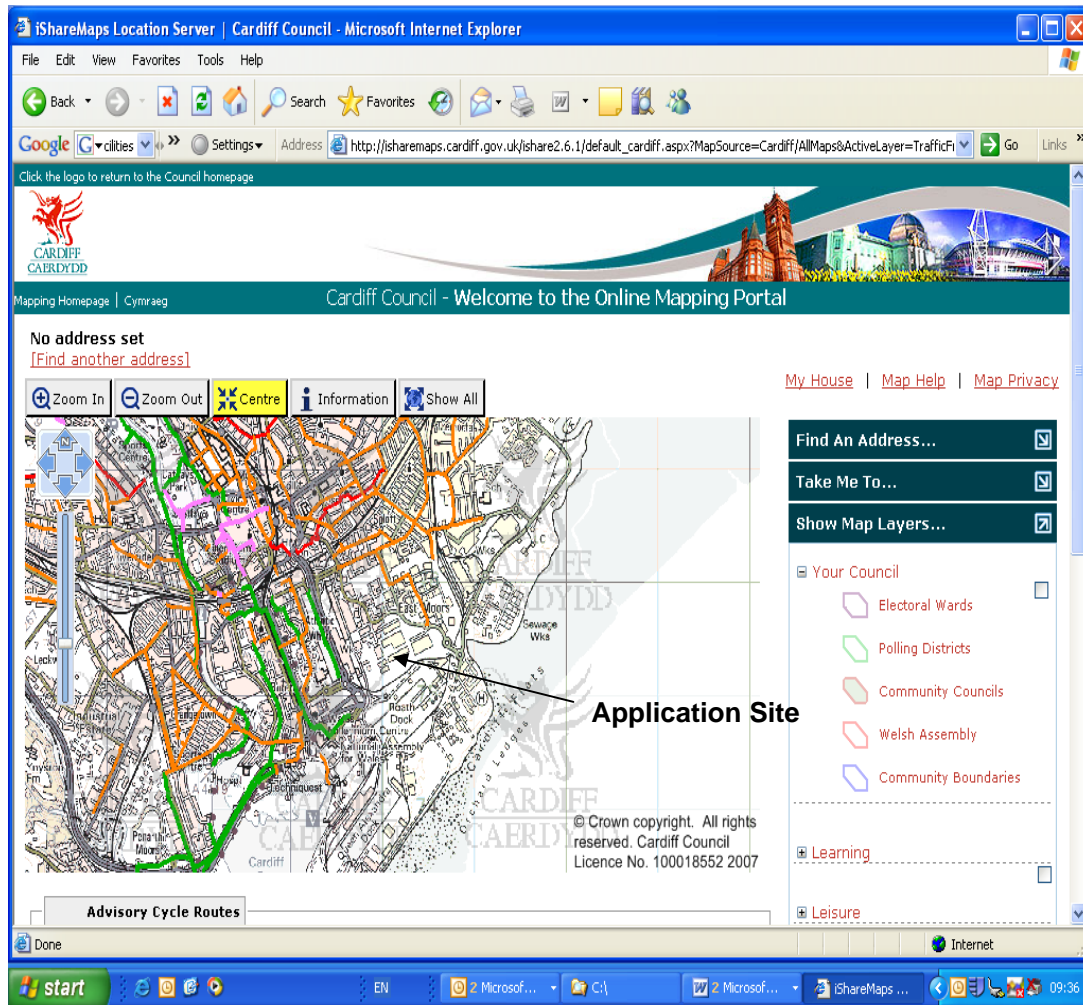
Even though some of the developments in the Bay are 600m away in a straight line, Trident Park is difficult to access due to the absence of any direct line pedestrian access, and the lack of footpaths along the Central Link. A journey on foot from the Water Quarter to the site would need to go via Schooner Way, Tyndall Street, Ocean Way and Glass Avenue.

## **3.3 Cycle Provision**

In general terms, the number of designated cycle routes in Cardiff is relatively limited. However, there is the historic Taff Trail cycle path runs north to south along the banks of the river Taff, linking Castell Coch, the City Centre, Cardiff Castle, the National Museum of Wales and Cardiff Bay. Cardiff is also a key destination on the National Cycle Network.

The following image illustrates a screenshot of Cardiff Council's Online Mapping Portal which shows the extent of the cycle routes in Cardiff. The Portal allows people with internet access to view the cycle routes in Cardiff. The orange lines indicate the 'Advisory' cycle routes, the green lines indicate 'Traffic-free' routes, the red lines are 'Signed' routes and the pink lines are 'Walk Your Bike' routes.

**Diagram 3-1**  
**Cardiff Council's Online Mapping Portal (cycle routes)**



### 3.3.1 Sustrans Wales

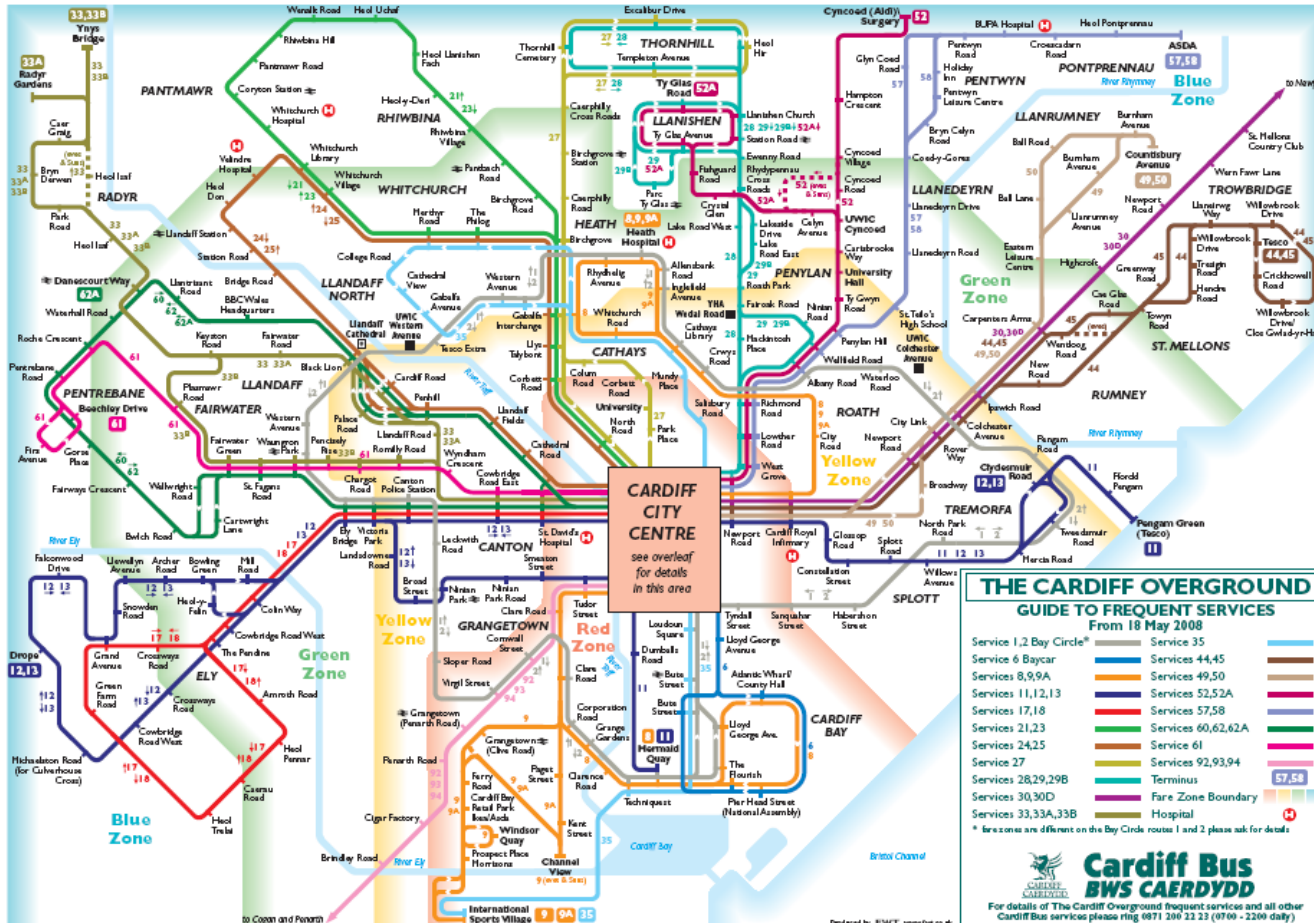
Sustrans Wales is the sustainable transport charity which works on practical projects, including its flagship project, the National Cycle Network, to encourage people to walk, cycle and use public transport in order to reduce motor traffic and its adverse effects. Sustrans Wales would be consulted as necessary to obtain advice on how best to promote cycling to EfW employees during the construction and operational phases of the development.

### 3.4 Bus Access

#### 3.4.1 Bus Services

The following image is an extract of the 'Cardiff Overground', which indicatively illustrates the frequent bus routes and services provided in Cardiff by Cardiff Bus.

Diagram 3-2  
 Cardiff Bus Services



Ocean Way is currently served by a limited public transport service operated by Cardiff Bus. The services available are:

1 – Bay Circle Clockwise

This service is operated from Cardiff Central Station and stops at Mermaid Quay, Grange Gardens, Victoria Park and UWIC before stopping at Ocean Way.

2 – Bay Circle Anti-clockwise

This service is also operated from Cardiff Central Station and stops at South Loudon Place, Cardiff Bay Station and the Bus Depot before stopping at Ocean Way.

The service times stated at the bus stop are:-

- Morning – 0722 and 0820
- Evening – 1706

These two services just about cover the morning and evening peak hours although this service is not suitable for those who finish work at 5.30pm or later.

### **3.4.2 Bus Infrastructure**

On Ocean Way, there is a layby located on each side between the junctions of Guest Road and Nettlefold Road. Although, it appears from site observations, that only the bus stop on the northern side is served by buses. This bus stop has a shelter with real time bus information and raised kerbs to allow access by low-floor buses. The layby on the southern side has no shelter and is not suitable for accommodating low-floor buses.

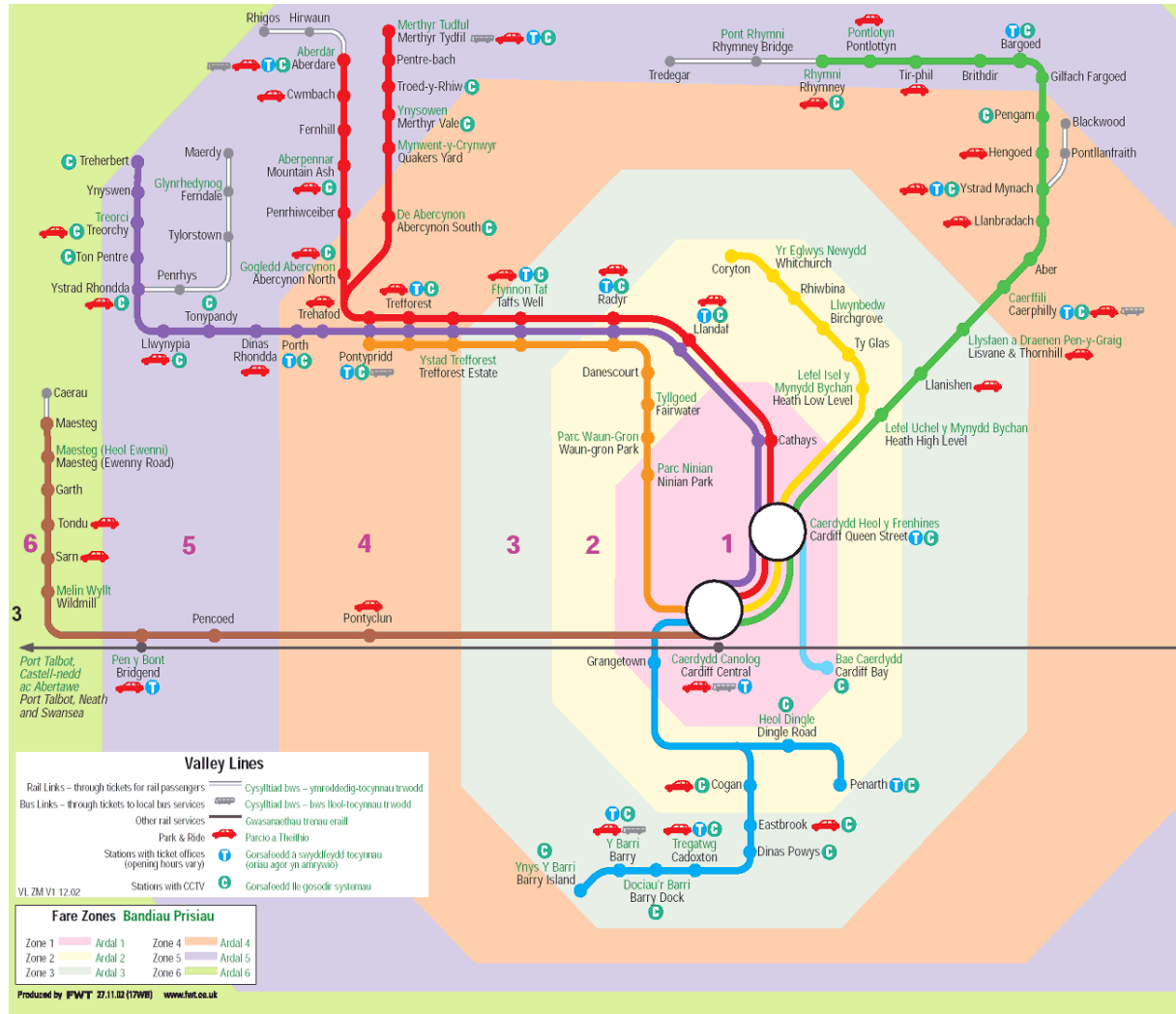
One of the key issues that were observed on site is the crossing of Ocean Way. On alighting a bus on Ocean Way, the nearest crossing point (uncontrolled – there are no controlled crossings) is located approximately 60 metres to the west. This crossing point consists of dropped kerbs only. There is no tactile paving, guard railing or any other features that identifies it as being a safe place to cross. Furthermore, visibility for both pedestrians and motorists is restricted making crossing at this location feel unsafe.

It will be advisable to introduce a safe crossing place between the two laybys. This will provide better visibility and is more likely to be used by alighting bus passengers as it provides a more direct option for crossing the road. Providing a crossing at this point may also act as a speed reducing feature. It is understood that an uncontrolled pedestrian crossing is to be introduced at this location as part of the Maritime Court development in Trident Park.

### **3.5 Rail services**

There is an extensive rail network in the vicinity of Cardiff Docks and the Trident Park site. However, this is associated exclusively with industrial activity in the area and the passenger infrastructure is poor. The industrial railway network is not considered to be appropriate to accommodate a passenger station and there are no proposals to introduce one by the Welsh Assembly Government, Cardiff Council or Network Rail. The following image illustrates the Cardiff and Valleys passenger railway lines.

**Figure 3-3**  
**Cardiff and Valleys Rail Services**



There are three passenger railway stations within 2.5 kilometres of the site: Cardiff Central (2km); Cardiff Queen Street (1.7km) and Cardiff Bay (1.3km).

### **3.5.1 Cardiff Central railway station**

Cardiff Central is the busiest railway station in Wales, being located on the London Paddington to Swansea mainline. It also provides services to mid and north Wales and is a hub for Valley Lines services (several lines in Cardiff and the surrounding valleys). The station is a brisk 25 minute walk from the application site.

### **3.5.2 Cardiff Queen Street railway station**

Cardiff Queen Street Station serves the eastern part of the City Centre, and is off the main line. As a result, many of the Valley Lines network trains pass through Queen Street. The solitary connection to Cardiff Bay is seen as part of the reason for this. The station is conveniently located at the eastern end of the city centre, near the Capitol Centre, and sees heavy volumes of commuter rail traffic during the rush hour. The site is accessed via a 20 minute walk.

### **3.5.3 Cardiff Bay railway station**

Cardiff Bay Railway Station serves the Cardiff Bay and Butetown areas of Cardiff. It is the southern terminus of the Butetown Branch Line, 1.5 km south of Cardiff Queen Street. Although this is the closest station to the site, there are similar limitations for accessing Trident Park in that the station only employs a shuttle service between Cardiff Queen Street and Cardiff Bay.

## **3.6 Car Parking**

At present, the parking availability in the area is limited. Any development within Trident Park will require the introduction of on-site parking spaces because, unlike City Centre locations, there is no public or on-street parking available. Even with a TP in place, driving by private car is likely to be the most popular travel choice for employees to travel to work. If there are no parking spaces provided, there is the likelihood that employees will seek the nearest parking place in the area and walk to the site from there. The following, therefore, sets out the highway authority's guidance for providing parking at new industrial development and describes how the parking policy will be adhered to in the development of the EfW facility.

Appendix A of the ACPR document stipulates that for industry (premises over 1000m<sup>2</sup>) located in non-central areas, the non-operational requirement is a maximum of 1 space per 120m<sup>2</sup> gross floor area. The GFA of the proposed development is approximately 11,850m<sup>2</sup>, which would stipulate a maximum of 98 parking spaces to be introduced on site. The proposed development, as shown in Drawing 8-3, illustrates that 52 parking spaces are to be introduced, which is well within the maximum that could be allocated.

The proposed number of parking spaces meets with Cardiff Council's policy of not over-providing for the car. It is anticipated that a number of these spaces will be provided for car-sharers only which will help discourage single occupancy car journeys.

Similarly a number of the 52 spaces will be for disabled motorists as outlined below.

### *Parking for Mobility Impaired*

Appendix A of the ACPR states that parking bays for disabled people should be provided as follows:-

- In car parks of up to 200 spaces, individual bays for each employee who is a disabled motorist plus 2 bays or 5% of total car park capacity, whichever is the greater.

The number of disabled persons that will be employed is unknown. 5% of the total car park capacity equates to 5 disabled bays.

## **4.0 TRAVEL PLAN ACTIONS**

This section describes how the Applicant would set out the actual Travel Plans in terms of the actions required to get the Plans 'off the ground'.

### **4.1 Site Assessment**

A detailed assessment of the site will need to be undertaken in order to:-

- identify limitations to non-car use;
- develop a clear picture of realistic alternatives available so that recommendations can be made to staff about the way they travel; and
- identify possible areas where improvements could encourage use of environmentally-friendly modes, e.g. improvements to bus stop waiting facilities, provision of more direct walking routes etc.

### **4.2 The journey to and from work**

A Staff Travel Survey will be undertaken by the TPC to identify how staff currently travel to and from work. One of the key items which will be collected is staff post codes. This will determine the likely cycling and walking catchment for the site. It will also determine the opportunities for developing a car-share scheme.

The survey of the staff will identify what measures will be most likely to persuade drivers to switch to a more sustainable mode of transport. The survey will also determine what measures will be most popular amongst staff which will allow incentives/measures to be prioritised or focused on more.

Making early contact with staff over the creation of the TP will allow staff to 'have their say' and therefore will ensure a sense of ownership of the plan.

There are a number of ways in which employees could travel to work and these would be emphasised in the TPs. The following provides a summary of the alternatives to travelling to the EfW facility by means other than by car alone and the actions which could be carried out to assist in the take-up of these alternative modes.

#### **4.2.1 Public Transport**

Rail and bus will both be promoted in a TP as alternative modes of transport to the car. In particular public transport will be aimed at those willing to travel by interchanging between cycle and train or cycle and bus. The following are potential actions that could be undertaken in order to encourage staff to travel using public transport.

- liaise regularly with bus and train operators to ensure that visitors and employees are provided with up to date information (in Cardiff this will be Cardiff Bus, Arriva Trains and PTI Cymru - contact details can be found at the end of the document);
- promote a public transport culture by sending out information about sustainable travel options with recruitment packs and visitor travel leaflets;
- provide employees with information about public transport season tickets and interest free loans for their purchase.

#### **4.2.2 Car / Van Sharing**

It is hoped that there will be opportunities for construction workers and site operators to share their lift to work with fellow workers. However, the residing location of employees would be a significant contributing factor to the success of any car share initiative, which is unknown at present. Nonetheless, there are actions that can be made to encourage car sharing. These include:-

- establish and promote use of a staff car sharing scheme with preferential car parking close to the entrance of buildings;
- provide a system which will allow a car sharer to have a free ride home in times of emergency; and
- Introduce car-share only parking spaces.

#### *'CarShare2Cardiff'*

Cardiff Council has developed its own successful Car Share scheme available to businesses and business parks in the city whilst encouraging businesses to participate in Travel Planning. The scheme is available online at [www.carshare2cardiff.com](http://www.carshare2cardiff.com).

Cardiff Council recognises that Car Sharing can be a useful tool as one of the measures included in a Travel Plan. The Council hopes to decrease the numbers of single occupancy vehicles travelling into and within its county boundaries by offering this closed group scheme to organisations in Cardiff. A vibrant car sharing scheme can often be the first visibly effective measure that an organisation can provide to its employees. Viridor would seek to become registered with CarShare2Cardiff and encourage use of the facility to the employees of the EfW facility during construction and operation.

#### *South East Wales Transport Alliance (SEWTA)*

SEWTA employs two Regional Travel Plan Coordinators who work in cooperation with the Local Authority Travel Plan Coordinator to promote Travel Planning and offer support and advice to organisations that are planning or undertaking Travel Plan work. Viridor would work with and seek advice from SEWTA co-ordinators in order to provide the most suitable and effective form of Travel Plan that could be offered to the employees of the facility.

#### **4.2.3 Cycling**

There are many benefits to be gained from cycling including health and financial benefits and these will be emphasised in the TPs. In order to further encourage cycling as a realistic alternative to travelling by motor vehicle, the following actions could be undertaken.

- establish a bicycle user group;
- provide pool bikes and accessories for staff;

- provide cycle parking facilities for employees who wish to travel by bicycle;
- provide changing and shower facilities for the use of employees; and
- provide a cycling mileage allowance to employees who choose to travel by bicycle whilst on business (see: [www.hmrc.gov.uk](http://www.hmrc.gov.uk) for details)

#### *Cycle parking*

The Cycle Parking Guidelines are contained in Appendix C of Cardiff Council's document 'Access, Circulation & Parking Requirements' ACPR which states that, for industrial development, one stand is required for every 500m<sup>2</sup> of development for employees. Based on the footprint area of the proposed development, this equates to a minimum requirement of 23 cycle parking spaces. There is also a minimum requirement of 1 cycle stand per 1000m<sup>2</sup> of development for visitors, equating to 12 cycle stands.

As agreed with Cardiff Council, it is proposed that 15 cycle stands be provided, which could accommodate up to 30 bicycles. The design and layout of these will be dealt with by condition. It is proposed to introduce these spaces in the form of 'Sheffield' (or similar) cycle stands.

Cardiff Council has its own cycling officer based at County Hall and it is anticipated that advice would be sought from the cycling officer in the preparation of the Travel Plans.

#### **4.2.4 Car parking**

Although not a mode of travel itself, the way parking is managed within businesses, can have a positive effect in encouraging the take-up of other transport modes. It is considered that the following actions would be beneficial in reducing single-occupancy car journeys.

- provide priority parking to car sharers; and
- provide the minimal number of car parking spaces required – thus, not over-providing for the car.

#### **4.2.5 Walking**

All roads in the vicinity of the application site have footways, which makes walking a viable option for those living within walking distance of the site. However, there are actions that can be taken for encouraging walking. These include:-

- provide pedestrian signage on the site directing people to public transport facilities and access to safe and secure routes;
- ensure pedestrian walkways are kept maintained and well lit;
- provide pedestrian links to bus stops that are as direct as possible; and
- remind staff of the health and financial benefits to be gained from walking.

#### **4.3 Management of Operational Traffic**

Viridor's fleet vehicles will be audited at suitable intervals to ensure all vehicles are operating efficiently and safely; the following will be recorded:-

- the make and type of vehicle;
- a description of its role;
- its value;
- its engine capacity and fuel type;

- the mileage (per week, month or year as appropriate);
- its maintenance costs;
- its depreciation;
- its fuel consumption; and
- how regularly the engine is tuned.

By converting the above to an annual cost, the above information will then be used to review whether vehicles are being used efficiently and whether there is scope to reduce the fleet.

As well as the above, drivers will be asked to fill in logs of their journeys. From this information it should be possible to see whether trips could be combined or made shorter.

## **5.0 OBJECTIVES, TARGETS & MEASURES**

### **5.1 Objectives**

This section of the TP identifies what Viridor is aiming to achieve from the TP. As an employer, Viridor has a number of benefits that could be gained from implementing a TP. These gains include:-

- increased productivity;
- reduced demand for on-site parking;
- healthier workforce and reduced staff absence;
- improved organisations image;
- reduced congestion;
- improved staff morale;
- time savings;
- staff recruitment; and
- improve local air quality by reducing CO2 emissions.

In order to obtain the above gains the following key objectives should be set:-

- improve the choice of transport modes available to employees;
- reduce the mileage of fleet vehicles; and
- promote Viridor's commitment to environmental principles.

These objectives can be met by introducing measures over short, medium and long-term. Short term measures or improvements are often referred to as "Quick Wins". Quick wins are measures that help to raise the profile of the TP by providing facilities that are attractive and which allow a change to be made easily and quickly. They include such things as cycle racks and showering facilities; season tickets for public transport; car sharing schemes; and pool cars. It is anticipated that Quick Win measures will play an important role during the early stages of the TP's implementation.

### **5.2 Targets & Measures**

It is not possible to accurately predict what the most popular measures will be with staff without having undertaken a survey. However, offering incentives to staff, e.g. subsidised public transport is likely to be the most effective way of getting the required support. Disincentives, such as charging for parking, could then be considered at a later date.

There are a number of targets that can be set in order to meet the above objectives; these are listed below and have been programmed into the table on the following page.

**Table 5-1  
 Travel Plan Targets**

Implementation					
	Prior to opening	During first month of opening	During months 1-3 of opening	Year-on-year	By 2014
'Action-type' Targets	Inform job centre that the EfW facility will have a TP in place	Appoint a Travel Plan Co-ordinator	Produce a leaflet which shows the public transport, walking and cycling links to the site		
	Provide showers, lockers and changing facilities	Offer financial incentives for those who walk or cycle to work			
	Review crossing facilities on Ocean Way and improve as necessary				
	Provide pool bikes for making local journeys	Undertake staff survey			
'Aim-type' Targets				To increase the number of staff using public transport	To reduce car use by 20%
					To reduce the number of parking spaces by 20%

The above is a 'live' table and may be expanded and added to, to reflect any other targets that may be considered appropriate during the life of the development.

## 6.0 MARKETING

It is proposed to market the TP and the elements contained within it in the following ways:-

- A leaflet will be produced promoting the initial meeting when the TP will be introduced to staff;
- Staff will be made aware of the Staff Travel Survey results;
- Staff will be kept informed of the progress of achieving targets;

## **7.0 MONITORING**

The monitoring of the TP will be important to ensure that the incentives are being taken up by employees. The monitoring will also determine any changes or improvements that can be made to the plan to ensure its on-going success. The key stages in the monitoring process are

- monitor the existing measures through checks or staff surveys;
- set modal split targets to be agreed with Viridor in the Travel Plan; and
- review and update the Travel Plan appropriately.

The impact of the measures listed in Section 5 will be checked. Snapshot surveys will be undertaken at regular intervals which will determine how staff travelled to work on a particular day. This can then be measured against the baseline situation (Staff Travel Survey) described in Section 3.

The snapshot survey can easily be undertaken whilst staff are at their desks and will determine who is driving alone, who is car-sharing, who is using public transport and who is walking or cycling.

## **8.0 DISSEMINATION**

Viridor's staff may want to share in the success of the TP and will want to know what the results are. In order to keep staff interested in the TP and its progress, they will be regularly informed of what they have achieved. This is anticipated to be in the form of an email and/or part of the company's news letter.