



Llywodraeth Cynulliad Cymru  
Welsh Assembly Government



Welsh Assembly Government

# FABIAN WAY CORRIDOR TRANSPORT ASSESSMENT: TECHNICAL APPENDICES

January 2010 Revision A



ARUP

Welsh Assembly  
Government

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**Fabian Way Corridor**

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Transport Assessment  
Technical Appendices

REV A

Welsh Assembly  
Government

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**Fabian Way Corridor**

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Transport Assessment  
Technical Appendices

January 2010

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This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party

Job number 207815

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**Study Brief**

# FABIAN WAY CORRIDOR

Brief for Consultants to produce a  
**Transport Assessment**  
In accordance with Technical Advice Note 18

May 2008



Welsh Assembly Government  
Department of Economy and Transport  
Llys y Ddraig  
Penllergaer Business Park  
Penllergaer  
SWANSEA  
SA4 9NX

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## 1. AIMS OBJECTIVES & CONTEXT

- 1.1. The aim of this commission is to prepare a phased transport strategy for the next twenty five years that will enable development along the Fabian Way Corridor.
- 1.2. Guidance on Transport Assessments in Wales is set out in PLANNING POLICY WALES TECHNICAL ADVICE NOTE 18: TRANSPORT. TAN 18 Annex D defines the process which is to be adopted for this commission. Figure 1 is appended for the avoidance of doubt.
- 1.3. The Fabian Way Corridor is a strategically important location between the successful SA1 and Coed Darcy Urban Village and identified in the Wales Spatial Plan. Neath Port Talbot, the City and County of Swansea and Welsh Assembly Government have aspirations to maximise the potential of this corridor from an economic, environmental and social perspective. The opportunities are significant and the constraints are challenging and include service provision, TAN 15 issues, ecological matters etc. An iterative approach to development proposals is required within this transport assessment.
- 1.4. The Welsh Assembly Government's agenda for strategic economic regeneration and improved infrastructure within the South West Wales region is being implemented via a number of policy initiatives including the Wales Spatial Plan, "Catching the Wave" and the Property Strategy for Employment in Wales.
- 1.5. The major regeneration schemes on-going within the Swansea Bay include the Swansea SA1 Waterfront Project; the Coed Darcy Urban Village scheme; Baglan Energy Park, and the promotion of Welsh Assembly Government owned land at Jersey Marine. A number of other larger known opportunities exist including the future redevelopment of the Queens Dock area and the former BP Tank Farm which identifies the area's potential as a sub-regional focus for economic growth.
- 1.6. The Wales Spatial Plan has already recognised the importance of this development potential along the urban coastline between Swansea and Port Talbot and is included within the wider waterfront master plan process for the western region of the WSP. Both Swansea and Neath Port Talbot UDP's recognise the area as one for opportunities for future growth.
- 1.7. WAG recognise the opportunity to formulate a more detailed development framework for the Fabian Way corridor which seeks to meet the following key objectives:

- Formulate a comprehensive and coherent regeneration policy framework for the eastern Swansea Bay.
- Build on the success and progress of the SA1 and Coed Darcy Developments and identify the other key opportunities to maximise the potential of the Fabian Way corridor.
- Create linkages between each individual initiative in order that future development can be considered as part of an integrated development strategy.
- Realise the tourism/leisure potential of the Swansea Bay Waterfront identified within the “Catching the Wave” initiative.
- Create a forum to engage Local Authorities, principal landowners, communities and environmental bodies in future consultation and policy formulation.
- Provide a framework for future public funding and private investment decision making.

### **1.8. Transport Assessment**

Guidance on transport assessments in Wales is set out in Planning Policy Wales Technical Advice Note 18: Transport which states that:

Transport assessments provide the information necessary to assess the suitability of an application in terms of travel demand and impact. The transport assessment process should include the production of a ‘Transport Implementation Strategy’ (TIS) for the development. This should set objectives and targets relating to managing travel demand for the development and set out the infrastructure, demand management measures and financial contributions necessary to achieve them. The TIS should set a framework for monitoring the objectives and targets, including the future modal split of transport to development sites. Annex D sets out more detail on TAs.

Developers should be required by local authorities to submit transport assessments to accompany planning applications for developments that are likely to result in significant trip generation (see Annex D for suggested thresholds). This requirement should be defined and secured through a policy in the development plan with relevant detail in SPG. The precise scope and content of each TA will depend upon the scale, travel intensity and characteristics of the proposal. In general TAs should, as a minimum, provide information on the likely modal split of journeys to and from the site. The TIS should detail the measures proposed to improve access by public transport, walking and cycling and reduce the number and impacts of motorised journeys associated with the proposal.

The focus of the guidance is on minimising development related highway traffic and not simply accommodating it. The transport assessment should

be an integral part of the site design, rather than the design being undertaken and the assessment produced.

A transport assessment is thus required which reflects this guidance in addressing the various transport issues associated with the site and its development, and in defining the future transport needs of the development in such a way that the local planning authorities can approve these aspects of the development proposals with confidence.

In addition to this Transport Assessment, Transport Implementation Strategy and Strategic Travel Plan it should be noted that complementary travel plans will also need to be submitted at a later date alongside individual detailed planning applications for elements of the area which are likely to have significant transport implications, including those for all major developments comprising jobs, shopping, leisure and service.

## 2. **EXISTING SITUATION**

- 2.1 The Fabian Way Corridor links SA1, the Coed Darcy Urban Village and the M4. The A483 runs parallel to the coast and is one of the main entrances to the city of Swansea.
- 2.2 Significant development has recently taken place within the A483 corridor, in particular, at SA1 to the west of the area and the Amazon development at the eastern end of the corridor.
- 2.3 The area is generally characterised by a number of key features as follows:
- Waterfront location
  - Gateway location
  - The SSSI Crymlyn Burrows
  - A number of aging businesses along the length of the A483
  - SA1 and the Coed Darcy / Amazon development
  - Park & Ride facility
  - Potential future trunking of A483

### **3. THE FABIAN WAY TRANSPORT ASSESSMENT & TIS**

It is intended that the A483 will be trunked along its route to Swansea Dock in the foreseeable future. Improvements to the A483 to facilitate access to the Amazon development have been constructed to trunk road standards.

It is inevitable that over the coming years further development will be required along the Fabian Way Corridor. One possibility currently being considered is that of a new campus for Swansea University and development around the new Jersey Marine Fabian Way roundabout. It is also expected that redevelopment will occur around Baldwins Bridge and eastward extension of SA1 is likely over the coming years.

Fabian Way is the gateway into Swansea from the east, it is therefore essential that new developments are planned within the context of the City and County of Swansea's transport policy encouraging commuters to use Park & Ride and improved public transport systems.

The following elements need to be taken into account:

- An assessment of future traffic growth on the A483 corridor and the opportunities for diversion to public transport and park & ride services.
- An assessment of individual development proposals and their traffic impact – taking into account traffic generation, modal split and assignment.
- An assessment of the impact of major developments outside the area.
- An assessment of options for bus priority routes and services in order to serve new Fabian Way development together with long distance routes into Swansea, Coed Darcy, Neath, Port Talbot and beyond. The bus priority route needs to link with the existing Fabian Way bus priority route including the new sidings bridge.
- An assessment of opportunities to expand the existing Fabian Way park & ride services, both in terms of serving Swansea City Centre, but also extending the range of destinations, such as Swansea University and Singleton Hospital and the interrelationship with Swansea metro service. This assessment should also consider alternative sites to the current Fabian Way car park, taking into account future capacity,

vehicle requirements, operational cost & revenues and bus priority routes.

- A review of the national cycle network along the Fabian Way corridor and the opportunities to provide links to serve new developments.
- An overall transport assessment to review options for the Fabian Way corridor including new junctions to serve development proposals.
- In parallel a strategic travel plan for the corridor needs to be prepared, implemented, monitored and reviewed providing the strategic context for site specific travel plans for the new developments. This strategic travel plan should include modal split targets.

The impact of future developments on the adjacent M4 Junction 42 and 43 and along the B4290 through Jersey Marine, the A4067 and the A4217 also needs to be considered. Consideration needs to be given to future development and connections through SA1 and to the A483. Similarly consideration needs to be given to key junctions including the non standard Baldwins Bridge and proposed new transport links north of the Visteon / Ford factory connecting to Baldwins Bridge.

In addition the consultant needs to consider the potential of existing rail corridors parallel to the A483 and produce a feasibility study for the MREC utilising rail.

Every opportunity needs to be provided to enable and promote walking and cycling and to that extent use of the canal corridor and adjacent towpaths needs to be considered in the overall transport assessment.

### **3.1 Development Phasing**

It is proposed that a masterplan be delivered for the Fabian Way corridor taking account of developments anticipated within the next 10 years. It will be necessary for the consultant to work closely with the project team to develop a phased approach, in terms of infrastructure and services that will enable development to occur in line with the masterplan. It would be important that the TA addresses both the development and the phasing. Indeed, one conclusion of this assessment might be that the proposed development phasing could be beneficially modified for reasons for phased cost effective transport provision.

### **3.2 Sensitivity Analysis**

The Fabian Way corridor Transport Implementation Strategy (TIS) will seek to change expected travel behaviour. The TIS must be designed

both to seek to achieve the desired travel behavioural patterns and also to cater for travel demands that are likely to occur. The two may not necessarily be the same. The TIS should thus include sensitivity analysis of all aspects of the work to ensure that it is robust, realistic and cost effective. Indeed, it could be that the transport plan includes options and decision points over time to reflect the results of future transport performance monitoring of the initial phases of the development of the Fabian Way corridor.

### **3.3 Trip Generation**

The overall movement demands generated by the development plan proposals must be assessed in total. This should include trips by all modes – for people this will involve journeys by foot, by cycle, by bus, coach, car and taxi – consideration should also be given to schemes such as car sharing and car clubs; for freight this will involve journeys by rail and by goods vehicle. A range of travel forecasts could be appropriate at this stage for future sensitivity testing.

### **3.4 Car Parking**

A critical issue when seeking to reduce the volumes of car trip making can be the availability of car parking at the trip end. The TA and TIS will need to consider what are appropriate car parking standards for the Fabian Way corridor.

### **3.5 Trip Distribution/Modal Choice**

A key issue is the distribution of the assessed travel movements, and the modes that are used – to some degree; these two issues may be considered inseparable. In addition there will inevitably be an innovative process to involve the mode of transport facilities that are provided and their subsequent usage.

### **3.6 Walking and Cycling**

It will be important for footpaths and cycle routes to be provided to an attractive standard both in terms of design and routing, ensuring that traveller security in giving priority over other modes at points of conflict. Appropriate facilities should be designed to follow as far as possible the significant desire lines for such trip making. Suitable routes should also be provided to public transport interchange points with cycle parking facilities at major bus and rail connections.

### 3.7 **Bus**

Forecasts need to be made of bus passenger demand for existing and/or further services serving, or passing through. Peak period forecasts will be necessary to service capacity issues. However, all day demand forecasts will be necessary to consider the likely economics of the provision of such services and to estimate the extent of any subsidies that may be required – this analysis will need to consider the scenarios of with or without rail facilities.

### 3.8 **Highways**

Both the local and strategic highway networks servicing Fabian Way corridor will need to be assessed in terms of their capacity to carry flows from future development. This will clearly require forecasts of both typical week-day mornings and evening peak flows, a short, medium and long term potential development proposals. Where it is considered that the existing networks will not be suitable any enhancement, appropriate improvement schemes will need to be designed in outline and tested to check their suitability both in terms of traffic capacity and of provision of priority to public transport. Such considerations should consider land availability issues and outline scheme costs.

The impact of development in the short, medium and long term on Fabian Way corridor needs to be assessed in relation to Junction 42 & 43 of the M4 the B4290 Jersey Marine road, the A4067 and the A4217.

### 3.9 **Rail**

A rail line runs along the length of Fabian Way corridor and the consultant must investigate with stakeholders the feasibility of utilising rail and its linkage with other forms of transport.

In relation to the Materials Recovery & Energy Centre (MREC) a feasibility study is required to provide a solution towards the aims of Wise About Waste, with particular focus upon regional working partnerships and the possibility of reducing the waste carbon footprint, in conjunction with economic sustainability via the utilisation of the adjacent rail link, and its potential use to freight in waste volumes and to transport to end markets the volume recyclates and end products.

It will evaluate the costs associated with the installation of a rail link spur to connect to the main rail infrastructure. This has the benefit of identifying new and potential recyclates markets with a proven benefit to the proximity principle of transporting waste and residual products. The recently achieved 3 year fuel export contracts would increase the benefit

from shipping to large scale end users of the renewable fuel manufactured at the site, and other regional waste volume residual product markets from kerbside source segregated recyclates.

It will provide a secure storage for the increased bottom ash from the waste to energy plant. This will allow for efficient processing and will divert a further 1% away from landfill as the end market for the bottom ash is delivered.

Integral to the evaluation of economic transportation in and out of the facility the export of fuels in the region of 30% of the authorities' waste stream is directly attributable to energy from waste applications.

The facility at the MREC provides existing capability for the processing of municipal waste streams. It will allow further increase in capacity and volume handling of recyclates at the plant also providing the opportunity for other authorities to possibly look to utilise the facility, certainly a rail link feasibility study will identify the possibilities for other regional authority waste solutions and their possible use of the existing facility to meet their requirements under WAG waste handling guidelines and targets.

### 3.10 Consultation

It will be important for there to be active communication and discussion throughout the work of the TA with the stakeholders who have an interest in the planning of the development, and those who will have responsibilities for transport / service procurement and implementation. The objective will be to seek to ensure that the TIS and transport plan resulting from the TA is robust and acceptable to relevant parties. This consultation should include:

- The Fabian Way Corridor project team
- Neath Port Talbot County Borough Council
- City and County of Swansea
- Welsh Assembly Government
- Railtrack
- Rail Passenger Forum
- Wales and the West
- First Cymru Bus Company and other local operators as appropriate (Veolia)
- Rail freight
- The Rail Freight Transport Association
- Confederation of Passenger Transport
- National Federation of Bus Users
- Disability Wales
- Sustrans
- Neath Port Talbot (Re-cycling) Ltd (MREC)
- University of Wales Swansea

## 4 CONTENTS OF TRANSPORT ASSESSMENT REPORT

4.1 It is expected that the report of the transport assessment that is made available for submission to the local planning authority(ies) will include the following:

### 4.1.1 Brief review of existing conditions:

- Description of current transport policies for the area;
- Description of the local transport networks for the area (private and public transport);
- Description of pedestrian and cycle routes in the area;
- Transport data collected;
- Quantification of current traffic flows on links and junctions as appropriate;
- Examination of historic accident records, as appropriate;
- Identification of any committed improvements to the transport networks (road, bus, rail, cycle, pedestrian);
- Identification of developments with planning consent but not yet implemented;
- Review of any transport assessments that have been recently submitted in relation to proposed developments in the area; and
- Review of any relevant available transport studies that may influence future policy for the area.
- Review of any environmental considerations relating to transport e.g. air quality

### 4.1.2 Proposed development

- Description of current planning policies including parking guidelines;
- Description of current corridor use and recent usage history;
- Description of proposed corridor use, including development phasing and size;
- Details of the size and content of the development; and
- A drawing of the development pattern for the proposals.

### 4.1.3 Trip generation

- Quantify current trip generation of the corridor, where appropriate;
- Estimate development person trip generation by travel period
- Freight generation;
- Identification of times when impacts are greatest on transport networks and sensitivity

#### 4.1.4 Parking provision

- Assumed level of provision and justification.

#### 4.1.5 Trip distribution / mode choice

- Definition of catchment area;
- Estimation of the distribution pattern for generated trips by transport mode; modal targets
- Estimation of freight movement patterns; and
- Justification for methodology adopted.

#### 4.1.6 Assessment years

- Determination of future years (0 to 10 years & 25 year) for projected movement flows;
- Estimation of growth rates for base network movements and development movements;
- Estimation of network flows for:
  - Base year ie first year of full operation; and
  - Future years considered.

#### 4.1.7 Pedestrians and cyclists

- Indication of specified provisions;
- Indication of safety and security provisions; and
- Indication of facilities for mobility impaired.

#### 4.1.8 Public transport

- Indication of intended public transport passenger provision;
- Determination of routes;
- Determination of access to bus / rail services;
- Economic viability of proposals / subsidy required
- Rail freight issues incorporating the feasibility study for the MREC.

#### 4.1.9 Highway impact assessment

- Indication of the proposed site access layout;
- Justification of the concept / design;

- Provision for bus priority;
- Provision of pedestrian / cycle crossing facilities;
- Junction capacity assessments;
- Identification of possible improvement schemes including the identification of alternative designs, departures from design standards and safety issues;
- Discussion of the results of capacity assessments;
- Land acquisition issues; and
- Outline costing of measures.

#### 4.1.10 A Strategic Travel Plan

#### 4.1.11 Conclusions, including advice for future travel plans.

## 5 TRAVEL DATA INFORMATION AVAILABILITY

5.1 Details of studies and reports as follows can be made available through Welsh Assembly Government, Neath Port Talbot County Borough Council and the City and County of Swansea. A number of traffic counts are also available on highways in the vicinity which can be made available.

5.2 A programme of data collection will be required in order to undertake the TA, in particular, the following traffic counts will be required:

M4, B4290, A483, A4067, A4217

(CCS has Traffic counting loop sites on the A483 (east of Port Tennant Road and at Baldwins Bridge) together with junction counts at the SA1 Gateway and Park and Ride junctions)

5.3 In addition highway journey time surveys will be required in the area for the purpose of assessing traffic routing onto strategic and local roads.

5.4 Other travel data should be collected as appropriate. In particular, details of existing bus journey times will need to be gathered in order to assist in the assessment of new and expanded services. A considerable amount of relevant data is likely to be held by SWWITCH, Neath Port Talbot County Borough Council, City and County of Swansea and Welsh Assembly Government.

The following list will be available to the successful tenderer:-

### **Transport Assessments**

Coed Darcy  
Amazon  
Visteon Park  
SA1  
Seagate/Ferrara Quay  
Swansea Point  
Port Tawe  
Marcroft site residential development

### **Junction Capacity Reports**

Baldwyn's Bridge Junction  
Jersey Marine Roundabout

## **6 APPENDICES**

Appendix 1 - Fabian Way Development Framework

Appendix 2 - Indicative floor space requirements

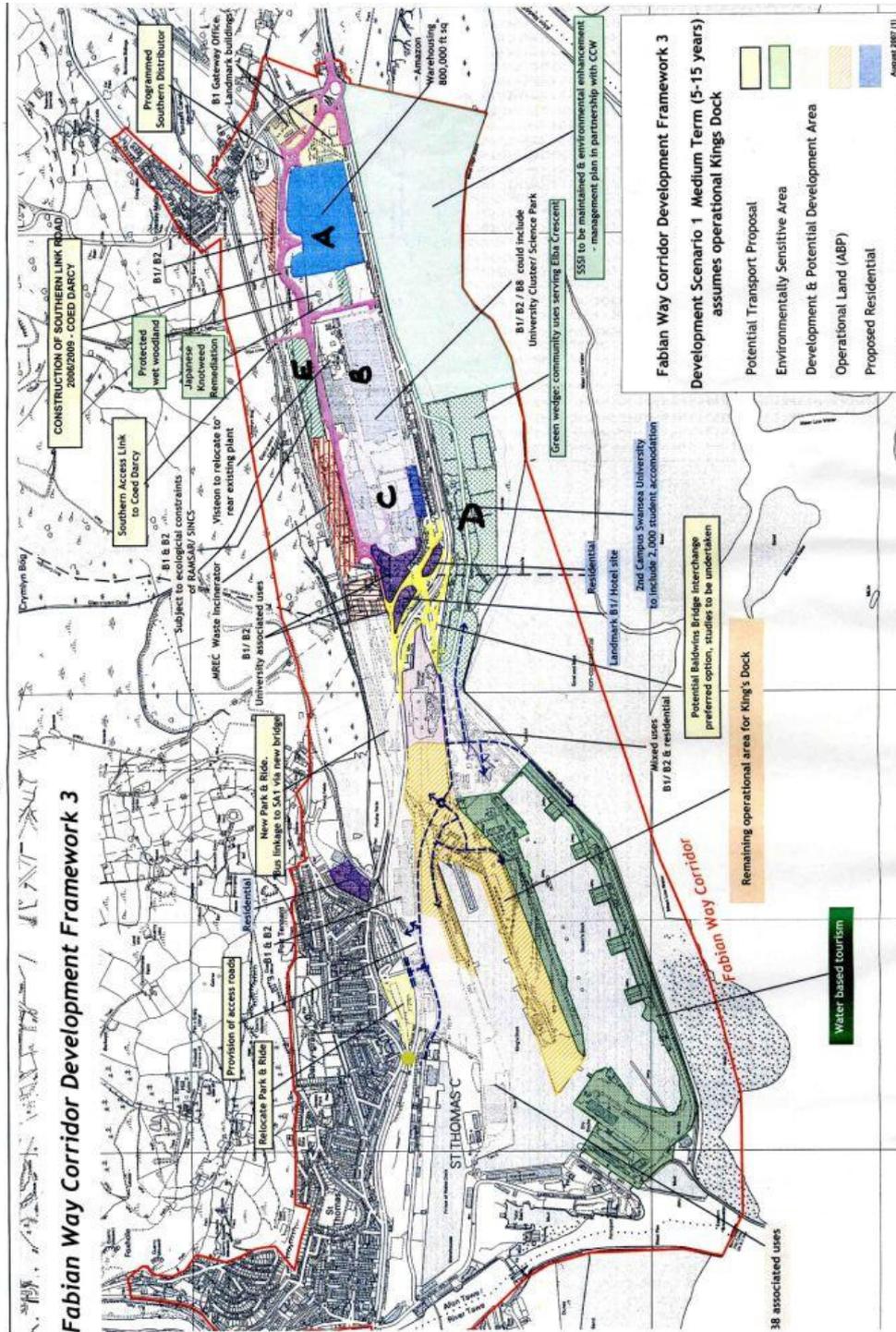
Appendix 2 - TAN 18 Annex D Figure 1 Transport Assessment Process

Appendix 3 - Transport Study Area

Appendix 4 - Aerial Photo

# Appendix 1

## Fabian Way Development Framework



## Appendix 2

Indicative floor space requirements Fabian way Corridor over next 0 -10 years

### Existing

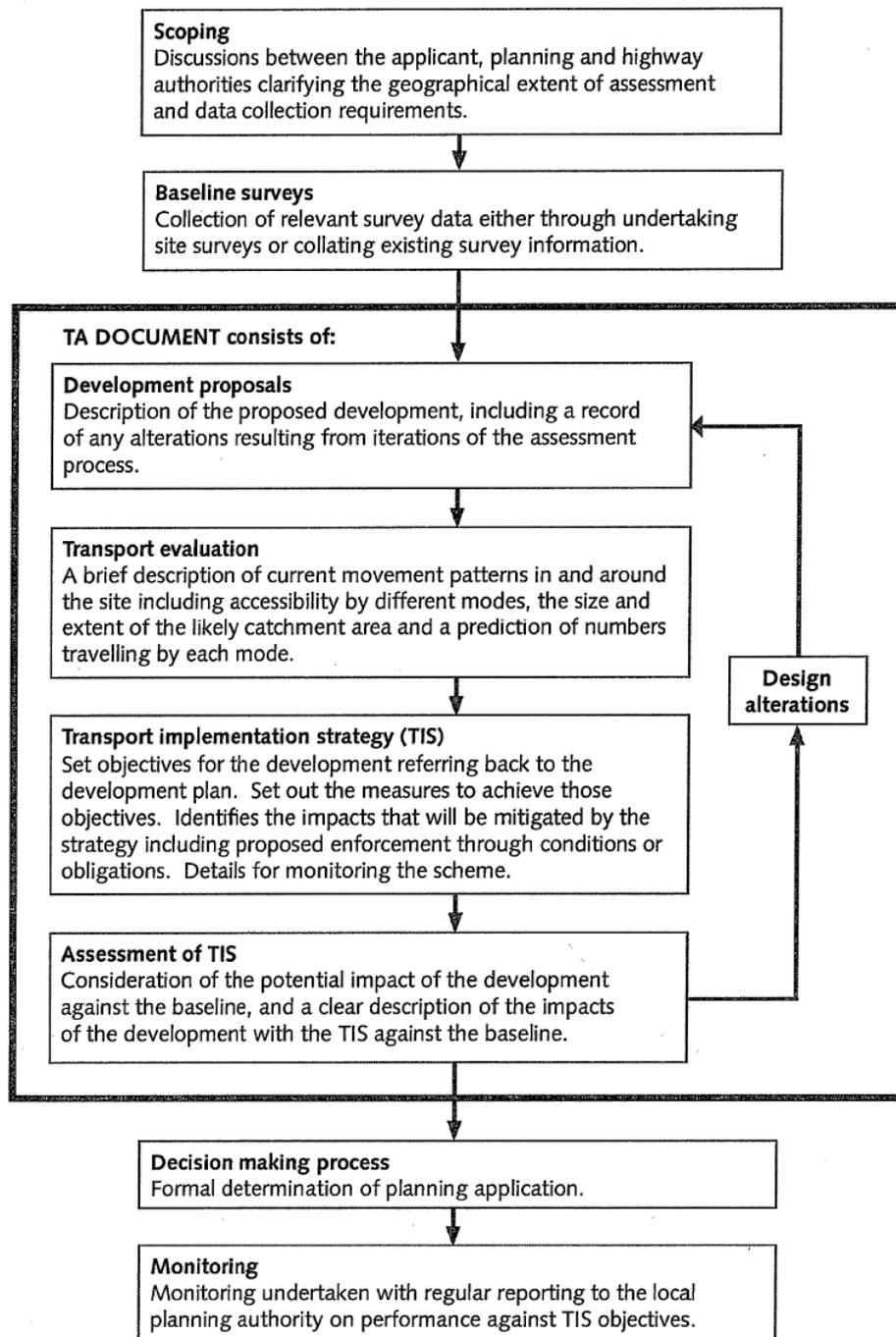
Site	Floorspace	Land – Use
A. Amazon	80,000m <sup>2</sup>	B8
B. Visteon (RT Properties)	80.000m <sup>2</sup>	B1/B2/B8
C. Gracelands Investments	30,000m <sup>2</sup>	B1/B2/B8

### Proposed

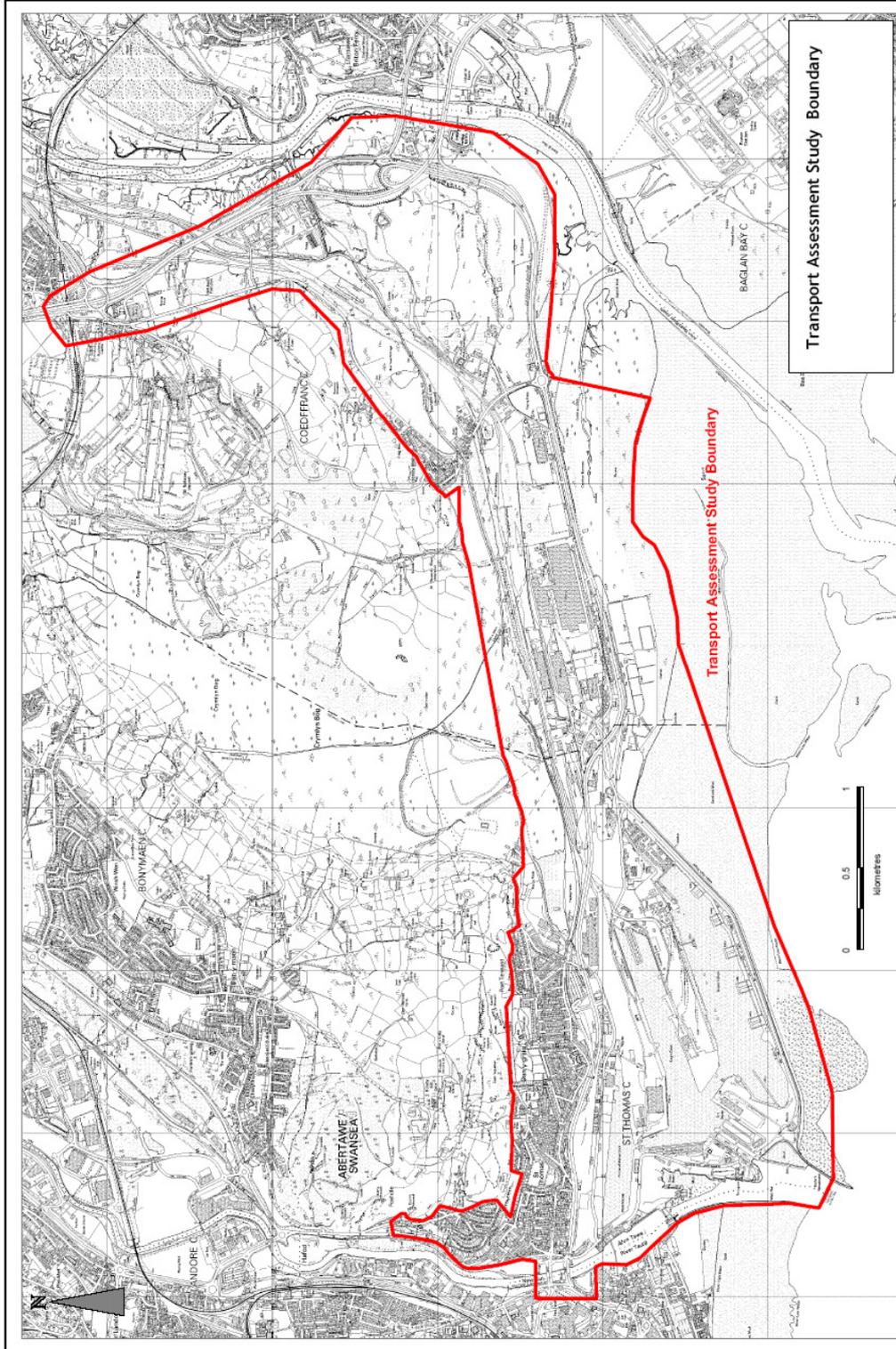
Site	Floorspace	Land – Use
A. Amazon Gateway Sites	35,000m <sup>2</sup>	B1
C. Gracelands Investments	36 dwellings	C3
D. Swansea University 2 <sup>nd</sup> Campus Tank Farm	2,500 student units / 50,000m <sup>2</sup> campus	C2
E. North of Southern Access bus link	20,000m <sup>2</sup>	B1/B2/B8

## Appendix 3

Figure 1 - Transport Assessment Process



# Appendix 4



This orthophotography has been produced by COWI AS from digital photography taken by them in 2006

Cartograffig, Welsh Assembly Government  
Cartograffig, Llywodraeth Cymru/Cyprus

# Appendix 5



Cartographic, North Assembly Government  
Cartography, University of Waikato

This orthophotography has been produced by COWI A/S from digital photography taken by them in 2006

Appendix B

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**Minutes of Client  
Steering Group  
Meetings**

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Job title	Fabian Way Corridor Transport Assessment	Job number 207815
Meeting name & number	Client Steering Group Meeting	File reference 9-10
Location	Welsh Assembly Government offices, Penllergaer	Time & date 10.30am 11 November 2008
Purpose of meeting	Project Start Up	
Present	Laurence Aaron (LA) - Welsh Assembly Government (WAG) Anne Reynish (AR) - WAG Paul Evans (PE) - WAG John Flower (JF) - Neath Port Talbot County Borough Council (NPT) Geoff Sheel (GS) - City and County of Swansea (CCS) John Smith (JS) - Arup Jonathan Kinghorn (JK) - Arup Debbie Hudd (DH) - Arup	
Apologies		
Circulation	Those present	

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Prepared by                      Debbie Hudd

Date of circulation              14 November 2008

Date of next meeting            9 December 2008

Job title	Job number	Date of Meeting
Fabian Way Corridor Transport Assessment	207815	11 November 2008

- |           |   |  |
|-----------|---|--|
| <b>1.</b> | <b>Introductions</b><br>Introductions were made around the table.   | Action                                   |
| <b>2.</b> | <b>Update on Contract Status</b><br>The contract is currently being reviewed by the Arup legal team. Arup will respond with any comments as soon as possible. It was agreed that both WAG and Arup are happy to continue with the project on the basis that the contract will be signed in due course.  | Arup                                     |
| <b>3.</b> | <b>Information Gathering Exercise</b><br>GS provided a copy of the Tawe Bridges Feasibility Study in the meeting. LA produced a copy of a confidential report entitled "The Bay Metro" by Laing O'Rourke. GS to review before passing on to Arup if necessary.<br><br>Arup to produce a list of all relevant documents gathered to date. WAG/NPT/CCS to review this list to check if there is any other information that may be useful for this project.<br><br>It was agreed that the local authorities would provide Ordnance Survey base tiles. Arup will also utilise GIS mapping. GS/JF to check what GIS information CCS/NPT hold. GS/JF to provide contact details for staff responsible for mapping.<br><br>Arup requested any available traffic and accident data. Arup will review all relevant background information and identify data gaps. GS/JF to provide all relevant traffic count and accident record data within the site boundary. Arup will approach NPT to undertake any additional counts that may be required to fill any gaps.  | Arup/LA/AR/JF/GS                         |
| <b>4.</b> | <b>University Development Status</b><br>AR explained the current situation with Swansea University. BP aim to hand the site over to the developer St. Modwen with outline planning consent for the entire university campus, plus detailed planning consent for two buildings. The remaining buildings on the site will be constructed by St. Modwen, although funding sources have not been confirmed. BP is keen to progress the development and vacate the site. The intention is to submit the planning application to NPT by the end of this year.<br><br>URS has been appointed to undertake a Transport Assessment (TA). The extent of the TA is limited as the planning application is within NPT only, so any access proposals will not be able to utilise the junctions in CCS. All present agreed this piecemeal approach is contrary to the ethos of the Corridor Study. AR will keep the team informed of any developments.<br><br>At this stage Arup will assume a maximum of 4,000 students living on the site in Phase 1 (2012-2017). Additional students will commute from surrounding areas. Arup will arrange a meeting with the University to discuss the proposals for the new campus. | GS/JF<br><br>GS/JF<br><br>AR<br><br>Arup |

Job title	Job number	Date of Meeting
Fabian Way Corridor Transport Assessment	207815	11 November 2008

Action

**5. Stakeholder Participation**

JK explained the purpose of the stakeholder consultation exercise. Prior to the meeting, Arup had prepared a list of potential invitees for discussion. All present agreed that a more focused group was required to allow a more manageable workshop. This list is attached to the minutes for review by all parties. A draft invitation is also attached for comment. The aim is to send out all invitations by Monday 17<sup>th</sup> November 2008.

All

The first stakeholder workshop will be held on Thursday 4<sup>th</sup> December at WAG's Penllergaer offices. The half day workshop will start at 9.30am and include lunch. WAG to book the conference room for up to 40 people, plus three areas for breakout sessions. The second stakeholder workshop will be arranged for early February. It will be made clear in the invite that the consultation process involves two events.

WAG

**6. Anticipated Programme**

Arup had issued a draft programme prior to the meeting. JK explained it only allows minimal review time by WAG, NPT or CCS. It was agreed that it is important to keep to the timetable, particularly in light of the situation with the University.

Further meetings were arranged for Tuesday 9<sup>th</sup> December 2008, Tuesday 20<sup>th</sup> January 2009 and Tuesday 17<sup>th</sup> February 2009. Each meeting will take place at WAG's Penllergaer offices. The meetings will commence at 10.30am with the client steering group (those present in this meeting). At 11.30am the meeting will be opened up to the wider client group, consisting of other interested parties within WAG, NPT and CCS. Invitees to be confirmed by LA, AR, JF and CS.

LA/AR/JF/CS

Arup also intend to give a joint presentation on the findings of the study to WAG, NPT and CCS at the end of the project.

**7. Any Other Business**

AR confirmed she would report back to LA regarding progress with the University development.

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Job title	Fabian Way Corridor Transport Assessment	Job number 207815
Meeting name & number	Client Steering Group Meeting 2/08	File reference 9-10
Location	Welsh Assembly Government Offices, Penllergaer	Time & date 10.30am 9 December 2008
Purpose of meeting	To Review Progress	

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Present

Laurence Aaron (LA) - Welsh Assembly Government (WAG)  
Anne Reynish (AR) - WAG  
Paul Evans (PE) - WAG  
Gillian McGregor (GM) - WAG  
Haydn Fitchett (HF) - WAG  
Colin Morris (CM) - WAG  
Phil Morris (PM) - WAG  
John Flower (JF) - Neath Port Talbot County Borough Council (NPT)  
Jonathan Kinghorn (JK) - Arup  
Debbie Hudd (DH) - Arup

Apologies

Richard Harris - WAG  
Geoff Sheel - City and County of Swansea  
John Smith - Arup

Circulation

Those present

Prepared by

Debbie Hudd

Date of circulation

11 December 2008

Date of next meeting

20 January 2009



Job title	Job number	Date of Meeting
Fabian Way Corridor Transport Assessment	207815	9 December 2008

- |           |   |                    |
|-----------|---|--------------------|
| <b>5.</b> | <b>Option Development</b><br>Arup circulated a draft high level list of possible transport options for the corridor. It was noted that options should not be limited to infrastructure measures, but should include a range of land use, management, information and pricing options. Arup will issue an electronic copy of this document with the Minutes for the Client Steering Group to review and tick which options are relevant to the Study Area.                 | Action<br><br>Arup |
|           | Arup will develop a range of options for different modes, including rail, bus, walking and cycling, highways and the canal. Arup will discuss the possibility of MREC utilising the existing rail freight line. Other developments within Swansea city centre should be taken into account during the optioneering process. These options will be discussed at the next meeting, prior to presenting to the Stakeholders at the second Workshop.                          | Arup               |
| <b>6.</b> | <b>University Development</b><br>There was some discussion regarding the University's programme and its impact on this study. It was noted that the University is waiting for completion of the Fabian Way study before submitting for planning. However, they are not yet in a position to provide the details of the proposals required by Arup. AR will take a written request to the Management Board meeting on 16 December. Arup to forward a list of requirements. | AR / Arup          |
|           | Arup and WAG attended a meeting with Iwan Davies and Craig Nowell at Swansea University on 1 December. A further meeting with the architect and the Prince's Foundation may prove useful. Arup to arrange.  | Arup               |
| <b>7.</b> | <b>Any Other Business</b><br>The next Client Steering Group meeting will be Tuesday 20 January at WAG's Penllergaer offices at 10.30am for all attendees.   |                    |

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Job title	Fabian Way Corridor Transport Assessment	Job number 207815
Meeting name & number	Client Steering Group Meeting	File reference 9-10
Location	Welsh Assembly Government Offices, Penllergaer	Time & date 10.30am 20 January 2009
Purpose of meeting	To Review Progress	

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Present	Laurence Aaron - Welsh Assembly Government (WAG) Anne Reynish - WAG Paul Evans - WAG Haydn Fitchett - WAG Gillian McGregor - WAG John Flower - Neath Port Talbot County Borough Council (NPT) David Whitehead - City and County of Swansea (CCS) Jonathan Kinghorn - Arup Debbie Hudd - Arup
Apologies	Colin Morris - WAG Phil Morris - WAG Richard Harris - WAG Geoff Sheel - CCS
Circulation	Those present

Prepared by	Debbie Hudd
Date of circulation	23 January 2009
Date of next meeting	17 February 2009

Job title	Job number	Date of Meeting
Fabian Way Corridor Transport Assessment	207815	20 January 2009

- |   | Action |
|---|--------|
| <p><b>1. Introductions and Apologies</b><br/>Apologies were received from Phil Morris, Colin Morris, Richard Harris and Geoff Sheel.</p>  |        |
| <p><b>2. Actions from the Previous Meeting</b><br/>The minutes of the meeting of 9 December 2008 were accepted as a true record. In terms of actions, the following points were acknowledged:</p> <ul style="list-style-type: none"> <li>▪ CCS is keen to be involved in the study. David Whitehead will take Geoff Sheel's place while Geoff is on sick leave; and</li> <li>▪ the objectives for the study have been agreed, although copies will be re-issued to all with these Minutes.</li> </ul>   | Arup   |
| <p><b>3. Options for Development</b><br/>Arup circulated a list of possible transport options for the corridor, and the suitability of each option was discussed. A record of the decisions agreed by the attendees will be circulated with these Minutes.</p> <p>Additional items not currently on the options list include designated routes for cycling within the existing communities of Port Tennant and St. Thomas, and pedestrian crossings of Fabian Way. These will be added to the options list.</p> <p>JF confirmed that all measures proposed in the Coed Darcy Transport Assessment have been included in the Section 106 agreement. JF suggested Arup refer to the Coed Darcy TA to check details of the public transport proposals.</p>   | Arup   |
| <p><b>4. University Development Status</b><br/>Porphyrios Architects and the Prince's Foundation will be presenting the University development masterplan to the Bay Management Board on Thursday 22 January 2009. It was agreed that it would be helpful if Arup could attend. JK will attend, assuming that this is acceptable to the Bay Management Board.</p> <p>AR stated that the University is now sorting out its finances. The Legacy Building and the Company Building will be provided BP. URS has been instructed to undertake a Transport Assessment (TA) supporting the Planning Application for these two initial buildings. This TA and Planning Application will be solely within Neath Port Talbot. Arup to make contact with URS to discuss details (David Pollock is the lead contact).</p> | Arup   |
| <p><b>5. Stakeholder Participation</b><br/>The next Stakeholder Workshop will be held on Thursday 26 February 2009. The conference room at WAG's Penllergaer offices has been booked and lunch for 40 has been arranged. Timings are required for the tea and coffee breaks. Arup to provide the Agenda in due course.</p>  | Arup   |

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Job title	Job number	Date of Meeting
Fabian Way Corridor Transport Assessment	207815	20 January 2009

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**6. Community Consultation**

The WAG Regeneration team agreed during their meeting on 5 January 2009 that community consultation would be undertaken via a Community Newsletter. The relevant Members would be invited to review the text prior to its issue to include them in the process. It is not the intention to invite the Members to the Stakeholder Workshop.

Arup has provided draft text for the Community Newsletter that the Regeneration team is currently reviewing. GM confirmed that the community groups will deliver the newsletter, and the printing costs will be covered by WAG. An estimated 3000 copies are required. It was agreed that responses should be returned via local drop-in points such as community centres rather than in the mail. A date for return of 7 days prior to the next Stakeholder Workshop was agreed, i.e. 19 February 2009.

JK also suggested providing copies of the newsletter in Welsh, large print and an audio version. Arup to forward the site area JPEG file and copyright disclaimer to GM.

Action

Arup

**7. Any Other Business**

HF confirmed land ownership details on the former Visteon site and advised caution in referring to the area by its former use.

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Job title	Fabian Way Corridor Transport Assessment	Job number 207815
Meeting name & number	Client Steering Group Meeting	File reference 9-10
Location	Welsh Assembly Government Offices, Penllergaer	Time & date 10.30am 17 February 2009
Purpose of meeting	To Review Progress	
Present	Paul Evans - Welsh Assembly Government (WAG) Haydn Fitchett - WAG Gillian McGregor - WAG Phil Morris - WAG Steve Piper - WAG John Flower - Neath Port Talbot County Borough Council (NPT) David Whitehead - City and County of Swansea (CCS) Jonathan Kinghorn - Arup Debbie Hudd - Arup	
Apologies	Laurence Aaron - WAG Anne Reynish - WAG Colin Morris - WAG Richard Harris - WAG Geoff Sheel - CCS	
Circulation	Those present	

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Prepared by Debbie Hudd

Date of circulation 19 February 2009

Date of next meeting tba

Job title	Job number	Date of Meeting
Fabian Way Corridor Transport Assessment	207815	17 February 2009

- Action
1. **Introductions and Apologies**  
Apologies were received from Laurence Aaron, Anne Reynish, Colin Morris, Richard Harris and Geoff Sheel.
  2. **Actions from the Previous Meeting**  
The minutes of the meeting of 20 January 2009 were accepted as a true record. In terms of actions, the objectives for the study and the long list of options with the Steering Group's opinion of their suitability were re-issued to all with the Minutes from the last meeting. All other actions were completed and will be discussed according to the agenda.
  3. **The Options Development Process**  
Arup explained the methodology for sifting the long list of options tabled at the previous meeting. The first sift considered fit with the study and national objectives. The second sift looked at stakeholder acceptability, risks to implementation and significance of impact. A proforma was completed for each option for the first and second sift. The third sift involved selecting a preferred option between an either/or situation. Various options were discounted at each stage.
  4. **Option Packages**  
The significant options identified during the second sift formed the basis of the four option packages. Arup circulated schematic plans showing the measures included in each package. A written summary of the four packages will be issued with these Minutes.  
  
More detailed junction layout drawings with ballpark cost estimates will be produced for the Stakeholder Workshop. It was also agreed that Arup needs to understand the wider implications of converting the Tawe Bridges into a gyratory system.
  5. **University Development Status**  
Arup met with URS on 3 February. URS has been appointed by the University to undertake a Transport Assessment for a second campus development solely within Neath Port Talbot. The University has not provided any firm data with regard to student numbers to date. URS agreed that Arup's assumptions of 4000 residential students and 2000 non-residential students were reasonable at this stage.  
  
In the absence of suitable data, URS will design two highway access points: at the existing eastern access onto Fabian Way, and a new three-arm signalised junction between Elba Crescent and Baldwins Bridge. The trip generation from the University will then be limited to the capacity of the junctions. Arup will continue to seek information about the University development from URS.
  6. **Stakeholder Participation**  
The next Stakeholder Workshop will be held on Thursday 26 February 2009. Arup circulated an Agenda and proformas to be completed by groups during the break out sessions.
- Arup
- Arup

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Job title	Job number	Date of Meeting
Fabian Way Corridor Transport Assessment	207815	17 February 2009

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- |           |   |        |
|-----------|---|--------|
|           | <p>All present reviewed the invite list. It was agreed that even though some 60 people would be invited, it is unlikely that all will attend. There will be more groups for break out sessions to reduce group sizes.</p>   | Action |
|           | <p>Arup to arrange a separate meeting with Transport Wales to discuss the option packages prior to the Workshop if possible.</p>  | Arup   |
| <b>7.</b> | <p><b>Community Consultation</b><br/>                 WAG issued the community newsletter on Friday 12 February with a return date of Monday 23 February. The newsletters have been hand delivered to all residences within the communities to the north of Fabian Way and SA1. The responses will be collected from the drop-off points and posted to Arup for review.</p> | Arup   |
|           | <p>Arup has been invited to give a presentation to the SA1 Travel Forum group on 11 March. It was suggested that local businesses are also invited to attend this event.</p>  |        |
| <b>8.</b> | <p><b>Any Other Business</b><br/>                 The recently publicised proposals to implement a tram network between Llanelli and Port Talbot were discussed. CCS has expressed interest in commissioning a feasibility study, but funding would have to come from SWWITCH.</p>  |        |
|           | <p>Arup had discounted light rail at the second sift as unsuitable for further consideration due to cost and major physical constraints. It was felt that bus-based public transport would be much more feasible and cost-effective. The route for a potential future light rail option would be protected by Arup's proposed packages in any case.</p>                     |        |
|           | <p>A date for the next meeting will be arranged in due course.</p>  |        |

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Job title	Fabian Way Corridor Transport Assessment	Job number	207815
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Meeting name & number	Client Steering Group Meeting	File reference	9-10
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Location	Welsh Assembly Government Offices, Penllergaer	Time & date	2pm 16 March 2009
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Purpose of meeting	To Review Progress		
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Present	Laurence Aaron - Welsh Assembly Government (WAG) Anne Reynish - WAG Colin Morris - WAG Richard Harris - WAG Paul Evans - WAG Phil Morris - WAG John Flower - Neath Port Talbot County Borough Council (NPT) David Whitehead - City and County of Swansea (CCS) David Williams - CCS Jonathan Kinghorn - Arup Debbie Hudd - Arup		
Apologies	Haydn Fitchett - WAG Gillian McGregor - WAG Geoff Sheel - CCS		
Circulation	Those present		

Prepared by Debbie Hudd

Date of circulation 18 March 2009

Date of next meeting tba

Job title	Job number	Date of Meeting
Fabian Way Corridor Transport Assessment	207815	16 March 2009

- |    |   |        |
|----|---|--------|
| 1. | <p><b>Introductions and Apologies</b></p> <p>Apologies were received from Haydn Fitchett, Gillian McGregor and Geoff Sheel.</p>   | Action |
| 2. | <p><b>Actions from the Previous Meeting</b></p> <p>DW suggested an alteration to the Minutes of the meeting of 17 February 2009. The first paragraph of section 8 should have the following appended to it: "...but funding sources are being explored." Otherwise the Minutes were accepted as a true record.</p> <p>In terms of actions, a written summary of the four Packages was issued to all with the Minutes from the last meeting. Arup have requested a meeting with Transport Wales to discuss the options but no dates have been arranged as yet. A summary of the responses to the community newsletter will be issued with these Minutes. All other actions were completed and will be discussed according to the agenda.</p>                       | Arup   |
| 3. | <p><b>Proposal to Reduce the Speed Limit</b></p> <p>CCS is keen to maintain Fabian Way as an express route into Swansea. NPT is seeking to incorporate the University's access requirements, and would prefer a lower speed limit to enable a smaller sized junction.</p> <p>Arup explained how the reduced speed limit option had been developed and included in the final Packages. It was first tabled at the client meeting on 20 January 2009. All agreed it should remain in the Packages as a viable option. However, Arup will look at a compromise package by creating a hybrid of Packages 2 and 4.</p> <p>It was also suggested that ideally the speed limit should step up and down through 40mph rather than going straight from 50mph to 30mph.</p> | Arup   |
| 4. | <p><b>The Options Appraisal Process</b></p> <p>Arup explained that Package 2, a community corridor with segregated public transport, was the overall favoured option from the second Stakeholder Workshop. Arup proposed double weighting Study Objectives 1 and 2 to reflect the greater importance of journey times and congestion compared to other identified issues. A list of the refined Objectives with their weightings will be issued with these Minutes.</p>   | Arup   |
| 5. | <p><b>The Preferred Strategy</b></p> <p>Implementation of the preferred strategy will be staged, dependent on linked developments and finance sources. Arup handed out a schedule of costs for each measure included in each Package and explained the assumptions made. Costs have been developed based on previous studies, experience and information from First Bus.</p> <p>Feedback from the Client Steering Group was provided during the meeting and additional information was requested by the end of the week. A copy of the updated costings schedule will be issued with these Minutes.</p>   | All    |

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Job title	Job number	Date of Meeting
Fabian Way Corridor Transport Assessment	207815	16 March 2009

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- Arup presented a table of planned developments within the corridor and the client steering group estimated the likely timings. A copy of the completed table of development plot implementation timings will be issued with these Minutes.

Action  
Arup
- Further liaison will be undertaken between Arup and the local authorities to confirm the measures included in the preferred strategy.

Arup/CCS/NPT
- Arup to complete the first draft of the report for the Study by Monday 30<sup>th</sup> March 2009. A Client Steering Group meeting will then be arranged to discuss the outcomes.

Arup

**6. University Development Status**

The second campus will conform to the CSS Parking Guidelines, giving a total maximum of 1500 spaces on the site.

The Elba Crescent junction will form the highway access for the first two buildings. A further junction is proposed between Baldwins and Elba Crescent, but the size is restrictive. NPT has recommended the highway accesses are designed to suit the capacity of the road, and that traffic generation from the site is limited by encouraging other modes.

The security situation has not yet been defined. If the campus is to be gated, the position of the gates must be suitably located to allow vehicles to queue behind the barrier without waiting on Fabian Way.

**7. Any Other Business**

Thanks were offered to David Whitehead for his contribution to the project to date, as he will retire on 31 March 2009. Chris Vinestock will be the new CCS representative on the Client Steering Group.

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Job title	Fabian Way Corridor Transport Assessment	Job number 207815
Meeting name & number	Client Steering Group Meeting	File reference 9-10
Location	Welsh Assembly Government Offices, Penllergaer	Time & date 3.30pm 7 May 2009
Purpose of meeting	To Review Progress	

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Present	Laurence Aaron - Welsh Assembly Government (WAG) John Flower - Neath Port Talbot County Borough Council (NPT) Chris Vinestock - City and County of Swansea (CCS) Colin Morris - WAG Richard Harris - WAG Paul Evans - WAG Haydn Fitchett - WAG Jonathan Kinghorn - Arup Debbie Hudd - Arup Paul Carr - Arup
Apologies	Anne Reynish - WAG Gillian McGregor - WAG Phil Morris - WAG
Circulation	Those present and apologies

Prepared by	Debbie Hudd
Date of circulation	8 May 2009
Date of next meeting	tba

Job title	Job number	Date of Meeting
Fabian Way Corridor Transport Assessment	207815	7 May 2009

- |  |  |        |
|--|--|--------|
|  |  | Action |
| <b>1. Introductions and Apologies</b>        | <p>Introductions were made around the table. Chris Vinestock was welcomed to the Client Steering Group as the new representative of the City and County of Swansea.</p> <p>Apologies were received from Anne Reynish, Phil Morris and Gillian McGregor.</p>  |        |
| <b>2. Background</b>                         | <p>LA explained that the need for the Fabian Way Transport Assessment arose to support the development framework and masterplan for the corridor. The Client Steering Group is composed of WAG and the two local authorities so that all three parties have complete buy-in.</p> <p>The Brief for the study was prepared some time ago and certain elements have now changed, such as the aspiration to trunk the A483 in the near future.</p> <p>Arup issued a draft report for comment to the Client Steering Group on 5 April 2009. WAG is largely satisfied with the work undertaken and the content of the report. Transport Wales has commented that the preferred strategy should have little impact on either the existing trunk road or any potential plans to trunk the A483 in future. WAG to forward Transport Wales comments to Arup.</p> | WAG    |
| <b>3. Feedback on the Preferred Strategy</b> | <p>There was a general discussion regarding the draft report. NPT had provided detailed comments in advance of the meeting, and these were reviewed by all present. CCS and NPT also raised some more general points. CCS to send through any further detailed comments after the meeting. The key issues covered during the meeting are summarised below:</p>   | CCS    |
|  | <p>1. <b>Modal splits/Strategic Travel Plan</b> – It was agreed that a separate Strategic Travel Plan document would be provided for issue to developers. This document should include higher modal split targets than the mode shift changes anticipated in response to transport interventions that were presented in the report.</p>  | Arup   |
|  | <p>2. <b>Funding mechanisms</b> – It was agreed that a Transport Grant (TG) application through SWWITCH would be made for all capital expenditure identified under the strategy as a “corridor scheme”. There are no identified priorities in the SWWITCH list of TG schemes at present. A ‘roof tax’ on all new developments was discussed as a way to supplement the TG. This could be based on person trips, unit numbers or developed floor area. Further potential funding options, such as the Principal Road Grant, are to be presented in the final report.</p>  | Arup   |
|  | <p>3. <b>Implementation</b> – There is concern that a piecemeal development scenario needs to be avoided. Delivery of the strategy will be development-led, but certain measures can be linked to defined thresholds of development or occupation. It is likely that the study will be adopted by both local authorities as Supplementary Planning Guidance (SPG) to enable enforcement of its measures.</p>   | Arup   |

Job title	Job number	Date of Meeting
Fabian Way Corridor Transport Assessment	207815	7 May 2009

- |   | Action |
|---|--------|
| 4. <b>Phasing</b> – Arup to expand the detail of proposed phasing in the report. It was agreed that the Tawe Bridges would be the top priority due to potential advantages for other regeneration schemes in Swansea.   |        |
| 5. <b>Grade separation at Baldwins Bridge</b> – a grade separated junction is proposed at Baldwins Bridge as part of the preferred strategy. NPT queried if this was necessary from a capacity perspective or if it was linked to WAG’s prior aspiration to trunk the A483. The cost of the works would be a burden on developers if financed privately. It was agreed that some action needs to be taken at Baldwins and that a grade-separated junction would provide a higher capacity longer term strategy than an at-grade solution. This aspect could form a key element of the TG application. |        |
| 6. <b>Speed limit/gateway function</b> – CCS commented that the preferred strategy appeared not to meet the study objective of defining a gateway into Swansea. CCS felt that a speed limit restriction does not necessarily constitute a gateway. This measure is likely to be unpopular within Swansea. Arup to provide further technical justification for the speed limit reduction in the report text.   | Arup   |
| 7. <b>University</b> – The University development is politically sensitive and references to it in the Arup report need to be carefully considered. Figures 5.1 and 9.1 need to be updated showing the University site only within NPT. The other BP land in CCS should be denoted as B1/B2. Arup to propose revised sentences for approval prior to inclusion in report.   | Arup   |
| 8. <b>Tawe Bridges</b> – References have been made throughout the report to a gyratory system at the Tawe Bridges. CCS felt this should be toned down to “improvements at the Tawe Bridges, such as a gyratory system”.   | Arup   |
| 9. <b>MREC rail feasibility</b> – further details regarding discussions about the feasibility of rail for the MREC site to be included in the report.   | Arup   |
| 10. <b>Other minor technical items</b> – Various minor technical issues were also discussed, including the need for a pedestrian crossing at the site of the bus hub. Amendments will be made to the report accordingly.  | Arup   |
| <b>4. The Next Steps</b>  |        |
| Arup will circulate a Technical Note detailing the proposed amendments to the draft report with specific references to relevant sections. This will avoid the need for issuing a full second draft to the Client Steering Group for approval.   | Arup   |
| A short (~4 page) Executive Summary document will be circulated for comment at the same time. The Technical Note and draft Executive Summary will be issued by the first week in June.  | Arup   |
| The final report will be issued on approval of the proposed amendments.   |        |

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Job title	Fabian Way Corridor Transport Assessment	Job number	207815
Meeting name & number	Client Steering Group Meeting	File reference	9-10
Location	WAG offices, Penllergaer	Time & date	09.00 8 October 2009
Purpose of meeting	Discuss Outstanding Issues regarding the Preferred Strategy		

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Present  
Laurence Aaron - Welsh Assembly Government (WAG)  
Haydn Fitchett - WAG  
John Flower - Neath Port Talbot County Borough Council (NPT)  
Chris Vinestock - City and County of Swansea (CCS)  
Jonathan Kinghorn - Arup  
Debbie Hudd - Arup

Apologies

Circulation  
Those attending  
Paul Evans - WAG  
Phil Morris - WAG  
Richard Harris - WAG

Prepared by  
Debbie Hudd

Date of circulation  
12 October 2009

Date of next meeting

Job title	Job number	Date of Meeting
Fabian Way Corridor Transport Assessment	207815	8 October 2009

- Action
1. **Apologies**  
There were no apologies.
  2. **Progress To Date regarding agreement of the Preferred Strategy**  
DH summarised the key events that had occurred following issue of the draft report in April.  
  
There was some discussion regarding the anticipated number of students living on or travelling to the proposed second campus. These figures have now been confirmed and are generally in line with the assumptions made within the Fabian Way study.  
  
The Transport Assessment for the University's second campus is to be submitted to NPT in the next few weeks. JF to provide details of the agreed trip generation to CV for information in advance of formal consultation between the two authorities regarding the planning application. JF  
  
JF to send Arup details of the proposed access arrangements to the site and associated timings to check against assumptions made in the Fabian Way study. JF
  3. **Outstanding Issues**
    - 3.1 **Comparison of 2009 Traffic Flows to Preferred Strategy Traffic Flows**  
The appraisal exercise compared the impact of the Preferred Strategy to the Reference Case of Do-Minimum. CV requested some comparison to the existing situation in 2009 to aid understanding by non-technical parties.  
  
Arup to draft text to explain the impact of background growth on traffic flows in future years without any additional development, compared to the impact on traffic flows in future years if all the planned developments and proposed transport measures implemented in accordance with the Preferred Strategy. The text will ensure it is clear that the timing of infrastructure improvements will be linked to development along the corridor. This qualitative explanation would be added to the Executive Summary, subject to approval of the words by the Client Steering Group. Arup  
  
The Executive Summary will be rearranged with the blue 'Conclusions' box at the start rather than the end of the document. This box will contain the new text described above.
    - 3.2 **Areas west of the Study area**  
CV commented that the Fabian Way study focuses on movement of people to and from Swansea city centre, rather than a more realistic range of destinations to the west.  
  
Arup to draft text to be incorporated into section 1.3 of the report explaining that whilst the study focuses on access to the city centre, there are wider links, such as the existing University campus for students travelling between the two campuses. Arup

Job title	Job number	Date of Meeting
Fabian Way Corridor Transport Assessment	207815	8 October 2009

- Action
- 3.3 Future use of Existing Park and Ride site**  
 CV raised concerns regarding the proposal to use the existing Park and Ride site as a Park and Walk site. DH explained that this measure had been developed following feedback from stakeholders that the existing site is too close to the city centre. If the urban area of Swansea is to extend to the east, it was acknowledged that a Park and Ride facility would be better positioned nearer to the Amazon site.
- It was noted that the existing Park and Ride site is currently being used as a long stay car park by employees of the SA1 developments. If use of the site as a Park and Ride is discontinued at some point in the future, the existing arrangement could be formalised into a Park and Walk/Cycle site. It was agreed that Arup would review the wording of the Park and Walk proposals in the Executive Summary to make this clearer.
- Arup
- 3.4 Speed limit change**  
 CV noted that the annual time cost to motorists of lowering the speed limit had not been fully addressed within the Fabian Way report to date.
- Arup
- Arup to draft text acknowledging the disbenefits to drivers in terms of time, but explaining the benefits of establishing a community corridor. Benefits would include construction cost savings on improvement works to the highway, which is already substandard for its current 50mph limit. This qualitative text will be added to the main report. The wording of the Executive Summary will be amended to link the speed limit reduction to the community corridor aspiration with an anticipated timescale for implementation.
- 4. The Next Steps**
- Arup to issue the Client Steering Group with a copy of the Executive Summary as it stands at present with these Minutes.
- Arup
- Arup to issue the first draft of the additional and revised wording discussed above to the Client Steering Group by the end of week commencing 12 October 2009 for review.
- Arup
- Once the Client Steering Group has approved the additional and revised wording and the Executive Summary, Arup to issue the text of the final report and Figure 9.1 updated with more landmarks for orientation to the Client Steering Group for review prior to final issue.
- Arup
- The intention is to issue the final report with approval from the Client Steering Group by the end of November 2009.

Appendix C

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**Inception Report**

Welsh Assembly  
Government

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**Fabian Way Corridor  
Transport Assessment**

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Inception Report

Welsh Assembly  
Government

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**Fabian Way Corridor  
Transport Assessment**

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Inception Report

November 2008

**Ove Arup & Partners Ltd**

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[www.arup.com](http://www.arup.com)

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party

Job number 207815

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# 1 Introduction

## 1.1 Background

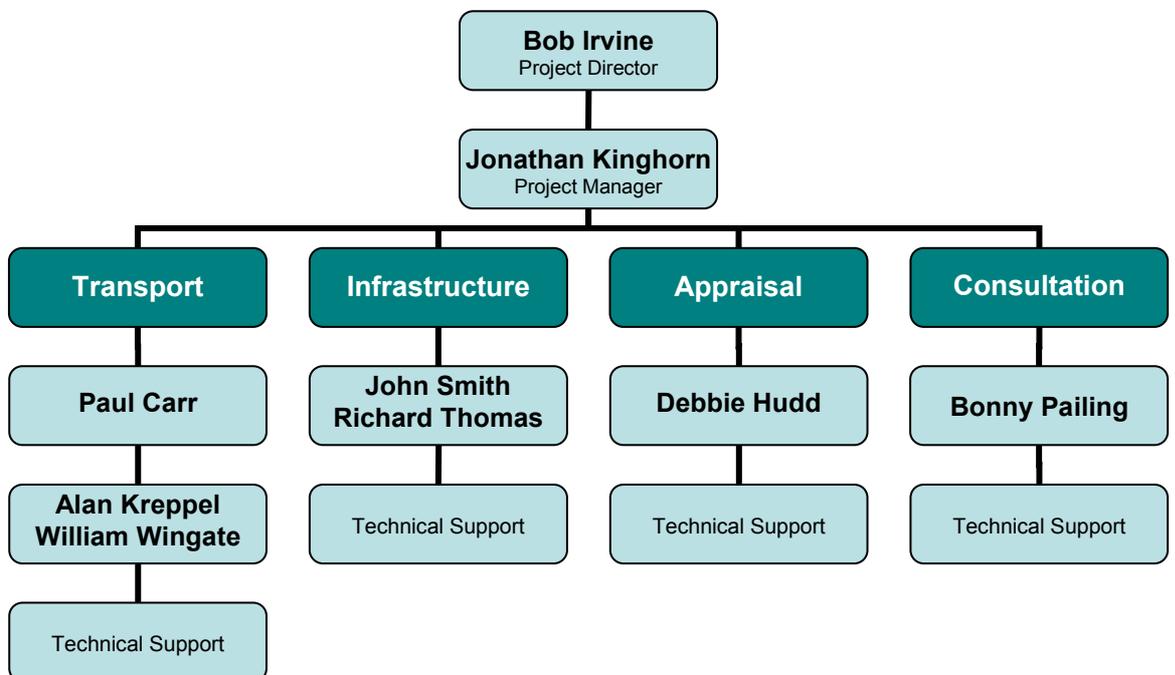
This study has been commissioned by the Welsh Assembly Government and consists of a strategic assessment of the transportation options in the eastern corridor into the city of Swansea. In particular, the corridor is scheduled to experience significant development in the next 25 years, generating increased travel demand. The study therefore has the following objectives:

- to review the outputs of previous studies and assessments within the study area;
- to assess the opportunities and constraints on the corridor;
- to identify appropriate transport options and package of options, to enhance the movement of people and freight throughout the corridor;
- to present a robust, comprehensive and sustainable strategy for the corridor, including determining the potential funding streams; and
- to ensure full engagement with all stakeholders.

The success of this study will rely on a balance of technical expertise combined with project management skills and a focus on strategic analysis and planning, to ensure the study findings meet the objectives.

## 1.2 Project Team

The key staff that would be responsible for delivering the Fabian Way Corridor Study are identified described below.



## 2 Methodology

### 2.1 Overview

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The brief set out a general approach for the study, and this was discussed upon in our appointment for the project. We were able to give this more thought during this tendering stage, as a result of which, we suggest the following detailed methodology given below.

### 2.2 Task One: Inception Meeting

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Immediately upon commission we propose to hold an Inception Meeting with the Client Steering Group at which the full scope of study will be discussed. We would propose to discuss with officers the approach to relevant stakeholder consultation and appropriate contacts. The study requires the assessment of several background reports and existing data and we would ask that all relevant documentation is made available at this meeting to avoid any delays in project inception.

In order to make best use of each project meeting we propose to table a series of agenda items. We anticipate the Inception Meeting will consider the following:

- handing over of documentation relating to proposals and relevant study reports and policy documents;
- outlining a schedule of meetings;
- discussing policy priorities relevant to the study;
- establishing a vision for the corridor;
- discussing proposals and background to schemes;
- agreeing on stakeholder involvement; and
- reviewing the appraisal framework.

#### Task 1 – Deliverable

- Work Plan and Project Programme

### 2.3 Task Two: Corridor Review

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The key to understanding the possible future situation along the corridor is a detailed and accurate knowledge of the existing situation. This will be built up from a variety of sources as discussed below.

#### 2.3.1 Traffic Counts

Due to the timing and duration of the project, we feel it is not suitable to undertake a comprehensive series of traffic surveys to capture the existing traffic patterns on the highway network. Traffic during the summer months is markedly different from that during the rest of the year, and thus it would be difficult and inaccurate to convert traffic counts collected in the summer to be representative of a typical day. As such, we intend to develop an understanding of the traffic levels using existing count data from the local authorities, existing development transport assessments, and other traffic studies in the area. Gaps in this data will be supplemented by small scale traffic counts. In order to fully understand the nature of the through traffic on Fabian Way, a Road Side Interview (RSI) to determine origin, destination and journey purpose could be undertaken, though the timing of the study precludes this. Should the study period be extended, an RSI could be undertaken to develop a better understanding of the makeup of the through traffic.

### **2.3.2 Traffic Growth**

In order to understand the likely growth of the through traffic on Fabian Way, it will be important to review any major developments outside of study area that will impact on travel along the Fabian Way Corridor. This will be undertaken by liaising with the City and County of Swansea and Neath Port Talbot County Borough Council planning departments to understand developments with existing planning permission that have yet to be built, developments that are likely to be built in the coming years, and areas of future development.

### **2.3.3 Development Traffic**

The trip generation for developments within the study area will be assessed from a review of existing transport assessments where available, or based on trip generation rates from TRICS. It is likely that a number of transport assessments only calculate vehicle trips, thus estimation of total person trips and modal splits for these developments will need to be determined using TRICS multi modal data or from surveys from similar local developments if available. This will allow the likely range of development related trips associated with each of the existing and proposed developments in the study area to be determined. The distribution of development trips will be extracted from the relevant transport assessments, though it may be appropriate to follow a unified approach across all of the developments and develop a common trip distribution model, most likely based on a calibrated gravity model or Census journey to work data.

### **2.3.4 Car Parking**

Existing locations and levels of car parking in the study area will be recorded, including patronage of the existing Park & Ride site.

### **2.3.5 Public Transport**

In addition to private transport, it will be important to understand the existing public transport provision along the corridor. The existing bus and coach services provided by the variety of operators in the area will be reviewed, and their routeing, frequency, patronage recorded. Planned improvements will also be discussed with the operators and local authorities.

### **2.3.6 Existing Rail Usage/Rail Freight**

The usage of the existing and possible rail connections will be discussed with the stakeholders to understand key issues regarding their utilisation.

### **2.3.7 Road Freight**

The existing levels of road freight on the corridor will be determined from the traffic surveys, and road freight associated with the various existing and proposed development within the study area will be determined from site visits, transport assessments, and multi modal trip generation data.

### **2.3.8 Walking and Cycling**

The routes of the existing walking and cycling facilities in the study area, including National Cycle Network Route 4 will be collated from information collected from the Local Authorities, Sustrans and site observation. The quality and usage of these routes will also be recorded to enable future use to be determined in the later stages of the study.

### **2.3.9 Accident Analysis**

Historic accident records will be analysed to identify any existing problem areas on the network, particularly those involving vulnerable road users such as pedestrians, cyclist and motorcyclists

### **2.3.10 Adopted Highway**

The limits of adopted highway will be determined from the City and County of Swansea and Neath Port Talbot County Borough Council, and the extents of Trunk Roads from the Welsh Assembly Government. We will also liaise with these parties to understand the extent and timing of the proposed future Trunking of Fabian Way itself. We will also aim to understand

the usage, history and ownership of the private roads within the study area. Currently planned (or previously considered) transport improvements along the corridor will also be investigated.

### **2.3.11 Topography and Physical Conditions**

We will assemble available mapping and undertake a physical survey of the corridor. This may include some or all of the following: aerial photos, mapping survey and/or GIS information. A base map will be developed for the corridor at a sufficient scale to illustrate the full length of the corridor. The major physical features will be identified on the maps and we will assess current safety issues and physical constraints and opportunities.

### **2.3.12 Related Policies**

Current and historic transport policies for the area will be reviewed to understand the stated aspirations and requirements of local and national government.

### **2.3.13 Environmental Issues**

Other environmental issues, such as air quality areas, protected species habitats, SSSI etc will be identified, and their possible impact on future development options considered.

#### Task 2 – Deliverable

- SWOT Analysis of the transport networks and travel characteristics and a broad assessment of the wider issues, including economic development and land use that are relevant to the study.
- Constraints and Opportunities Mapping

## **2.4 Task Three: First Stakeholders Workshop**

One major source of information on existing and possible future transportation challenges will be from those who know the corridor well. Therefore, it will be very important from the outset of the study to establish dialogue with the many stakeholders who have an interest in the future development of the Fabian Way Corridor. These include Local Authorities, Transport Operators, and possible developers. Through the previous projects that we have undertaken in the area, Arup has built up good working relationships with many of the key stakeholders which we hope to be able to develop further.

The workshop will be used to develop and agree on the key objectives of the study, and to discuss possible options. The support and collaboration of the stakeholders will be essential to the long term success of the corridor. The workshop will be framed by a scenario planning approach and will be chaired by an Arup facilitator.

Looking ahead to the study time horizons, certain trends and developments in transport and society can be given; however, there are other influencing factors and driving forces that can act in different ways and to varying degrees to produce very different future states for the corridor. It is very important that a range of scenarios for the study area are explored to reflect social, technological, economic and political change to ensure that the emerging strategy can be robust against the inevitable uncertainty about the future.

#### Task 3 – Deliverable

- Workshop with Stakeholders and a paper outlining the transport planning objectives and vision for the corridor

## **2.5 Task Four: Option Development**

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The option development exercise will be split into three parts:

- case study of other relevant corridors;
- the possible development scenarios in the study area; and
- the possible transport options.

### **2.5.1 Case Study**

Arup regularly undertakes case studies to help clients understand how problems or issues have been addressed by other similar organisations. Learning how other cities have addressed development challenges can be an important first step toward developing a sustainable transport strategy for the Fabian Way Corridor. Case studies can often help inform stakeholders as well as allow for a more informed discussion.

### **2.5.2 Possible Development Scenarios**

There are a wide range of possible developments within the study area, as outlined in the study brief. While some of these developments are well defined, others are only outline proposals, thus it will be important to consider a range of possible development scenarios which covers all of the likely future situations. Based on the findings of the stakeholder workshop, a series of sensitivity tests and 'what if' scenarios will be considered to allow for alternative development plans. Incremental phasing over the first 10 years will be considered and a final situation 25 years in the future for consideration of long term development in the area.

The multi modal trip generation of each development will be considered, with variation in modal split and distribution based on transport options considered.

### **2.5.3 Possible Transport Options**

The study team will develop in a free-thinking manner all possible transport options that might have a role to play in satisfying the study objectives. This will include land use measures, infrastructure measures, management measures, information provision and pricing measures. We will prepare proformas detailing each potential measures. At this phase it will be important not to constrain thinking to conventional and the obvious – lateral thinking will be encouraged and nothing will be rejected initially. Some initial ideas include:

- Highway and Junction Improvements, including M4 Junctions 42 and 43, Jersey Marine, Baldwins Bridge, SA1 Junctions, Tawe Bridges;
- Options for new highway links, bridges, connections, and site access points;
- Public Transport, including new bus priority, links to existing priority along Fabian Way, service routeing, relocation or additional Park & Ride facilities, extension of the Swansea Metro scheme, innovative Personal Rapid Transit systems;
- Rail services, both for freight and possible passenger services within the Fabian Way development area. Consideration of Road/Rail Freight interchange;
- Walking and Cycling, including improvements to the National Cycle Network, provision of additional routes and crossings, taking into account safety, security, and provision for mobility impaired users; and
- Car Parking Strategy, including possible relocation and formalisation of car parks, variation in car parking provision and charging, facilities to encourage Car Sharing, or a Car Club.

The scope of this free-thinking process of seeking ideas as to possible measures will then be broadened by holding a session with the Client Steering Group. It will also be fundamental to consider the redevelopment proposals. The challenge here is to link transport and land use in a mutually supportive way that can provide travel and lifestyle

choices that add up to more sustainable combinations of movement and development. This means not only building transport infrastructure to support projected urban development in the corridor, but taking account of the land use implications of the transport plan.

**Task 4 – Deliverables**

- Case Study Technical Report
- Proformas on land use scenarios and transport options

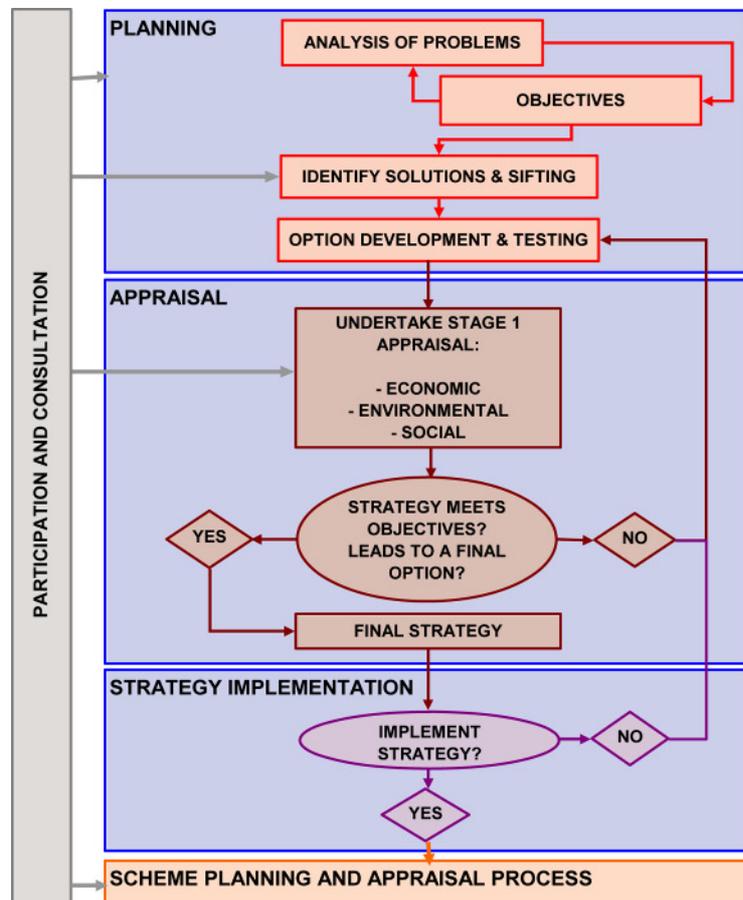
## 2.6 Task Five: WelTAG Appraisal

### 2.6.1 Overview

The Welsh Assembly Government has recently issued new scheme appraisal guidance (WelTAG) with the intention that is applied to all transport strategies, plans and schemes being promoted or requiring funding from the Welsh Assembly Government. In order to compete for public sector funding proposals need to demonstrate that they:

- make a positive contribution to the objectives for transport and hence the wider policy objectives for Wales;
- provide a good value for money;
- provide overall economic, social and environmental benefits to society; and
- maximise benefits and minimise impacts.

The new guidance adopts a two-stage approach to appraisal, with Stage 1 screening and testing the options before more detailed analysis in Stage 2. However, it should be noted that for strategies, such as this study, only Stage 1 is applicable. The approach for appraising strategies is summarised in the figure below, based on WelTAG Figure 3.3.



### **2.6.2 Planning Stage**

Based on the previous tasks we will prepare a Planning Stage report which will set out the study area's conditions, its transport problems, opportunities and to document the agreed objectives for the study. The report will also set out the initial long list of options identified and the sifting process.

The first sift will be undertaken on the basis of whether an option was considered appropriate to the study and whether it might potentially contribute to meeting the objectives. The options that pass through this initial sifting process will be further assessed against other considerations such deliverability and feasibility, using a simple comparative points scoring system.

This second sift will result in a number of options being recommended to be taken forward for further development and then for Stage 1 appraisal. This will be agreed with the Client Steering Group and key stakeholders.

### **2.6.3 Stage 1: Appraisal**

The intention of the Stage 1 appraisal is to test the options that have already been developed and pre-tested in the previous Planning Stage, in order to narrow the list of options so that only the most promising options are taken forward to strategy formulation. The Stage 1 Appraisal will focus on a number of key areas, in particular:

- Public acceptability;
- Stakeholder acceptability;
- Financial affordability and funding;
- Technical and operational feasibility; and
- Risks.

The assessment of these key areas will be undertaken with respect to the localised objectives identified previously in the study, and will also address the way in which these objectives fit into the national impact areas (the economy, the environment and society).

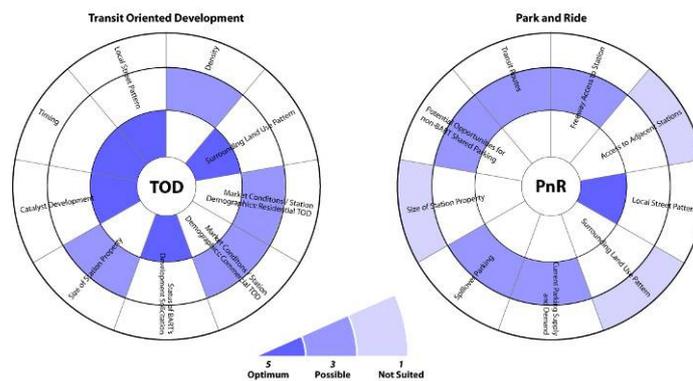
The acceptability of an option can only be demonstrated through a consultation exercise. Meetings will be held with key stakeholders, including those already identified for this purpose.

With regard to financial affordability, the WelTAG guidance stresses the importance, particularly with public transport options, of considering the potential sources of funding.

With regard to travel demand a matrix of combinations of development and transport scenarios would be tested using a spreadsheet based strategic level model against the agreed stakeholder objectives. This assessment would be both qualitative and quantitative in nature, but will not make use of detailed traffic modelling tools such as TRANSYT or SATURN. In addition to the objectives, consideration would also be given to the engineering feasibility of any major works, cost estimates and impact on third party or development land.

The results of the Stage 1 Appraisal will be presented in the form of Appraisal Summary Tables, as recommended in the WelTAG guidance. We will also illustrate the results of this appraisal using an innovative graphic tool to communicate the wide range of issues to decision makers, as shown in the example figure below. The appraisal will be undertaken by our specialist advisors in liaison with the Client Steering Group.

**Example 1: Supportive of TOD**



Example graphical presentation of appraisal results

- Task 5 – Deliverables
- Planning Stage Report
  - Draft Stage 1 Appraisal Report

**2.7 Task Six: Second Stakeholders Workshop**

Following the completion of the draft Stage 1 WeITAG report we will hold a stakeholders workshop. The findings of this consultation process may lead to the need to refine the Stage 1 Report.

- Task 6 – Deliverables
- Workshop with Stakeholders
  - Final Stage 1 Appraisal Report

**2.8 Task Seven: Strategy Formulation**

The output from the appraisal phase will provide a number of options that potentially could form components of the overall strategy. Options might include infrastructure and/or service improvements or the introduction of new systems. These may be classed as the ‘hard’ measures. Other possible interventions might involve ticketing, passenger/driver information, hearts and minds campaigns etc and may be categorised as ‘soft’ measures.

It is likely that an appropriate strategy will comprise of hard and soft measures and that there would be opportunities to introduce different measures during different time frames. It is also likely that different combinations would be possible in order to meet the set objectives. It is also possible that, even within a preferred overall strategy, there might remain some flexibility with regard to future actions.

The process of formulating an overall strategy will involve consideration of all promising measures within a framework evaluation to identify a short-list of measures that might form the components of the draft strategy.

We will work with the Client Steering Group and the project stakeholders to formulate an implementation plan that includes details of scheme costs, funding and phasing of the proposed measures of the strategy.

The delivery of the transportation strategy for the corridor will be phased, with the various measures being implemented either in:

- the short term (within 5 years);
- the medium term (within 10 years); and

- the long term (within 25 years).

The challenge in the delivery of the transport strategy is to develop a programme of measures that takes into consideration:

- the requirements of key regeneration proposals along the corridor and, in particular, the need to deliver some regeneration projects early;
- the actual time taken to deliver large-scale transport infrastructure measures. This takes into consideration issues such as land ownership, planning, design, contractual documents, procurement and construction;
- the availability of funding and affordability of the measures;
- the inter-relationships of the strategy measures. For example, the most cost-effective running of a park-and-ride facility is likely to depend upon the implementation of traffic restraint measures notably car parking controls, as well as the provision of an attractive, reliable and regular public transport service;
- the need for investment based on network capacity indicators; and
- the implementability of the measures - this will require discussions with the implementation authorities and transport operators.

In addition to the above we will also develop cost estimates of each measure of the strategy. We will use information calculated from previous studies along with local data provided by the Client Steering Group. The costs will be separated between capital and operating costs.

The implementation of the various strategy measures has to be phased over the life of the strategy. As time passes, so circumstances may change and new techniques may become available. There is thus a need to monitor conditions, to review the appropriateness of measures of the strategy from time to time and, if necessary, to update and revise the strategy. Thus, while the process of establishing a strategy is largely sequential, there may be revisions to and developments of a strategy as implementation progresses.

We are familiar with the array of potential funding sources for transportation projects, along with their various restrictions, application deadlines, local match requirements and so on. More importantly, we understand the complex politics behind funding awards and prioritisation of projects across the region.

We will thus endeavour to identify potential funding sources to implement the corridor strategy. As well as more conventional funding sources we will examine new and creative options.

#### Task 7 – Deliverables

- Transport Implementation Strategy

### 3 Programme

#### 3.1 Timescales

Our proposed programme for the study reflects the key tasks identified above. As set out in the brief we have allowed for a 13 week period for completion of the tasks. This is on the basis that the data referred to in the previous sections is provided in a timely fashion and that we can get early agreement on the dates for the stakeholders workshops.

Activities	Week Number												
	1	2	3	4	5	6	7	8	9	10	11	12	13
	Stage 1		Stage 2							Stage 3			
Task One: Inception Meeting													
Task Two: Corridor Review													
Task Three: First Stakeholders Workshop													
Task Four: Option Development													
Task Five: WeTAG Appraisal													
Task Six: Second Stakeholders Workshop													
Task Seven: Strategy Formulation													
Client Meetings	◆				◆				◆				◆

#### 3.2 Client Meetings

It is recommended that a Client Steering Group is established for this study. As well as their role in directing the study, it is proposed that members of the Client Steering Group should take a pro-active role outside the formal Client Steering Group meetings. This would include working with the Consultants to:

- maximise the effectiveness of the consultation activities of the Study;
- provide a sound basis for ideas;
- assist in the provision of information; and
- provide a focus for the views of the particular organisations that they represent.

It is proposed to meet formally with the Client Steering Group at monthly intervals throughout the duration of the project. These are in addition to stakeholder workshops identified above, although it may be advantageous to arrange some of these consecutively. We will prepare an agenda in advance of each meeting and minutes will be circulated following all meetings. At meetings Arup will be represented by the Project Director and/or Project Manager with other staff attending as appropriate.

Appendix D

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**Traffic Count Data**

## A483 Fabian Way

10553\_6705 Wednesday 13/06/2007  
24 A483 Fabian Way - To Swansea East

	CAR	LGV	MGV	R2	R3	R4	A6	A5	A3	A4	BUS	PCL	MCL	VEH	HGV	PCU	[%]
7:00- 8:00	1373	296	0	48	13	37	22	6	2	2	6	2	5	1812	136	2115	7.5
8:00- 9:00	1687	203	0	48	16	32	8	18	0	1	14	1	13	2041	137	2321	6.7
9:00-10:00	1159	174	0	55	17	31	14	11	0	0	15	0	8	1484	143	1765	9.6
10:00-11:00	804	109	0	54	14	24	12	21	0	6	23	0	5	1072	154	1364	14.4
11:00-12:00	747	118	0	37	12	17	13	17	0	4	14	0	5	984	114	1212	11.6
12:00-13:00	814	115	0	44	20	32	20	2	1	1	16	0	4	1069	136	1334	12.7
13:00-14:00	750	94	0	51	17	33	28	5	0	1	15	0	0	994	150	1286	15.1
14:00-15:00	762	116	0	21	10	19	4	18	0	0	19	0	0	969	91	1169	9.4
15:00-16:00	851	106	0	22	7	27	8	23	0	0	15	0	4	1063	102	1290	9.6
16:00-17:00	1044	113	0	20	4	18	6	3	0	0	18	0	4	1230	69	1380	5.6
17:00-18:00	1156	89	0	18	4	10	5	3	0	0	17	0	6	1308	57	1426	4.3
18:00-19:00	1020	67	0	6	2	0	10	0	0	1	9	1	4	1120	28	1184	2.5
7:00-19:00 bloc	12167	1600	0	424	136	280	150	127	3	16	181	4	58	15146	1317	17845	8.7
7:30- 8:30 peak	1895	272	0	61	18	31	12	12	0	1	12	2	11	2327	147	2625	6.3
total	12167	1600	0	424	136	280	150	127	3	16	181	4	58	15146	1317	17845	8.7

10553\_6705 Wednesday 13/06/2007  
42 A483 Fabian Way - Fr Swansea Wast

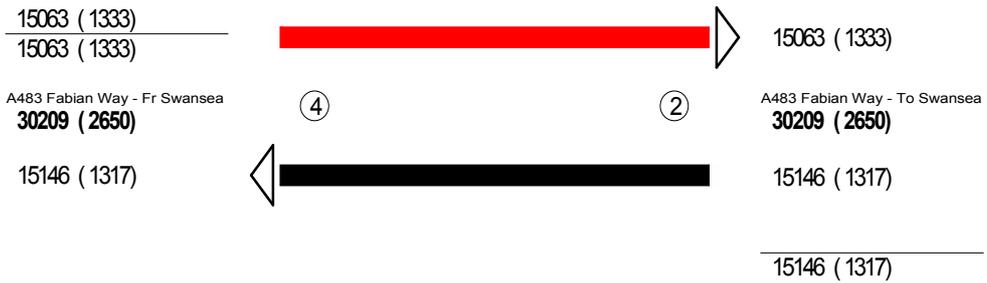
	CAR	LGV	MGV	R2	R3	R4	A6	A5	A3	A4	BUS	PCL	MCL	VEH	HGV	PCU	[%]
7:00- 8:00	896	141	0	33	10	33	21	12	1	1	11	1	9	1169	122	1430	10.4
8:00- 9:00	1308	126	0	42	6	38	11	9	0	3	16	1	1	1561	125	1817	8
9:00-10:00	696	117	0	45	15	20	18	3	0	6	17	1	5	943	124	1176	13.1
10:00-11:00	629	119	0	55	30	22	19	3	0	1	19	0	3	900	149	1172	16.5
11:00-12:00	728	125	0	43	10	19	27	7	0	2	14	0	2	977	122	1223	12.5
12:00-13:00	784	140	0	32	12	32	24	7	0	2	20	0	3	1056	129	1333	12.2
13:00-14:00	843	128	0	49	13	38	12	7	0	3	13	0	4	1110	135	1375	12.2
14:00-15:00	907	156	0	42	13	20	19	12	0	2	23	0	1	1195	131	1464	11
15:00-16:00	1086	196	0	43	12	27	14	4	0	0	19	1	1	1403	119	1652	8.5
16:00-17:00	1456	248	0	32	5	19	20	2	0	0	29	1	13	1825	107	2067	5.9
17:00-18:00	1674	132	0	4	3	7	11	3	0	0	15	1	13	1863	43	1973	2.3
18:00-19:00	954	73	0	10	3	3	5	0	0	0	6	1	6	1061	27	1118	2.5
7:00-19:00 bloc	11961	1701	0	430	132	278	201	69	1	20	202	7	61	15063	1333	17801	8.8
16:45-17:45 peak	1710	166	0	8	3	9	14	2	0	0	17	1	15	1945	53	2079	2.7
total	11961	1701	0	430	132	278	201	69	1	20	202	7	61	15063	1333	17801	8.8

DFT07

site : 10553\_6705  
place : A483 Fabian way  
date : Wednesday, 13/06/2007  
block : 07:00 - 19:00 hrs



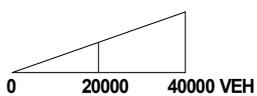
2 A483 Fabian Way - To Swansea  
4 A483 Fabian Way - Fr Swansea



**VEH (HGV)**

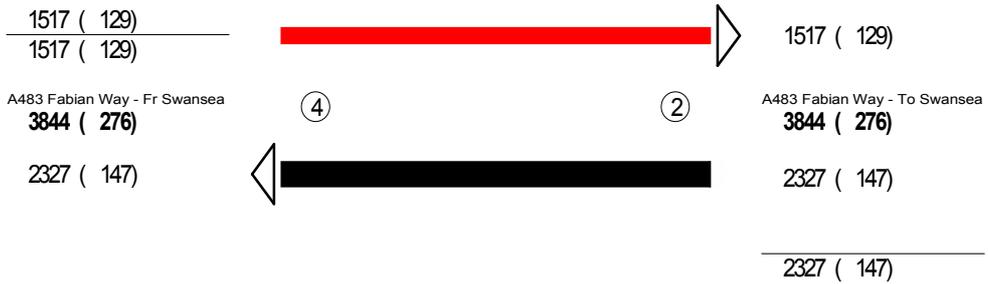
VEH=CAR + LGV + R2 + R3 + R4 + A6 + A5 + A3 + A4 + BUS + PCL + MCL

HGV=R2 + R3 + R4 + A6 + A5 + A3 + A4 + BUS



DFT07

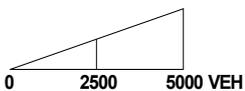
site : 10553\_6705  
place : A483 Fabian way  
date : Wednesday, 13/06/2007  
block : 07:00 - 19:00 hrs  
peak-hour : 07:30 - 08:30 hrs  
2 A483 Fabian Way - To Swansea  
4 A483 Fabian Way - Fr Swansea



VEH (HGV)

VEH=CAR + LGV + R2 + R3 + R4 + A6 + A5 + A3 + A4 + BUS + PCL + MCL

HGV=R2 + R3 + R4 + A6 + A5 + A3 + A4 + BUS



## Elba Crescent

NPT08047 Friday 11/07/2008

24 Elba Crescent - To Baldwins Crescent East

	CAR	LGV	BUS	MCL	PCL	R2	R3	R4	A3	A4	A5	A6	Veh	HGV	Pcu	[%]
7:00- 8:00	6	1	3	0	0	0	0	0	0	0	0	0	10	3	16	30
8:00- 9:00	12	0	2	0	1	0	0	0	0	0	0	0	15	2	18	13.3
9:00-10:00	4	1	2	0	0	0	0	0	0	0	0	0	7	2	11	28.6
10:00-11:00	5	1	1	0	2	0	0	0	0	0	0	0	9	1	10	11.1
11:00-12:00	6	3	2	0	1	0	0	0	0	0	0	0	12	2	16	16.7
12:00-13:00	10	2	2	2	2	0	1	0	0	0	0	0	19	3	23	15.8
13:00-14:00	5	2	3	0	0	1	0	0	0	0	0	0	11	4	19	36.4
14:00-15:00	7	1	1	1	3	0	0	0	0	0	0	0	13	1	12	7.7
15:00-16:00	13	3	1	0	1	0	0	0	0	0	0	0	18	1	20	5.6
16:00-17:00	15	4	2	0	3	0	0	0	0	0	0	0	24	2	26	8.3
17:00-18:00	14	1	1	0	3	0	0	0	0	0	0	0	19	1	19	5.3
18:00-19:00	12	1	0	0	3	0	0	0	0	0	0	0	16	0	14	0
7:00-19:00 bloc	109	20	20	3	19	1	1	0	0	0	0	0	173	22	204	12.7
15:45-16:45 peak	17	3	2	0	2	0	0	0	0	0	0	0	24	2	27	8.3
total	109	20	20	3	19	1	1	0	0	0	0	0	173	22	204	12.7

NPT08047 Friday 11/07/2008

42 Elba Crescent - Fr Baldwins Crescent West

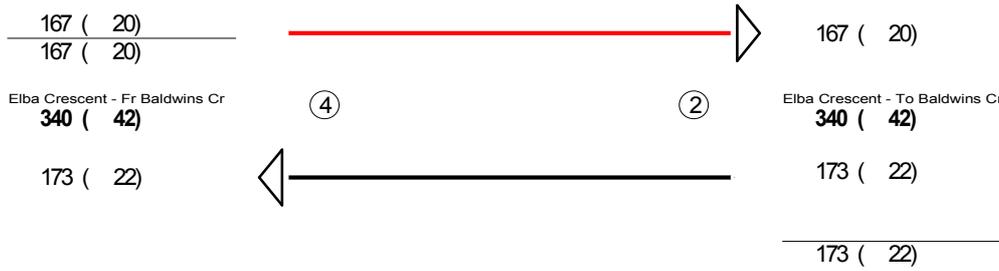
	CAR	LGV	BUS	MCL	PCL	R2	R3	R4	A3	A4	A5	A6	Veh	HGV	Pcu	[%]
7:00- 8:00	2	3	1	0	4	0	0	0	0	0	0	0	10	1	9	10
8:00- 9:00	12	1	1	0	2	0	0	0	0	0	0	0	16	1	17	6.2
9:00-10:00	4	2	2	0	3	0	0	0	0	0	0	0	11	2	13	18.2
10:00-11:00	8	1	1	0	2	0	0	0	0	0	0	0	12	1	13	8.3
11:00-12:00	10	2	3	0	1	0	0	0	0	0	0	0	16	3	22	18.8
12:00-13:00	4	3	0	0	0	0	1	0	0	0	0	0	8	1	11	12.5
13:00-14:00	6	4	2	0	0	0	0	0	0	0	0	0	12	2	17	16.7
14:00-15:00	9	1	2	0	1	0	0	0	0	0	0	0	13	2	16	15.4
15:00-16:00	20	4	1	0	1	0	0	0	0	0	0	0	26	1	28	3.8
16:00-17:00	10	4	3	0	3	0	0	0	0	0	0	0	20	3	24	15
17:00-18:00	8	1	2	0	2	0	0	0	0	0	0	0	13	2	16	15.4
18:00-19:00	9	0	1	0	0	0	0	0	0	0	0	0	10	1	12	10
7:00-19:00 bloc	102	26	19	0	19	0	1	0	0	0	0	0	167	20	197	12
15:30-16:30 peak	19	6	3	0	2	0	0	0	0	0	0	0	30	3	36	10
total	102	26	19	0	19	0	1	0	0	0	0	0	167	20	197	12

NPT08

site : NPT08047  
place : Elba Crescent  
date : Friday, 11/07/2008  
block : 07:00 - 19:00 hrs



2 Elba Crescent - To Baldwins Crescent  
4 Elba Crescent - Fr Baldwins Crescent



**Veh (HGV)**

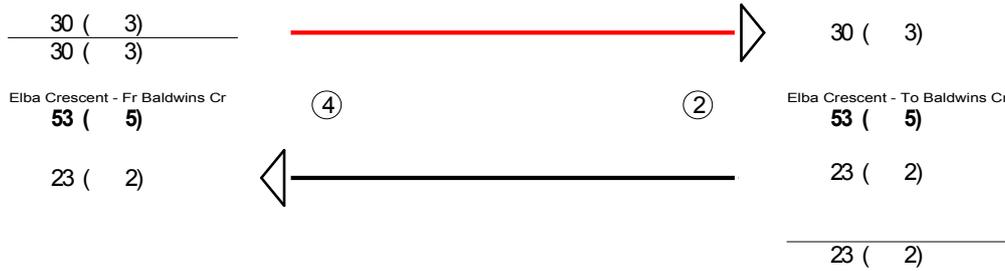
Veh=CAR + LGV + BUS + MCL + PCL + R2 + R3 + R4 + A3 + A4 + A5 + A6

HGV=BUS + R2 + R3 + R4 + A3 + A4 + A5 + A6



**NPT08**

site : NPT08047  
 place : Elba Crescent  
 date : Friday, 11/07/2008  
 block : 07:00 - 19:00 hrs  
 peak-hour : 15:30 - 16:30 hrs  
 2 Elba Crescent - To Baldwins Crescent  
 4 Elba Crescent - Fr Baldwins Crescent



**Veh (HGV)**

$$\text{Veh} = \text{CAR} + \text{LGV} + \text{BUS} + \text{MCL} + \text{PCL} + \text{R2} + \text{R3} + \text{R4} + \text{A3} + \text{A4} + \text{A5} + \text{A6}$$

$$\text{HGV} = \text{BUS} + \text{R2} + \text{R3} + \text{R4} + \text{A3} + \text{A4} + \text{A5} + \text{A6}$$



## M4 between Junction 43 and 44

50523\_6705 Monday 04/06/2007

13 M4 J43+J44 - To Cardiff North

	CAR	LGV	MGV	R2	R3	R4	A6	A5	A3	A4	BUS	PCL	MCL	VEH	HGV	PCU	[%]
7:00- 8:00	2629	588	0	170	20	15	32	39	8	7	18	0	11	3537	309	4123	8.7
8:00- 9:00	3084	504	0	91	13	32	35	62	2	7	17	0	16	3863	259	4436	6.7
9:00-10:00	1830	359	0	113	21	5	82	37	4	28	23	0	10	2512	313	3127	12.5
10:00-11:00	1474	438	0	62	35	27	55	58	0	7	13	0	13	2182	257	2764	11.8
11:00-12:00	1460	328	0	141	29	27	49	53	2	9	8	0	10	2116	318	2716	15
12:00-13:00	1548	362	0	92	30	25	63	72	1	4	5	0	10	2212	292	2834	13.2
13:00-14:00	1558	357	0	126	34	12	85	40	0	16	8	0	20	2256	321	2877	14.2
14:00-15:00	1760	483	0	38	23	27	38	90	1	12	18	0	10	2500	247	3107	9.9
15:00-16:00	2023	445	0	130	19	35	70	48	0	3	8	0	10	2791	313	3437	11.2
16:00-17:00	2710	531	0	62	14	13	41	38	1	5	14	0	22	3451	188	3896	5.4
17:00-18:00	3032	318	0	55	7	3	42	23	0	13	8	0	20	3521	151	3846	4.3
18:00-19:00	1466	232	0	4	8	4	23	40	3	8	7	0	24	1819	97	2067	5.3
7:00-19:00 bloc	24574	4945	0	1084	253	225	615	600	22	119	147	0	176	32760	3065	39230	9.4
7:30- 8:30 peak	3209	579	0	130	10	21	35	51	5	5	18	0	13	4076	275	4649	6.7
total	24574	4945	0	1084	253	225	615	600	22	119	147	0	176	32760	3065	39230	9.4

50523\_6705 Monday 04/06/2007

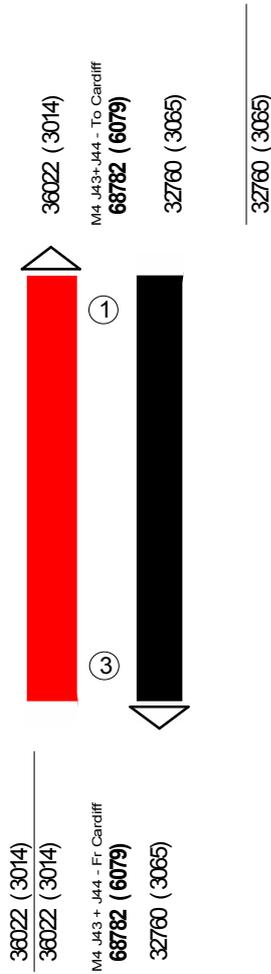
31 M4 J43 + J44 - Fr Cardiff South

	CAR	LGV	MGV	R2	R3	R4	A6	A5	A3	A4	BUS	PCL	MCL	VEH	HGV	PCU	[%]
7:00- 8:00	2796	571	0	149	25	15	76	30	1	21	11	0	9	3704	328	4358	8.9
8:00- 9:00	3460	615	0	27	19	34	60	55	2	6	10	0	31	4319	213	4887	4.9
9:00-10:00	2177	393	0	139	34	30	47	69	0	3	12	0	15	2919	334	3574	11.4
10:00-11:00	1765	373	0	116	24	29	60	64	1	4	12	0	10	2458	310	3094	12.6
11:00-12:00	1925	376	0	105	21	19	77	29	2	22	18	0	13	2607	293	3197	11.2
12:00-13:00	1474	462	0	33	21	31	44	76	5	10	3	0	27	2186	223	2735	10.2
13:00-14:00	1561	299	0	143	25	21	60	51	3	3	3	0	10	2179	309	2759	14.2
14:00-15:00	1602	392	0	93	22	39	48	58	2	5	11	0	12	2284	278	2877	12.2
15:00-16:00	1913	403	0	102	25	5	62	26	5	32	24	0	10	2607	281	3158	10.8
16:00-17:00	3038	606	0	23	24	20	37	50	2	4	15	0	19	3838	175	4315	4.6
17:00-18:00	3533	340	0	75	9	6	43	43	0	2	7	0	23	4081	185	4473	4.5
18:00-19:00	2513	227	0	22	3	0	15	38	0	4	3	0	15	2840	85	3049	3
7:00-19:00 bloc	27757	5057	0	1027	252	249	629	589	23	116	129	0	194	36022	3014	42475	8.4
7:30- 8:30 peak	3567	627	0	82	26	36	63	44	2	16	14	0	19	4496	283	5145	6.3
total	27757	5057	0	1027	252	249	629	589	23	116	129	0	194	36022	3014	42475	8.4

DFT07

site : 50523\_6705  
place : M4 between Jun 43 and Jun 44  
date : Monday, 04/06/2007  
block : 07:00 - 19:00 hrs

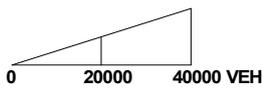
1 M4 J43+J44 - To Cardiff  
3 M4 J43 + J44 - Fr Cardiff



VEH (HGV)

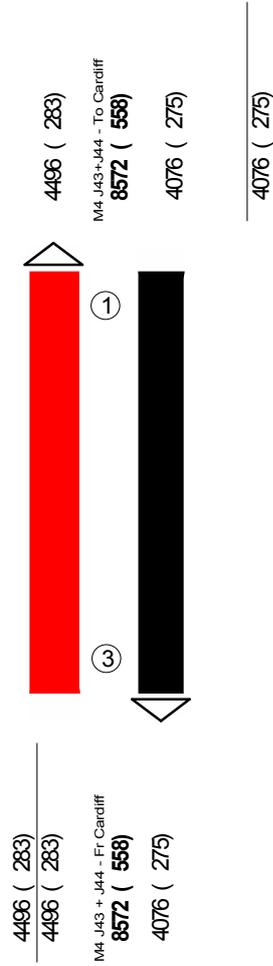
VEH=CAR + LGV + R2 + R3 + R4 + A6 + A5 + A3 + A4 + BUS + PCL + MCL

HGV=R2 + R3 + R4 + A6 + A5 + A3 + A4 + BUS



DFT07

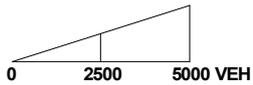
site : 50523\_6705  
 place : M4 between Jun 43 and Jun 44  
 date : Monday, 04/06/2007  
 block : 07:00 - 19:00 hrs  
 peak-hour : 07:30 - 08:30 hrs  
 1 M4 J43+J44 - To Cardiff  
 3 M4 J43 + J44 - Fr Cardiff



VEH (HGV)

VEH=CAR + LGV + R2 + R3 + R4 + A6 + A5 + A3 + A4 + BUS + PCL + MCL

HGV=R2 + R3 + R4 + A6 + A5 + A3 + A4 + BUS



## **B4290 / Llandarcy Village Road**

NPT06036TJ Thursday 10/08/2006

13 B4290 North -> B4290 South

	CAR	LGV	HGV	BUS	MCL	PCL	Veh	HGVs	PCU	[%]
7:00- 8:00	124	73	7	3	4	0	211	10	246	4.7
8:00- 9:00	160	43	12	1	0	0	216	13	254	6
9:00-10:00	129	37	6	1	1	0	174	7	197	4
10:00-11:00	153	27	0	2	0	0	182	2	191	1.1
11:00-12:00	130	28	11	1	0	0	170	12	203	7.1
12:00-13:00	143	31	6	1	3	1	185	7	205	3.8
13:00-14:00	120	17	5	1	1	0	144	6	160	4.2
14:00-15:00	126	26	8	2	0	0	162	10	190	6.2
15:00-16:00	141	31	7	1	1	0	181	8	205	4.4
16:00-17:00	141	26	10	1	2	1	181	11	209	6.1
17:00-18:00	193	15	4	1	1	1	215	5	228	2.3
18:00-19:00	143	9	2	0	0	0	154	2	160	1.3
7:00-19:00 bloc	1703	363	78	15	13	3	2175	93	2448	4.3
7:15- 8:15 peak	148	77	10	2	3	0	240	12	281	5
total	1703	363	78	15	13	3	2175	93	2448	4.3

NPT06036TJ Thursday 10/08/2006

14 B4290 North -> Llandarcy Village Road West

	CAR	LGV	HGV	BUS	MCL	PCL	Veh	HGVs	PCU	[%]
7:00- 8:00	49	11	6	0	2	0	68	6	83	8.8
8:00- 9:00	67	12	8	1	0	0	88	9	111	10.2
9:00-10:00	64	10	7	1	0	0	82	8	102	9.8
10:00-11:00	34	18	7	2	0	0	61	9	85	14.8
11:00-12:00	27	14	6	1	0	0	48	7	67	14.6
12:00-13:00	49	16	6	1	0	0	72	7	91	9.7
13:00-14:00	30	12	10	1	0	0	53	11	80	20.8
14:00-15:00	44	16	5	1	0	0	66	6	83	9.1
15:00-16:00	44	14	14	1	0	0	73	15	110	20.5
16:00-17:00	29	9	9	2	0	0	49	11	76	22.4
17:00-18:00	51	6	6	1	0	0	64	7	81	10.9
18:00-19:00	71	2	1	0	0	0	74	1	77	1.4
7:00-19:00 bloc	559	140	85	12	2	0	798	97	1045	12.1
8:30- 9:30 peak	85	13	7	2	0	0	107	9	130	8.4
total	559	140	85	12	2	0	798	97	1045	12.1

NPT06036TJ Thursday 10/08/2006

31 B4290 South -> B4290 North

	CAR	LGV	HGV	BUS	MCL	PCL	Veh	HGVs	PCU	[%]
7:00- 8:00	124	35	11	1	1	0	172	12	206	7
8:00- 9:00	268	54	17	1	2	1	343	18	393	5.2
9:00-10:00	161	39	8	2	0	1	211	10	240	4.7
10:00-11:00	128	35	3	2	0	1	169	5	186	3
11:00-12:00	168	33	9	2	3	0	215	11	245	5.1
12:00-13:00	201	32	4	2	0	0	239	6	259	2.5
13:00-14:00	219	36	4	1	2	0	262	5	279	1.9
14:00-15:00	232	39	2	2	3	0	278	4	293	1.4
15:00-16:00	256	33	7	1	2	0	299	8	323	2.7
16:00-17:00	328	49	6	3	3	0	389	9	417	2.3
17:00-18:00	346	30	2	4	2	1	385	6	402	1.5
18:00-19:00	301	23	3	1	8	0	336	4	346	1.2
7:00-19:00 bloc	2732	438	76	22	26	4	3298	98	3588	3
16:30-17:30 peak	362	40	4	3	3	1	413	7	434	1.7
total	2732	438	76	22	26	4	3298	98	3588	3

NPT06036TJ Thursday 10/08/2006

34 B4290 South -> Llandarcy Village Road West

	CAR	LGV	HGV	BUS	MCL	PCL	Veh	HGVs	PCU	[%]
7:00- 8:00	1	0	1	0	1	0	3	1	5	33.3
8:00- 9:00	10	5	2	0	0	0	17	2	23	11.8
9:00-10:00	19	6	0	1	0	0	26	1	29	3.8
10:00-11:00	8	4	1	1	0	0	14	2	19	14.3
11:00-12:00	5	2	0	1	0	0	8	1	10	12.5
12:00-13:00	6	0	0	1	0	0	7	1	9	14.3
13:00-14:00	14	1	1	1	0	0	17	2	22	11.8
14:00-15:00	13	1	3	1	0	0	18	4	27	22.2
15:00-16:00	5	1	0	2	0	0	8	2	12	25
16:00-17:00	3	0	0	0	0	0	3	0	3	0
17:00-18:00	5	2	0	0	0	0	7	0	7	0
18:00-19:00	6	0	0	0	0	0	6	0	6	0
7:00-19:00 bloc	95	22	8	8	1	0	134	16	172	11.9
8:45- 9:45 peak	19	8	0	1	0	0	28	1	32	3.6
total	95	22	8	8	1	0	134	16	172	11.9

NPT06036TJ Thursday 10/08/2006

41 Llandarcy Village Road West -> B4290 North

	CAR	LGV	HGV	BUS	MCL	PCL	Veh	HGVs	PCU	[%]
7:00- 8:00	12	11	23	0	0	0	46	23	101	50
8:00- 9:00	28	7	10	1	0	1	47	11	73	23.4
9:00-10:00	45	15	8	1	0	0	69	9	92	13
10:00-11:00	37	13	6	1	0	0	57	7	75	12.3
11:00-12:00	34	18	6	1	0	0	59	7	78	11.9
12:00-13:00	60	16	5	1	0	0	82	6	99	7.3
13:00-14:00	52	12	6	1	0	0	71	7	89	9.9
14:00-15:00	37	15	6	1	0	0	59	7	78	11.9
15:00-16:00	38	11	4	1	0	0	54	5	67	9.2
16:00-17:00	59	16	0	1	1	0	77	1	82	1.3
17:00-18:00	66	8	0	1	1	0	76	1	79	1.3
18:00-19:00	47	4	0	0	0	0	51	0	52	0
7:00-19:00 bloc	515	146	74	10	2	1	748	84	966	11.2
12:15-13:15 peak	71	19	6	1	0	0	97	7	117	7.2
total	515	146	74	10	2	1	748	84	966	11.2

NPT06036TJ Thursday 10/08/2006

43 Llandarcy Village Road West -> B4290 South

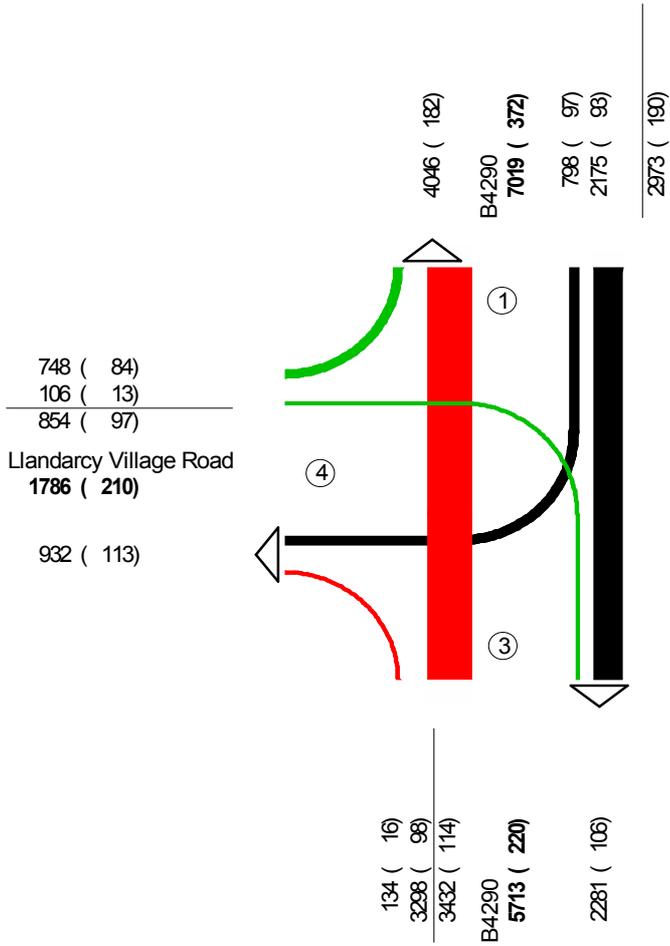
	CAR	LGV	HGV	BUS	MCL	PCL	Veh	HGVs	PCU	[%]
7:00- 8:00	1	1	3	0	0	0	5	3	12	60
8:00- 9:00	3	0	0	0	0	0	3	0	3	0
9:00-10:00	8	0	0	1	0	0	9	1	11	11.1
10:00-11:00	7	2	1	1	0	0	11	2	16	18.2
11:00-12:00	5	1	0	1	0	0	7	1	9	14.3
12:00-13:00	11	1	0	1	0	0	13	1	15	7.7
13:00-14:00	13	2	0	1	0	0	16	1	18	6.2
14:00-15:00	6	0	0	1	0	0	7	1	9	14.3
15:00-16:00	0	2	0	1	0	0	3	1	5	33.3
16:00-17:00	8	1	0	1	0	0	10	1	12	10
17:00-18:00	7	3	1	0	1	0	12	1	14	8.3
18:00-19:00	10	0	0	0	0	0	10	0	10	0
7:00-19:00 bloc	79	13	5	8	1	0	106	13	136	12.3
12:15-13:15 peak	16	1	0	1	0	0	18	1	20	5.6
total	79	13	5	8	1	0	106	13	136	12.3

NPT06

site : NPT06036TJ  
place : B4290 - Llandarcy Villaga Road  
date : Thursday, 10/08/2006  
block : 07:00 - 19:00 hrs



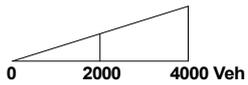
1 B4290  
3 B4290  
4 Llandarcy Village Road



**Veh (HGVs)**

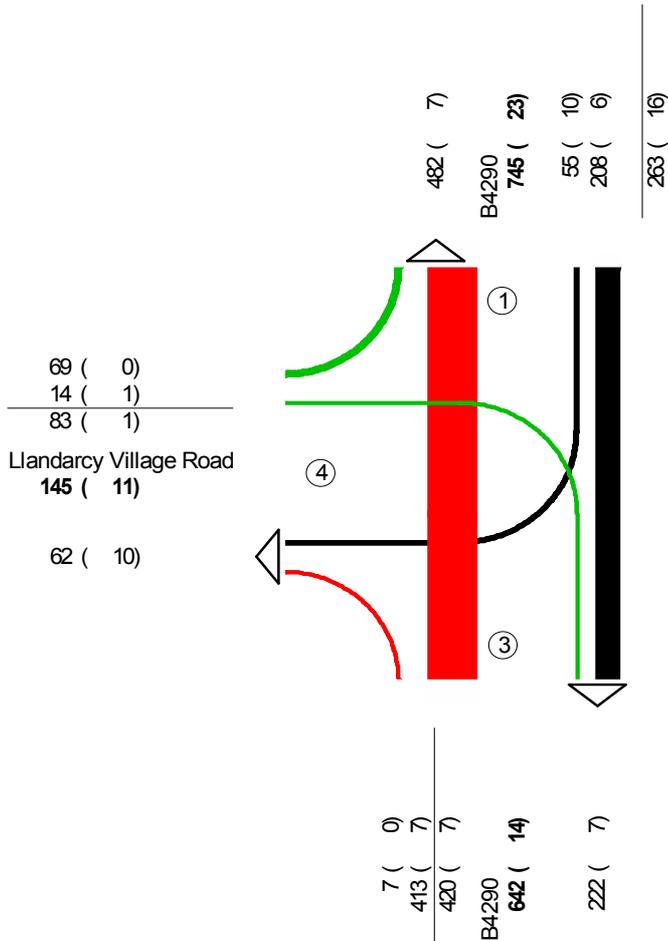
Veh=CAR + LGV + HGV + BUS + MCL + PCL

HGVs=HGV + BUS



NPT06

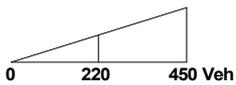
site : NPT06036TJ  
place : B4290 - Llandarcy Villaga Road  
date : Thursday, 10/08/2006  
block : 07:00 - 19:00 hrs  
peak-hour : 16:30 - 17:30 hrs  
1 B4290  
3 B4290  
4 Llandarcy Village Road



**Veh (HGVs)**

Veh=CAR + LGV + HGV + BUS + MCL + PCL

HGVs=HGV + BUS



## M4 between Junction 42 and 43

77071\_6705 Tuesday 24/04/2007

13 M4 Betw Jun 42 - 43 - To Cardiff North

	CAR	LGV	MGV	R2	R3	R4	A6	A5	A3	A4	BUS	PCL	MCL	VEH	HGV	PCU	[%]
7:00- 8:00	2769	548	0	86	37	20	44	43	5	12	15	0	12	3591	262	4159	7.3
8:00- 9:00	2839	388	0	150	25	24	33	51	0	8	14	0	8	3540	305	4111	8.6
9:00-10:00	1776	406	0	104	47	16	73	64	1	5	15	0	4	2511	325	3186	12.9
10:00-11:00	1464	457	0	77	21	32	28	77	1	16	14	0	4	2191	266	2785	12.1
11:00-12:00	1443	314	0	159	12	3	99	30	18	37	19	0	5	2139	377	2827	17.6
12:00-13:00	1523	328	0	132	26	23	42	89	3	15	4	0	1	2186	334	2842	15.3
13:00-14:00	1618	351	0	106	27	22	70	48	1	5	5	0	2	2255	284	2840	12.6
14:00-15:00	1744	492	0	52	44	31	47	83	4	16	17	0	12	2542	294	3219	11.6
15:00-16:00	1844	397	0	116	32	21	70	40	0	2	7	0	2	2531	288	3118	11.4
16:00-17:00	2391	443	0	94	16	32	11	73	3	36	14	0	10	3123	279	3701	8.9
17:00-18:00	2836	340	0	99	23	18	50	30	2	9	15	0	4	3426	246	3917	7.2
18:00-19:00	2483	339	0	93	39	10	24	33	2	4	15	0	2	3044	220	3469	7.2
7:00-19:00 bloc	24730	4803	0	1268	349	252	591	661	40	165	154	0	66	33079	3480	40174	10.5
7:30- 8:30 peak	3038	464	0	130	30	18	42	40	3	10	17	0	12	3804	290	4369	7.6
total	24730	4803	0	1268	349	252	591	661	40	165	154	0	66	33079	3480	40174	10.5

77071\_6705 Tuesday 24/04/2007

31 M4 Betw Jun 42 - 43 - Fr Cardiff South

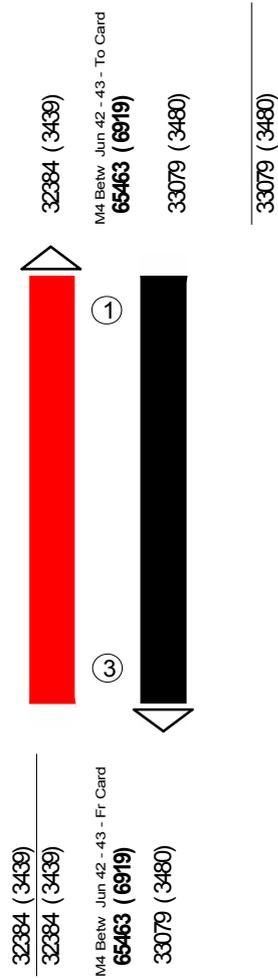
	CAR	LGV	MGV	R2	R3	R4	A6	A5	A3	A4	BUS	PCL	MCL	VEH	HGV	PCU	[%]
7:00- 8:00	1515	488	0	157	26	25	91	28	2	19	15	0	8	2374	363	3085	15.3
8:00- 9:00	2130	577	0	48	20	23	35	72	1	14	15	0	2	2937	228	3507	7.8
9:00-10:00	1683	408	0	149	18	18	110	19	1	15	23	0	2	2446	353	3140	14.4
10:00-11:00	1417	310	0	150	38	35	56	64	3	10	13	0	1	2097	369	2799	17.6
11:00-12:00	1417	319	0	103	24	16	41	80	6	5	5	0	3	2019	280	2589	13.9
12:00-13:00	1423	457	0	51	21	43	45	47	1	13	9	0	6	2116	230	2663	10.9
13:00-14:00	1490	300	0	115	4	1	71	40	30	34	20	0	3	2108	315	2704	14.9
14:00-15:00	1872	338	0	155	32	30	53	75	5	15	19	0	4	2598	384	3330	14.8
15:00-16:00	2122	389	0	100	7	3	86	20	11	29	29	0	6	2802	285	3378	10.2
16:00-17:00	2831	636	0	27	8	10	24	56	3	7	24	0	5	3631	159	4083	4.4
17:00-18:00	3270	434	0	104	26	13	51	38	6	16	20	0	8	3986	274	4540	6.9
18:00-19:00	2672	396	0	85	26	7	26	28	2	9	16	0	3	3270	199	3673	6.1
7:00-19:00 bloc	23842	5052	0	1244	250	224	689	567	71	186	208	0	51	32384	3439	39489	10.6
16:45-17:45 peak	3268	507	0	86	19	8	50	39	3	12	27	0	8	4027	244	4558	6.1
total	23842	5052	0	1244	250	224	689	567	71	186	208	0	51	32384	3439	39489	10.6

DFT07

site : 77071\_6705  
place : M4 between Junction 42 - 43  
date : Tuesday, 24/04/2007  
block : 07:00 - 19:00 hrs



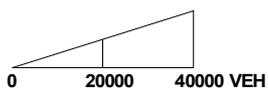
1 M4 Betw Jun 42 - 43 - To Cardiff  
3 M4 Betw Jun 42 - 43 - Fr Cardiff



**VEH (HGV)**

VEH=CAR + LGV + R2 + R3 + R4 + A6 + A5 + A3 + A4 + BUS + PCL + MCL

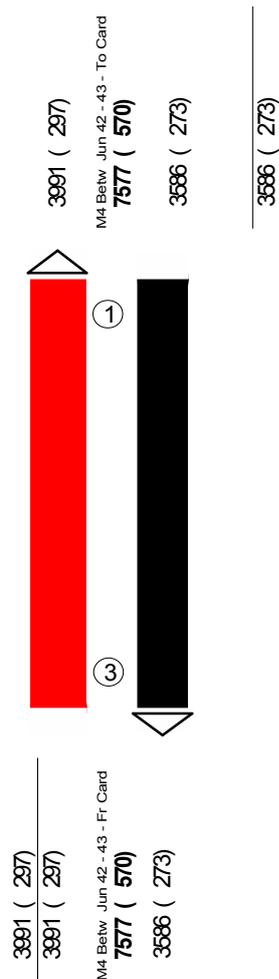
HGV=R2 + R3 + R4 + A6 + A5 + A3 + A4 + BUS



DFT07

site : 77071\_6705  
place : M4 between Junction 42 - 43  
date : Tuesday, 24/04/2007  
block : 07:00 - 19:00 hrs  
peak-hour : 17:15 - 18:15 hrs

1 M4 Betw Jun 42 - 43 - To Cardiff  
3 M4 Betw Jun 42 - 43 - Fr Cardiff



**VEH (HGV)**

VEH=CAR + LGV + R2 + R3 + R4 + A6 + A5 + A3 + A4 + BUS + PCL + MCL

HGV=R2 + R3 + R4 + A6 + A5 + A3 + A4 + BUS



SITE: GPRS 20

A483 Fabian Way - West of Port Tennant/SA1 Junction  
Averaged From 13/10/08 to 19/10/08

Direction: West Bound

Time of Day	Day of Week							Sub-Average (	Average
	Mon	Tues	Weds	Thurs	Fri	Sat	Sun		
00:00 - 01:00	139	81	107	91	113	204	296	106	147
01:00 - 02:00	60	48	43	57	64	156	262	54	99
02:00 - 03:00	38	30	33	47	47	115	203	39	73
03:00 - 04:00	31	24	26	57	40	92	157	36	61
04:00 - 05:00	34	26	35	32	45	94	94	34	51
05:00 - 06:00	78	82	82	95	89	102	50	85	83
06:00 - 07:00	241	263	262	272	269	197	103	261	230
07:00 - 08:00	963	938	981	966	978	357	145	965	761
08:00 - 09:00	1623	1559	1543	1588	1631	577	166	1589	1241
09:00 - 10:00	1243	1300	1297	1254	1164	856	385	1252	1071
10:00 - 11:00	953	910	1017	980	1016	1131	803	975	973
11:00 - 12:00	872	913	990	1009	1012	1265	979	959	1006
12:00 - 13:00	1047	944	950	1011	1041	1333	1159	999	1069
13:00 - 14:00	927	938	995	913	1112	1176	1028	977	1013
14:00 - 15:00	941	949	965	949	1068	1102	989	974	995
15:00 - 16:00	1007	960	883	975	1172	904	818	999	960
16:00 - 17:00	1136	1198	1256	1204	1356	766	856	1230	1110
17:00 - 18:00	1341	1251	1323	1278	1070	822	814	1253	1128
18:00 - 19:00	1059	971	1184	1110	1173	844	824	1099	1024
19:00 - 20:00	600	743	759	722	933	692	674	751	732
20:00 - 21:00	401	416	511	504	634	551	515	493	505
21:00 - 22:00	318	359	380	363	430	432	345	370	375
22:00 - 23:00	233	295	308	320	379	320	298	307	308
23:00 - 23:59	151	181	169	167	268	295	147	187	197
Sub-Total ( 07:00 TO 19:00 )	13112	12831	13384	13237	13793	11133	8966	13271.4	12350.86
Sub-Total ( 06:00 TO 22:00 )	14672	14612	15296	15098	16059	13005	10603	15147.4	14192.14
Sub-Total ( 06:00 TO 23:59 )	15056	15088	15773	15585	16706	13620	11048	15641.6	14696.57
Sub-Total ( 00:00 TO 23:59 )	15436	15379	16099	15964	17104	14383	12110	15996.4	15210.71
AM Peak	08:00 - 09:00	08:00 - 09:00	08:00 - 09:00	08:00 - 09:00	08:00 - 09:00	11:00 - 12:00	11:00 - 12:00	08:00 - 09:00	08:00 - 09:00
PM Peak	17:00 - 18:00	17:00 - 18:00	17:00 - 18:00	17:00 - 18:00	16:00 - 17:00	12:00 - 13:00	12:00 - 13:00	17:00 - 18:00	17:00 - 18:00

SITE: GPRS 20

A483 Fabian Way - West of Port Tennant/SA1 Junction  
Averaged From 13/10/08 to 19/10/08

Direction: East Bound

Time of Day	Day of Week							Sub-Average (	Average
	Mon	Tues	Weds	Thurs	Fri	Sat	Sun		
00:00 - 01:00	101	56	91	131	105	233	332	97	150
01:00 - 02:00	63	55	54	77	66	163	274	63	107
02:00 - 03:00	55	41	46	69	54	151	267	53	98
03:00 - 04:00	65	49	48	70	55	120	238	57	92
04:00 - 05:00	61	60	55	75	58	94	111	62	73
05:00 - 06:00	261	253	238	241	233	117	108	245	207
06:00 - 07:00	490	510	467	431	409	224	158	461	384
07:00 - 08:00	1274	1260	1195	1225	1230	337	236	1237	965
08:00 - 09:00	1365	1437	1362	1456	1327	538	277	1389	1109
09:00 - 10:00	1020	1003	1103	1090	1000	684	521	1043	917
10:00 - 11:00	832	854	855	878	949	947	728	874	863
11:00 - 12:00	930	933	971	891	1045	983	909	954	952
12:00 - 13:00	1100	975	1080	1100	1153	1118	1086	1082	1087
13:00 - 14:00	1114	1202	1273	1222	1244	1199	1089	1211	1192
14:00 - 15:00	1114	1204	1206	1222	1360	1174	1204	1221	1212
15:00 - 16:00	1396	1275	1285	1390	1639	1306	1397	1397	1384
16:00 - 17:00	1666	1714	1688	1777	1689	1268	1389	1707	1599
17:00 - 18:00	1485	1538	1556	1699	1530	1421	1080	1562	1473
18:00 - 19:00	925	945	949	986	1041	1024	778	969	950
19:00 - 20:00	615	563	682	673	774	721	587	661	659
20:00 - 21:00	493	518	576	574	546	543	429	541	526
21:00 - 22:00	380	440	506	464	461	411	332	450	428
22:00 - 23:00	311	279	371	387	480	494	259	366	369
23:00 - 23:59	148	194	227	202	331	361	163	220	232
Sub-Total ( 07:00 TO 19:00 )	14221	14340	14523	14936	15207	11999	10694	14645.4	13702.86
Sub-Total ( 06:00 TO 22:00 )	16199	16371	16754	17078	17397	13898	12200	16759.8	15699.57
Sub-Total ( 06:00 TO 23:59 )	16658	16844	17352	17667	18208	14753	12622	17345.8	16300.57
Sub-Total ( 00:00 TO 23:59 )	17264	17358	17884	18330	18779	15631	13952	17923	17028.29
AM Peak	08:00 - 09:00	08:00 - 09:00	08:00 - 09:00	08:00 - 09:00	08:00 - 09:00	11:00 - 12:00	11:00 - 12:00	08:00 - 09:00	08:00 - 09:00
PM Peak	16:00 - 17:00	16:00 - 17:00	16:00 - 17:00	16:00 - 17:00	16:00 - 17:00	17:00 - 18:00	15:00 - 16:00	16:00 - 17:00	16:00 - 17:00

SITE: GPRS 20

A483 Fabian Way - West of Port Tennant/SA1 Junction  
Averaged From 20/10/08 to 26/10/08

Direction: West Bound

Day of Week

Time of Day	Mon	Tues	Weds	Thurs	Fri	Sat	Sun	Sub-Average (	Average
00:00 - 01:00	121	98	91	104	118	222	266	106	146
01:00 - 02:00	71	30	49	53	68	193	466	54	133
02:00 - 03:00	49	24	24	40	33	144	182	34	71
03:00 - 04:00	24	26	26	48	34	119	87	32	52
04:00 - 05:00	32	32	19	34	42	73	38	32	39
05:00 - 06:00	72	84	91	85	99	83	56	86	81
06:00 - 07:00	277	253	284	263	260	160	120	267	231
07:00 - 08:00	878	968	946	934	911	316	134	927	727
08:00 - 09:00	1638	1714	1631	1675	1576	616	213	1647	1295
09:00 - 10:00	1275	1275	1353	1240	1176	1000	429	1264	1107
10:00 - 11:00	1021	990	987	996	1017	1168	908	1002	1012
11:00 - 12:00	877	914	993	841	1023	1253	1082	930	998
12:00 - 13:00	931	982	1062	959	1157	1325	1154	1018	1081
13:00 - 14:00	922	940	961	940	1179	1210	1132	988	1041
14:00 - 15:00	866	919	970	1046	1196	1081	1008	999	1012
15:00 - 16:00	916	945	949	945	1358	911	813	1023	977
16:00 - 17:00	1132	1254	1276	1187	1255	811	759	1221	1096
17:00 - 18:00	1271	1135	1122	1252	872	845	943	1130	1063
18:00 - 19:00	965	1112	1103	1151	1147	857	806	1096	1020
19:00 - 20:00	544	683	789	673	949	693	671	728	715
20:00 - 21:00	380	394	529	471	711	582	513	497	511
21:00 - 22:00	318	297	433	324	483	425	386	371	381
22:00 - 23:00	222	300	335	294	424	332	260	315	310
23:00 - 23:59	139	136	157	215	355	296	187	200	212
Sub-Total ( 07:00 TO 19:00 )	12692	13148	13353	13166	13867	11393	9381	13245.2	12428.57
Sub-Total ( 06:00 TO 22:00 )	14211	14775	15388	14897	16270	13253	11071	15108.2	14266.43
Sub-Total ( 06:00 TO 23:59 )	14572	15211	15880	15406	17049	13881	11518	15623.6	14788.14
Sub-Total ( 00:00 TO 23:59 )	14941	15505	16180	15770	17443	14715	12613	15967.8	15309.57
AM Peak	08:00 - 09:00	08:00 - 09:00	08:00 - 09:00	08:00 - 09:00	08:00 - 09:00	11:00 - 12:00	11:00 - 12:00	08:00 - 09:00	08:00 - 09:00
PM Peak	17:00 - 18:00	16:00 - 17:00	16:00 - 17:00	17:00 - 18:00	15:00 - 16:00	12:00 - 13:00	12:00 - 13:00	16:00 - 17:00	16:00 - 17:00

SITE: GPRS 20

A483 Fabian Way - West of Port Tennant/SA1 Junction  
Averaged From 20/10/08 to 26/10/08

Direction: East Bound

Time of Day	Day of Week							Sub-Average (	Average
	Mon	Tues	Weds	Thurs	Fri	Sat	Sun		
00:00 - 01:00	87	79	79	94	89	262	286	86	139
01:00 - 02:00	56	42	47	86	67	201	541	60	149
02:00 - 03:00	54	31	32	59	50	162	245	45	90
03:00 - 04:00	58	44	41	98	53	165	130	59	84
04:00 - 05:00	77	67	53	70	49	95	96	63	72
05:00 - 06:00	264	234	237	242	253	128	108	246	209
06:00 - 07:00	502	474	454	433	384	216	168	449	376
07:00 - 08:00	1208	1274	1263	1201	1240	305	214	1237	958
08:00 - 09:00	1345	1418	1396	1369	1282	539	269	1362	1088
09:00 - 10:00	1009	984	970	1063	1001	679	532	1005	891
10:00 - 11:00	859	852	896	911	900	981	770	884	881
11:00 - 12:00	1011	973	956	918	1077	1029	933	987	985
12:00 - 13:00	944	1079	1149	1069	1265	1226	1112	1101	1121
13:00 - 14:00	1131	1138	1235	1221	1375	1194	1190	1220	1212
14:00 - 15:00	1081	1176	1203	1344	1419	1244	1154	1245	1232
15:00 - 16:00	1360	1416	1413	1393	1795	1421	1271	1475	1438
16:00 - 17:00	1675	1715	1712	1688	1719	1489	1398	1702	1628
17:00 - 18:00	1528	1568	1529	1616	1535	1419	1225	1555	1489
18:00 - 19:00	854	989	1030	935	1041	909	818	970	939
19:00 - 20:00	556	618	709	596	806	616	582	657	640
20:00 - 21:00	430	490	607	475	625	562	480	525	524
21:00 - 22:00	358	503	471	467	498	458	359	459	445
22:00 - 23:00	222	451	384	305	426	408	256	358	350
23:00 - 23:59	98	168	230	190	344	372	178	206	226
Sub-Total ( 07:00 TO 19:00 )	14005	14582	14752	14728	15649	12435	10886	14743.2	13862.43
Sub-Total ( 06:00 TO 22:00 )	15851	16667	16993	16699	17962	14287	12475	16834.4	15847.71
Sub-Total ( 06:00 TO 23:59 )	16171	17286	17607	17194	18732	15067	12909	17398	16423.71
Sub-Total ( 00:00 TO 23:59 )	16767	17783	18096	17843	19293	16080	14315	17956.4	17168.14
AM Peak	08:00 - 09:00	08:00 - 09:00	08:00 - 09:00	08:00 - 09:00	08:00 - 09:00	11:00 - 12:00	11:00 - 12:00	08:00 - 09:00	08:00 - 09:00
PM Peak	16:00 - 17:00	16:00 - 17:00	16:00 - 17:00	16:00 - 17:00	15:00 - 16:00	16:00 - 17:00	16:00 - 17:00	16:00 - 17:00	16:00 - 17:00

SITE: 521

A483 Fabian Way at Burrows Road  
Averaged From 13/10/08 to 19/10/08

Direction: West Bound

Time of Day	Day of Week							Sub-Average (	Average
	Mon	Tues	Weds	Thurs	Fri	Sat	Sun		
00:00 - 01:00	179	92	120	115	126	207	238	126	154
01:00 - 02:00	83	61	68	57	80	155	254	70	108
02:00 - 03:00	51	32	27	39	45	111	195	39	71
03:00 - 04:00	27	19	21	48	35	79	174	30	58
04:00 - 05:00	26	20	32	34	49	83	106	32	50
05:00 - 06:00	42	41	37	38	42	76	49	40	46
06:00 - 07:00	113	123	128	124	128	123	70	123	116
07:00 - 08:00	551	597	556	573	579	269	117	571	463
08:00 - 09:00	1716	1627	1749	1775	1743	464	139	1722	1316
09:00 - 10:00	1608	1721	1616	1588	1523	753	244	1611	1293
10:00 - 11:00	1063	1067	1141	1137	1080	1011	516	1098	1002
11:00 - 12:00	900	913	945	965	966	1173	830	938	956
12:00 - 13:00	868	877	929	938	1007	1326	963	924	987
13:00 - 14:00	886	848	893	973	1043	1303	1060	929	1001
14:00 - 15:00	881	921	1030	885	1045	1190	924	952	982
15:00 - 16:00	817	829	793	816	1057	984	845	862	877
16:00 - 17:00	976	966	1043	981	1255	710	780	1044	959
17:00 - 18:00	1267	1263	1390	1370	1303	661	794	1319	1150
18:00 - 19:00	1194	1138	1218	1240	1175	791	829	1193	1084
19:00 - 20:00	786	852	949	913	975	736	716	895	847
20:00 - 21:00	424	466	567	513	712	542	528	536	536
21:00 - 22:00	336	307	386	371	467	434	373	373	382
22:00 - 23:00	267	310	318	305	366	308	321	313	314
23:00 - 23:59	143	177	190	218	264	284	189	198	209
Sub-Total ( 07:00 TO 19:00 )	12727	12767	13303	13241	13776	10635	8041	13162.8	12070
Sub-Total ( 06:00 TO 22:00 )	14386	14515	15333	15162	16058	12470	9728	15090.8	13950.29
Sub-Total ( 06:00 TO 23:59 )	14796	15002	15841	15685	16688	13062	10238	15602.4	14473.14
Sub-Total ( 00:00 TO 23:59 )	15204	15267	16146	16016	17065	13773	11254	15939.6	14960.71
AM Peak	08:00 - 09:00	09:00 - 10:00	08:00 - 09:00	08:00 - 09:00	08:00 - 09:00	11:00 - 12:00	11:00 - 12:00	08:00 - 09:00	08:00 - 09:00
PM Peak	17:00 - 18:00	17:00 - 18:00	17:00 - 18:00	17:00 - 18:00	17:00 - 18:00	12:00 - 13:00	13:00 - 14:00	17:00 - 18:00	17:00 - 18:00

SITE: 521

A483 Fabian Way at Burrows Road  
Averaged From 13/10/08 to 19/10/08

Direction: East Bound

Day of Week

Time of Day	Mon	Tues	Weds	Thurs	Fri	Sat	Sun	Sub-Average (	Average
00:00 - 01:00	152	79	127	158	136	230	292	130	168
01:00 - 02:00	64	38	47	73	51	181	250	55	101
02:00 - 03:00	53	40	44	63	58	130	247	52	91
03:00 - 04:00	57	34	43	66	49	111	220	50	83
04:00 - 05:00	58	46	41	65	50	104	175	52	77
05:00 - 06:00	101	91	87	79	71	75	89	86	85
06:00 - 07:00	341	325	310	306	286	132	113	314	259
07:00 - 08:00	729	704	667	670	643	240	201	683	551
08:00 - 09:00	1351	1400	1313	1382	1334	365	217	1356	1052
09:00 - 10:00	1003	1071	1107	1057	963	435	305	1040	849
10:00 - 11:00	715	774	820	793	804	627	545	781	725
11:00 - 12:00	766	760	713	754	829	805	635	764	752
12:00 - 13:00	788	808	859	867	959	971	849	856	872
13:00 - 14:00	944	935	1012	1019	1043	1037	965	991	994
14:00 - 15:00	989	1070	1130	1158	1201	1107	995	1110	1093
15:00 - 16:00	1031	1116	1156	1126	1382	1119	1062	1162	1142
16:00 - 17:00	1380	1408	1454	1524	1676	1240	1312	1488	1428
17:00 - 18:00	1767	1765	1679	1899	1801	1240	1199	1782	1621
18:00 - 19:00	1328	1356	1516	1436	1296	1319	809	1386	1294
19:00 - 20:00	684	652	684	752	832	758	632	721	713
20:00 - 21:00	454	454	520	501	529	516	474	492	493
21:00 - 22:00	375	368	451	437	387	400	323	404	392
22:00 - 23:00	302	325	387	358	434	424	259	361	356
23:00 - 23:59	183	181	219	244	333	294	173	232	232
Sub-Total ( 07:00 TO 19:00 )	12791	13167	13426	13685	13931	10505	9094	13400	12371.29
Sub-Total ( 06:00 TO 22:00 )	14645	14966	15391	15681	15965	12311	10636	15329.6	14227.86
Sub-Total ( 06:00 TO 23:59 )	15130	15472	15997	16283	16732	13029	11068	15922.8	14815.86
Sub-Total ( 00:00 TO 23:59 )	15615	15800	16386	16787	17147	13860	12341	16347	15419.43
AM Peak	08:00 - 09:00	08:00 - 09:00	08:00 - 09:00	08:00 - 09:00	08:00 - 09:00	11:00 - 12:00	11:00 - 12:00	08:00 - 09:00	08:00 - 09:00
PM Peak	17:00 - 18:00	17:00 - 18:00	17:00 - 18:00	17:00 - 18:00	17:00 - 18:00	18:00 - 19:00	16:00 - 17:00	17:00 - 18:00	17:00 - 18:00

SITE: 521

A483 Fabian Way at Burrows Road  
Averaged From 20/10/08 to 26/10/08

Direction: East Bound

Time of Day	Day of Week							Sub-Average (	Average
	Mon	Tues	Weds	Thurs	Fri	Sat	Sun		
00:00 - 01:00	101	65	98	158	127	262	295	110	158
01:00 - 02:00	68	49	45	69	55	207	670	57	166
02:00 - 03:00	36	32	37	54	56	153	168	43	77
03:00 - 04:00	60	29	36	73	36	139	97	47	67
04:00 - 05:00	51	46	31	73	54	119	74	51	64
05:00 - 06:00	111	85	90	108	73	77	112	93	94
06:00 - 07:00	349	313	324	288	308	147	189	316	274
07:00 - 08:00	744	721	681	689	657	244	186	698	560
08:00 - 09:00	1309	1375	1455	1322	1289	348	332	1350	1061
09:00 - 10:00	1029	1087	1043	1100	939	477	543	1040	888
10:00 - 11:00	765	746	706	811	783	659	685	762	736
11:00 - 12:00	774	798	778	764	848	861	873	792	814
12:00 - 13:00	838	882	869	867	966	1029	1005	884	922
13:00 - 14:00	919	953	986	999	1169	1085	977	1005	1013
14:00 - 15:00	972	960	1160	1095	1268	1162	1074	1091	1099
15:00 - 16:00	1117	1169	1153	1199	1454	1255	1237	1218	1226
16:00 - 17:00	1458	1469	1475	1487	1662	1306	1257	1510	1445
17:00 - 18:00	1704	1864	1793	1839	1712	1535	924	1782	1624
18:00 - 19:00	1376	1426	1440	1397	1406	1182	629	1409	1265
19:00 - 20:00	604	729	755	686	827	624	448	720	668
20:00 - 21:00	394	414	528	412	619	487	355	473	458
21:00 - 22:00	315	383	421	376	392	434	279	377	371
22:00 - 23:00	233	539	405	364	391	341	171	386	349
23:00 - 23:59	132	218	242	202	320	311	109	223	219
Sub-Total ( 07:00 TO 19:00 )	13005	13450	13539	13569	14153	11143	9722	13543.2	12654.43
Sub-Total ( 06:00 TO 22:00 )	14667	15289	15567	15331	16299	12835	10993	15430.6	14425.86
Sub-Total ( 06:00 TO 23:59 )	15032	16046	16214	15897	17010	13487	11273	16039.8	14994.14
Sub-Total ( 00:00 TO 23:59 )	15459	16352	16551	16432	17411	14444	12689	16441	15619.71
AM Peak	08:00 - 09:00	08:00 - 09:00	08:00 - 09:00	08:00 - 09:00	08:00 - 09:00	11:00 - 12:00	11:00 - 12:00	08:00 - 09:00	08:00 - 09:00
PM Peak	17:00 - 18:00	17:00 - 18:00	17:00 - 18:00	17:00 - 18:00	17:00 - 18:00	17:00 - 18:00	16:00 - 17:00	17:00 - 18:00	17:00 - 18:00

SITE: 521

A483 Fabian Way at Burrows Road  
Averaged From 20/10/08 to 26/10/08

Direction: West Bound

Day of Week

Time of Day	Mon	Tues	Weds	Thurs	Fri	Sat	Sun	Sub-Average (	Average
00:00 - 01:00	127	102	110	125	151	265	230	123	159
01:00 - 02:00	89	47	55	51	72	162	596	63	153
02:00 - 03:00	44	29	32	45	43	141	114	39	64
03:00 - 04:00	39	20	14	37	25	105	50	27	41
04:00 - 05:00	28	29	28	41	42	82	25	34	39
05:00 - 06:00	41	33	40	38	51	60	70	41	48
06:00 - 07:00	121	125	128	115	139	97	134	126	123
07:00 - 08:00	558	578	576	599	561	246	149	574	467
08:00 - 09:00	1692	1794	1736	1776	1651	426	257	1730	1333
09:00 - 10:00	1612	1698	1707	1603	1524	843	565	1629	1365
10:00 - 11:00	1124	1154	1177	1107	1086	1151	967	1130	1109
11:00 - 12:00	930	1008	937	910	1016	1180	1025	960	1001
12:00 - 13:00	860	897	922	896	1094	1351	1071	934	1013
13:00 - 14:00	902	926	998	923	1120	1356	992	974	1031
14:00 - 15:00	879	882	935	940	1152	1244	853	958	984
15:00 - 16:00	820	836	861	823	1131	964	719	894	879
16:00 - 17:00	924	997	1052	1020	1245	765	817	1048	974
17:00 - 18:00	1202	1337	1316	1269	1224	760	887	1270	1142
18:00 - 19:00	1153	1224	1190	1168	1159	831	705	1179	1061
19:00 - 20:00	704	921	905	879	920	723	521	866	796
20:00 - 21:00	394	443	581	465	798	550	400	536	519
21:00 - 22:00	306	290	431	377	523	435	314	385	382
22:00 - 23:00	243	277	340	277	410	336	182	309	295
23:00 - 23:59	152	144	195	229	333	260	144	211	208
Sub-Total ( 07:00 TO 19:00 )	12656	13331	13407	13034	13963	11117	9007	13278.2	12359.29
Sub-Total ( 06:00 TO 22:00 )	14181	15110	15452	14870	16343	12922	10376	15191.2	14179.14
Sub-Total ( 06:00 TO 23:59 )	14576	15531	15987	15376	17086	13518	10702	15711.2	14682.29
Sub-Total ( 00:00 TO 23:59 )	14944	15791	16266	15713	17470	14333	11787	16036.8	15186.29
AM Peak	08:00 - 09:00	08:00 - 09:00	08:00 - 09:00	08:00 - 09:00	08:00 - 09:00	11:00 - 12:00	11:00 - 12:00	08:00 - 09:00	09:00 - 10:00
PM Peak	17:00 - 18:00	17:00 - 18:00	17:00 - 18:00	17:00 - 18:00	16:00 - 17:00	13:00 - 14:00	12:00 - 13:00	17:00 - 18:00	17:00 - 18:00

CITY AND COUNTY OF SWANSEA  
TRANSPORTATION UNIT/STUDIES MODELLING  
COUNTY HALL SWANSEA SA1 3SN

A 483/ A4067 QUAY PARADE/ NEW CUT RD 10HRS

Site : SC04052 TJ  
Survey date : Tuesday, 18/05/04

Place : A483/ A4067 QUAY PARADE/ NEW CUT RD

Street 1 north : NEW CUT RD  
Street 2 east : QUAY PARADE (FROM FABIAN WAY)  
Street 4 west : QUAY PARADE (FROM SAINBURYS)  
Interval length : 15 min  
Survey time : 8.00 - 18.00 hrs  
Weather : DRY/ SUNNY

H.G.V.s = HGV  
VEHICLES = CAR + LGV + HGV + BUS + MCL + PCL

CITY AND COUNTY OF SWANSEA  
 TRANSPORTATION UNIT/STUDIES MODELLING  
 COUNTY HALL SWANSEA SA1 3SN

A 483/ A4067 QUAY PARADE/ NEW CUT RD 10HRS

Site : SC04052 TJ  
 Survey date : Tuesday, 18/05/04

Place : A483/ A4067 QUAY PARADE/ NEW CUT RD

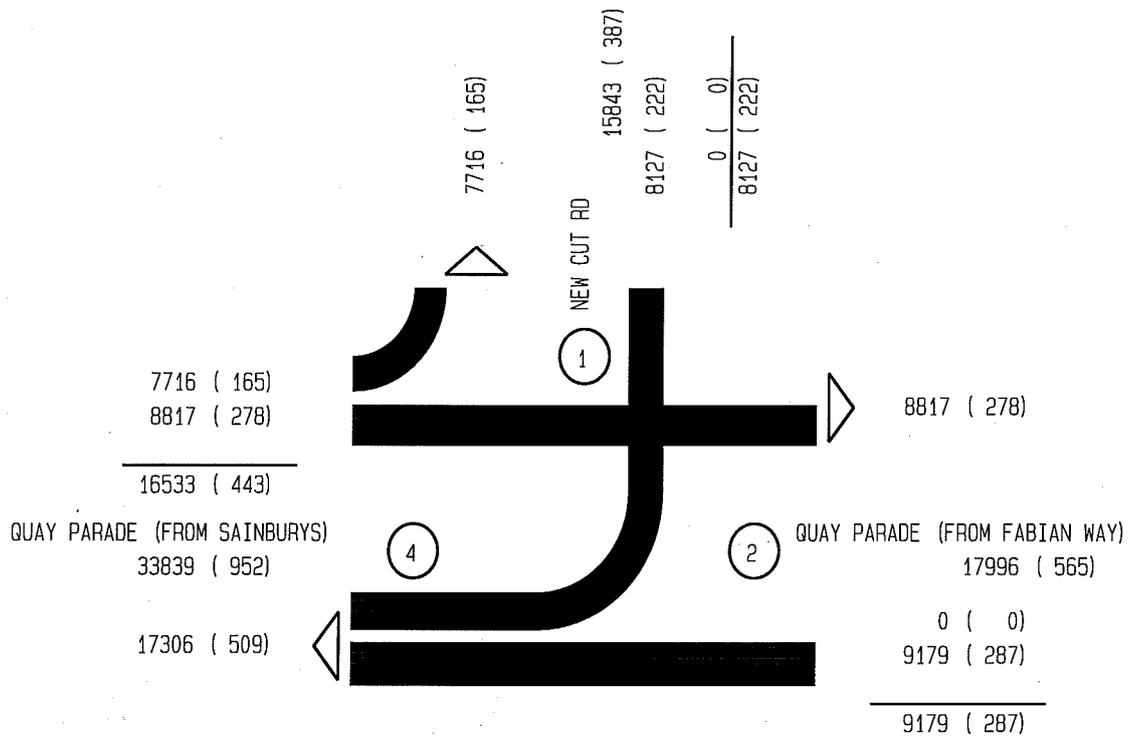
Street 1 north : NEW CUT RD  
 Street 2 east : QUAY PARADE (FROM FABIAN WAY)  
 Street 4 west : QUAY PARADE (FROM SAINBURYS)  
 Interval length : 15 min  
 Survey time : 8.00 - 18.00 hrs  
 Weather : DRY/ SUNNY

H.G.V.s = HG  
 VEHICLES = CAR + LGV + HG + BUS + MCL + PCL

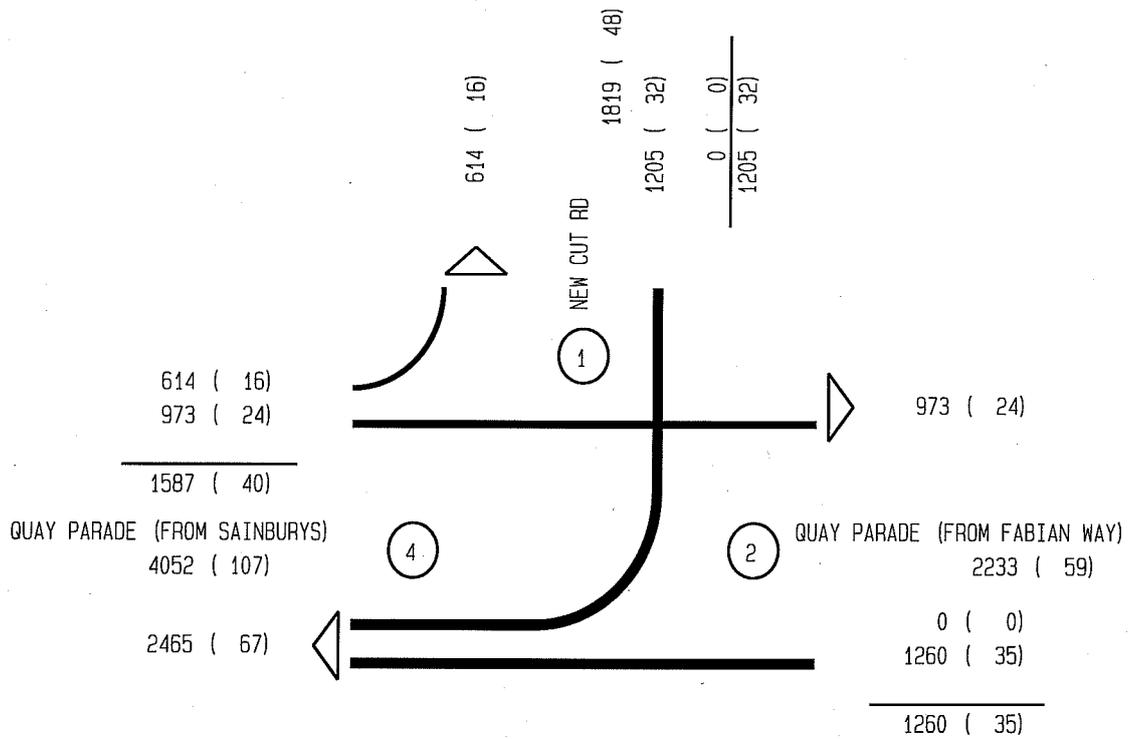
Time	Lane			
	14	24	41	42
8- 9	1205	1260	614	973
9-10	716	1108	595	598
10-11	925	898	532	516
11-12	960	804	494	613
12-13	770	759	669	705
13-14	740	772	894	896
14-15	690	678	1204	902
15-16	741	712	705	839
16-17	634	974	735	1281
17-18	746	1214	1274	1494
Total	8127		7716	
		9179		8817

All values in VEHC  
 VEHC = CAR + LGV + HG + BUS + MCL + PCL

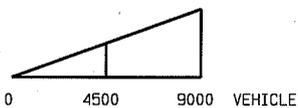
A 483/ A4067 QUAY PARADE/ NEW CUT RD 10HRS  
 Site : SC04052 TJ  
 Survey date : Tuesday, 18/05/04  
 Survey time : 8.00 - 18.00 hrs  
 A483/ A4067 QUAY PARADE/ NEW CUT RD



A 483/ A4067 QUAY PARADE/ NEW CUT RD 10HRS  
 Site : SC04052 TJ  
 Survey date : Tuesday, 18/05/04  
 Survey time : 8.00 - 9.00 hrs  
 A483/ A4067 QUAY PARADE/ NEW CUT RD

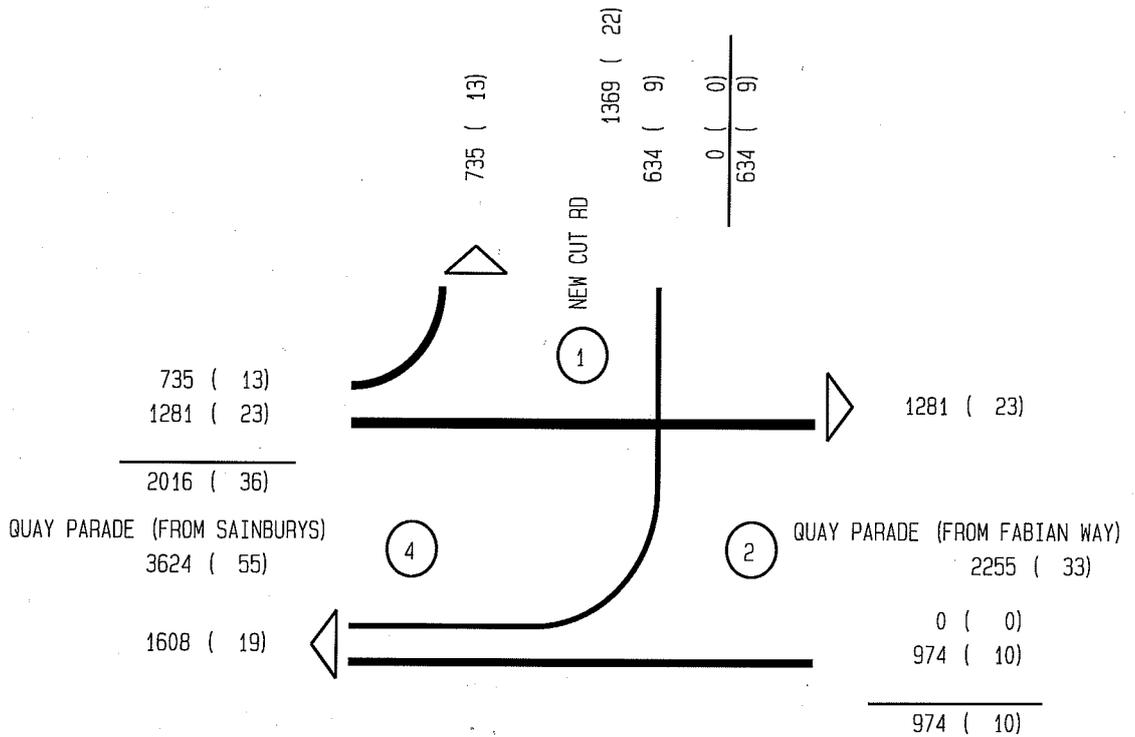


Scale :

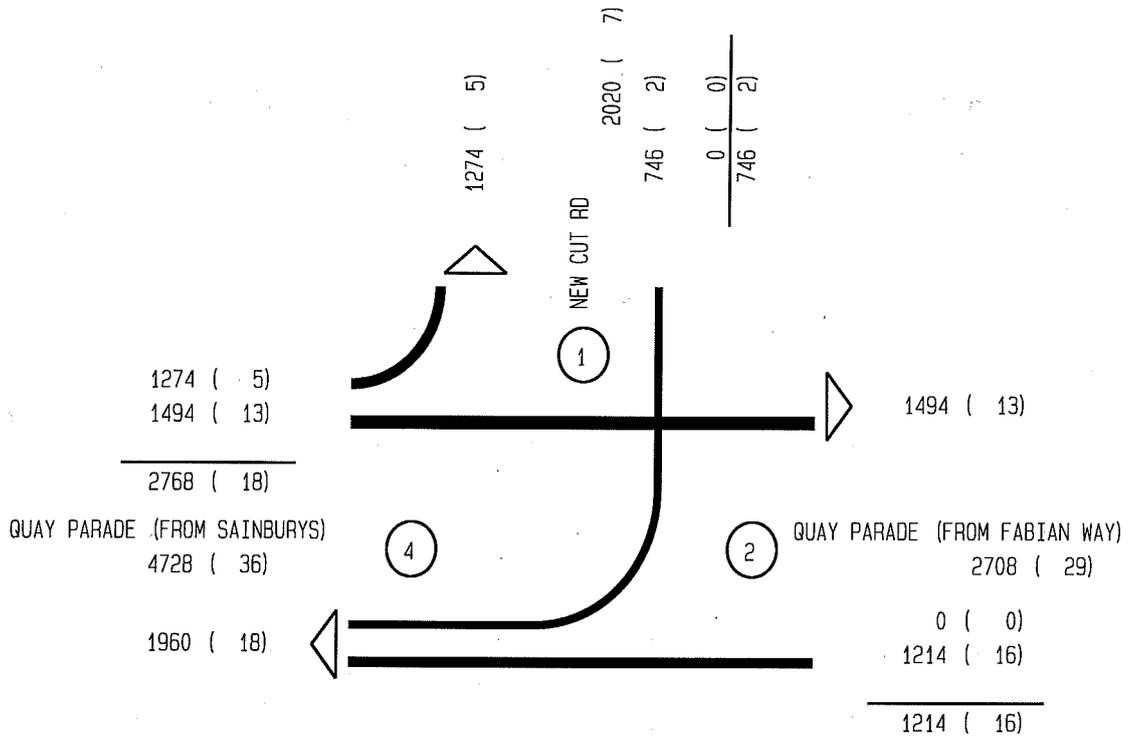


xx (yy) = VEHC HGVS

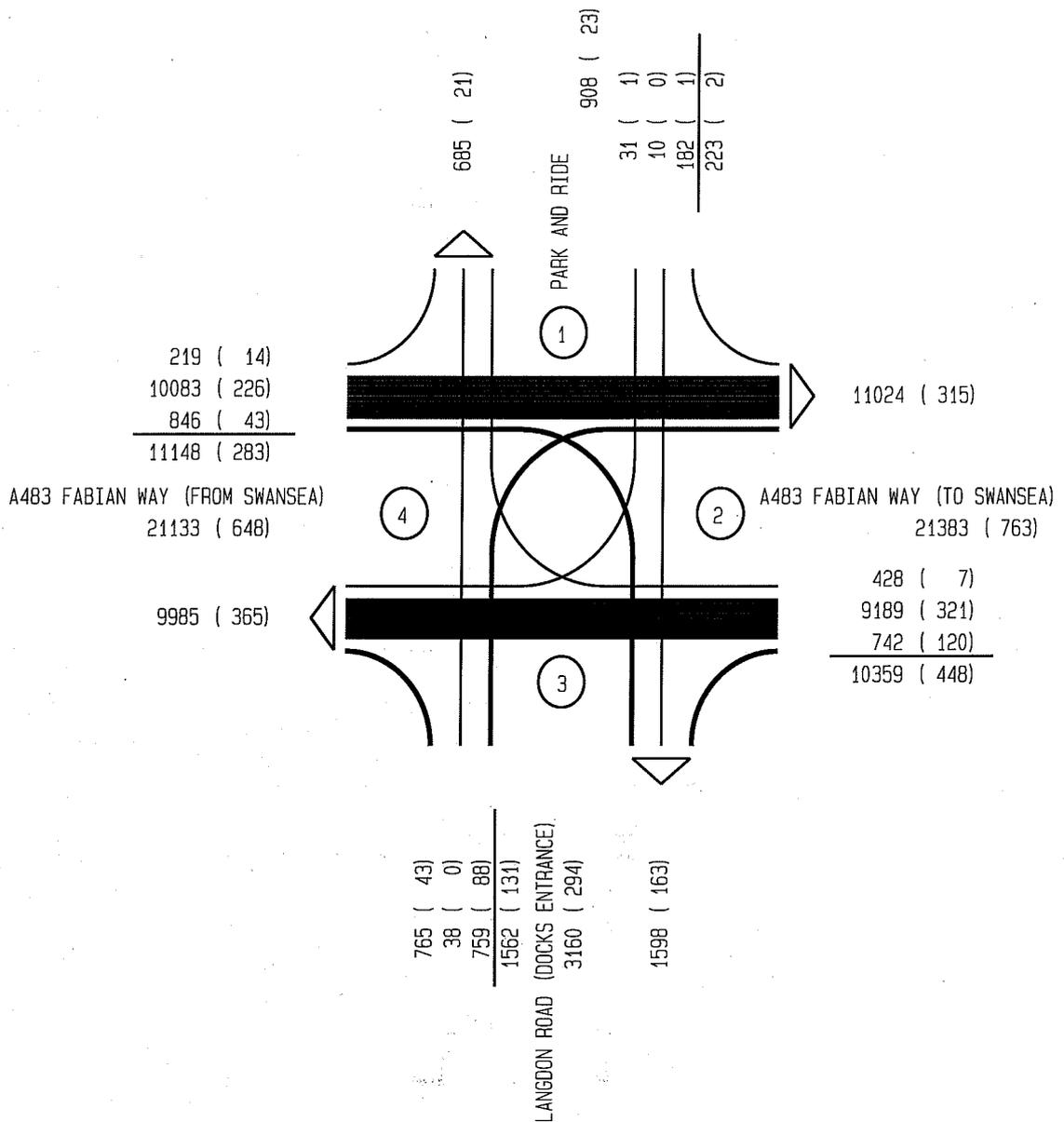
A 483/ A4067 QUAY PARADE/ NEW CUT RD 10HRS  
 Site : SC04052 TJ  
 Survey date : Tuesday, 18/05/04  
 Survey time : 16.00 - 17.00 hrs  
 A483/ A4067 QUAY PARADE/ NEW CUT RD



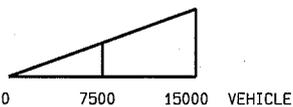
A 483/ A4067 QUAY PARADE/ NEW CUT RD 10HRS  
 Site : SC04052 TJ  
 Survey date : Tuesday, 18/05/04  
 Survey time : 17.00 - 18.00 hrs  
 A483/ A4067 QUAY PARADE/ NEW CUT RD



A483 FABIAN WAY @ PARK & RIDE 10HOURS  
 Site : SC08013CR  
 Survey date : Tuesday, 04/03/08  
 Survey time : 8.00 - 18.00 hrs  
 A483 FABIAN WAY



Scale :



xx (yy) = VEHC HGVS

CITY AND COUNTY OF SWANSEA  
 TRANSPORTATION UNIT/STUDIES MODELLING  
 COUNTY HALL SWANSEA SA1 3SN

A483 FABIAN WAY @ PARK & RIDE 10HOURS

Site : SC08013CR  
 Survey date : Tuesday, 04/03/08

Place : A483 FABIAN WAY

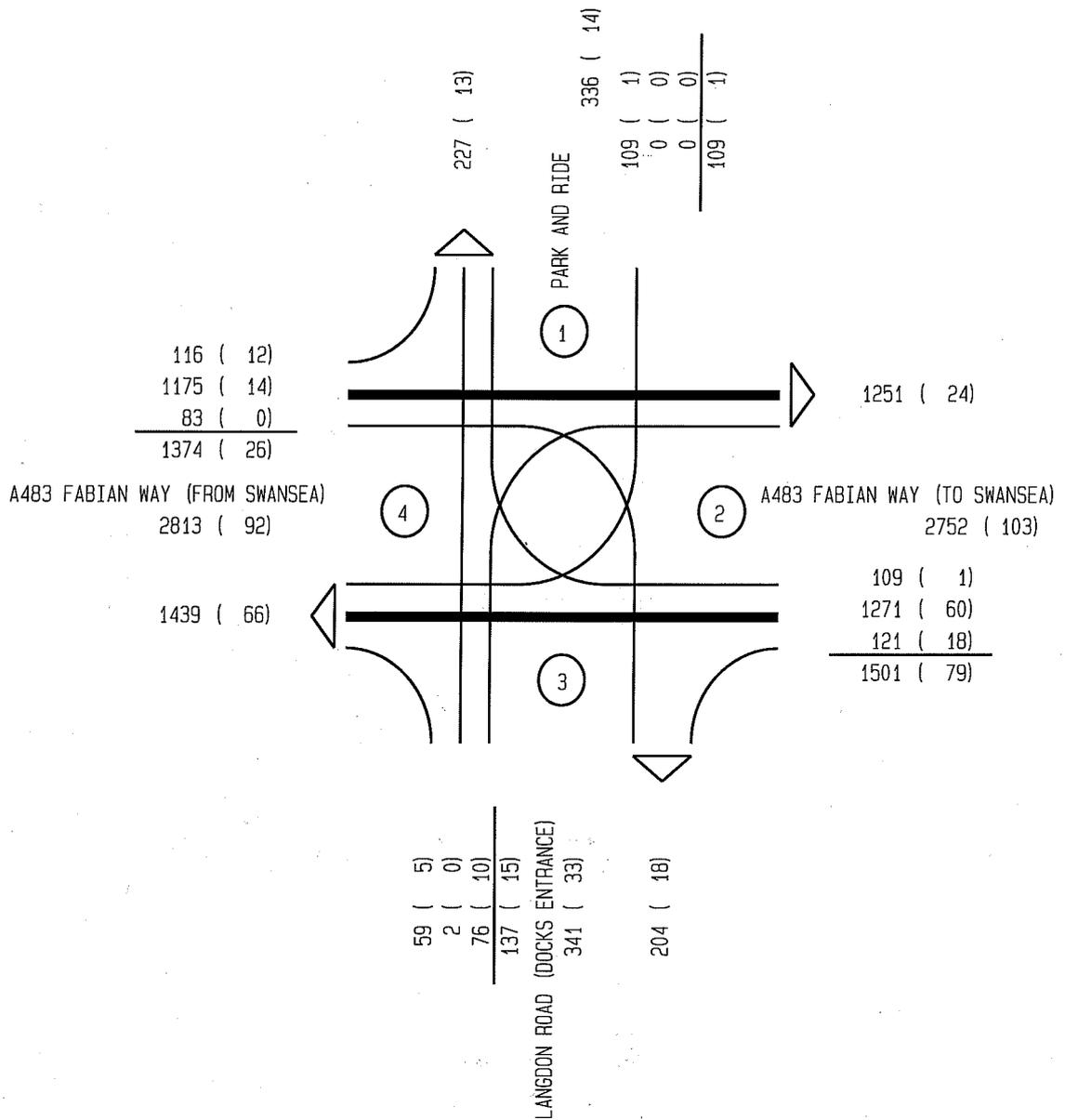
Street 1 north : PARK AND RIDE  
 Street 2 east : A483 FABIAN WAY (TO SWANSEA)  
 Street 3 south : LANGDON ROAD (DOCKS ENTRANCE)  
 Street 4 west : A483 FABIAN WAY (FROM SWANSEA)  
 Interval length : 15 min  
 Survey time : 8.00 - 18.00 hrs  
 Weather : DRY/SUNNY

H.G.V.s = HG  
 VEHICLES = CAR + LGV + HG + BUS + MCL + PCL

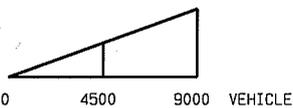
Time	Lane											
	12	13	14	21	23	24	31	32	34	41	42	43
7- 8	0	0	0									
8- 9	0	0	0	109	121	1271	2	76	59	116	1175	83
9-10	3	0	2	128	86	1335	1	55	76	15	703	96
10-11	15	0	2	57	60	747	2	57	91	14	551	86
11-12	23	2	7	56	60	717	5	68	58	10	680	75
12-13	24	1	3	21	63	750	0	49	59	14	756	87
13-14	42	2	5	22	71	794	0	33	26	4	828	99
14-15	34	5	9	16	75	673	19	55	46	14	845	85
15-16	41	0	3	10	70	733	1	103	109	12	1060	97
16-17	0	0	0	3	79	1014	0	120	117	10	1748	67
17-18	0	0	0	6	57	1155	8	143	124	10	1737	71
Total	182		31		742		38		765		10083	
		10		428		9189		759		219		846

All values in VEHC  
 VEHC = CAR + LGV + HG + BUS + MCL + PCL

A483 FABIAN WAY @ PARK & RIDE 10HOURS  
 Site : SC08013CR  
 Survey date : Tuesday, 04/03/08  
 Survey time : 8.00 - 9.00 hrs  
 A483 FABIAN WAY

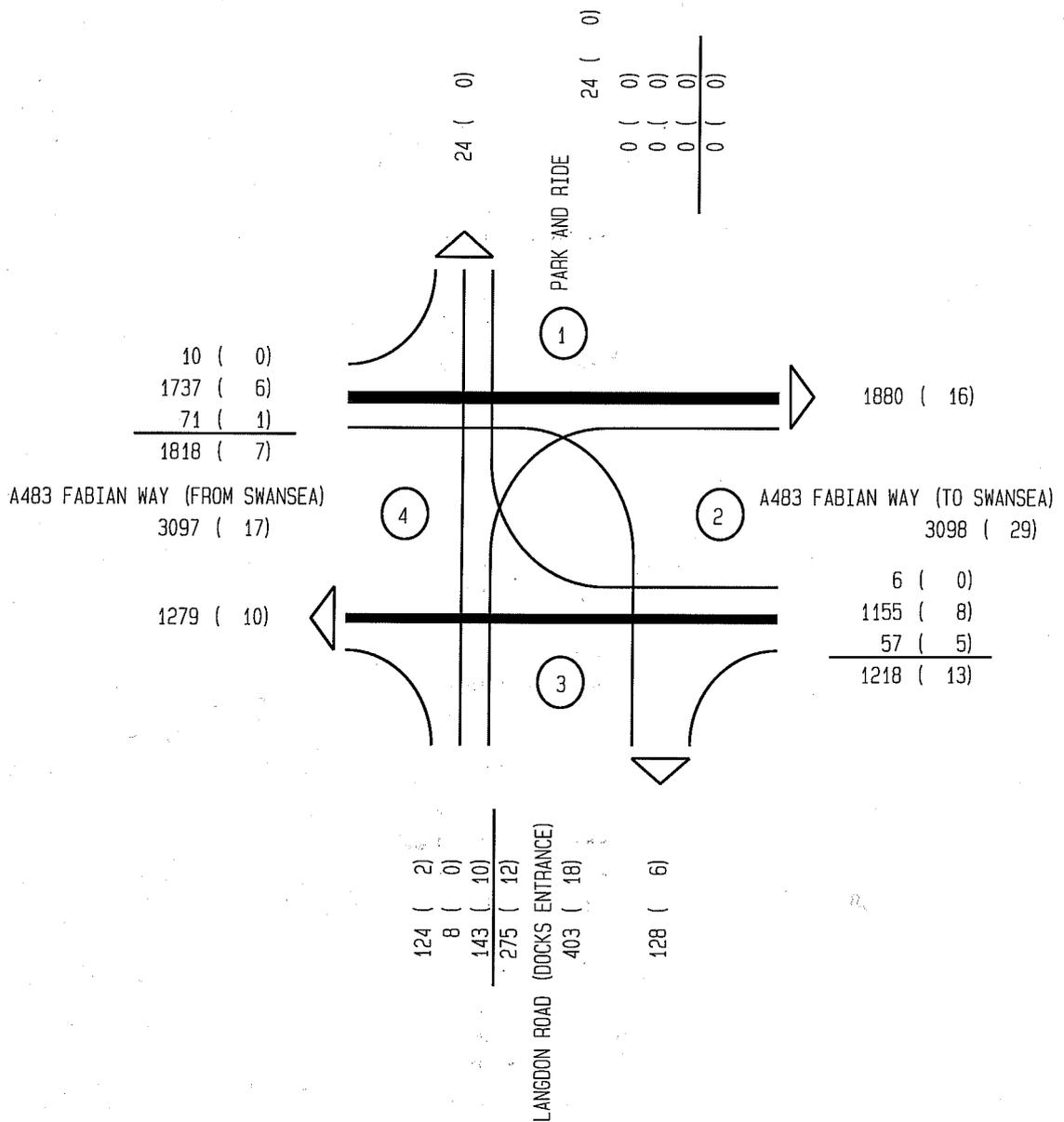


Scale :

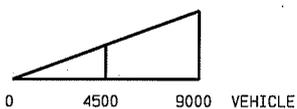




A483 FABIAN WAY @ PARK & RIDE 10HOURS  
 Site : SC08013CR  
 Survey date : Tuesday, 04/03/08  
 Survey time : 17.00 - 18.00 hrs  
 A483 FABIAN WAY



Scale :



xx (yy) = VEHC. HGVS

CITY AND COUNTY OF SWANSEA  
TRANSPORTATION UNIT/STUDIES MODELLING  
COUNTY HALL SWANSEA SA1 3SN

A483 FABIAN WAY @ PARK & RIDE 10HOURS

Site : SC08013CR  
Survey date : Tuesday, 04/03/08

Place : A483 FABIAN WAY

Street 1 north : PARK AND RIDE  
Street 2 east : A483 FABIAN WAY (TO SWANSEA)  
Street 3 south : LANGDON ROAD (DOCKS ENTRANCE)  
Street 4 west : A483 FABIAN WAY (FROM SWANSEA)  
Interval length : 15 min  
Survey time : 8.00 - 18.00 hrs  
Weather : DRY/SUNNY

H.G.V.s = HGV  
VEHICLES = CAR + LGV + HGV + BUS + MCL + PCL





Street : PARK AND RIDE north  
 Lane(s) : 14 Right 13 Ahead 12 Left

Lane	Time	CAR	LGV	HGV	BUS	MCL	PCL	OTH	H.G.V.s	VEHICLES	
Right	15.30 - 15.45	0	0	0	0	1	0	0	0	0.0%	1
Ahead	15.30 - 15.45	0	0	0	0	0	0	0	0	0.0%	0
Left	15.30 - 15.45	8	1	0	0	0	0	0	0	0.0%	9
Right	15.45 - 16.00	1	0	0	0	0	0	0	0	0.0%	1
Ahead	15.45 - 16.00	0	0	0	0	0	0	0	0	0.0%	0
Left	15.45 - 16.00	15	0	0	0	0	1	0	0	0.0%	16
Right	16.00 - 16.15	0	0	0	0	0	0	0	0	0.0%	0
Ahead	16.00 - 16.15	0	0	0	0	0	0	0	0	0.0%	0
Left	16.00 - 16.15	0	0	0	0	0	0	0	0	0.0%	0
Right	16.15 - 16.30	0	0	0	0	0	0	0	0	0.0%	0
Ahead	16.15 - 16.30	0	0	0	0	0	0	0	0	0.0%	0
Left	16.15 - 16.30	0	0	0	0	0	0	0	0	0.0%	0
Right	16.30 - 16.45	0	0	0	0	0	0	0	0	0.0%	0
Ahead	16.30 - 16.45	0	0	0	0	0	0	0	0	0.0%	0
Left	16.30 - 16.45	0	0	0	0	0	0	0	0	0.0%	0
Right	16.45 - 17.00	0	0	0	0	0	0	0	0	0.0%	0
Ahead	16.45 - 17.00	0	0	0	0	0	0	0	0	0.0%	0
Left	16.45 - 17.00	0	0	0	0	0	0	0	0	0.0%	0
Right	17.00 - 17.15	0	0	0	0	0	0	0	0	0.0%	0
Ahead	17.00 - 17.15	0	0	0	0	0	0	0	0	0.0%	0
Left	17.00 - 17.15	0	0	0	0	0	0	0	0	0.0%	0
Right	17.15 - 17.30	0	0	0	0	0	0	0	0	0.0%	0
Ahead	17.15 - 17.30	0	0	0	0	0	0	0	0	0.0%	0
Left	17.15 - 17.30	0	0	0	0	0	0	0	0	0.0%	0
Right	17.30 - 17.45	0	0	0	0	0	0	0	0	0.0%	0
Ahead	17.30 - 17.45	0	0	0	0	0	0	0	0	0.0%	0
Left	17.30 - 17.45	0	0	0	0	0	0	0	0	0.0%	0
Right	17.45 - 18.00	0	0	0	0	0	0	0	0	0.0%	0
Ahead	17.45 - 18.00	0	0	0	0	0	0	0	0	0.0%	0
Left	17.45 - 18.00	0	0	0	0	0	0	0	0	0.0%	0
Count period total :											
Right	8.00 - 18.00	23	3	1	0	3	1	0	1	3.2%	31
Ahead	8.00 - 18.00	7	1	0	1	1	0	0	0	0.0%	10
Left	8.00 - 18.00	165	13	1	2	0	1	0	1	0.5%	182
Total											
Right	8.00 - 18.00	23	3	1	0	3	1	0	1	3.2%	31
Ahead	8.00 - 18.00	7	1	0	1	1	0	0	0	0.0%	10
Left	8.00 - 18.00	165	13	1	2	0	1	0	1	0.5%	182

Street : A483 FABIAN WAY (TO SWANSEA) east  
 Lane(s) : 21 Right 24 Ahead 23 Left

Lane	Time	CAR	LGV	HGV	BUS	MCL	PCL	OTH	H.G.V.s	VEHICLES
Hourly flows :										
Right	8.00 - 8.15	36	2	0	0	0	0	0	0	38
Ahead	8.00 - 8.15	306	54	28	2	0	1	0	28	391
Left	8.00 - 8.15	16	6	6	0	0	0	0	6	28
Right	8.15 - 8.30	23	0	0	0	0	0	0	0	23
Ahead	8.15 - 8.30	361	48	22	7	3	1	0	22	442
Left	8.15 - 8.30	33	8	5	0	1	0	0	5	47
Right	8.30 - 8.45	21	3	0	0	0	0	0	0	24
Ahead	8.30 - 8.45	159	23	4	1	1	0	0	4	188
Left	8.30 - 8.45	17	5	1	0	0	0	0	1	23
Right	8.45 - 9.00	23	0	1	0	0	0	0	1	24
Ahead	8.45 - 9.00	216	23	6	2	1	2	0	6	250
Left	8.45 - 9.00	13	4	6	0	0	0	0	6	23
Right	9.00 - 9.15	30	0	0	0	0	0	0	0	30
Ahead	9.00 - 9.15	389	36	17	3	0	0	0	17	445
Left	9.00 - 9.15	18	5	6	0	0	0	0	6	29
Right	9.15 - 9.30	36	3	0	0	0	0	0	0	39
Ahead	9.15 - 9.30	375	31	15	1	1	0	0	15	423
Left	9.15 - 9.30	15	7	3	0	0	0	0	3	25
Right	9.30 - 9.45	26	3	0	1	0	0	0	0	30
Ahead	9.30 - 9.45	259	24	18	9	3	0	0	18	313
Left	9.30 - 9.45	19	5	5	0	0	0	0	5	29
Right	9.45 - 10.00	22	6	1	0	0	0	0	1	29
Ahead	9.45 - 10.00	106	28	16	4	0	0	0	16	154
Left	9.45 - 10.00	0	1	0	2	0	0	0	0	3
Right	10.00 - 10.15	7	1	3	0	0	0	0	3	11
Ahead	10.00 - 10.15	143	21	9	5	0	0	0	9	178
Left	10.00 - 10.15	6	2	2	1	0	0	0	2	11
Right	10.15 - 10.30	13	0	1	0	0	0	0	1	14
Ahead	10.15 - 10.30	163	29	8	6	0	0	0	8	206
Left	10.15 - 10.30	10	4	4	1	0	0	0	4	19
Right	10.30 - 10.45	14	0	0	0	0	0	0	0	14
Ahead	10.30 - 10.45	169	28	7	4	0	0	0	7	208
Left	10.30 - 10.45	8	1	0	0	0	0	0	0	9
Right	10.45 - 11.00	16	2	0	0	0	0	0	0	18
Ahead	10.45 - 11.00	125	16	9	5	0	0	0	9	155
Left	10.45 - 11.00	15	4	2	0	0	0	0	2	21
Right	11.00 - 11.15	13	0	0	0	0	0	0	0	13
Ahead	11.00 - 11.15	163	28	14	3	1	0	0	14	209
Left	11.00 - 11.15	7	4	2	0	0	0	0	2	13
Right	11.15 - 11.30	13	1	0	0	0	0	0	0	14
Ahead	11.15 - 11.30	148	22	8	5	2	0	0	8	185
Left	11.15 - 11.30	16	2	0	0	0	0	0	0	18
Right	11.30 - 11.45	11	2	0	0	0	0	0	0	13
Ahead	11.30 - 11.45	138	30	4	4	0	0	0	4	176
Left	11.30 - 11.45	9	2	0	1	0	0	0	0	12

Street : A483 FABIAN WAY (TO SWANSEA) east  
 Lane(s) : 21 Right 24 Ahead 23 Left

Lane	Time	CAR	LGV	HGV	BUS	MCL	PCL	OTH	H.G.V.s	VEHICLES	
Right	11.45 - 12.00	15	1	0	0	0	0	0	0	0.0%	16
Ahead	11.45 - 12.00	119	18	5	5	0	0	0	5	3.4%	147
Left	11.45 - 12.00	13	4	0	0	0	0	0	0	0.0%	17
Right	12.00 - 12.15	6	1	0	0	0	0	0	0	0.0%	7
Ahead	12.00 - 12.15	136	21	4	4	1	0	0	4	2.4%	166
Left	12.00 - 12.15	12	0	2	0	0	0	0	2	14.3%	14
Right	12.15 - 12.30	6	1	0	0	0	0	0	0	0.0%	7
Ahead	12.15 - 12.30	170	33	14	4	0	0	0	14	6.3%	221
Left	12.15 - 12.30	6	5	5	0	0	0	0	5	31.3%	16
Right	12.30 - 12.45	3	1	0	0	0	0	0	0	0.0%	4
Ahead	12.30 - 12.45	160	25	2	3	0	0	0	2	1.1%	190
Left	12.30 - 12.45	4	2	2	0	0	0	0	2	25.0%	8
Right	12.45 - 13.00	3	0	0	0	0	0	0	0	0.0%	3
Ahead	12.45 - 13.00	131	28	10	4	0	0	0	10	5.8%	173
Left	12.45 - 13.00	12	4	9	0	0	0	0	9	36.0%	25
Right	13.00 - 13.15	6	0	0	0	0	0	0	0	0.0%	6
Ahead	13.00 - 13.15	166	14	9	5	0	0	0	9	4.6%	194
Left	13.00 - 13.15	18	7	5	0	0	0	0	5	16.7%	30
Right	13.15 - 13.30	4	0	0	0	0	0	0	0	0.0%	4
Ahead	13.15 - 13.30	160	20	6	6	0	0	0	6	3.1%	192
Left	13.15 - 13.30	7	2	3	0	0	0	0	3	25.0%	12
Right	13.30 - 13.45	6	0	0	0	0	0	0	0	0.0%	6
Ahead	13.30 - 13.45	183	26	6	4	0	0	0	6	2.7%	219
Left	13.30 - 13.45	8	2	3	0	0	0	0	3	23.1%	13
Right	13.45 - 14.00	6	0	0	0	0	0	0	0	0.0%	6
Ahead	13.45 - 14.00	151	24	8	5	1	0	0	8	4.2%	189
Left	13.45 - 14.00	12	3	1	0	0	0	0	1	6.3%	16
Right	14.00 - 14.15	7	0	1	0	0	0	0	1	12.5%	8
Ahead	14.00 - 14.15	134	20	6	2	0	0	0	6	3.7%	162
Left	14.00 - 14.15	12	3	4	1	0	0	0	4	20.0%	20
Right	14.15 - 14.30	5	1	0	0	0	0	0	0	0.0%	6
Ahead	14.15 - 14.30	140	11	6	4	0	0	0	6	3.7%	161
Left	14.15 - 14.30	7	2	5	0	0	0	0	5	35.7%	14
Right	14.30 - 14.45	1	0	0	0	0	0	0	0	0.0%	1
Ahead	14.30 - 14.45	140	17	9	4	0	0	0	9	5.3%	170
Left	14.30 - 14.45	10	3	12	1	0	0	0	12	46.2%	26
Right	14.45 - 15.00	1	0	0	0	0	0	0	0	0.0%	1
Ahead	14.45 - 15.00	151	14	11	4	0	0	0	11	6.1%	180
Left	14.45 - 15.00	5	5	5	0	0	0	0	5	33.3%	15
Right	15.00 - 15.15	1	0	0	0	0	0	0	0	0.0%	1
Ahead	15.00 - 15.15	152	15	9	3	0	0	0	9	5.0%	179
Left	15.00 - 15.15	20	2	4	1	0	0	0	4	14.8%	27
Right	15.15 - 15.30	2	0	0	0	0	0	0	0	0.0%	2
Ahead	15.15 - 15.30	152	24	4	5	1	0	0	4	2.2%	186
Left	15.15 - 15.30	6	4	1	0	0	0	0	1	9.1%	11

Street : A483 FABIAN WAY (TO SWANSEA) east  
 Lane(s) : 21 Right 24 Ahead 23 Left

Lane	Time	CAR	LGV	HGV	BUS	MCL	PCL	OTH	H.G.V.s	VEHICLES	
Right	15.30 - 15.45	4	0	0	0	0	0	0	0	0.0%	4
Ahead	15.30 - 15.45	153	21	3	3	1	0	0	3	1.7%	181
Left	15.30 - 15.45	10	3	1	0	0	0	0	1	7.1%	14
Right	15.45 - 16.00	3	0	0	0	0	0	0	0	0.0%	3
Ahead	15.45 - 16.00	150	24	8	4	1	0	0	8	4.3%	187
Left	15.45 - 16.00	11	4	2	0	1	0	0	2	11.1%	18
Right	16.00 - 16.15	0	0	0	0	0	0	0	0	0.0%	0
Ahead	16.00 - 16.15	178	28	1	5	0	0	0	1	0.5%	212
Left	16.00 - 16.15	7	1	2	0	0	0	0	2	20.0%	10
Right	16.15 - 16.30	0	0	0	0	0	0	0	0	0.0%	0
Ahead	16.15 - 16.30	196	26	1	7	2	1	0	1	0.4%	233
Left	16.15 - 16.30	22	6	0	0	0	0	0	0	0.0%	28
Right	16.30 - 16.45	2	0	0	0	0	0	0	0	0.0%	2
Ahead	16.30 - 16.45	250	30	3	2	3	0	0	3	1.0%	288
Left	16.30 - 16.45	15	4	6	0	0	0	0	6	24.0%	25
Right	16.45 - 17.00	1	0	0	0	0	0	0	0	0.0%	1
Ahead	16.45 - 17.00	248	21	3	5	3	1	0	3	1.1%	281
Left	16.45 - 17.00	10	5	1	0	0	0	0	1	6.3%	16
Right	17.00 - 17.15	3	0	0	0	0	0	0	0	0.0%	3
Ahead	17.00 - 17.15	265	24	4	3	1	0	0	4	1.3%	297
Left	17.00 - 17.15	13	5	1	0	0	0	0	1	5.3%	19
Right	17.15 - 17.30	1	0	0	0	0	0	0	0	0.0%	1
Ahead	17.15 - 17.30	298	20	1	6	0	1	0	1	0.3%	326
Left	17.15 - 17.30	10	0	2	0	0	0	0	2	16.7%	12
Right	17.30 - 17.45	2	0	0	0	0	0	0	0	0.0%	2
Ahead	17.30 - 17.45	235	19	2	1	0	1	0	2	0.8%	258
Left	17.30 - 17.45	9	1	2	0	0	0	0	2	16.7%	12
Right	17.45 - 18.00	0	0	0	0	0	0	0	0	0.0%	0
Ahead	17.45 - 18.00	254	14	1	4	0	1	0	1	0.4%	274
Left	17.45 - 18.00	13	1	0	0	0	0	0	0	0.0%	14
Count period total :											
Right	8.00 - 18.00	392	28	7	1	0	0	0	7	1.6%	428
Ahead	8.00 - 18.00	7692	978	321	163	26	9	0	321	3.5%	9189
Left	8.00 - 18.00	474	138	120	8	2	0	0	120	16.2%	742
Total											
Right	8.00 - 18.00	392	28	7	1	0	0	0	7	1.6%	428
Ahead	8.00 - 18.00	7692	978	321	163	26	9	0	321	3.5%	9189
Left	8.00 - 18.00	474	138	120	8	2	0	0	120	16.2%	742

Street : LANGDON ROAD (DOCKS ENTRANCE) south  
 Lane(s) : 32 Right 31 Ahead 34 Left

Lane	Time	CAR	LGV	HGV	BUS	MCL	PCL	OTH	H.G.V.s	VEHICLES
Hourly flows :										
Right	8.00 - 8.15	6	5	4	0	0	0	0	4 26.7%	15
Ahead	8.00 - 8.15	0	0	0	0	0	0	0	0 0.0%	0
Left	8.00 - 8.15	5	3	1	0	0	0	1	1 11.1%	9
Right	8.15 - 8.30	6	8	1	0	0	0	0	1 6.7%	15
Ahead	8.15 - 8.30	0	0	0	0	0	0	0	0 0.0%	0
Left	8.15 - 8.30	4	4	0	0	0	1	0	0 0.0%	9
Right	8.30 - 8.45	16	4	3	0	0	0	0	3 13.0%	23
Ahead	8.30 - 8.45	1	0	0	0	0	0	0	0 0.0%	1
Left	8.30 - 8.45	17	10	0	0	0	0	0	0 0.0%	27
Right	8.45 - 9.00	17	3	2	0	0	1	0	2 8.7%	23
Ahead	8.45 - 9.00	1	0	0	0	0	0	0	0 0.0%	1
Left	8.45 - 9.00	7	2	4	0	1	0	0	4 28.6%	14
Right	9.00 - 9.15	10	3	2	0	0	0	0	2 13.3%	15
Ahead	9.00 - 9.15	1	0	0	0	0	0	0	0 0.0%	1
Left	9.00 - 9.15	5	2	1	0	0	0	0	1 12.5%	8
Right	9.15 - 9.30	12	6	0	0	0	0	0	0 0.0%	18
Ahead	9.15 - 9.30	0	0	0	0	0	0	0	0 0.0%	0
Left	9.15 - 9.30	8	7	3	0	0	0	0	3 16.7%	18
Right	9.30 - 9.45	7	1	4	0	0	0	0	4 33.3%	12
Ahead	9.30 - 9.45	0	0	0	0	0	0	0	0 0.0%	0
Left	9.30 - 9.45	23	5	1	0	0	0	0	1 3.4%	29
Right	9.45 - 10.00	3	1	6	0	0	0	0	6 60.0%	10
Ahead	9.45 - 10.00	0	0	0	0	0	0	0	0 0.0%	0
Left	9.45 - 10.00	10	5	6	0	0	0	0	6 28.6%	21
Right	10.00 - 10.15	3	6	3	0	0	0	0	3 25.0%	12
Ahead	10.00 - 10.15	0	0	0	0	0	0	0	0 0.0%	0
Left	10.00 - 10.15	14	3	3	0	0	0	0	3 15.0%	20
Right	10.15 - 10.30	10	7	4	0	0	0	0	4 19.0%	21
Ahead	10.15 - 10.30	0	0	0	0	0	0	0	0 0.0%	0
Left	10.15 - 10.30	22	6	1	0	0	0	0	1 3.4%	29
Right	10.30 - 10.45	4	2	2	0	0	0	0	2 25.0%	8
Ahead	10.30 - 10.45	0	0	0	0	0	0	0	0 0.0%	0
Left	10.30 - 10.45	9	3	1	0	0	0	0	1 7.7%	13
Right	10.45 - 11.00	11	4	1	0	0	0	0	1 6.3%	16
Ahead	10.45 - 11.00	2	0	0	0	0	0	0	0 0.0%	2
Left	10.45 - 11.00	22	2	4	1	0	0	0	4 13.8%	29
Right	11.00 - 11.15	14	8	5	0	0	0	0	5 18.5%	27
Ahead	11.00 - 11.15	0	0	0	0	0	0	0	0 0.0%	0
Left	11.00 - 11.15	12	3	1	0	0	0	0	1 6.3%	16
Right	11.15 - 11.30	3	1	4	0	0	0	0	4 50.0%	8
Ahead	11.15 - 11.30	1	0	0	0	0	0	0	0 0.0%	1
Left	11.15 - 11.30	9	2	1	0	0	0	0	1 8.3%	12
Right	11.30 - 11.45	17	4	1	1	0	0	0	1 4.3%	23
Ahead	11.30 - 11.45	0	0	0	0	0	0	0	0 0.0%	0
Left	11.30 - 11.45	17	7	0	0	0	0	0	0 0.0%	24

Street : LANGDON ROAD (DOCKS ENTRANCE) south  
 Lane(s) : 32 Right 31 Ahead 34 Left

Lane	Time	CAR	LGV	HGV	BUS	MCL	PCL	OTH	H.G.V.s	VEHICLES
Right	11.45 - 12.00	7	1	2	0	0	0	0	2 20.0%	10
Ahead	11.45 - 12.00	3	1	0	0	0	0	0	0 0.0%	4
Left	11.45 - 12.00	3	3	0	0	0	0	0	0 0.0%	6
Right	12.00 - 12.15	4	5	0	0	0	0	0	0 0.0%	9
Ahead	12.00 - 12.15	0	0	0	0	0	0	0	0 0.0%	0
Left	12.00 - 12.15	12	2	0	0	0	0	0	0 0.0%	14
Right	12.15 - 12.30	8	5	2	0	0	0	0	2 13.3%	15
Ahead	12.15 - 12.30	0	0	0	0	0	0	0	0 0.0%	0
Left	12.15 - 12.30	13	5	0	0	0	0	0	0 0.0%	18
Right	12.30 - 12.45	3	6	2	0	0	0	0	2 18.2%	11
Ahead	12.30 - 12.45	0	0	0	0	0	0	0	0 0.0%	0
Left	12.30 - 12.45	2	2	2	0	0	0	0	2 33.3%	6
Right	12.45 - 13.00	11	2	1	0	0	0	0	1 7.1%	14
Ahead	12.45 - 13.00	0	0	0	0	0	0	0	0 0.0%	0
Left	12.45 - 13.00	19	2	0	0	0	0	0	0 0.0%	21
Right	13.00 - 13.15	12	6	0	0	0	0	0	0 0.0%	18
Ahead	13.00 - 13.15	0	0	0	0	0	0	0	0 0.0%	0
Left	13.00 - 13.15	5	2	0	0	0	0	0	0 0.0%	7
Right	13.15 - 13.30	5	3	0	0	0	0	0	0 0.0%	8
Ahead	13.15 - 13.30	0	0	0	0	0	0	0	0 0.0%	0
Left	13.15 - 13.30	4	3	0	0	0	0	0	0 0.0%	7
Right	13.30 - 13.45	1	3	1	0	0	0	0	1 20.0%	5
Ahead	13.30 - 13.45	0	0	0	0	0	0	0	0 0.0%	0
Left	13.30 - 13.45	2	3	0	0	0	0	0	0 0.0%	5
Right	13.45 - 14.00	0	2	0	0	0	0	0	0 0.0%	2
Ahead	13.45 - 14.00	0	0	0	0	0	0	0	0 0.0%	0
Left	13.45 - 14.00	4	3	0	0	0	0	0	0 0.0%	7
Right	14.00 - 14.15	9	4	1	0	0	0	0	1 7.1%	14
Ahead	14.00 - 14.15	0	0	0	0	0	0	0	0 0.0%	0
Left	14.00 - 14.15	7	8	2	0	0	0	0	2 11.8%	17
Right	14.15 - 14.30	7	5	1	0	0	0	0	1 7.7%	13
Ahead	14.15 - 14.30	0	0	0	0	0	0	0	0 0.0%	0
Left	14.15 - 14.30	5	4	0	0	0	0	0	0 0.0%	9
Right	14.30 - 14.45	10	3	3	1	0	0	0	3 17.6%	17
Ahead	14.30 - 14.45	16	3	0	0	0	0	0	0 0.0%	19
Left	14.30 - 14.45	6	0	0	0	0	0	0	0 0.0%	6
Right	14.45 - 15.00	8	2	1	0	0	0	0	1 9.1%	11
Ahead	14.45 - 15.00	0	0	0	0	0	0	0	0 0.0%	0
Left	14.45 - 15.00	7	5	2	0	0	0	0	2 14.3%	14
Right	15.00 - 15.15	17	2	6	1	0	0	0	6 23.1%	26
Ahead	15.00 - 15.15	0	0	0	0	0	0	0	0 0.0%	0
Left	15.00 - 15.15	16	3	4	1	1	0	0	4 16.0%	25
Right	15.15 - 15.30	10	3	1	0	1	0	0	1 6.7%	15
Ahead	15.15 - 15.30	1	0	0	0	0	0	0	0 0.0%	1
Left	15.15 - 15.30	13	5	1	0	0	0	0	1 5.3%	19

Street : LANGDON ROAD (DOCKS ENTRANCE) south  
 Lane(s) : 32 Right 31 Ahead 34 Left

Lane	Time	CAR	LGV	HGV	BUS	MCL	PCL	OTH	H.G.V.s	VEHICLES
Right	15.30 - 15.45	17	7	2	0	0	1	0	2 7.4%	27
Ahead	15.30 - 15.45	0	0	0	0	0	0	0	0 0.0%	0
Left	15.30 - 15.45	21	4	1	0	0	0	0	1 3.8%	26
Right	15.45 - 16.00	20	8	4	0	1	2	0	4 11.4%	35
Ahead	15.45 - 16.00	0	0	0	0	0	0	0	0 0.0%	0
Left	15.45 - 16.00	31	6	2	0	0	0	0	2 5.1%	39
Right	16.00 - 16.15	19	4	4	0	0	0	0	4 14.8%	27
Ahead	16.00 - 16.15	0	0	0	0	0	0	0	0 0.0%	0
Left	16.00 - 16.15	33	5	0	0	0	0	0	0 0.0%	38
Right	16.15 - 16.30	24	2	2	0	0	0	0	2 7.1%	28
Ahead	16.15 - 16.30	0	0	0	0	0	0	0	0 0.0%	0
Left	16.15 - 16.30	25	3	0	0	0	0	0	0 0.0%	28
Right	16.30 - 16.45	28	7	0	0	0	0	0	0 0.0%	35
Ahead	16.30 - 16.45	0	0	0	0	0	0	0	0 0.0%	0
Left	16.30 - 16.45	18	1	0	0	1	0	0	0 0.0%	20
Right	16.45 - 17.00	22	5	3	0	0	0	0	3 10.0%	30
Ahead	16.45 - 17.00	0	0	0	0	0	0	0	0 0.0%	0
Left	16.45 - 17.00	26	5	0	0	0	0	0	0 0.0%	31
Right	17.00 - 17.15	36	10	2	0	2	0	0	2 4.0%	50
Ahead	17.00 - 17.15	5	1	0	0	0	0	0	0 0.0%	6
Left	17.00 - 17.15	45	3	0	0	0	0	0	0 0.0%	48
Right	17.15 - 17.30	26	4	4	0	0	0	0	4 11.8%	34
Ahead	17.15 - 17.30	2	0	0	0	0	0	0	0 0.0%	2
Left	17.15 - 17.30	18	1	2	0	0	1	0	2 9.1%	22
Right	17.30 - 17.45	29	2	1	0	0	0	0	1 3.1%	32
Ahead	17.30 - 17.45	0	0	0	0	0	0	0	0 0.0%	0
Left	17.30 - 17.45	28	6	0	0	0	0	0	0 0.0%	34
Right	17.45 - 18.00	20	4	3	0	0	0	0	3 11.1%	27
Ahead	17.45 - 18.00	0	0	0	0	0	0	0	0 0.0%	0
Left	17.45 - 18.00	18	1	0	0	1	0	0	0 0.0%	20
Count period total :										
Right	8.00 - 18.00	492	168	88	3	4	4	0	88 11.6%	759
Ahead	8.00 - 18.00	33	5	0	0	0	0	0	0 0.0%	38
Left	8.00 - 18.00	565	149	43	2	4	2	1	43 5.6%	765
Total										
Right	8.00 - 18.00	492	168	88	3	4	4	0	88 11.6%	759
Ahead	8.00 - 18.00	33	5	0	0	0	0	0	0 0.0%	38
Left	8.00 - 18.00	565	149	43	2	4	2	1	43 5.6%	765



Street : A483 FABIAN WAY (FROM SWANSEA) west  
 Lane(s) : 43 Right 42 Ahead 41 Left

Lane	Time	CAR	LGV	HGV	BUS	MCL	PCL	OTH	H.G.V.s	VEHICLES	
Right	11.45 - 12.00	10	5	1	0	0	0	0	1	6.3%	16
Ahead	11.45 - 12.00	123	34	6	4	2	1	0	6	3.5%	170
Left	11.45 - 12.00	2	0	0	1	0	0	0	0	0.0%	3
Right	12.00 - 12.15	14	11	0	0	0	0	0	0	0.0%	25
Ahead	12.00 - 12.15	138	36	1	6	1	0	0	1	0.5%	182
Left	12.00 - 12.15	0	2	0	1	0	0	0	0	0.0%	3
Right	12.15 - 12.30	11	3	1	0	0	0	0	1	6.7%	15
Ahead	12.15 - 12.30	157	45	4	3	1	0	0	4	1.9%	210
Left	12.15 - 12.30	1	0	0	1	0	0	0	0	0.0%	2
Right	12.30 - 12.45	8	2	1	0	0	0	0	1	9.1%	11
Ahead	12.30 - 12.45	138	40	3	5	0	0	0	3	1.6%	186
Left	12.30 - 12.45	3	1	0	1	1	0	0	0	0.0%	6
Right	12.45 - 13.00	29	6	0	1	0	0	0	0	0.0%	36
Ahead	12.45 - 13.00	142	31	1	4	0	0	0	1	0.6%	178
Left	12.45 - 13.00	1	0	0	2	0	0	0	0	0.0%	3
Right	13.00 - 13.15	17	6	1	1	0	0	0	1	4.0%	25
Ahead	13.00 - 13.15	167	37	2	5	0	0	0	2	0.9%	211
Left	13.00 - 13.15	1	0	0	0	0	0	0	0	0.0%	1
Right	13.15 - 13.30	23	12	0	0	0	0	0	0	0.0%	35
Ahead	13.15 - 13.30	167	38	0	3	0	0	0	0	0.0%	208
Left	13.15 - 13.30	0	0	0	2	0	0	0	0	0.0%	2
Right	13.30 - 13.45	17	5	1	0	0	0	0	1	4.3%	23
Ahead	13.30 - 13.45	144	48	2	6	0	0	0	2	1.0%	200
Left	13.30 - 13.45	0	0	0	0	0	0	0	0	0.0%	0
Right	13.45 - 14.00	11	5	0	0	0	0	0	0	0.0%	16
Ahead	13.45 - 14.00	164	38	1	5	1	0	0	1	0.5%	209
Left	13.45 - 14.00	0	0	0	1	0	0	0	0	0.0%	1
Right	14.00 - 14.15	16	7	0	1	0	0	0	0	0.0%	24
Ahead	14.00 - 14.15	155	33	2	3	4	0	0	2	1.0%	197
Left	14.00 - 14.15	0	0	0	1	0	0	0	0	0.0%	1
Right	14.15 - 14.30	15	7	0	0	0	0	0	0	0.0%	22
Ahead	14.15 - 14.30	145	44	6	5	1	0	0	6	3.0%	201
Left	14.15 - 14.30	1	0	0	1	0	0	0	0	0.0%	2
Right	14.30 - 14.45	13	12	0	0	0	0	0	0	0.0%	25
Ahead	14.30 - 14.45	148	37	2	3	2	0	0	2	1.0%	192
Left	14.30 - 14.45	5	1	0	2	0	0	0	0	0.0%	8
Right	14.45 - 15.00	11	1	2	0	0	0	0	2	14.3%	14
Ahead	14.45 - 15.00	200	34	12	8	1	0	0	12	4.7%	255
Left	14.45 - 15.00	1	0	0	2	0	0	0	0	0.0%	3
Right	15.00 - 15.15	18	5	3	0	0	0	0	3	11.5%	26
Ahead	15.00 - 15.15	161	41	7	4	0	0	0	7	3.3%	213
Left	15.00 - 15.15	1	2	0	1	0	0	0	0	0.0%	4
Right	15.15 - 15.30	13	6	1	0	0	0	0	1	5.0%	20
Ahead	15.15 - 15.30	215	54	3	4	1	0	0	3	1.1%	277
Left	15.15 - 15.30	0	0	0	1	0	0	0	0	0.0%	1

Street : A483 FABIAN WAY (FROM SWANSEA) west  
 Lane(s) : 43 Right 42 Ahead 41 Left

Lane	Time	CAR	LGV	HGV	BUS	MCL	PCL	OTH	H.G.V.s	VEHICLES
Right	15.30 - 15.45	10	5	6	0	0	0	0	6 28.6%	21
Ahead	15.30 - 15.45	201	32	7	3	1	0	0	7 2.9%	244
Left	15.30 - 15.45	2	0	1	1	0	0	0	1 25.0%	4
Right	15.45 - 16.00	22	7	0	1	0	0	0	0 0.0%	30
Ahead	15.45 - 16.00	255	53	10	6	0	2	0	10 3.1%	326
Left	15.45 - 16.00	1	0	0	2	0	0	0	0 0.0%	3
Right	16.00 - 16.15	13	2	1	0	0	0	0	1 6.3%	16
Ahead	16.00 - 16.15	294	62	8	2	0	0	0	8 2.2%	366
Left	16.00 - 16.15	1	0	0	1	0	0	0	0 0.0%	2
Right	16.15 - 16.30	16	1	1	0	0	0	0	1 5.6%	18
Ahead	16.15 - 16.30	348	90	11	6	1	0	0	11 2.4%	456
Left	16.15 - 16.30	2	0	0	1	0	0	0	0 0.0%	3
Right	16.30 - 16.45	9	4	1	0	1	0	0	1 6.7%	15
Ahead	16.30 - 16.45	389	85	4	7	0	1	0	4 0.8%	486
Left	16.30 - 16.45	2	0	0	2	0	0	0	0 0.0%	4
Right	16.45 - 17.00	16	2	0	0	0	0	0	0 0.0%	18
Ahead	16.45 - 17.00	378	54	0	7	0	1	0	0 0.0%	440
Left	16.45 - 17.00	1	0	0	0	0	0	0	0 0.0%	1
Right	17.00 - 17.15	21	4	1	0	0	0	0	1 3.8%	26
Ahead	17.00 - 17.15	382	62	2	2	4	0	0	2 0.4%	452
Left	17.00 - 17.15	0	0	0	2	0	0	0	0 0.0%	2
Right	17.15 - 17.30	9	0	0	1	0	0	0	0 0.0%	10
Ahead	17.15 - 17.30	449	40	2	4	1	3	0	2 0.4%	499
Left	17.15 - 17.30	2	0	0	1	0	0	0	0 0.0%	3
Right	17.30 - 17.45	18	1	0	0	0	0	0	0 0.0%	19
Ahead	17.30 - 17.45	400	19	1	5	2	1	0	1 0.2%	428
Left	17.30 - 17.45	1	0	0	1	0	0	0	0 0.0%	2
Right	17.45 - 18.00	12	4	0	0	0	0	0	0 0.0%	16
Ahead	17.45 - 18.00	322	29	1	4	2	0	0	1 0.3%	358
Left	17.45 - 18.00	1	0	0	2	0	0	0	0 0.0%	3
Count period total :										
Right	8.00 - 18.00	616	180	43	6	1	0	0	43 5.1%	846
Ahead	8.00 - 18.00	8059	1574	226	175	37	12	0	226 2.2%	10083
Left	8.00 - 18.00	132	28	14	42	3	0	0	14 6.4%	219
Total										
Right	8.00 - 18.00	616	180	43	6	1	0	0	43 5.1%	846
Ahead	8.00 - 18.00	8059	1574	226	175	37	12	0	226 2.2%	10083
Left	8.00 - 18.00	132	28	14	42	3	0	0	14 6.4%	219

CITY AND COUNTY OF SWANSEA  
TRANSPORTATION UNIT/STUDIES MODELLING  
COUNTY HALL SWANSEA SA1 3SN

FABIAN WAY/PORT TENNANT ROAD 12HOURS

Site : SC06087 CR  
Survey date : Tuesday, 28/11/06

Place : FABIAN WAY SWANSEA

Street 1 north : PORT TENNANT RD (TO SA1)  
Street 2 east : FABIAN WAY (TO NEATH)  
Street 3 south : LANGDON RD SA1 (TO PORT TENNANT RD)  
Street 4 west : FABIAN WAY (TO SWANSEA)  
Interval length : 15 min  
Survey time : 7.00 - 19.00 hrs  
Weather : DRY & WINDY

H.G.V.s = HGV  
VEHICLES = CAR + LGV + HGV + BUS + MCL + PCL

CITY AND COUNTY OF SWANSEA  
 TRANSPORTATION UNIT/STUDIES MODELLING  
 COUNTY HALL SWANSEA SA1 3SN

FABIAN WAY/PORT TENNANT ROAD 12HOURS

Site : SC06087 CR  
 Survey date : Tuesday, 28/11/06

Place : FABIAN WAY SWANSEA

Street 1 north : PORT TENNANT RD (TO SA1)  
 Street 2 east : FABIAN WAY (TO NEATH)  
 Street 3 south : LANGDON RD SA1 (TO PORT TENNANT RD)  
 Street 4 west : FABIAN WAY (TO SWANSEA)

Interval length : 15 min

Survey time : 7.00 - 8.00, 8.00 - 9.00, 9.00 - 16.00, 16.00 - 17.00,  
 17.00 - 18.00, 18.00 - 19.00 hrs

Weather : DRY & WINDY

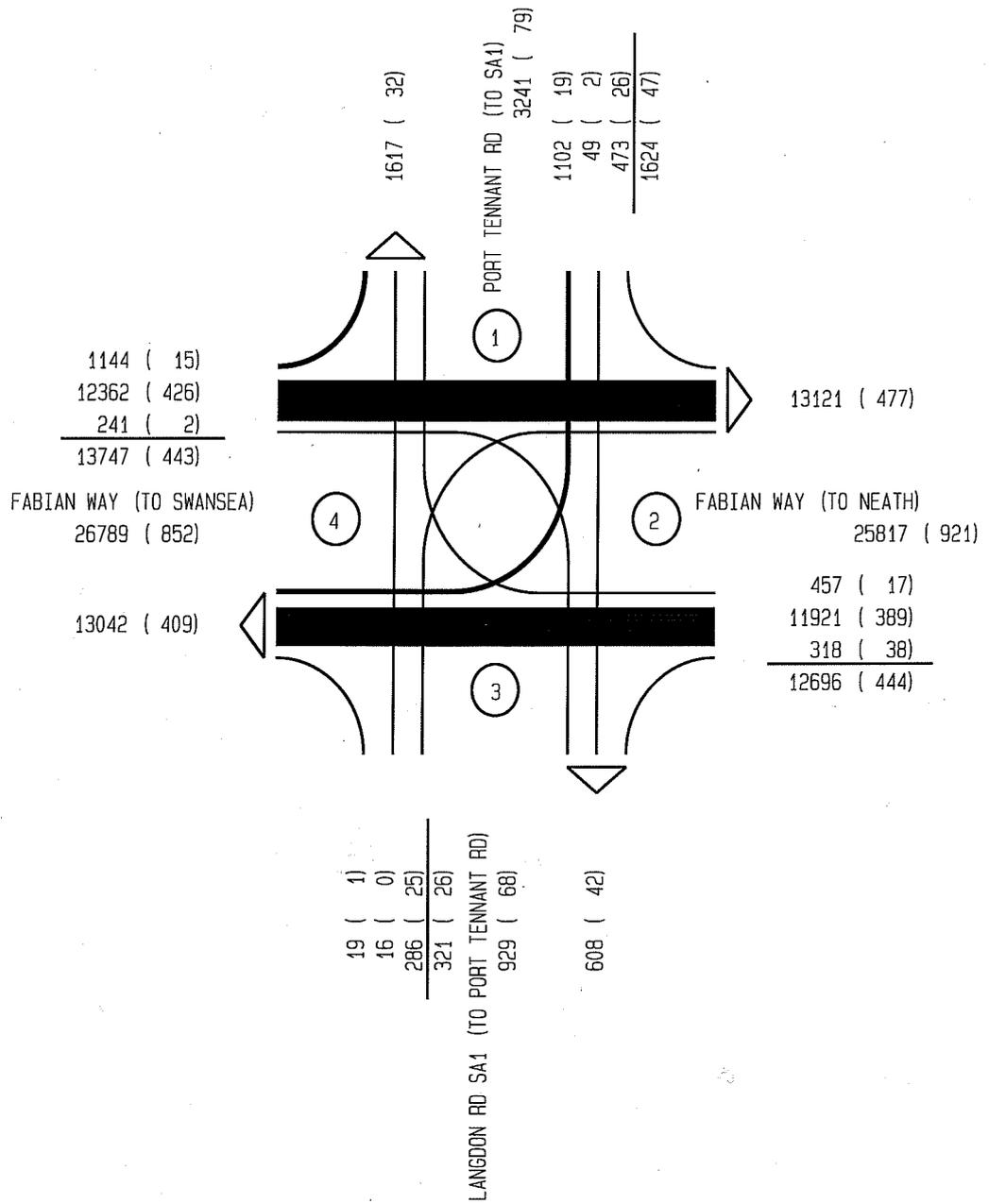
H.G.V.s = HG  
 VEHICLES = CAR + LGV + HG + BUS + MCL + PCL

Time	Lane											
	12	13	14	21	23	24	31	32	34	41	42	43
7- 8	52	7	74	38	19	977	2	2	1	45	1045	9
8- 9	55	8	110	38	100	1607	0	14	1	96	1149	62
9-10	19	3	117	33	36	1320	2	13	0	80	771	17
10-11	20	3	81	23	25	952	0	11	2	59	800	15
11-12	32	5	75	18	27	797	0	12	2	75	826	12
12-13	30	6	84	32	18	827	1	11	2	71	968	29
13-14	44	1	75	50	28	833	2	25	4	73	1004	20
14-15	42	2	93	33	14	818	1	11	1	84	1043	26
15-16	40	5	98	35	15	839	2	23	6	127	1185	17
16-17	51	4	101	41	12	989	2	36	0	156	1456	10
17-18	45	4	100	56	17	1042	4	100	0	168	1267	8
18-19	43	1	94	60	7	920	0	28	0	110	848	16
Total	473		1102		318		16		19		12362	
		49		457		11921		286		1144		241

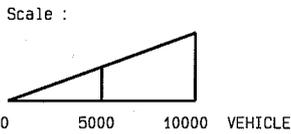
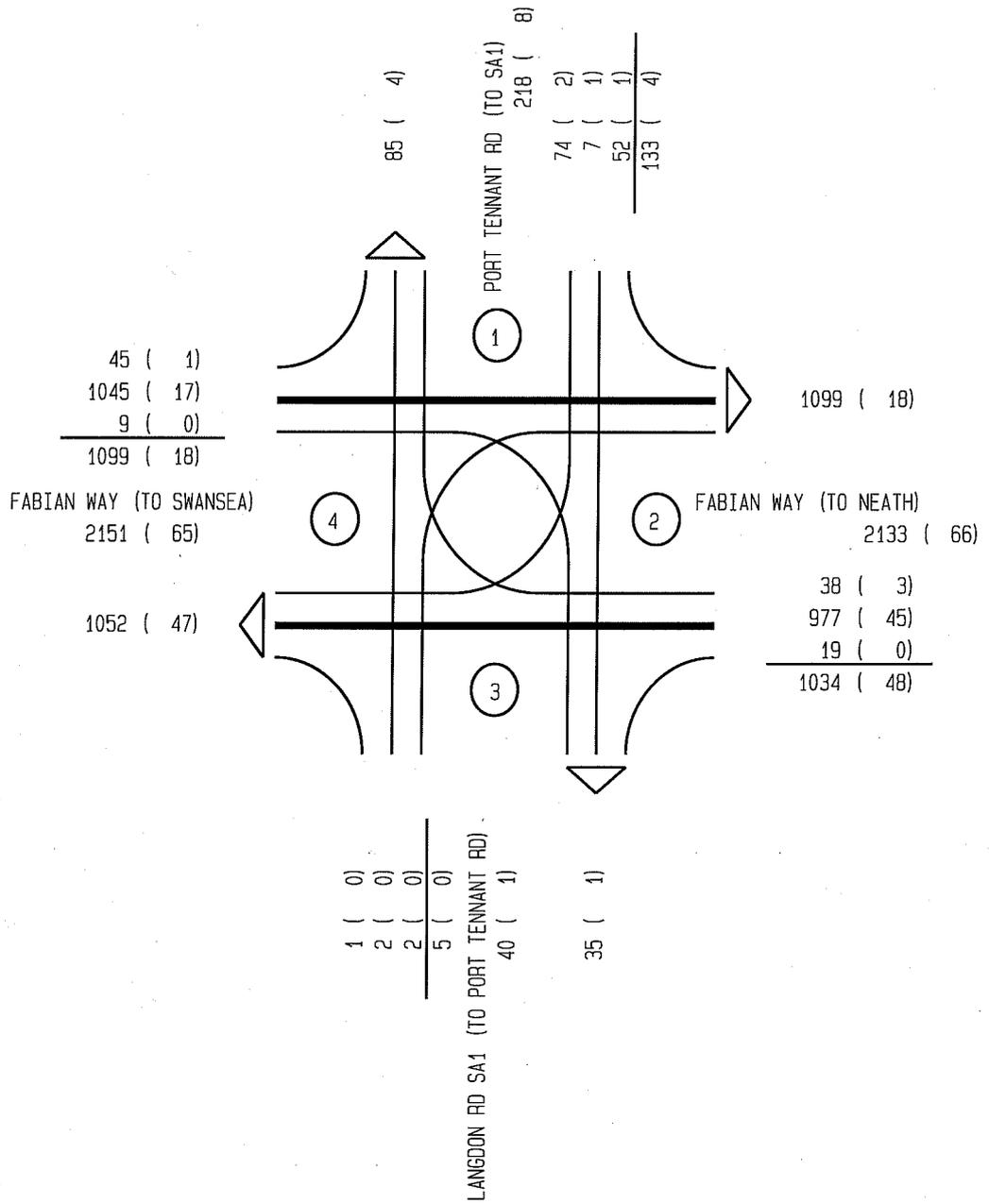
All values in VEHC  
 VEHC = CAR + LGV + HG + BUS + MCL + PCL

12 Hours

FABIAN WAY/PORT TENNANT ROAD 12HOURS  
 Site : SC06087 CR  
 Survey date : Tuesday, 28/11/06  
 Survey time : 7.00 - 19.00 hrs  
 FABIAN WAY SWANSEA

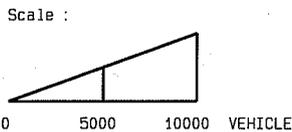
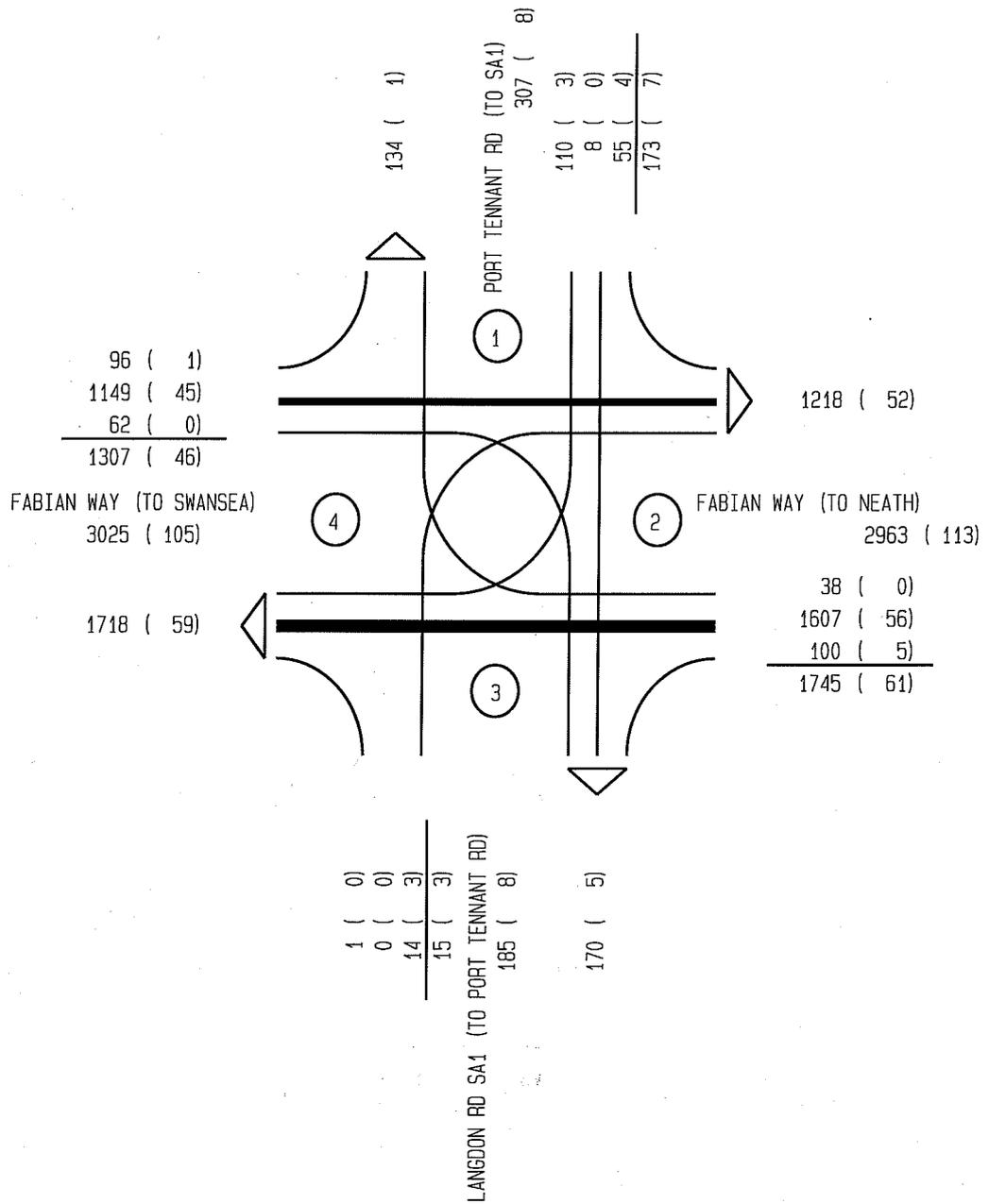


FABIAN WAY/PORT TENNANT ROAD 12HOURS  
 Site : SC06087 CR  
 Survey date : Tuesday, 28/11/06  
 Survey time : 7.00 - 8.00 hrs  
 FABIAN WAY SWANSEA



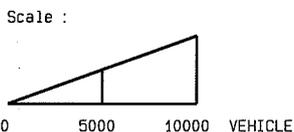
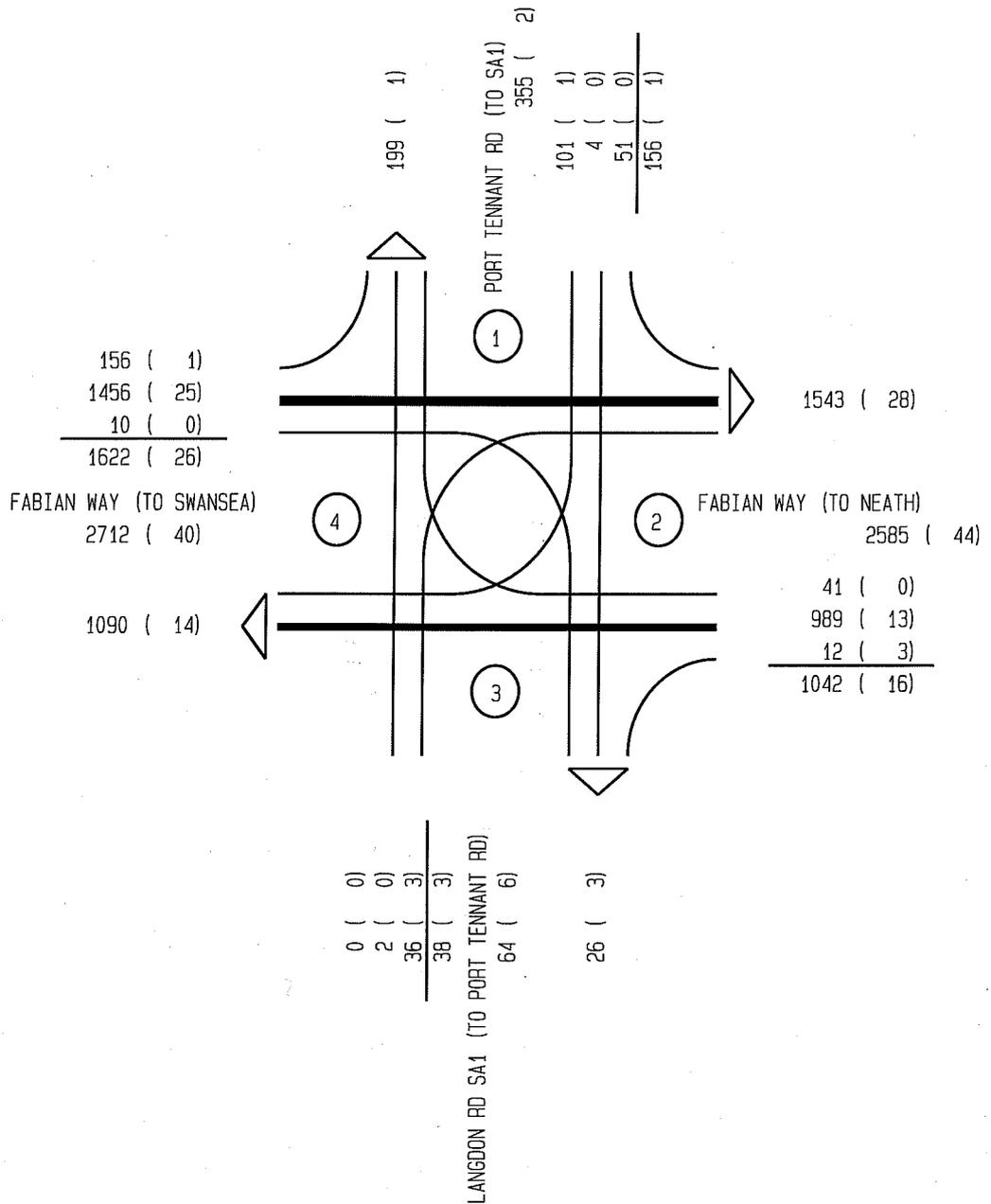
xx (yy) = VEHC HGVS

FABIAN WAY/PORT TENNANT ROAD 12HOURS  
 Site : SC06087 CR  
 Survey date : Tuesday, 28/11/06  
 Survey time : 8.00 - 9.00 hrs  
 FABIAN WAY SWANSEA



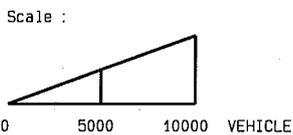
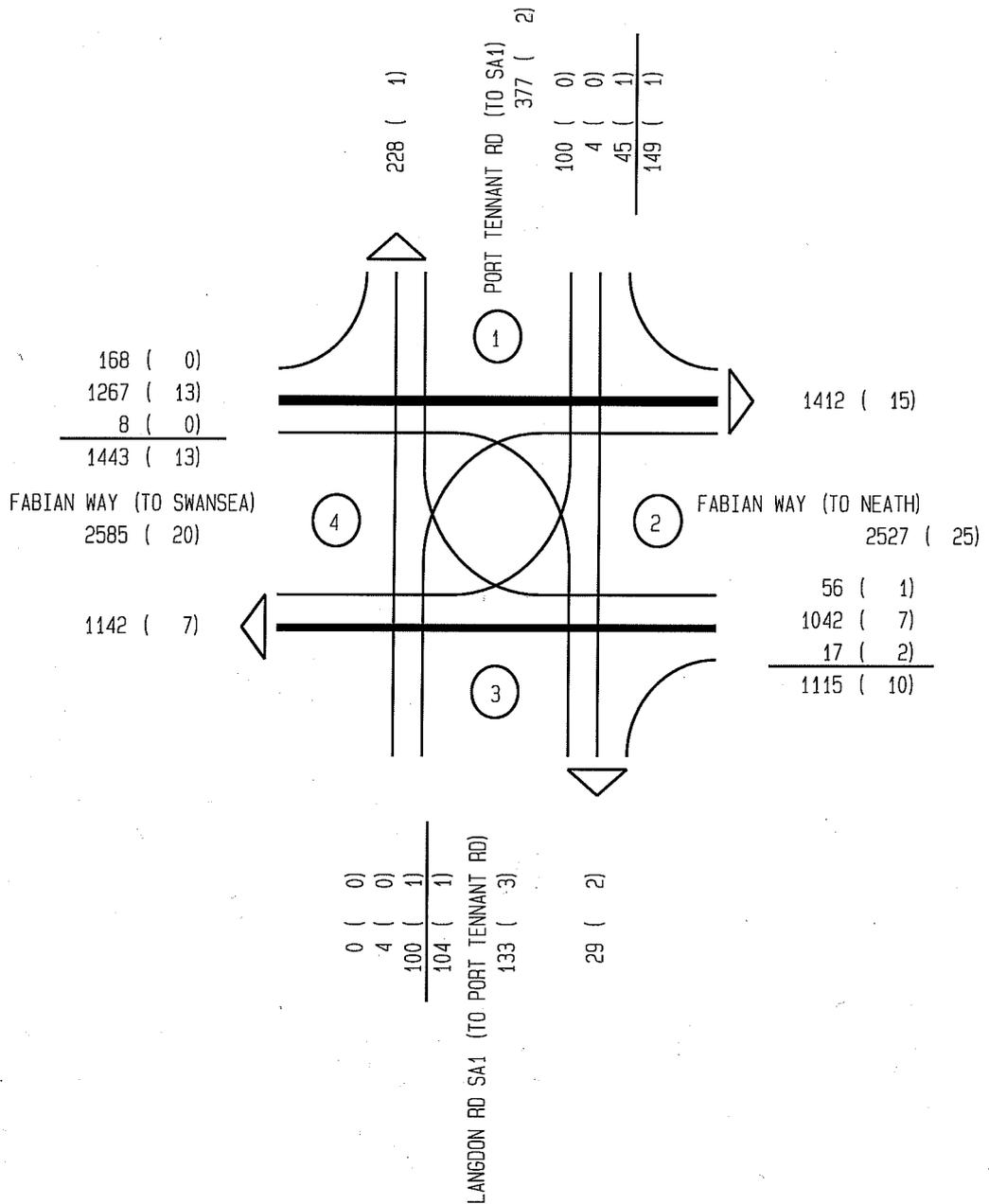
xx (yy) = VEHC HGVS

FABIAN WAY/PORT TENNANT ROAD 12HOURS  
 Site : SC06087 CR  
 Survey date : Tuesday, 28/11/06  
 Survey time : 16.00 - 17.00 hrs  
 FABIAN WAY SWANSEA



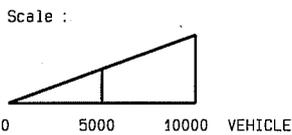
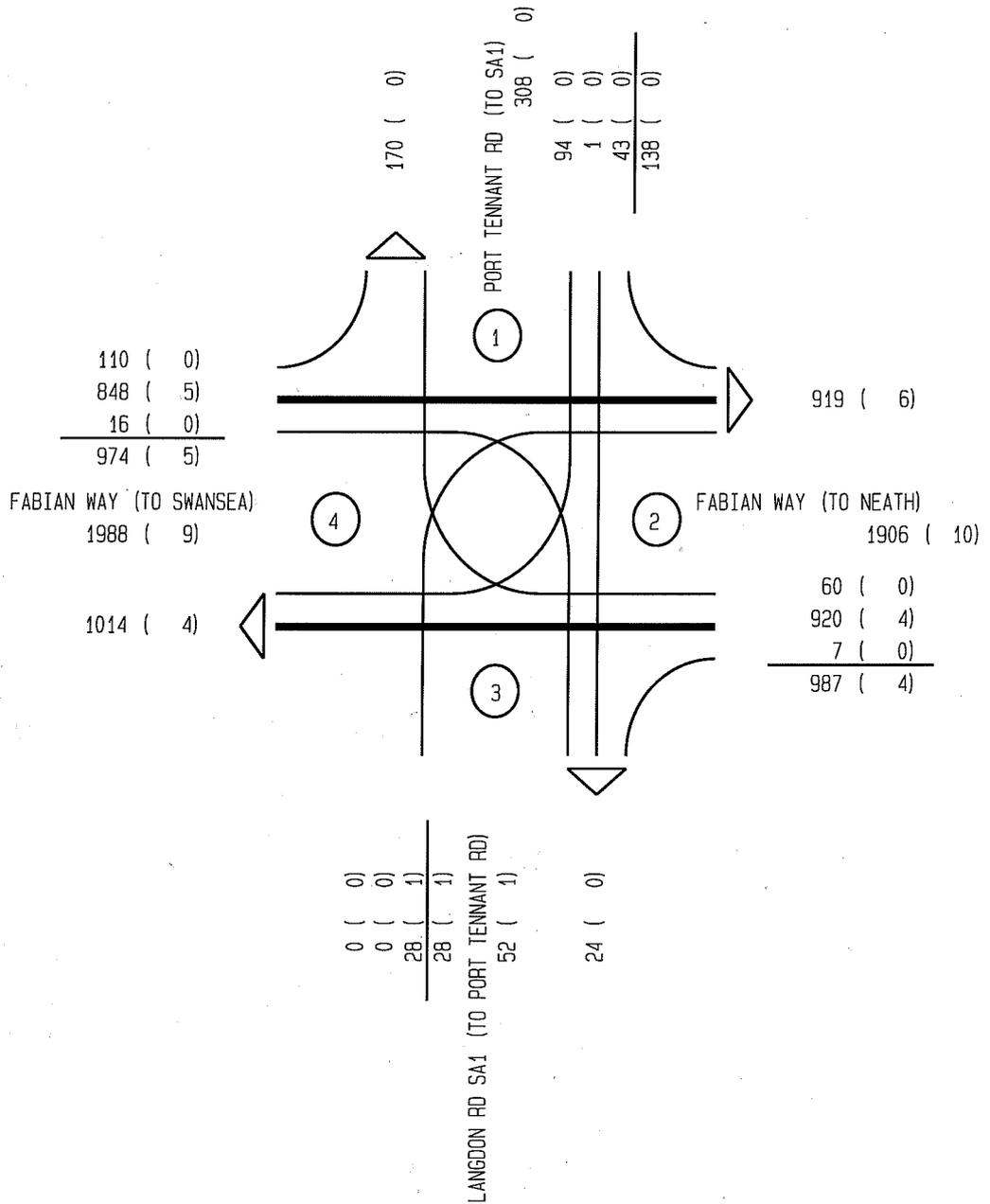
xx (yy) = VEHC HGVS

FABIAN WAY/PORT TENNANT ROAD 12HOURS  
 Site : SC06087 CR  
 Survey date : Tuesday, 28/11/06  
 Survey time : 17.00 - 18.00 hrs  
 FABIAN WAY SWANSEA



xx (yy) = VEH HGVS

FABIAN WAY/PORT TENNANT ROAD 12HOURS  
 Site : SC06087 CR  
 Survey date : Tuesday, 28/11/06  
 Survey time : 18.00 - 19.00 hrs  
 FABIAN WAY SWANSEA



xx (yy) = VEHC HGVs



Street : PORT TENNANT RD (TO SA1) north  
 Lane(s) : 14 Right 13 Ahead 12 Left

Lane	Time	CAR	LGV	HGV	BUS	MCL	PCL	OTH	H.G.V.s	VEHICLES
Right	10.45 - 11.00	17	2	0	0	0	0	0	0	19
Ahead	10.45 - 11.00	1	0	0	0	0	0	0	0	1
Left	10.45 - 11.00	7	0	1	0	0	0	0	1 12.5%	8
Right	11.00 - 11.15	13	4	0	0	0	1	0	0	18
Ahead	11.00 - 11.15	0	0	0	0	0	0	0	0	0
Left	11.00 - 11.15	2	3	0	0	0	0	0	0	5
Right	11.15 - 11.30	11	1	0	0	0	0	0	0	12
Ahead	11.15 - 11.30	0	0	0	0	0	0	0	0	0
Left	11.15 - 11.30	9	1	1	0	0	0	0	1 9.1%	11
Right	11.30 - 11.45	22	4	0	0	0	0	0	0	26
Ahead	11.30 - 11.45	3	0	0	0	0	0	0	0	3
Left	11.30 - 11.45	4	1	0	0	0	0	0	0	5
Right	11.45 - 12.00	17	1	1	0	0	0	0	1 5.3%	19
Ahead	11.45 - 12.00	2	0	0	0	0	0	0	0	2
Left	11.45 - 12.00	9	2	0	0	0	0	0	0	11
Right	12.00 - 12.15	15	3	0	0	0	0	0	0	18
Ahead	12.00 - 12.15	1	0	0	0	0	0	0	0	1
Left	12.00 - 12.15	6	2	0	0	0	0	0	0	8
Right	12.15 - 12.30	21	1	0	0	0	0	0	0	22
Ahead	12.15 - 12.30	2	0	0	0	0	0	0	0	2
Left	12.15 - 12.30	7	2	1	0	0	0	0	1 10.0%	10
Right	12.30 - 12.45	19	2	0	0	0	0	0	0	21
Ahead	12.30 - 12.45	2	0	0	0	0	0	0	0	2
Left	12.30 - 12.45	5	1	0	0	0	0	0	0	6
Right	12.45 - 13.00	21	2	0	0	0	0	0	0	23
Ahead	12.45 - 13.00	0	0	1	0	0	0	0	1 100.0%	1
Left	12.45 - 13.00	4	2	0	0	0	0	0	0	6
Right	13.00 - 13.15	23	0	2	1	0	0	0	2 7.7%	26
Ahead	13.00 - 13.15	1	0	0	0	0	0	0	0	1
Left	13.00 - 13.15	8	0	2	0	0	0	0	2 20.0%	10
Right	13.15 - 13.30	15	0	1	0	0	0	0	1 6.3%	16
Ahead	13.15 - 13.30	0	0	0	0	0	0	0	0	0
Left	13.15 - 13.30	7	0	2	0	0	0	0	2 22.2%	9
Right	13.30 - 13.45	16	1	0	0	0	0	0	0	17
Ahead	13.30 - 13.45	0	0	0	0	0	0	0	0	0
Left	13.30 - 13.45	10	0	3	1	0	0	0	3 21.4%	14
Right	13.45 - 14.00	15	1	0	0	0	0	0	0	16
Ahead	13.45 - 14.00	0	0	0	0	0	0	0	0	0
Left	13.45 - 14.00	9	2	0	0	0	0	0	0	11
Right	14.00 - 14.15	13	2	1	0	1	0	0	1 5.9%	17
Ahead	14.00 - 14.15	1	0	0	0	0	0	0	0	1
Left	14.00 - 14.15	8	2	1	0	0	0	0	1 9.1%	11
Right	14.15 - 14.30	12	1	0	0	0	0	0	0	13
Ahead	14.15 - 14.30	1	0	0	0	0	0	0	0	1
Left	14.15 - 14.30	9	2	1	0	0	0	0	1 8.3%	12

Street : PORT TENNANT RD (TO SA1) north  
 Lane(s) : 14 Right 13 Ahead 12 Left

Lane	Time	CAR	LGV	HGV	BUS	MCL	PCL	OTH	H.G.V.s	VEHICLES
Right	14.30 - 14.45	19	2	2	0	0	0	0	2 8.7%	23
Ahead	14.30 - 14.45	0	0	0	0	0	0	0	0 0.0%	0
Left	14.30 - 14.45	7	0	2	0	0	0	0	2 22.2%	9
Right	14.45 - 15.00	36	2	2	0	0	0	0	2 5.0%	40
Ahead	14.45 - 15.00	0	0	0	0	0	0	0	0 0.0%	0
Left	14.45 - 15.00	7	2	0	1	0	0	0	0 0.0%	10
Right	15.00 - 15.15	16	3	0	0	0	0	0	0 0.0%	19
Ahead	15.00 - 15.15	1	0	0	0	0	0	0	0 0.0%	1
Left	15.00 - 15.15	3	4	0	0	0	0	0	0 0.0%	7
Right	15.15 - 15.30	21	4	0	0	0	0	0	0 0.0%	25
Ahead	15.15 - 15.30	0	0	0	0	0	0	0	0 0.0%	0
Left	15.15 - 15.30	2	5	0	0	0	0	0	0 0.0%	7
Right	15.30 - 15.45	21	3	0	0	0	0	0	0 0.0%	24
Ahead	15.30 - 15.45	2	0	0	0	0	0	0	0 0.0%	2
Left	15.30 - 15.45	8	2	2	0	0	0	0	2 16.7%	12
Right	15.45 - 16.00	28	1	1	0	0	0	0	1 3.3%	30
Ahead	15.45 - 16.00	2	0	0	0	0	0	0	0 0.0%	2
Left	15.45 - 16.00	10	2	2	0	0	0	0	2 14.3%	14
Right	16.00 - 16.15	17	0	1	0	0	0	0	1 5.6%	18
Ahead	16.00 - 16.15	0	0	0	0	0	1	0	0 0.0%	1
Left	16.00 - 16.15	9	2	0	0	1	0	0	0 0.0%	12
Right	16.15 - 16.30	24	2	0	0	0	0	0	0 0.0%	26
Ahead	16.15 - 16.30	1	1	0	0	0	0	0	0 0.0%	2
Left	16.15 - 16.30	14	6	0	2	0	0	0	0 0.0%	22
Right	16.30 - 16.45	23	1	0	0	0	0	0	0 0.0%	24
Ahead	16.30 - 16.45	1	0	0	0	0	0	0	0 0.0%	1
Left	16.30 - 16.45	6	3	0	0	0	0	0	0 0.0%	9
Right	16.45 - 17.00	31	1	0	1	0	0	0	0 0.0%	33
Ahead	16.45 - 17.00	0	0	0	0	0	0	0	0 0.0%	0
Left	16.45 - 17.00	7	0	0	1	0	0	0	0 0.0%	8
Right	17.00 - 17.15	26	2	0	0	0	0	0	0 0.0%	28
Ahead	17.00 - 17.15	2	0	0	0	0	0	0	0 0.0%	2
Left	17.00 - 17.15	6	0	1	0	0	0	0	1 14.3%	7
Right	17.15 - 17.30	22	0	0	1	0	0	0	0 0.0%	23
Ahead	17.15 - 17.30	1	0	0	0	0	0	0	0 0.0%	1
Left	17.15 - 17.30	9	3	0	0	0	0	0	0 0.0%	12
Right	17.30 - 17.45	25	1	0	0	0	0	0	0 0.0%	26
Ahead	17.30 - 17.45	0	0	0	0	0	0	0	0 0.0%	0
Left	17.30 - 17.45	13	2	0	0	0	0	0	0 0.0%	15
Right	17.45 - 18.00	22	1	0	0	0	0	0	0 0.0%	23
Ahead	17.45 - 18.00	1	0	0	0	0	0	0	0 0.0%	1
Left	17.45 - 18.00	10	1	0	0	0	0	0	0 0.0%	11
Right	18.00 - 18.15	25	1	0	0	0	0	0	0 0.0%	26
Ahead	18.00 - 18.15	0	0	0	0	0	0	0	0 0.0%	0
Left	18.00 - 18.15	15	1	0	0	0	0	0	0 0.0%	16

Street : PORT TENNANT RD (TO SA1) north  
 Lane(s) : 14 Right 13 Ahead 12 Left

Lane	Time	CAR	LGV	HGV	BUS	MCL	PCL	OTH	H.G.V.s	VEHICLES	
Right	18.15 - 18.30	19	3	0	0	0	0	0	0	0.0%	22
Ahead	18.15 - 18.30	0	0	0	0	0	0	0	0	0.0%	0
Left	18.15 - 18.30	5	0	0	0	0	0	0	0	0.0%	5
Right	18.30 - 18.45	18	1	0	0	0	0	0	0	0.0%	19
Ahead	18.30 - 18.45	0	0	0	0	0	0	0	0	0.0%	0
Left	18.30 - 18.45	15	3	0	0	0	0	0	0	0.0%	18
Right	18.45 - 19.00	24	3	0	0	0	0	0	0	0.0%	27
Ahead	18.45 - 19.00	1	0	0	0	0	0	0	0	0.0%	1
Left	18.45 - 19.00	3	1	0	0	0	0	0	0	0.0%	4
Count period total :											
Right	7.00 - 19.00	978	96	19	5	3	1	0	19	1.7%	1102
Ahead	7.00 - 19.00	39	3	2	0	1	4	0	2	4.1%	49
Left	7.00 - 19.00	350	89	26	5	2	1	0	26	5.5%	473
Total											
Right	7.00 - 19.00	978	96	19	5	3	1	0	19	1.7%	1102
Ahead	7.00 - 19.00	39	3	2	0	1	4	0	2	4.1%	49
Left	7.00 - 19.00	350	89	26	5	2	1	0	26	5.5%	473

Street : FABIAN WAY (TO NEATH) east  
 Lane(s) : 21 Right 24 Ahead 23 Left

Lane	Time	CAR	LGV	HGV	BUS	MCL	PCL	OTH	H.G.V.s	VEHICLES
Hourly flows :										
Right	7.00 - 7.15	1	1	0	0	0	0	0	0	2
Ahead	7.00 - 7.15	100	32	6	1	0	0	0	6	139
Left	7.00 - 7.15	2	0	0	0	0	0	0	0	2
Right	7.15 - 7.30	4	1	0	0	0	0	0	0	5
Ahead	7.15 - 7.30	149	32	10	3	2	0	0	10	196
Left	7.15 - 7.30	3	2	0	1	0	0	0	0	6
Right	7.30 - 7.45	6	5	1	1	0	0	0	1	13
Ahead	7.30 - 7.45	221	53	12	3	3	0	0	12	292
Left	7.30 - 7.45	1	0	0	0	0	0	0	0	1
Right	7.45 - 8.00	9	5	2	1	1	0	0	2	18
Ahead	7.45 - 8.00	275	53	17	4	0	1	0	17	350
Left	7.45 - 8.00	9	1	0	0	0	0	0	0	10
Right	8.00 - 8.15	8	0	0	0	0	0	0	0	8
Ahead	8.00 - 8.15	329	57	14	1	1	0	0	14	402
Left	8.00 - 8.15	9	1	1	1	0	0	0	1	12
Right	8.15 - 8.30	4	1	0	1	0	0	0	0	6
Ahead	8.15 - 8.30	379	49	19	4	1	1	0	19	453
Left	8.15 - 8.30	11	0	1	0	0	0	0	1	12
Right	8.30 - 8.45	6	3	0	0	0	0	0	0	9
Ahead	8.30 - 8.45	330	43	9	4	1	0	0	9	387
Left	8.30 - 8.45	30	4	2	1	0	2	0	2	39
Right	8.45 - 9.00	9	6	0	0	0	0	0	0	15
Ahead	8.45 - 9.00	297	46	14	5	3	0	0	14	365
Left	8.45 - 9.00	31	4	1	1	0	0	0	1	37
Right	9.00 - 9.15	8	1	0	0	0	0	0	0	9
Ahead	9.00 - 9.15	257	48	15	4	2	0	0	15	326
Left	9.00 - 9.15	20	1	1	0	0	0	0	1	22
Right	9.15 - 9.30	9	6	2	0	0	0	0	2	17
Ahead	9.15 - 9.30	322	36	15	4	1	0	1	15	378
Left	9.15 - 9.30	7	0	1	0	0	0	0	1	8
Right	9.30 - 9.45	5	0	1	1	0	0	0	1	7
Ahead	9.30 - 9.45	282	31	14	6	0	0	0	14	333
Left	9.30 - 9.45	3	2	0	1	0	0	0	0	6
Right	9.45 - 10.00	0	0	0	0	0	0	0	0	0
Ahead	9.45 - 10.00	265	6	6	5	1	0	0	6	283
Left	9.45 - 10.00	0	0	0	0	0	0	0	0	0
Right	10.00 - 10.15	6	0	0	0	0	0	0	0	6
Ahead	10.00 - 10.15	188	6	10	2	0	0	0	10	206
Left	10.00 - 10.15	1	0	0	1	0	0	0	0	2
Right	10.15 - 10.30	2	0	0	0	0	0	0	0	2
Ahead	10.15 - 10.30	230	9	16	4	1	0	0	16	260
Left	10.15 - 10.30	4	0	0	0	0	0	0	0	4
Right	10.30 - 10.45	9	0	0	0	0	0	0	0	9
Ahead	10.30 - 10.45	207	9	13	7	1	0	0	13	237
Left	10.30 - 10.45	9	0	1	2	0	0	0	1	12

Street : FABIAN WAY (TO NEATH) east  
 Lane(s) : 21 Right 24 Ahead 23 Left

Lane	Time	CAR	LGV	HGV	BUS	MCL	PCL	OTH	H.G.V.s	VEHICLES	
Right	10.45 - 11.00	5	1	0	0	0	0	0	0	0.0%	6
Ahead	10.45 - 11.00	231	8	7	3	0	0	0	7	2.8%	249
Left	10.45 - 11.00	5	0	2	0	0	0	0	2	28.6%	7
Right	11.00 - 11.15	4	0	0	0	0	0	0	0	0.0%	4
Ahead	11.00 - 11.15	170	3	6	3	0	0	0	6	3.3%	182
Left	11.00 - 11.15	5	0	2	2	0	0	0	2	22.2%	9
Right	11.15 - 11.30	8	0	0	0	0	0	0	0	0.0%	8
Ahead	11.15 - 11.30	182	8	10	3	0	1	0	10	4.9%	204
Left	11.15 - 11.30	2	0	4	0	0	0	0	4	66.7%	6
Right	11.30 - 11.45	4	0	0	0	0	0	0	0	0.0%	4
Ahead	11.30 - 11.45	205	4	9	4	1	0	0	9	4.0%	223
Left	11.30 - 11.45	3	2	0	2	0	0	0	0	0.0%	7
Right	11.45 - 12.00	2	0	0	0	0	0	0	0	0.0%	2
Ahead	11.45 - 12.00	170	2	9	5	2	0	0	9	4.8%	188
Left	11.45 - 12.00	3	0	2	0	0	0	0	2	40.0%	5
Right	12.00 - 12.15	7	0	1	0	0	0	0	1	12.5%	8
Ahead	12.00 - 12.15	192	3	9	5	0	0	0	9	4.3%	209
Left	12.00 - 12.15	1	0	2	2	0	0	0	2	40.0%	5
Right	12.15 - 12.30	10	2	1	0	0	0	0	1	7.7%	13
Ahead	12.15 - 12.30	194	5	7	4	1	0	0	7	3.3%	211
Left	12.15 - 12.30	2	0	1	0	0	0	0	1	33.3%	3
Right	12.30 - 12.45	6	0	1	0	0	0	0	1	14.3%	7
Ahead	12.30 - 12.45	193	7	8	5	1	0	0	8	3.7%	214
Left	12.30 - 12.45	3	0	0	2	0	0	0	0	0.0%	5
Right	12.45 - 13.00	4	0	0	0	0	0	0	0	0.0%	4
Ahead	12.45 - 13.00	162	21	7	3	0	0	0	7	3.6%	193
Left	12.45 - 13.00	3	0	1	1	0	0	0	1	20.0%	5
Right	13.00 - 13.15	10	1	2	0	0	0	0	2	15.4%	13
Ahead	13.00 - 13.15	169	15	7	3	2	1	0	7	3.6%	197
Left	13.00 - 13.15	2	1	1	1	0	0	0	1	20.0%	5
Right	13.15 - 13.30	13	0	0	0	0	0	0	0	0.0%	13
Ahead	13.15 - 13.30	193	26	8	5	1	0	0	8	3.4%	233
Left	13.15 - 13.30	0	0	1	0	0	0	0	1	100.0%	1
Right	13.30 - 13.45	8	5	2	1	0	0	0	2	12.5%	16
Ahead	13.30 - 13.45	186	16	6	4	1	0	0	6	2.8%	213
Left	13.30 - 13.45	0	2	1	1	0	1	0	1	20.0%	5
Right	13.45 - 14.00	5	3	0	0	0	0	0	0	0.0%	8
Ahead	13.45 - 14.00	154	21	10	4	1	0	0	10	5.3%	190
Left	13.45 - 14.00	14	1	1	1	0	0	0	1	5.9%	17
Right	14.00 - 14.15	6	0	0	0	0	0	0	0	0.0%	6
Ahead	14.00 - 14.15	146	12	5	4	0	0	0	5	3.0%	167
Left	14.00 - 14.15	2	0	1	0	0	0	0	1	33.3%	3
Right	14.15 - 14.30	6	1	0	0	0	0	0	0	0.0%	7
Ahead	14.15 - 14.30	171	21	11	4	3	0	0	11	5.2%	210
Left	14.15 - 14.30	2	0	1	0	0	0	0	1	33.3%	3

Street : FABIAN WAY (TO NEATH) east  
 Lane(s) : 21 Right 24 Ahead 23 Left

Lane	Time	CAR	LGV	HGV	BUS	MCL	PCL	OTH	H.G.V.s	VEHICLES
Right	14.30 - 14.45	11	1	1	0	0	0	0	1 7.7%	13
Ahead	14.30 - 14.45	185	25	7	5	0	0	0	7 3.2%	222
Left	14.30 - 14.45	2	1	1	2	0	0	0	1 16.7%	6
Right	14.45 - 15.00	6	1	0	0	0	0	0	0 0.0%	7
Ahead	14.45 - 15.00	190	15	10	3	1	0	0	10 4.6%	219
Left	14.45 - 15.00	1	0	1	0	0	0	0	1 50.0%	2
Right	15.00 - 15.15	7	1	1	0	0	0	0	1 11.1%	9
Ahead	15.00 - 15.15	152	30	10	8	1	0	0	10 5.0%	201
Left	15.00 - 15.15	0	1	1	1	0	0	0	1 33.3%	3
Right	15.15 - 15.30	3	3	0	0	0	0	0	0 0.0%	6
Ahead	15.15 - 15.30	178	27	9	3	0	0	0	9 4.1%	217
Left	15.15 - 15.30	4	1	1	0	0	1	0	1 14.3%	7
Right	15.30 - 15.45	7	1	1	0	0	0	0	1 11.1%	9
Ahead	15.30 - 15.45	156	22	15	6	1	0	0	15 7.5%	200
Left	15.30 - 15.45	2	0	0	1	0	0	0	0 0.0%	3
Right	15.45 - 16.00	10	1	0	0	0	0	0	0 0.0%	11
Ahead	15.45 - 16.00	195	15	5	5	0	1	0	5 2.3%	221
Left	15.45 - 16.00	0	1	1	0	0	0	0	1 50.0%	2
Right	16.00 - 16.15	5	1	0	0	0	0	0	0 0.0%	6
Ahead	16.00 - 16.15	236	4	2	5	1	0	0	2 0.8%	248
Left	16.00 - 16.15	1	0	2	2	0	0	0	2 40.0%	5
Right	16.15 - 16.30	5	1	0	0	0	0	0	0 0.0%	6
Ahead	16.15 - 16.30	259	1	7	5	1	0	0	7 2.6%	273
Left	16.15 - 16.30	2	0	0	0	0	0	0	0 0.0%	2
Right	16.30 - 16.45	9	0	0	0	0	0	0	0 0.0%	9
Ahead	16.30 - 16.45	201	3	1	3	0	0	0	1 0.5%	208
Left	16.30 - 16.45	0	0	0	1	0	0	0	0 0.0%	1
Right	16.45 - 17.00	20	0	0	0	0	0	0	0 0.0%	20
Ahead	16.45 - 17.00	248	3	3	5	1	0	0	3 1.2%	260
Left	16.45 - 17.00	3	0	1	0	0	0	0	1 25.0%	4
Right	17.00 - 17.15	12	2	0	0	0	0	0	0 0.0%	14
Ahead	17.00 - 17.15	246	6	3	4	0	0	0	3 1.2%	259
Left	17.00 - 17.15	2	0	1	2	0	0	0	1 20.0%	5
Right	17.15 - 17.30	16	0	0	0	0	0	0	0 0.0%	16
Ahead	17.15 - 17.30	269	1	3	6	1	0	0	3 1.1%	280
Left	17.15 - 17.30	3	0	1	0	0	0	0	1 25.0%	4
Right	17.30 - 17.45	8	1	0	0	0	0	0	0 0.0%	9
Ahead	17.30 - 17.45	253	0	0	4	1	0	0	0 0.0%	258
Left	17.30 - 17.45	2	0	0	1	0	0	0	0 0.0%	3
Right	17.45 - 18.00	16	0	1	0	0	0	0	1 5.9%	17
Ahead	17.45 - 18.00	238	2	1	3	1	0	0	1 0.4%	245
Left	17.45 - 18.00	3	0	0	2	0	0	0	0 0.0%	5
Right	18.00 - 18.15	21	0	0	0	0	0	0	0 0.0%	21
Ahead	18.00 - 18.15	255	2	1	3	1	0	0	1 0.4%	262
Left	18.00 - 18.15	2	0	0	1	0	0	0	0 0.0%	3

Street : FABIAN WAY (TO NEATH) east  
 Lane(s) : 21 Right 24 Ahead 23 Left

Lane	Time	CAR	LGV	HGV	BUS	MCL	PCL	OTH	H.G.V.s	VEHICLES	
Right	18.15 - 18.30	15	0	0	0	0	0	0	0	0.0%	15
Ahead	18.15 - 18.30	241	0	0	4	0	0	0	0	0.0%	245
Left	18.15 - 18.30	0	0	0	0	0	0	0	0	0.0%	0
Right	18.30 - 18.45	17	0	0	0	0	0	0	0	0.0%	17
Ahead	18.30 - 18.45	191	1	2	1	0	0	0	2	1.0%	195
Left	18.30 - 18.45	1	0	0	1	0	0	0	0	0.0%	2
Right	18.45 - 19.00	7	0	0	0	0	0	0	0	0.0%	7
Ahead	18.45 - 19.00	211	2	1	4	0	0	0	1	0.5%	218
Left	18.45 - 19.00	1	1	0	0	0	0	0	0	0.0%	2
Count period total :											
Right	7.00 - 19.00	379	55	17	5	1	0	0	17	3.7%	457
Ahead	7.00 - 19.00	10453	841	389	193	40	5	1	389	3.3%	11921
Left	7.00 - 19.00	216	26	38	34	0	4	0	38	11.9%	318
Total											
Right	7.00 - 19.00	379	55	17	5	1	0	0	17	3.7%	457
Ahead	7.00 - 19.00	10453	841	389	193	40	5	1	389	3.3%	11921
Left	7.00 - 19.00	216	26	38	34	0	4	0	38	11.9%	318







Street : LANGDON RD SA1 (TO PORT TENNANT RD) south  
 Lane(s) : 32 Right 31 Ahead 34 Left

Lane	Time	CAR	LGV	HGV	BUS	MCL	PCL	OTH	H.G.V.s	VEHICLES
Right	18.15 - 18.30	4	0	1	0	0	0	0	1 20.0%	5
Ahead	18.15 - 18.30	0	0	0	0	0	0	0	0 0.0%	0
Left	18.15 - 18.30	0	0	0	0	0	0	0	0 0.0%	0
Right	18.30 - 18.45	4	0	0	0	0	0	0	0 0.0%	4
Ahead	18.30 - 18.45	0	0	0	0	0	0	0	0 0.0%	0
Left	18.30 - 18.45	0	0	0	0	0	0	0	0 0.0%	0
Right	18.45 - 19.00	2	0	0	0	0	0	0	0 0.0%	2
Ahead	18.45 - 19.00	0	0	0	0	0	0	0	0 0.0%	0
Left	18.45 - 19.00	0	0	0	0	0	0	0	0 0.0%	0
Count period total :										
Right	7.00 - 19.00	197	37	25	24	2	1	0	25 8.7%	286
Ahead	7.00 - 19.00	15	1	0	0	0	0	0	0 0.0%	16
Left	7.00 - 19.00	14	4	1	0	0	0	0	1 5.3%	19
Total										
Right	7.00 - 19.00	197	37	25	24	2	1	0	25 8.7%	286
Ahead	7.00 - 19.00	15	1	0	0	0	0	0	0 0.0%	16
Left	7.00 - 19.00	14	4	1	0	0	0	0	1 5.3%	19

Street : FABIAN WAY (TO SWANSEA) west  
 Lane(s) : 43 Right 42 Ahead 41 Left

Lane	Time	CAR	LGV	HGV	BUS	MCL	PCL	OTH	H.G.V.s	VEHICLES	
Hourly flows :											
Right	7.00 - 7.15	0	0	0	0	0	0	0	0	0.0%	0
Ahead	7.00 - 7.15	137	26	5	3	0	0	0	5	2.9%	171
Left	7.00 - 7.15	4	1	0	1	0	0	0	0	0.0%	6
Right	7.15 - 7.30	1	0	0	0	0	0	0	0	0.0%	1
Ahead	7.15 - 7.30	227	34	4	2	0	0	0	4	1.5%	267
Left	7.15 - 7.30	7	1	0	0	1	0	0	0	0.0%	9
Right	7.30 - 7.45	0	0	0	0	0	0	0	0	0.0%	0
Ahead	7.30 - 7.45	247	35	4	4	2	0	0	4	1.4%	292
Left	7.30 - 7.45	7	2	0	0	0	0	0	0	0.0%	9
Right	7.45 - 8.00	8	0	0	0	0	0	0	0	0.0%	8
Ahead	7.45 - 8.00	273	35	4	2	1	0	0	4	1.3%	315
Left	7.45 - 8.00	12	7	1	1	0	0	0	1	4.8%	21
Right	8.00 - 8.15	16	0	0	0	0	0	0	0	0.0%	16
Ahead	8.00 - 8.15	269	27	17	6	1	0	0	17	5.3%	320
Left	8.00 - 8.15	17	1	0	3	0	0	0	0	0.0%	21
Right	8.15 - 8.30	13	1	0	0	0	0	0	0	0.0%	14
Ahead	8.15 - 8.30	277	31	5	6	1	0	0	5	1.6%	320
Left	8.15 - 8.30	16	3	0	1	0	0	0	0	0.0%	20
Right	8.30 - 8.45	12	0	0	0	0	0	0	0	0.0%	12
Ahead	8.30 - 8.45	205	37	13	5	1	0	0	13	5.0%	261
Left	8.30 - 8.45	19	3	0	0	0	0	0	0	0.0%	22
Right	8.45 - 9.00	19	1	0	0	0	0	0	0	0.0%	20
Ahead	8.45 - 9.00	203	29	10	4	1	1	0	10	4.0%	248
Left	8.45 - 9.00	28	2	1	2	0	0	0	1	3.0%	33
Right	9.00 - 9.15	10	0	0	0	1	0	0	0	0.0%	11
Ahead	9.00 - 9.15	181	26	7	7	3	0	0	7	3.1%	224
Left	9.00 - 9.15	23	4	0	0	0	0	0	0	0.0%	27
Right	9.15 - 9.30	3	0	0	0	0	0	0	0	0.0%	3
Ahead	9.15 - 9.30	148	30	11	4	0	0	0	11	5.7%	193
Left	9.15 - 9.30	14	4	1	0	0	0	0	1	5.3%	19
Right	9.30 - 9.45	3	0	0	0	0	0	0	0	0.0%	3
Ahead	9.30 - 9.45	145	31	14	8	0	1	0	14	7.0%	199
Left	9.30 - 9.45	18	2	0	0	0	0	0	0	0.0%	20
Right	9.45 - 10.00	0	0	0	0	0	0	0	0	0.0%	0
Ahead	9.45 - 10.00	121	18	11	4	0	1	0	11	7.1%	155
Left	9.45 - 10.00	10	2	2	0	0	0	0	2	14.3%	14
Right	10.00 - 10.15	1	0	0	0	0	0	0	0	0.0%	1
Ahead	10.00 - 10.15	159	36	12	8	1	0	0	12	5.6%	216
Left	10.00 - 10.15	18	5	0	0	0	0	0	0	0.0%	23
Right	10.15 - 10.30	5	0	0	0	0	0	0	0	0.0%	5
Ahead	10.15 - 10.30	164	27	18	5	2	0	0	18	8.3%	216
Left	10.15 - 10.30	8	5	1	0	0	0	0	1	7.1%	14
Right	10.30 - 10.45	2	0	0	0	0	0	0	0	0.0%	2
Ahead	10.30 - 10.45	121	27	12	8	2	0	0	12	7.1%	170
Left	10.30 - 10.45	10	0	1	0	0	0	0	1	9.1%	11

Street : FABIAN WAY (TO SWANSEA) west  
 Lane(s) : 43 Right 42 Ahead 41 Left

Lane	Time	CAR	LGV	HGV	BUS	MCL	PCL	OTH	H.G.V.s	VEHICLES	
Right	10.45 - 11.00	7	0	0	0	0	0	0	0	0.0%	7
Ahead	10.45 - 11.00	146	37	9	6	0	0	0	9	4.5%	198
Left	10.45 - 11.00	10	0	1	0	0	0	0	1	9.1%	11
Right	11.00 - 11.15	1	0	1	0	0	0	0	1	50.0%	2
Ahead	11.00 - 11.15	153	28	10	6	0	0	0	10	5.1%	197
Left	11.00 - 11.15	17	6	0	0	0	0	0	0	0.0%	23
Right	11.15 - 11.30	3	0	0	0	0	0	0	0	0.0%	3
Ahead	11.15 - 11.30	172	28	14	3	0	0	0	14	6.5%	217
Left	11.15 - 11.30	17	2	0	0	0	0	0	0	0.0%	19
Right	11.30 - 11.45	4	0	0	0	0	0	0	0	0.0%	4
Ahead	11.30 - 11.45	172	29	12	5	0	0	0	12	5.5%	218
Left	11.30 - 11.45	12	2	0	0	0	0	0	0	0.0%	14
Right	11.45 - 12.00	3	0	0	0	0	0	0	0	0.0%	3
Ahead	11.45 - 12.00	155	27	8	3	1	0	0	8	4.1%	194
Left	11.45 - 12.00	16	1	1	1	0	0	0	1	5.3%	19
Right	12.00 - 12.15	5	1	0	0	0	0	0	0	0.0%	6
Ahead	12.00 - 12.15	157	28	17	9	1	0	0	17	8.0%	212
Left	12.00 - 12.15	17	2	0	0	0	0	0	0	0.0%	19
Right	12.15 - 12.30	4	1	0	1	0	0	0	0	0.0%	6
Ahead	12.15 - 12.30	223	34	5	5	0	0	0	5	1.9%	267
Left	12.15 - 12.30	12	4	0	0	0	0	0	0	0.0%	16
Right	12.30 - 12.45	8	0	0	0	0	0	0	0	0.0%	8
Ahead	12.30 - 12.45	176	32	11	7	0	0	0	11	4.9%	226
Left	12.30 - 12.45	18	1	0	1	0	0	0	0	0.0%	20
Right	12.45 - 13.00	8	0	1	0	0	0	0	1	11.1%	9
Ahead	12.45 - 13.00	207	40	10	6	0	0	0	10	3.8%	263
Left	12.45 - 13.00	12	3	0	1	0	0	0	0	0.0%	16
Right	13.00 - 13.15	5	0	0	0	0	0	0	0	0.0%	5
Ahead	13.00 - 13.15	198	23	13	5	0	0	0	13	5.4%	239
Left	13.00 - 13.15	12	2	1	0	0	0	0	1	6.7%	15
Right	13.15 - 13.30	5	1	0	0	0	0	0	0	0.0%	6
Ahead	13.15 - 13.30	212	36	12	3	0	0	0	12	4.6%	263
Left	13.15 - 13.30	15	2	1	0	0	0	0	1	5.6%	18
Right	13.30 - 13.45	1	1	0	1	0	0	0	0	0.0%	3
Ahead	13.30 - 13.45	199	35	18	5	0	0	0	18	7.0%	257
Left	13.30 - 13.45	12	0	1	0	0	0	0	1	7.7%	13
Right	13.45 - 14.00	5	1	0	0	0	0	0	0	0.0%	6
Ahead	13.45 - 14.00	196	36	8	5	0	0	0	8	3.3%	245
Left	13.45 - 14.00	22	5	0	0	0	0	0	0	0.0%	27
Right	14.00 - 14.15	5	1	0	0	0	0	0	0	0.0%	6
Ahead	14.00 - 14.15	173	29	10	6	1	0	0	10	4.6%	219
Left	14.00 - 14.15	18	7	0	0	0	0	0	0	0.0%	25
Right	14.15 - 14.30	8	2	0	0	0	0	0	0	0.0%	10
Ahead	14.15 - 14.30	261	24	9	5	0	0	0	9	3.0%	299
Left	14.15 - 14.30	14	0	0	0	0	0	0	0	0.0%	14

Street : FABIAN WAY (TO SWANSEA) west  
 Lane(s) : 43 Right 42 Ahead 41 Left

Lane	Time	CAR	LGV	HGV	BUS	MCL	PCL	OTH	H.G.V.s	VEHICLES	
Right	14.30 - 14.45	4	0	0	0	0	0	0	0	0.0%	4
Ahead	14.30 - 14.45	192	42	10	5	0	0	0	10	4.0%	249
Left	14.30 - 14.45	15	0	1	0	0	0	0	1	6.3%	16
Right	14.45 - 15.00	6	0	0	0	0	0	0	0	0.0%	6
Ahead	14.45 - 15.00	217	42	11	5	1	0	0	11	4.0%	276
Left	14.45 - 15.00	25	4	0	0	0	0	0	0	0.0%	29
Right	15.00 - 15.15	6	0	0	0	0	0	0	0	0.0%	6
Ahead	15.00 - 15.15	238	35	17	6	2	0	0	17	5.7%	298
Left	15.00 - 15.15	18	5	0	1	0	0	0	0	0.0%	24
Right	15.15 - 15.30	2	0	0	0	0	0	0	0	0.0%	2
Ahead	15.15 - 15.30	243	45	12	6	2	0	0	12	3.9%	308
Left	15.15 - 15.30	29	4	0	0	0	0	0	0	0.0%	33
Right	15.30 - 15.45	5	0	0	0	0	0	0	0	0.0%	5
Ahead	15.30 - 15.45	214	43	14	4	1	0	0	14	5.1%	276
Left	15.30 - 15.45	22	5	1	1	1	0	0	1	3.3%	30
Right	15.45 - 16.00	3	1	0	0	0	0	0	0	0.0%	4
Ahead	15.45 - 16.00	237	54	6	5	1	0	0	6	2.0%	303
Left	15.45 - 16.00	34	5	0	1	0	0	0	0	0.0%	40
Right	16.00 - 16.15	0	0	0	0	0	0	0	0	0.0%	0
Ahead	16.00 - 16.15	294	55	7	5	1	0	0	7	1.9%	362
Left	16.00 - 16.15	35	4	0	1	0	0	0	0	0.0%	40
Right	16.15 - 16.30	1	0	0	0	0	0	0	0	0.0%	1
Ahead	16.15 - 16.30	343	53	8	7	1	0	0	8	1.9%	412
Left	16.15 - 16.30	31	4	0	1	1	0	0	0	0.0%	37
Right	16.30 - 16.45	7	0	0	0	0	0	0	0	0.0%	7
Ahead	16.30 - 16.45	273	51	5	2	3	0	0	5	1.5%	334
Left	16.30 - 16.45	39	3	1	0	0	0	0	1	2.3%	43
Right	16.45 - 17.00	1	1	0	0	0	0	0	0	0.0%	2
Ahead	16.45 - 17.00	300	34	5	7	2	0	0	5	1.4%	348
Left	16.45 - 17.00	36	0	0	0	0	0	0	0	0.0%	36
Right	17.00 - 17.15	4	0	0	0	0	0	0	0	0.0%	4
Ahead	17.00 - 17.15	303	31	5	3	1	0	0	5	1.5%	343
Left	17.00 - 17.15	43	2	0	0	0	0	0	0	0.0%	45
Right	17.15 - 17.30	0	0	0	0	0	0	0	0	0.0%	0
Ahead	17.15 - 17.30	313	23	0	4	0	0	0	0	0.0%	340
Left	17.15 - 17.30	49	3	0	0	0	0	0	0	0.0%	52
Right	17.30 - 17.45	2	0	0	0	0	0	0	0	0.0%	2
Ahead	17.30 - 17.45	245	22	6	4	1	0	0	6	2.2%	278
Left	17.30 - 17.45	41	3	0	0	0	0	0	0	0.0%	44
Right	17.45 - 18.00	2	0	0	0	0	0	0	0	0.0%	2
Ahead	17.45 - 18.00	284	15	2	3	2	0	0	2	0.7%	306
Left	17.45 - 18.00	26	1	0	0	0	0	0	0	0.0%	27
Right	18.00 - 18.15	3	0	0	0	0	0	0	0	0.0%	3
Ahead	18.00 - 18.15	225	16	0	4	0	0	0	0	0.0%	245
Left	18.00 - 18.15	35	2	0	0	0	0	0	0	0.0%	37

Street : FABIAN WAY (TO SWANSEA) west  
 Lane(s) : 43 Right 42 Ahead 41 Left

Lane	Time	CAR	LGV	HGV	BUS	MCL	PCL	OTH	H.G.V.s	VEHICLES	
Right	18.15 - 18.30	4	1	0	0	0	0	0	0	0.0%	5
Ahead	18.15 - 18.30	253	10	1	3	0	0	0	1	0.4%	267
Left	18.15 - 18.30	14	0	0	0	0	0	0	0	0.0%	14
Right	18.30 - 18.45	3	0	0	0	0	0	0	0	0.0%	3
Ahead	18.30 - 18.45	156	12	2	2	0	0	0	2	1.2%	172
Left	18.30 - 18.45	25	1	0	0	0	0	0	0	0.0%	26
Right	18.45 - 19.00	5	0	0	0	0	0	0	0	0.0%	5
Ahead	18.45 - 19.00	145	16	2	1	0	0	0	2	1.2%	164
Left	18.45 - 19.00	30	3	0	0	0	0	0	0	0.0%	33
Count period total :											
Right	7.00 - 19.00	223	13	2	2	1	0	0	2	0.8%	241
Ahead	7.00 - 19.00	10152	1514	426	231	36	3	0	426	3.4%	12362
Left	7.00 - 19.00	982	128	15	16	3	0	0	15	1.3%	1144
Total											
Right	7.00 - 19.00	223	13	2	2	1	0	0	2	0.8%	241
Ahead	7.00 - 19.00	10152	1514	426	231	36	3	0	426	3.4%	12362
Left	7.00 - 19.00	982	128	15	16	3	0	0	15	1.3%	1144

CITY AND COUNTY OF SWANSEA  
 TRANSPORTATION UNIT/STUDIES MODELLING  
 COUNTY HALL SWANSEA SA1 3SN

FABIAN WAY/PORT TENNANT ROAD 12HOURS

Site : SC06087 CR  
 Survey date : Tuesday, 28/11/06

Place : FABIAN WAY SWANSEA

Street 1 north : PORT TENNANT RD (TO SA1)  
 Street 2 east : FABIAN WAY (TO NEATH)  
 Street 3 south : LANGDON RD SA1 (TO PORT TENNANT RD)  
 Street 4 west : FABIAN WAY (TO SWANSEA)  
 Interval length : 15 min  
 Survey time : 7.00 - 19.00 hrs  
 Weather : DRY & WINDY

H.G.V.s = HGV  
 VEHICLES = CAR + LGV + HGV + BUS + MCL + PCL

Time	Lane											
	12	13	14	21	23	24	31	32	34	41	42	43
7- 8	52	7	74	38	19	977	2	2	1	45	1045	9
8- 9	55	8	110	38	100	1607	0	14	1	96	1149	62
9-10	19	3	117	33	36	1320	2	13	0	80	771	17
10-11	20	3	81	23	25	952	0	11	2	59	800	15
11-12	32	5	75	18	27	797	0	12	2	75	826	12
12-13	30	6	84	32	18	827	1	11	2	71	968	29
13-14	44	1	75	50	28	833	2	25	4	73	1004	20
14-15	42	2	93	33	14	818	1	11	1	84	1043	26
15-16	40	5	98	35	15	839	2	23	6	127	1185	17
16-17	51	4	101	41	12	989	2	36	0	156	1456	10
17-18	45	4	100	56	17	1042	4	100	0	168	1267	8
18-19	43	1	94	60	7	920	0	28	0	110	848	16
Total	473		1102		318		16		19		12362	
		49		457		11921		286		1144		241

All values in VEHC  
 VEHC = CAR + LGV + HGV + BUS + MCL + PCL

## Amazon Distribution Centre Manual Traffic Count

A manual count of vehicles entering and exiting the Amazon development was undertaken on Thursday 20 November between 13.30 and 14.30 to cover the afternoon shift change. A high proportion of car sharing was observed, with few single occupancy vehicles.

### Vehicle Entering and Exiting Amazon on 20 November 2008

Time	Vehicles entering Amazon					Vehicles exiting Amazon				
	Car	HGV	LGV	Mcycle	Total Vehs	Car	HGV	LGV	Mcycle	Total Vehs
13:30-13:35	20	0	0	1	21	2	0	0	0	2
13:36-13:40	20	0	0	0	20	1	1	1	0	3
13:41-13:45	38	1	0	0	39	5	0	0	0	5
13:46-13:50	29	1	1	1	32	0	0	0	0	0
13:51-13:55	16	0	1	0	17	2	1	3	0	6
13:56-14:00	5	2	1	1	9	1	2	0	0	3
14:01-14:05	0	2	0	0	2	35	2	1	0	38
14:06-14:10	0	3	0	0	3	64	1	0	1	66
14:11-14:15	2	1	0	0	3	64	4	1	1	70
14:16-14:20	0	2	0	0	2	7	0	0	2	9
14:21-14:25	0	1	0	0	1	0	2	0	1	3
14:26-14:30	0	2	0	0	2	0	4	0	0	4

Appendix E

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**Accident Data**

ACCIDENT PERIOD: Last 5 years (01/07/2003 - 30/06/2008)

SITE LOCATION: Fabian Way, Swansea

  
 CITY AND COUNTY OF SWANSEA  
 DINAS A SIR ABERTAWA  
 CASUALTY REDUCTION GROUP  
 ACCIDENT ANALYSIS SHEET

REF NO.	DATE	SEV	TIME (HRS)	DARK/LIGHT	ROAD SURFACE	VEHICLE/PEDESTRIAN INVOLVEMENT	DESCRIPTION	LOCATION	CAUSATION FACTORS	EASTINGS	NORTHINGS
1	03/08/2003	Slight	18:00	Light	Dry	Vehicles	VEH1 COLLIDED WITH VEH2 WHILST IT WAS UNDERTAKING ON CARRIAGEWAY	A483 - FABIAN WAY (WEST), ST THOMAS, SWANSEA	Not coded	267777	193041
2	19/08/2003	Serious	11:00	Light	Dry	Vehicle/Pedestrian	VEH1 TRAVELLING ALONG FABIAN WAY. CAS1 APPEARS TO HAVE STEPPED DELIBERATELY INTO PATH OF VEH1.	FABIAN WAY, SWANSEA APPROX 10 YDS SOUTH WEST OF JUNCTION WITH VALE OF NEATH	Not coded	267974	193118
3	20/08/2003	Slight	22:45	Dark	Dry	Vehicles	V1 TURNED INTO THE PATH OF V2, AUSING IT TO COLLIDE WITH V2.	FABIAN WAY, PORT TENNANT JCT WITH EAST BANK WAY	Not coded	266243	193217
4	28/10/2003	Slight	15:00	Light	Wet/Damp	Vehicles	VEWH 2 STOPPED WHEN VEH 1 FAILED TO STOP IN TIME AND COLLIDED	A483 FABIAN WAY J/W LANGDON ROAD, SWANSEA	Not coded	266240	193200
5	07/11/2003	Slight	14:30	Light	Wet/Damp	Vehicles	V3 TRAVELLING INTO CITY SLOWED IN HEAVY TRAFFIC V2 TRAVELLING BEHIND ALSO SLOWED DOWN V1 FAILED TO SEE VEHICLES SLOWING, BRAKED BUT SKIDDED INTO REAR OF V2	A483 FABIAN WAY, SWANSEA J/W EASTBANK WAY	Not coded	266236	193218
6	16/11/2003	Slight	12:30	Light	Dry	Vehicles	VEH 1 COLLIDED WITH REAR OF VEH 2 WHILST STATIONARY AT TRAFFIC LIGHTS	FABIAN WAY, SWANSEA	Not coded	267524	193028
7	10/12/2003	Serious	09:50	Light	Dry	Vehicles	VEH2 BRAKED FOR LIGHTS. VEH1 FAILED TO BRAKE IN TIME, COLLIDING WITH VEH2.	A483 FABIAN WAY JUNCTION WITH ELBA CRESCENT	Not coded	269239	193091
8	12/01/2004	Slight	07:00	Dark	Wet/Damp	Vehicles	VEH 1 COLLIDED WITH VEH 2 WHICH WAS A CYCLIST	FABIAN WAY, J/W NEATH ROAD, SWANSEA	Not coded	266250	193210
9	18/01/2004	Slight	04:20	Dark	Dry	Vehicles	VEH 1 TRAVELLING ALONG AND SKIDDED AND COLLIDED WITH A TREE	A483 FABIAN WAY. TOWARDS CITY CENTRE	Not coded	266240	193200
10	20/01/2004	Slight	19:45	Dark	Dry	Vehicles	VEH 1 CHANGED LANES ON CARRIAGEWAY AND COLLIDED WITH VEH 2	TRAFFIC LIGHTS ON FABIAN WAY, J/W WITH MCDONALDS RESTAURANT	Not coded	267775	193050
11	10/02/2004	Slight	07:35	Light	Dry	Vehicles	V2 STATIONARY IN TRAFFIC, V1 COLLIDED WITH REAR OF V2 AND MADE OFF	FABIAN WAY APPROX 30FT FROM QUAY PARADE	Not coded	266200	193210
12	06/04/2004	Slight	22:31	Dark	Dry	Vehicles	V2 WAS TRAVELLING AT A SLOW SPEED INFRONT OF V1, V1 COLLIDED INTO THE REAR OF V2 DUE TO ITS HIGH SPEED.	FABIAN WAY OPPOSITE JCT TO ST THOMAS ROAD, SWANSEA.	Not coded	266239	193217
13	07/04/2004	Slight	08:30	Light	Dry	Vehicles	VEH2 SLOWED DOWN DUE TO VEH AHEAD TURNING RIGHT. VEH1 FAILED TO STOP IN TIME, COLLIDING WITH REAR OF VEH2. S'170 WAS COMPLIED WITH AT SCENE.	A483 FABIAN WAY, NEAR TO JUNCTION WITH PORT TENNANT ROAD	Not coded	266570	193170
14	05/06/2004	Fatal	01:18	Dark	Dry	Vehicles	VEH 3 WAS TURNING RIGHT, ON DOING SO IT WAS HIT BY V1 WHICH WAS TRAVELLING AT HIGH SPEED, V1 SPUN IN THE ROAD AND WAS THEN HIT BY V2.	FABIAN WAY E/B CARRIAGEWAY WITH ITS JCT WITH ST LEDGER CRESCENT ST THOMAS.	Not coded	266689	193176
15	18/06/2004	Slight	18:10	Light	Dry	Vehicles	VEH 1 TURNED RIGHT INTO THE PATH OF VEH 2, VEH 3 FAILED TO STOP IN TIME AND COLLIDED INTO THE REAR OF VEH 2	A483 FABIAN WAY J/W PORT TENNANT ROAD, SWANSEA	Not coded	266690	193180
16	22/06/2004	Slight	19:40	Light	Dry	Vehicles	DRIVER OF BUS PULLED OFF BEFORE PASSENGER HAD CHANCE TO SIT DOWN.	FABIAN WAY, SWANSEA	Not coded	266570	193180
17	03/07/2004	Slight	17:34	Light	Dry	Vehicles	DURING A POLICE PURSUIT, V1 DROVE THROUGH A ROAD CLOSURE AND COLLIDED HEAD ON WITH A CRANE OUTRIGGER.	FABIAN WAY W/B CARRIAGEWAY, APPROX 300 YDS WEST OF J/W MAIN PORT ENTRANCE	Not coded	266240	193200
18	14/09/2004	Slight	21:23	Dark	Wet/Damp	Vehicles	V1 MADE A RIGHT TURN AT JCT AND COLLIDED INTO THE N/S OF V2.	FABIAN WAY JCT WITH PORT TENNANT ROAD SWANSEA.	Not coded	266240	193200
19	26/09/2004	Slight	18:43	Dark	Wet/Damp	Vehicles	V1 COLLIDED INTO THE SIDE OF V2, CAUSING THE RIDER TO FALL OFF. V1 FAILED TO STOP.	O/S ROWBERRYS PORT TENNANT ROAD	Not coded	266650	193180
20	27/09/2004	Slight	10:00	Light	Dry	Vehicles	V2 ACCELERATED FROM LIGHTS AS V1 ATTEMPTED TO CROSS JUNCTION FROM V2'S N/S, CAUSING A COLLISION.	A483 FABIAN WAY, APPROX 25 METRES FROM THE ENTRANCE TO SWANSEA DOCKS	Not coded	266390	193190
21	02/01/2005	Serious	16:16	Light	Dry	Vehicles	RIDER OF V1 LOST CONTROL AND COLLIDED WITH THE OFFSIDE KERB, RESULTING IN HIM BEING THROWN FROM THE MOTORCYCLE.	A483 FABIAN WAY, SWANSEA	410. Loss of control	267091	193161
22	20/01/2005	Slight	20:42	Dark	Wet/Damp	Vehicles	V2 BRAKED TO TURN INTO A JUNCTION, V1 THEN 'CLIPPED' THE REAR NEARSIDE OF V2, AND THEN COLLIDED WITH THE NEARSIDE BARRIER.	A483 FABIAN WAY, SWANSEA	406. Failed to judge other persons path or speed, 404. Failed to signal/Misleading signal	266642	193173
23	04/03/2005	Slight	23:39	Dark	Wet/Damp	Vehicles	V2 WAS TRAVELLING ALONG FABIAN WAY, AS IT ENTERED THE JUNCTION V1 WHICH WAS TRAVELLING IN THE OPPOSITE DIRECTION TURNED RIGHT ACROSS THE PATH OF V2 CAUSING A COLLISION.	A483 FABIAN WAY, PORT TENNANT	803. Failed to judge vehicles path or speed, 808. Careless/Reckless/In a hurry	267936	193098
24	05/05/2005	Slight	17:45	Light	Dry	Vehicles	V2 WAS IN THE RIGHT HAND FILTER LANE WAITING TO TURN RIGHT WHEN V1 FAILED TO STOP IN TIME AND COLLIDED WITH ITS REAR. DETAILS EXCHANGED AT THE SCENE, V2 LATER REPORTED IT DUE TO INJURY.	A483 FABIAN WAY, SWANSEA	308. Following too close, 406. Failed to judge other persons path or speed	266260	193210

25	27/05/2005	Slight	14:00	Light	Dry	Vehicles	FRONT WHEEL OF V1 CLIPPED CENTRAL RESERVATION CAUSING VEH TO MOUNT KERB, SPIN SIDEWAYS AND COLLIDE WITH CENTRAL RESERVATION BARRIER.	A483 FABIAN WAY, APPROX 200 METRES WEST OF JUNCTION WITH LANGDON ROAD, SWANSEA	706. Dazzling sun	267900	193070
26	13/06/2005	Slight	08:45	Light	Dry	Vehicles	V2 BROKE SHARPLY AND V1 COLLIDED WITH IT	A483 FABIAN WAY, AT JCT WITH PORT TENNANT ROAD, SWANSEA	408. Sudden braking	266690	193170
27	03/09/2005	Slight	02:26	Dark	Dry	Vehicles	V2 went through T/L on green. V1 from opposite direction cut across path of V2 turning right	A483, Quay Parade at j/w Fabian Way	301. Disobeyed automatic traffic signal	266241	193211
28	05/09/2005	Slight	06:10	Light	Wet/Damp	Vehicles	V1 and 2 travelling along carriageway in same direction. V1 has flashed cars to make way for it. It has then moved into nearside lane and as it passed back into inside lane it collided with V2 and then barriers. Driver of V1 has then made off	A483 Fabian Way at j/w Port Tennant Road	501. Impaired by alcohol, 602. Careless/Reckless/In a hurry, 601. Aggressive driving, 403. Poor turn or manoeuvre	266730	193180
29	06/09/2005	Slight	16:56	Light	Dry	Vehicles	V1 was travelling behind V2 slowly in heavy traffic V2 stopped and V1 collide with the rear of V2	A4067 Quay Parade 50m east of Fabien Way	406. Failed to judge other persons path or speed	266160	193210
30	08/09/2005	Slight	12:45	Light	Wet/Damp	Vehicles	V1 travelling along carriageway has approached traffic lights showing red. Driver attempted to brake but failed to do so and collided with traffic lights on the O/S	A483 Fabian Way , entrance to McDonalds	102. Deposit on road (eg oil, mud, chippings), 103. Slippery road (due to weather)	267780	193040
31	19/10/2005	Slight	14:00	Light	Wet/Damp	Vehicles	As the vehicles approached a filter lane due to roadworks, V1 moved into the inside lane and collided into the rear offside of V2 causing it to spin around and leave the carriageway	A483 Fabian Way, 30m east of Eastbank Way	405. Failed to look properly	266322	193193
32	06/11/2005	Slight	01:00	Dark	Dry	Vehicle/Pedestrian	V1 hit barrier at side of road causing barrier to hit C1 on pavement. V1 FTS	Fabian Way, St Thomas	602. Careless/Reckless/In a hurry	266610	193180
33	18/11/2005	Slight	18:10	Light	Dry	Vehicles	V2 was stationary at traffic lights when V1 collided with its rear. V1 FTS	A483 Fabian Way, Swansea	406. Failed to judge other persons path or speed	267810	193060
34	08/03/2006	Slight	12:24	Light	Wet/Damp	Vehicles	V2 view was obscured by a pvc V2 mis read the signal displayed - green stopped at junction. V1 failed to react and collided with rear of V2	A483 Fabian Way j/w Langdon Road	308. Following too close, 104. Inadequate/Masked signs or road markings, 301. Disobeyed automatic traffic signal, 307. Travelling too fast for conditions	267798	193041
35	24/05/2006	Slight	20:00	Light	Dry	Vehicles	V2 was stationary at traffic lights when V1 collided with its rear.	A483 Fabian Way j/w Port Tennant Road, Swansea	602. Careless/Reckless/In a hurry	266663	193172
36	14/07/2006	Slight	08:37	Light	Dry	Vehicles	V2 stopped suddenly, V1 was unable to stop in time and collided with the rear of V2, causing V2 to be pushed into V3	A483 Fabian Way, St Thomas	408. Sudden braking	267590	193030
37	14/07/2006	Slight	10:40	Light	Dry	Vehicles	V1 collided with V2 which was stationary at red traffic light	A483 Fabian Way at entrance to docks	803. Failed to judge vehicles path or speed	266241	193191
38	19/07/2006	Slight	15:46	Light	Dry	Vehicles	Whilst V2 was waiting at the traffic lights V1 stated that she braked hard and went into the rear of V2	A483 Fabian Way, Swansea	408. Sudden braking, 308. Following too close	267230	193120
39	03/08/2006	Slight	17:45	Light	Dry	Vehicles	V1 was momentarily distracted and subsequently collided with V2 pushing it into V3. V1 driver sustained injuries	A483 Fabian Way, St Thomas	509. Distraction in vehicle	266310	193200
40	08/08/2006	Slight	20:27	Light	Dry	Vehicles	V1 has pulled out into lane whilst V2 was overtaking causing V2 to collide with railing in the centre	A483 Fabian Way 75 metres east of Park and Ride entrance	405. Failed to look properly, 710. Vehicle blind spot	267836	193071
41	16/09/2006	Slight	00:26	Light	Dry	Vehicles	V2 was waiting at traffic lights when V1 collided with rear of V2. V1 FTS	A483 Fabian Way, Port Tennant	501. Impaired by alcohol	266690	193170
42	13/10/2006	Slight	13:00	Light	Dry	Vehicles	V2 approaching lights. V1 following close behind. V2 stopped just passed stop line due to exit being blocked and lights changing to red. V1 collided with the rear of V2. Driver of V2 sustained injuries	Fabian Way j/w Quay Parade, Swansea	406. Failed to judge other persons path or speed	266220	193200



Stats 19: Fabian Way to M4 J43 1 July 2003 to 30 June 2008

**060159919**      SERIOUS      269786/192914      09/11/2006      17:58  
**LOCATION**      A483 FABIAN WAY, CRYMLYN BURROWS  
**DESCRIPTION**      V1 CLEARED THE NEARSIDE BEND, VEH CHANGED LANES, BECAME UNBALANCED, ROLLED OVER AND SPUN ON ITS ROOF.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE			
1 Car	Male	18	1	Passenger	SLIGHT	1	Female	16
			2	Passenger	SLIGHT	1	Male	17
			3	Passenger	SERIOUS	1	Female	14

**060148180**      FATAL      269806/192918      04/03/2006      01:42  
**LOCATION**      A483 FABIAN WAY NEATH.  
**DESCRIPTION**      DRIVER OF V2 WAS CHANGING TYRE, AT THE ROADSIDE, V1 COLLIDED INTO V2 CRUSHING THE DRIVER.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE			
1 Car	Male	21	1	Driver/Rider	SLIGHT	1	Male	21
			2	Driver/Rider	FATAL	2	Male	18
2 Car	Male		3	Passenger	SLIGHT	2	Female	15
			4	Passenger	SERIOUS	2	Female	18

**050141247**      SERIOUS      270219/193011      16/10/2005      21:56  
**LOCATION**      A483 FABIAN WAY, 100M WEST OF J/W CRYMLYN BURROWS, SWANSEA  
**DESCRIPTION**      DRIVER OF V1 LOST CONTROL AND COLLIDED WITH THE NEARSIDE RAILINGS.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE			
1 Car	Male	27	1	Driver/Rider	SERIOUS	1	Male	27

**0107719**      SLIGHT      270406/193075      25/04/2004      13:45  
**LOCATION**      A483 FABIAN WAY JUNCTION WITH ELBA CRESCENT  
**DESCRIPTION**      V1 FAILED TO STOP AND COLLIDED WITH REAR OF V2

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE			
1 Car	Female	40	1	Driver/Rider	SLIGHT	1	Female	40
2 Car	Female	64						

**060154021**      SLIGHT      270410/193080      25/05/2006      22:30  
**LOCATION**      A483 FABIAN WAY J/W ELBA CRESCENT, NEATH  
**DESCRIPTION**      V2 WENT THROUGH A GREEN LIGHT AT TRAFFIC LIGHTS AND V1 COLLIDED WITH V2 STATING THAT THE LIGHT WAS RED

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE			
1 Car	Female	23	1	Driver/Rider	SLIGHT	2	Female	17
			2	Passenger	SLIGHT	2	Female	17
2 Car	Female	17	3	Passenger	SLIGHT	1	Female	54

**050145041**      SLIGHT      270980/194500      06/12/2005      20:50  
**LOCATION**      BACK LANE JERSEY MARINE TO LLANDARCY NEATH  
**DESCRIPTION**      V1 WAS TRAVELLING ALONG A SINGLE C/W WHEN FOR U/K REASONS IT COLLIDED WITH THE EMBANKMENT TO THE OFFSIDE AND TURNS OVER ON TO ITS ROOF.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE			
1 Car	Male	18	1	Passenger	SLIGHT	1	Male	17
			2	Passenger	SLIGHT	1	Male	17

Stats 19: Fabian Way to M4 J43 1 July 2003 to 30 June 2008

**070170762** SLIGHT 271050/194030 19/08/2007 20:05  
**LOCATION** SCHOOL LANE J/W SCHOOL ROAD, JERSEY MARINE, NEATH  
**DESCRIPTION** V1 APPROACHED BEND AT SPEED COLLIDING INTO V2. V1 FAILED TO STOP.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	36 1 Driver/Rider	SLIGHT	2 Male	25
2 Car	Male	25			

**050129226** SLIGHT 271069/194071 02/04/2005 19:05  
**LOCATION** LANE OFF SCHOOL ROAD, JERSEY MARINE  
**DESCRIPTION** BOTH VEHICLES WHICH WERE TRAVELLING IN AN OPPOSITE DIRECTION ALONG A RIGHT HAND BAND WHEN THEY COLLIDED WITH EACH OTHER.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	28 1 Driver/Rider	SLIGHT	1 Male	28
2 Taxi	Male	29 2 Driver/Rider	SLIGHT	2 Male	29

**050133188** SERIOUS 271130/194060 07/06/2005 15:10  
**LOCATION** SCHOOL ROAD, JERSEY MARINE, NEATH  
**DESCRIPTION** CASUALTY HAS STEPPED FROM PAVEMENT ONTO CARRIAGEWAY AND COLLIDED WITH VEH CAUSING SERIOUS INJURY

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Female	35 1 Pedestrian	SERIOUS	1 Female	61

**0109368** SLIGHT 271171/193948 21/05/2004 12:45  
**LOCATION** NEW ROAD JERSEY MARINE  
**DESCRIPTION** PASSENGER ON BUS HAS GOT UP PUSHED THE BELL FOR THE BUS TO STOP AND FALLEN BACKWARDS CAUSING INJURY

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Bus or Coach	Male	53 1 Pedestrian	SLIGHT	1 Female	80

**070163945** SLIGHT 271220/193280 13/02/2007 13:00  
**LOCATION** A483 FABIAN WAY, JERSEY MARINE, NEATH  
**DESCRIPTION** V1 COLLIDED WITH REAR OF V2. V2 DRIVER AND PASSENGERS SUSTAINED INJURIES.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Bus or Coach	Male	32 1 Driver/Rider	SLIGHT	2 Male	56
2 Car	Male	56 2 Passenger	SLIGHT	1 Female	27
		3 Passenger	SLIGHT	1 Female	71

**050127183** SLIGHT 271225/194031 21/02/2005 12:00  
**LOCATION** B4290 NEW ROAD, JERSEY MARINE  
**DESCRIPTION** V1 COLLIDED WITH V2 WHICH WAS PARKED AT THE SIDE OF THE ROAD.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Female	35 1 Driver/Rider	SLIGHT	2 Male	44
2 Other M.veh	Male	44			

Stats 19: Fabian Way to M4 J43 1 July 2003 to 30 June 2008

**0110964** SLIGHT 271344/193762 05/06/2004 13:00  
**LOCATION** ASHLEY TERRACE 20M J/W OCEAN VIEW JERSEY MARINE  
**DESCRIPTION** VEH 2 ON STOP WHEN VEH 1 FAILED TO STOP IN TIME AND COLLIDED

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Female	38 1 Driver/Rider	SLIGHT	1 Female	38
2 Car	Female	42 2 Driver/Rider	SLIGHT	2 Female	42

**070167669** SLIGHT 271387/194208 11/05/2007 23:00  
**LOCATION** NEW ROAD 40M FROM HEATHER RISE, JERSEY MARINE, NEATH  
**DESCRIPTION** V1 HAS COLLIDED WITH LAMPOST

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Female	52 1 Driver/Rider	SLIGHT	1 Female	52

**070172454** SLIGHT 271413/194237 04/10/2007 15:18  
**LOCATION** NEW ROAD 10M J/W ALLT Y GRUG, JERSEY MARINE  
**DESCRIPTION** VEH 3 STOPPED TO AVOID VEH 1 CAUSING VEH 2 TO COLLIDE INTO VEH 3

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	24 1 Driver/Rider	SLIGHT	3 Male	44
2 Car	Female	33 2 Passenger	SLIGHT	2 Female	45
3 Car	Male	44			

**050128944** SLIGHT 271422/193322 29/03/2005 17:45  
**LOCATION** A483 FABIAN WAY JERSEY MARINE  
**DESCRIPTION** AS A RESULT OF A PREVIOUS COLLISION VEHICLES HAD BRAKED CAUSING CONCERTINA EFFECT COLLISION WITH 4 VEHICLES

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	19 1 Driver/Rider	SLIGHT	2 Female	45
2 Car	Female	45 2 Driver/Rider	SLIGHT	3 Male	24
3 Car	Male	24 3 Passenger	SLIGHT	1 Female	23
4 Car	Male	21			

**0111293** SERIOUS 271450/193330 11/06/2004 17:05  
**LOCATION** FABIAN WAY APPROX 150 METRES WEST OF ITS ROUNDABOUT JUNCTION WITH ASHLEIGH TERRACE  
**DESCRIPTION** VEH1 TRAVELLING AT EXCESSIVE SPEED FAILED TO SLOW IN TIME AND COLLIDED WITH REAR OF VEH2 AND THEN ONTO COLLIDE WITH VEH3.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 M/cycle 125 - 500cc	Male	40 1 Driver/Rider	SERIOUS	1 Male	40
2 Car	Male	23			
3 Car	Male	41			

Stats 19: Fabian Way to M4 J43 1 July 2003 to 30 June 2008

**080179002** SLIGHT 271505/193342 11/04/2008 11:00  
**LOCATION** A483 FABIAN WAY 100 MTRS WEST OF B4291 ASHLEIGH ROAD, JERSEY MARINE, SWANSEA  
**DESCRIPTION** V2 HAS STOPPED AT RED TRAFFIC LIGHT, V1 HAS FAILED TO STOP IN TIME AND HAS COLLIDED INTO REAR OF V2

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Male	63 1 Passenger	SLIGHT 2 Female	68
2 Car	Male	65		

**050128897** SLIGHT 271549/193352 29/03/2005 17:30  
**LOCATION** A483 FABIAN WAY 50 YDS WEST OF R/B J/W WITH ASHLEIGH TERRACE  
**DESCRIPTION** UNKNOWN VEH HAS BRAKED CAUSING VEH 3 TO COME TO A STOP. VEH 2 HAS COLLIDED INTO REA ROF VEH 3. VEH 1 HAS FAILED TO BRAKE IN TIME COLLIDING WITH VEH 2, PUSHING IT FURTHER INTO VEH 3

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Male	79 1 Driver/Rider	SLIGHT 1 Male	79
2 Car	Male	41 2 Driver/Rider	SLIGHT 3 Female	71
3 Car	Female	71		

**060152346** SLIGHT 271560/193350 21/04/2006 01:30  
**LOCATION** A483 FABIAN WAY J/W B4291 ASHLEIGH ROAD, JERSEY MARINE  
**DESCRIPTION** V1 WAS TRAVELLING TOO FAST ON APPROACH TO THE ROUNDABOUT WHEN IT COLLIDED WITH LIGHTING LAMP.

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Female	18 1 Driver/Rider	SLIGHT 1 Female	18

**060157379** SLIGHT 271562/193354 23/07/2006 13:00  
**LOCATION** A483 FABIAN WAY, JERSEY MARINE  
**DESCRIPTION** V1 APPROACHED ROUNDABOUT AND COLLIDED WITH V2 WHICH HAD SLOWED IN TRAFFIC

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Male	38 1 Driver/Rider	SLIGHT 2 Female	40
2 Car	Female	40		

**070165766** SLIGHT 271577/193358 15/04/2007 18:00  
**LOCATION** A483 FABIAN WAY 15M SOUTH OF B4290 ASHLEIGH TERRACE, NEATH  
**DESCRIPTION** V1 LOST CONTROL AND COLLIDED WITH V2, V2 SUSTAINED AN INJURY

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Female	20 1 Driver/Rider	SLIGHT 2 Female	39
2 Car	Female	39		

**050141941** SLIGHT 271590/193370 10/11/2005 04:00  
**LOCATION** A483 FABIAN WAY ROUNDABOUT WITH B4290 JERSEY MARINE, NEATH  
**DESCRIPTION** V1 FAILED TO NEGOTIATE A ROUNDABOUT AND AND ENTERED INTO THE ROUNDABOUT CAUSING DAMAGE TO A SIGN, ROAD CONDITIONS WERE EXTREMELY WET

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Male	56 1 Driver/Rider	SLIGHT 1 Male	56

Stats 19: Fabian Way to M4 J43 1 July 2003 to 30 June 2008

**070171943** SLIGHT 271598/193372 17/10/2007 06:00  
**LOCATION** A483 J/W B4290 ASHLEIGH ROAD, JERSEY MARINE  
**DESCRIPTION** V2 ON RAB, V1 ENTERED AND COLLIDED WITH REAR N/S DOOR OF V2.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Not traced	-1 1 Driver/Rider	2	Male	45
2 Car	Male	45			

**070174623** SERIOUS 271598/193372 08/12/2007 03:00  
**LOCATION** A483 FABIAN WAY E/B JUNCTION WITH JERSEY MARINE  
**DESCRIPTION** VEH 1 TRAVELLING EAST HEAVY RAIN. VEH 1 HIT POOL OF SURFACE WATER AQUAPLANED SPUN ROUND AND TRAVELLED BACKWARDS THROUGH ROADWORK CONES AND COLLIDED WITH A LARGE EXCAVATOR.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	44 1 Driver/Rider	1	Male	44

**060154640** SLIGHT 271600/193382 08/06/2006 17:45  
**LOCATION** A483 FABIAN WAY J/W B4290 ROUNDABOUT TO JERSEY MARINE, NEATH  
**DESCRIPTION** V2 WAS TURNING RIGHT AT ROUNDABOUT WHEN V1 COLLIDED WITH V2 SIDE ON

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	32 1 Driver/Rider	2	Male	49
2 Car	Male	49			

**0100228** SERIOUS 271602/193378 26/12/2003 01:20  
**LOCATION** A483 FABIAN WAY TOWARDS T4 J42 AT TOUNDABOUT WITH B4290  
**DESCRIPTION** V1 FAILED TO NEGOTIATE ROUNDABOUT DROVE OVER ROUNDABOUT AND COLLIDED WITH ROAD SIGNS

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	23 1 Driver/Rider	1	Male	23

**080179117** SLIGHT 271606/193396 21/04/2008 11:30  
**LOCATION** A483 FABIAN WAY J/W B4290 NEW ROAD, JERSEY MARINE, NEATH  
**DESCRIPTION** V1 COLLIDED WITH V2, BOTH SUSTAINED INJURIES

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Goods > 7.5t	Male	27 1 Driver/Rider	1	Male	27
2 Goods > 7.5t	Male	41 2 Driver/Rider	2	Male	41

**0098721** SLIGHT 271609/193390 11/12/2003 17:52  
**LOCATION** A483 ROUNDABOUT OF FABIAN WAY JUNCTION WITH ASHLEIGH ROAD JERSEY MARINE  
**DESCRIPTION** VEH1 AND VEH2 HEGOTIATING ROUNDABOUT. VEH1 COLLIDED WITH VEH2.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Goods > 7.5t	Male	43 1 Driver/Rider	2	Female	54
2 Car	Female	54			

Stats 19: Fabian Way to M4 J43 1 July 2003 to 30 June 2008

**070168305** SLIGHT 271612/193340 24/06/2007 12:45  
**LOCATION** A483 FABIAN WAY, JERSEY MARINE, NEATH  
**DESCRIPTION** V1 COLLIDED WITH V2, V1 + V2 SUSTAINED INJURIES

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	75 1 Driver/Rider	SLIGHT	2 Male	26
2 Car	Male	26 2 Passenger	SLIGHT	1 Female	73

**060154820** SLIGHT 271620/193410 11/06/2006 13:52  
**LOCATION** B4290 J/W A483 FABIAN WAY JERSEY MARINE NEATH  
**DESCRIPTION** V1 HAS STARTED TO EMERGE ONTO THE ROUNDABOUT, V2 HAS REMAINED STATIONARY AND HAS BEEN REAR SHUNTED BY V1

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	36 1 Driver/Rider	SLIGHT	2 Male	22
2 Car	Male	22 2 Passenger	SLIGHT	2 Female	26

**060162024** SLIGHT 271621/193397 16/12/2006 02:25  
**LOCATION** A483 FABIAN WAY J/W ASHLEY TERRACE, JERSEY MARINE  
**DESCRIPTION** V1 FAILED TO NEGOTIATE ROUNDABOUT, LOST CONTROL, AND FLIPPED ON TO ITS ROOF.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	20 1 Passenger	SLIGHT	1 Female	19
		2 Passenger	SLIGHT	1 Male	23

**080175724** SLIGHT 271623/193398 08/01/2008 12:10  
**LOCATION** A483 FABIAN WAY J/W B4291 NEW ROAD, JERSEY MARINE, NEATH  
**DESCRIPTION** V1 COLLIDED WITH V2.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	75 1 Driver/Rider	SLIGHT	1 Male	75
2 Agric Veh	Male	30			

**070170764** SLIGHT 271634/193400 25/04/2007 14:00  
**LOCATION** A483 FABIAN WAY J/W B4290 ASHLEIGH TERRACE, JERSEY MARINE  
**DESCRIPTION** V1 COLLIDED WITH V2 NEARSIDE WHILST JOINING CARRIAGEWAY FROM JUNCTION

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 M/cycle 125 - 500cc	Male	28 1 Driver/Rider	SLIGHT	1 Male	28
2 Car	Female	22 2 Driver/Rider	SLIGHT	2 Female	22

**050144287** SLIGHT 271639/193400 29/11/2005 17:51  
**LOCATION** A483 FABIAN WAY J/W B4290 JERSEY MARINE  
**DESCRIPTION** V2 WAS ATTEMPTING TO NEGOTIATE A R/B WHEN V1 PULLED OUT FROM A SIDE ROAD INTO THE PATH OF V2. V1 COLLIDED WITH V2.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	18 1 Driver/Rider	SLIGHT	1 Male	18
2 Car	Male	59 2 Passenger	SLIGHT	1 Male	18
		3 Passenger	SLIGHT	1 Female	16

Stats 19: Fabian Way to M4 J43 1 July 2003 to 30 June 2008

**080178200** SLIGHT 271645/193399 03/03/2008 16:15  
**LOCATION** A483 FABIAN WAY AT JERSEY MARINE RAB, NEATH  
**DESCRIPTION** V1 HAS COLLIDED WITH V2. DRIVER OF V2 HAS SUSTAINED INJURIES

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Goods > 7.5t	Male	53 1 Driver/Rider	SLIGHT 2 Male	50
2 Car	Male	50		

**070163687** SERIOUS 271650/193390 25/02/2007 07:45  
**LOCATION** A483 FABIAN WAY J/W B4290 ASHLEIGH TERRACE, JERSEY MARINE  
**DESCRIPTION** V1 ENTERED RAB AND LOST CONTROL, VEH SPUN COLLIDED WITH KERB, VEH THEN ROLLED ON TO ITS ROOF.

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Male	25 1 Driver/Rider	SERIOUS 1 Male	25

**050132406** SLIGHT 271654/193396 22/05/2005 19:55  
**LOCATION** A483 FABIAN WAY, JCT WITH ERSEY MARINE ROUNDABOUT, EXIT ONTO THE E/B RH LANE.  
**DESCRIPTION** V1 AND V2 WERE BOTH SIDE TO SIDE TRAVELLING IN THE SAME DIRECTION, THEY BOTH ENTERED THE R/A, V2 WAS ON THE INSIDE LANE AS IT INTENDED TO GO STRAIGHT AHEAD, V1 WAS ON THE O/S LANE, INTENDING TO GO AROUND THE R/A. V1 COLLIDED INTO THE SIDE OF V2 AS IT EXITED THE R/A.

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Male	50 1 Driver/Rider	SLIGHT 2 Male	20
2 M/cycle 125 - 500cc	Male	20		

**0108198** SLIGHT 271664/193394 03/05/2004 01:00  
**LOCATION** A483 FABIAN WAY NORTHBOUND JERSEY MARINE ROUNDABOUT  
**DESCRIPTION** VEH 1 SWERVED TO AVOID A FOX CLIPPED CERB OVERSTEERED THEN OVERTURNED COMING TO RES TON ITS NEARSIDE

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Male	20 1 Driver/Rider	SLIGHT 1 Male	20
		2 Passenger	SLIGHT 1 Male	20
		3 Passenger	SLIGHT 1 Male	21
		4 Passenger	SLIGHT 1 Male	21
		5 Passenger	SLIGHT 1 Male	21

**070171761** SLIGHT 271675/193361 15/09/2007 17:30  
**LOCATION** A483 FABIAN WAY J/W ASHLEIGH ROAD, JERSEY MARINE  
**DESCRIPTION** V2 STOPPED AT RAB, V1 COLLIDED WITH ITS REAR.

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Male	82 1 Driver/Rider	SLIGHT 2 Male	39
2 Car	Male	39		

**0096503** SLIGHT 271705/193373 31/10/2003 13:20  
**LOCATION** A483 FABIAN WAY J/W JERSEY MARINE ROUNDABOUT JERSEY MARINE  
**DESCRIPTION** WHEEL OF VEH 1 BECAME DETACHED AND COLLIDED INTO VEH 2

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Male	38 1 Driver/Rider	SLIGHT 2 Male	24
2 Goods < 3.5t	Male	24		

Stats 19: Fabian Way to M4 J43 1 July 2003 to 30 June 2008

**050134151** SLIGHT 271723/195498 22/06/2005 16:46  
**LOCATION** PRETTYMAN DRIVE JUNCTION WITH TANK FARM ROAD, LLANDARCY  
**DESCRIPTION** V1 & V2 TRAVELLING IN OPPOSITE DIRECTION. V1 TURNED RIGHT ACROSS PATH OF V2 AND COLLIDED.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Goods > 7.5t	Male	59 1 Driver/Rider	SLIGHT	2 Male	35
2 Car	Male	35 2 Passenger	SLIGHT	2 Male	6
		3 Passenger	SLIGHT	2 Female	35

**070174611** SLIGHT 271760/193390 08/12/2007 11:03  
**LOCATION** A483 FABIAN WAY NEATH  
**DESCRIPTION** V 2,3,4, APPROACHING R/BOUT V1 FAILED TO STOP, IMPACTING WITH VEH 2, VEH 2 INTO VEH 3, VEH 3 INTO VEH 4. V1 AND 4 LEFT SCENE

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	18 1 Driver/Rider	SLIGHT	3 Female	42
2 Car	Female	17 2 Passenger	SLIGHT	3 Female	14
3 Car	Female	42			
4 Car	Not traced	-1			

**070169575** SLIGHT 271780/194510 18/07/2007 10:30  
**LOCATION** B4290 NEW ROAD, JERSEY MARINE, NEATH  
**DESCRIPTION** V1 HEADING ON THE WRONG SIDE OF THE ROAD CAUSING V2 TO HIT THE KERB BEFORE FALLING DOWN THE EMBANKMENT. V1 FAIL TO STOP.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Not traced	-1 1 Driver/Rider	SLIGHT	2 Male	37
2 Goods < 3.5t	Male	37			

**0088779** SERIOUS 271863/193408 17/07/2003 21:00  
**LOCATION** A483 FABIAN WAY 200YDS J/W JERSEY MARINE ROUNDABOUT  
**DESCRIPTION** VEH 1 OVERTOKK VEH 2 CAUSING VEH 2 TO CILLIDED INTO A KERB

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Not traced	-1 1 Driver/Rider	SERIOUS	2 Male	44
2 M/cycle 125 - 500cc	Male	44			

**070165269** SERIOUS 271929/193431 21/03/2007 21:39  
**LOCATION** A483 FABIAN WAY, JERSEY MARINE, NEATH  
**DESCRIPTION** V1 COLLIDED WITH BARRIER. V1 DRIVER AND TWO PASSENGERS SUSTAINED INJURIES.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	28 1 Driver/Rider	SERIOUS	1 Male	28
		2 Passenger	SLIGHT	1 Male	28
		3 Passenger	SLIGHT	1 Male	28

Stats 19: Fabian Way to M4 J43 1 July 2003 to 30 June 2008

**050125051** SLIGHT 272020/195710 21/01/2005 20:45  
**LOCATION** B4290 J/W ENTRANCE TO 'GLAMORGAN HEALTH CLUB', LLANDARCY  
**DESCRIPTION** V1 PULLED OUT OF THE SIDE JUNCTION AND COLLIDED WITH THE SIDE OF V2.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Female	30 1 Driver/Rider SLIGHT	2	Male	24
2 Car	Male	24 2 Passenger SLIGHT	2	Male	4
		3 Passenger SLIGHT	2	Male	1

**070169565** SERIOUS 272020/195710 18/07/2007 19:10  
**LOCATION** B4290 LLANDARCY TO JERSEY MARINE ROAD, LLANDARCY, NEATH  
**DESCRIPTION** C1 WAS CROSSING JUNCTION AND COLLIDED WITH V1.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Not traced	-1 1 Pedestrian SERIOUS	1	Male	65

**070167699** SLIGHT 272025/195716 20/05/2007 17:26  
**LOCATION** NEW ROAD J/W THE ENTRANCE TO LLANDARCY SPORTS CLUB, SKEWEN, NEATH  
**DESCRIPTION** V1 HAS COLLIDED WITH V2, V1 HAS SUSTAINED INJURIES

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Female	35 1 Driver/Rider SLIGHT	1	Female	35
2 Car	Male	20			

**060158009** SLIGHT 272027/195704 23/08/2006 15:50  
**LOCATION** B4290 LLANDARCY NEAR TO J43 EAST NEATH  
**DESCRIPTION** V1 HAS COLLIDED WITH THE REAR OF V2 AFTER FAILING TO ALLOW ENOUGH SPACE AND TIME TO STOP SAFELY.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Female	43 1 Driver/Rider SLIGHT	2	Male	40
2 Car	Male	40			

**050126202** SLIGHT 272050/196030 04/02/2005 16:00  
**LOCATION** B4290 J/W LLANDARCY ROUNDABOUT, NEATH  
**DESCRIPTION** V2 WAS WAITING IN A QUEUE OF TRAFFIC WHEN V1 COLLIDED WITH ITS REAR.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Goods < 3.5t	Male	56 1 Driver/Rider SLIGHT	2	Female	19
2 Car	Female	19			

**050129850** SLIGHT 272050/196030 18/04/2005 14:30  
**LOCATION** B4290, AT LLANDARCY ROUNDABOUT  
**DESCRIPTION** V1 COLLIDED WITH REAR OF V2

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	45 1 Driver/Rider SLIGHT	2	Female	59
2 Car	Female	59			

Stats 19: Fabian Way to M4 J43 1 July 2003 to 30 June 2008

**0091758** SLIGHT 272056/196363 09/09/2003 06:35  
**LOCATION** M4 WESTBOUND 200YDS WEST OF JUNCTION 43 LLANDARCY  
**DESCRIPTION** DRIVER OF VEH 1 FELL ASLEEP AND COLLIDED INTO VEH 2

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Goods < 3.5t	Male	27 1 Driver/Rider	SLIGHT	2 Male	61
2 Goods > 7.5t	Male	61			

**0108343** SLIGHT 272057/196034 06/05/2004 17:05  
**LOCATION** B4290 J/W A465 LLANDARCY NEATH  
**DESCRIPTION** V1 COLLIDED INTO THE REAR OF V1 V1 FAILED TO STOP.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Not traced	-1 1 Driver/Rider	SLIGHT	2 Female	57
2 Car	Female	57			

**060158090** SLIGHT 272060/196037 11/08/2006 16:37  
**LOCATION** B4290 JERSEY MARINE ROAD J/W LLANDARCY INTERCHANGE J43 NEATH  
**DESCRIPTION** V1 HAS COLLIDED WITH REAR OF V2 WHICH WAS STATIONARY AT RAB. A DRIVER AND A PASSENGER HAVE SUSTAINED INJURIES.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	25 1 Driver/Rider	SLIGHT	2 Male	32
2 Car	Male	32 2 Passenger	SLIGHT	2 Female	16

**0121657** SLIGHT 272060/196038 22/11/2004 08:30  
**LOCATION** B4290 LLANDARCY ROUNDABOUT LLANDARCY NEATH  
**DESCRIPTION** VEH 1 HAS HIT STATIONARY VEH 2 WAITNG TO ENTER ROUNDABOUT

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	32 1 Driver/Rider	SLIGHT	2 Female	25
2 Car	Female	25			

**050132869** SLIGHT 272060/196040 03/06/2005 07:50  
**LOCATION** B4290 J/W A465 AT LLANDARCY ROUNDABOUT  
**DESCRIPTION** V2 WAS STATIONERY WAITING TO JOIN THE ROUNDABOUT WHEN V1 COLLIDED WITH ITS REAR. S170 COMPLIED WITH AT THE SCENE.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Not traced	-1 1 Driver/Rider	SLIGHT	2 Female	29
2 Car	Female	29			

**050138902** SLIGHT 272060/196240 23/09/2005 08:30  
**LOCATION** M4 ON-SLIP W/B JCT 43 LLANDARCY, NEATH.  
**DESCRIPTION** V3 WAS ATTEMPTING TO ENTER MW ON SLIP-ROAD. V3 HAD TO SLOW DOWN FOR TRAFFIC, V2 DIRECTLY BEHIND DID THE SAME. SUBSEQUENTLY, V1 HAS COLLIDED WITH THE REAR OF V2 WHICH IN TURN HAS HIT V3.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Female	25 1 Driver/Rider	SLIGHT	1 Female	25
2 Car	Female	21 2 Driver/Rider	SLIGHT	2 Female	21
3 Car	Female	42			

Stats 19: Fabian Way to M4 J43 1 July 2003 to 30 June 2008

**0122989** SLIGHT 272064/196410 07/12/2004 16:40  
**LOCATION** M4 JCT 43 ON THE INSIDE LANE OF MOTORWAY EASTBOUND.  
**DESCRIPTION** V2 STOPPED IN A QUE OF TRAFFIC V1 FAILED TO BREAK IN TIME AND COLLIDED WITH THE REAR.

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Male	60 1 Driver/Rider	SLIGHT 1 Male	60
2 Car	Male	25		

**0111579** SLIGHT 272066/196208 11/06/2004 14:45  
**LOCATION** M4 JUNCTION 42 ONSLIP LLANDARCY  
**DESCRIPTION** DRIVER OF VEH1 LOST CONTROL OF VEH DUE TO DEFLATION OF F/O/S TYRE AND COLLIDED WITH N/S ONSLIP BARRIER.

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Male	40 1 Driver/Rider	SLIGHT 1 Male	40

**0116381** SLIGHT 272071/196088 31/08/2004 14:30  
**LOCATION** M4 ROUNDABOUT AT J43 LLANDARCY  
**DESCRIPTION** AS VEH 2 CAME TO A STOP VEH 1 FAILED TO AND COLLIDED INTO REAR VEH 1 THEN FAILED TO STOP

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Male	31 1 Driver/Rider	SLIGHT 2 Female	32
2 Car	Female	32		

**0120766** SLIGHT 272088/196195 05/11/2004 16:40  
**LOCATION** M4 W/B PARALLEL TO JCT 43 ON SLIP ROAD  
**DESCRIPTION** V1 INDICATED TO DRIVE INTO OUTSIDE LANE VEHICLES AHEAD WERE AT A STOP SO V1 BRAKED V2 BRAKED HEAVILY BUT COLLIDED WITH THE REAR OF V1.

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Goods < 3.5t	Male	49 1 Driver/Rider	SLIGHT 2 Male	27
2 M/cycle 125 - 500cc	Male	27		

**070163997** SLIGHT 272091/196016 06/02/2007 12:46  
**LOCATION** LLANDARCY ROUNDABOUT J/W B4290 JERSEY MARINE, NEATH  
**DESCRIPTION** V1 COLLIDED WITH REAR OF V2. V2 DRIVER SUSTAINED INJURY.

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Male	56 1 Driver/Rider	SLIGHT 2 Female	54
2 Car	Female	54		

**060156759** SLIGHT 272100/196310 21/07/2006 17:59  
**LOCATION** M4 J43 LLANDARCY J/W A465 NEATH  
**DESCRIPTION** V2 HAS BRAKED SHARPLY DUE TO TAILBACK OF HEAVY TRAFFIC, V1 UNABLE TO STOP AND COLLIDED WITH V2

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Female	23 1 Driver/Rider	SLIGHT 2 Female	18
2 Car	Female	18 2 Passenger	SLIGHT 1 Female	24

Stats 19: Fabian Way to M4 J43 1 July 2003 to 30 June 2008

**070169400** SLIGHT 272108/196269 14/07/2007 13:10  
**LOCATION** M4 J/W LLANDARCY ROUNDABOUT  
**DESCRIPTION** V2 STOPPED ON SLIPROAD, V1 THEN COLLIDED WITH ITS REAR.

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Male	41 1 Passenger	SLIGHT 2 Female	55
2 Car	Male	57 2 Passenger	SLIGHT 2 Female	5

**0117135** SLIGHT 272109/195999 04/09/2004 12:45  
**LOCATION** M4 JCT 43 WESTBOUND OFF-SLIP AT JCT WITH A465 ROUNDABOUT  
**DESCRIPTION** VEH 2 STATIONARY AT ROUNDABOUT GIVE WAY LINES. VEH 1 COLLIDED WITH REAR OF VEH 2.

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Male	35 1 Driver/Rider	SLIGHT 2 Male	19
2 Car	Male	19		

**080175734** SLIGHT 272111/195416 12/01/2008 19:00  
**LOCATION** B4290, NEATH  
**DESCRIPTION** V1 COLLIDED WITH A COW.

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Male	18 1 Driver/Rider	SLIGHT 1 Male	18

**060157754** SLIGHT 272112/195995 16/08/2006 11:45  
**LOCATION** M4 MOTORWAY J43 W/B OFF SLIP J/W A465 LLANDARCY RAB NEATH  
**DESCRIPTION** V1 COLLIDED INTO THE REAR OF V2 WHILST WAITING TO ENTER RAB. A DRIVER AND A PASSENGER SUSTAINED INJURIES.

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Male	55 1 Driver/Rider	SLIGHT 2 Male	44
2 Car	Male	44 2 Passenger	SLIGHT 2 Female	42

**080180542** SLIGHT 272113/195993 20/06/2008 14:30  
**LOCATION** M4 W/B OFFSLIP JCT 43 J/W INTERCHANGE, LLANDARCY, NEATH  
**DESCRIPTION** BOTH V1 AND V2 HAVE PULLED TO A STOP, V1 STARTED TO MOVE FORWARD AND COLLIDED WITH V2

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Goods < 3.5t	Male	23 1 Passenger	SLIGHT 2 Female	70
2 Car	Male	38		

**060150786** SLIGHT 272114/195990 25/03/2006 19:00  
**LOCATION** M4 JCT 43 OFF SLIP  
**DESCRIPTION** V2 STOPPED AT JCT, V1 FTS IN TIME AND COLLIDED INTO THE REAR OF V2.

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Male	77 1 Driver/Rider	SLIGHT 2 Male	51
2 Car	Male	51		

Stats 19: Fabian Way to M4 J43 1 July 2003 to 30 June 2008

**0115709** SLIGHT 272116/195986 17/08/2004 17:10  
**LOCATION** M4 MOTORWAY WESTBOUND OFFSLIP J43 LLANDARCY  
**DESCRIPTION** VEH 1 AND 2 ON MOTORWAY VEH 2 SLOWED DOWN DUE TO PREVIOUS RTC VEH 1 THE COLLIDED INTO VEH 2

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Male	58 1 Passenger	SLIGHT 2 Female	57
2 Car	Male	23		

**050125709** SLIGHT 272119/196226 26/01/2005 15:20  
**LOCATION** M4 JCT 43 LLANDARCY SLIPROAD  
**DESCRIPTION** V2 WAS QUEUEING ON THE SLIPROAD WHEN V1 COLLIDED WITH ITS REAR. THE DRIVER OF V1 THEN DROVE OFF, BUT WAS APPREHENDED BY THE DRIVER OF V2 WHEN THE DRIVER OF V1 GAVE DETAILS.

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Female	26 1 Driver/Rider	SLIGHT 2 Male	34
2 Car	Male	34		

**0122464** SLIGHT 272123/196197 03/12/2004 15:29  
**LOCATION** M4 EASTBOUND OFF SLIP ROAD AT ITS JCT WITH LLANDARCY INTERCHANGE JCT 43.  
**DESCRIPTION** V2 SLOWING ON SLIP ROAD V1 RAN INTO REAR

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Goods > 7.5t	Male	66 1 Driver/Rider	SLIGHT 2 Male	24
2 Car	Male	24		

**0092649** SLIGHT 272127/196170 26/09/2003 17:00  
**LOCATION** M4 EASTBOUND OFFSLIP AT JUNCTION 43 LLANDARCY  
**DESCRIPTION** WHILST CHANGING LANES VEH 1 COLLIDED INTO VEH 2

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Female	19 1 Passenger	SLIGHT 1 Male	19
2 Car	Male	26		

**070169674** SLIGHT 272128/196169 22/07/2007 14:36  
**LOCATION** M4 EASTBOUND OFF SLIP JCT 43 LLANDARCY J/W A465 LLANDARCY INTERCHANGE, NEATH  
**DESCRIPTION** V1 COLLIDED WITH THE REAR OF V2. V2 DRIVER AND PASSENGER SUSTAINED INJURIES.

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Male	34 1 Driver/Rider	SLIGHT 2 Male	39
2 Car	Male	39 2 Passenger	SLIGHT 2 Female	4

**060148687** SLIGHT 272128/196170 21/02/2006 16:20  
**LOCATION** M4 LLANDARCY INTERCHANGE, NEATH  
**DESCRIPTION** V1 ENTERED MOTORWAY. V1 TRAVELLED INTO LANE 2 COLLIDING WITH V2 WHICH WAS ALREADY IN LANE 2 CAUSING V2 TO COLLIDE WITH CENTRAL RESERVATION. V1 FAILED TO STOP.

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Male	39 1 Driver/Rider	SLIGHT 2 Female	58
2 Car	Female	58		

Stats 19: Fabian Way to M4 J43 1 July 2003 to 30 June 2008

**0093212** SLIGHT 272130/196161 23/09/2003 17:00  
**LOCATION** M4 JUNCTION 43 EASTBOUND AT LLANDARCY ROUNDABOUT.  
**DESCRIPTION** V2 WAS WAITING AT THR JCT JUCT OFF THE M4 WHEN V1 CAME UP BEHIND IT AND COLLIDED WITH THE REAR.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Female	45 1 Driver/Rider	SLIGHT	2 Male	51
2 Car	Male	51			

**0117537** SLIGHT 272133/195946 20/09/2004 09:00  
**LOCATION** M4 JCT 43 J/W W/B OFFSLIP LLANDARCY INTERCHANGE  
**DESCRIPTION** V1 COLLIDED WITH THE REAR OF V2.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	48 1 Passenger	SLIGHT	2 Female	51
2 Car	Female	36			

**0091842** SLIGHT 272134/196154 10/09/2003 11:55  
**LOCATION** M4 JUNCTION 43 SLIP ROAD J/W LLANDARCY ROUNDABOUT  
**DESCRIPTION** V1 RAN INTO REAR OF STATIONARY V2

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	43 1 Driver/Rider	SLIGHT	2 Female	40
2 Car	Female	40			

**0100569** SLIGHT 272135/195943 05/01/2004 17:30  
**LOCATION** M4 JUNCTION 43 LLANDARCY OFF SLIP  
**DESCRIPTION** VEH 1 COLIDED WITH VEH 2 PUSHING VEH 2 INTO VEH 3

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Female	37 1 Passenger	SLIGHT	1 Male	13
2 Car	Female	31 2 Passenger	SLIGHT	1 Male	8
3 Car	Male	30 3 Passenger	SLIGHT	1 Male	9

**070163483** SLIGHT 272136/196149 23/01/2007 15:25  
**LOCATION** M4 E/B OFFSLIP JCT 43, LLANDARCY, NEATH  
**DESCRIPTION** BOTH VEHICLES EXITED M4. V2 CAME TO A STOP AT JUNCTION TO GIVE WAY. V1 FAILED TO STOP AND COLLIDED WITH V2.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	54 1 Driver/Rider	SLIGHT	2 Male	45
2 Car	Male	45			

**0115437** SLIGHT 272137/196150 15/08/2004 13:45  
**LOCATION** M4 JCT 43 LLANDARCY EASTBOUND OFFSLIP AT JCT WITH A465 ROUNDABOUT  
**DESCRIPTION** VEH 2 CAME TO STOP AT ROUNDABOUT AND VEH 1 COLLIDED WITH REAR OF VEH 2

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	56 1 Driver/Rider	SLIGHT	2 Male	55
2 Car	Male	55			

Stats 19: Fabian Way to M4 J43 1 July 2003 to 30 June 2008

**070167740** SLIGHT 272138/196148 07/06/2007 08:55  
**LOCATION** M4 E/B OFFSLIP J43 LLANDARCY J/W A465 LLANDARCY INTERCHANGE, NEATH  
**DESCRIPTION** V1 COLLIDED INTO V2, V2 SUSTAINED INJURIES

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	41 1 Driver/Rider	SLIGHT	2 Male	36
2 Car	Male	36 2 Passenger	SLIGHT	2 Male	36

**0100585** SLIGHT 272139/195932 05/01/2004 17:30  
**LOCATION** M4 MOTORWAY J43 LLANDARCY OFF SLIP  
**DESCRIPTION** VEH 1 COLLIDED IN TO THE REAR OF VEH 2

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	71 1 Driver/Rider	SLIGHT	2 Male	29
2 Car	Male	29			

**0097810** SLIGHT 272139/196146 30/11/2003 10:54  
**LOCATION** M4 EASTBOUND OFFSLIP J/W LLANDARCY ROUNDABOUT  
**DESCRIPTION** VEH 2 ON STOP WHEN VEH 1 FAILED TO STOP IN TIME AND COLLIDED

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	62 1 Driver/Rider	SLIGHT	2 Male	39
2 Car	Male	39			

**0107141** SLIGHT 272139/196146 14/04/2004 14:45  
**LOCATION** M4 JCT 43 AT THE TOP OF THE OFF SLIP LLANDARCY.  
**DESCRIPTION** V2 WAS STATIONERY AT THE ROUNDABOUT V1 COLLIDED INTO THE REAR OF V2

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	31 1 Passenger	SLIGHT	2 Male	34
2 Car	Female	33			

**070162867** SLIGHT 272140/196024 15/01/2007 16:45  
**LOCATION** M4 J43 E/B LLANDARCY NEATH  
**DESCRIPTION** V1 COLLIDED WITH REAR OF V2 WHICH WAS STATIONARY IN TRAFFIC IN LANE 1 M4

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Female	21 1 Driver/Rider	SLIGHT	1 Female	21
2 Car	Male	39 2 Driver/Rider	SLIGHT	2 Male	39

**070169316** SLIGHT 272143/196141 09/07/2007 13:30  
**LOCATION** M4 JCT 43 SLIP ROAD AT J/W A465, LLANDARCY  
**DESCRIPTION** V2 STATIONERY AT TRAFFIC LIGHTS, V1 COLLIDED WITH ITS REAR.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Female	34 1 Driver/Rider	SLIGHT	2 Male	44
2 Car	Male	44 2 Passenger	SLIGHT	2 Male	3
		3 Passenger	SLIGHT	1 Female	37
		4 Passenger	SLIGHT	2 Male	13

**0115549** SLIGHT 272143/196142 17/08/2004 16:45  
**LOCATION** M4 MOTORWAY J43 LLANDARCEY  
**DESCRIPTION** V1 BRAKED TO AVOID COLLIDING INTO V3 V2 THEN SWERVED TO MISS V3 V2 THEN COLLIDED INTO THE REAR OF V3

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Not traced	-1 1 Driver/Rider	SLIGHT	2 Male	28
2 Car	Male	28 2 Driver/Rider	SLIGHT	3 Female	31
3 Car	Female	31 3 Passenger	SLIGHT	3 Male	31

**060161823** SLIGHT 272144/196141 14/12/2006 08:00  
**LOCATION** M4 J43 LLANDARCY INTERCHANGE NEATH  
**DESCRIPTION** V1 HAS FAILED TO STOP IN TIME AND COLLIDED WITH V2, V2 HAS THEN COLLIDED WITH V1. INJURIES SUSTAINED TO DRIVER V1 AND V2.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Female	24 1 Driver/Rider	SLIGHT	1 Female	24
2 Car	Female	21 2 Driver/Rider	SLIGHT	2 Female	21
3 Car	Male	43			

**070172583** SLIGHT 272145/196140 30/10/2007 14:13  
**LOCATION** M4 EASTBOUND J43 J/W A465 LLANDARCY  
**DESCRIPTION** V1 MOVED ACROSS INTO LANE OF V2 AND COLLIDED

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Goods > 7.5t	Male	29 1 Driver/Rider	SLIGHT	2 Male	53
2 Car	Male	53			

**070162885** SLIGHT 272147/196138 15/01/2007 07:30  
**LOCATION** M4 OFF SLIP LLANDARCY  
**DESCRIPTION** BOTH V1 & V2 ON OFFSLIP BOTH INTENDING TO TURN RIGHT, V2 STOPPED TO GIVE WAY TO ONCOMING TRAFFIC AT R.A.B V1 FAILED TO STOP IN TIME AND COLLIDED WITH REAR OF V2

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Goods < 3.5t	Male	42 1 Driver/Rider	SLIGHT	2 Male	42
2 Goods < 3.5t	Male	42 2 Passenger	SLIGHT	2 Male	40

**060149756** SLIGHT 272149/196136 16/03/2006 20:15  
**LOCATION** M4 JCT 43 LLANDARCY  
**DESCRIPTION** V1 COLLIDED INTO THE REAR OF V2 WHICH WAS STATIONERY AT THE JCT.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	34 1 Passenger	SLIGHT	2 Female	15
2 Car	Female	46			

**070168829** SLIGHT 272150/196136 07/07/2007 19:20  
**LOCATION** M4 LLANDARCY INTERCHANGE J/W A465, LLANDARCY, NEATH  
**DESCRIPTION** V2 STARTED TO PULL AWAY AT JUNCTION BUT STOPPED. V1 FAILED TO NOTICE AND COLLIDED WITH REAR OF V2.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	61 1 Passenger	SLIGHT	2 Female	29
2 Car	Male	44			

Stats 19: Fabian Way to M4 J43 1 July 2003 to 30 June 2008

**0092114** SLIGHT 272150/196350 24/09/2003 18:05  
**LOCATION** B4290 PENYRHEOL J/W BAY VIEW GARDENS SKEWEN  
**DESCRIPTION** VEH 1 BEING PERSUED BY VEH 3 AND LOST CONTROL AND COLLIDED INTO VEH 2

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Not traced	-1 1 Driver/Rider	SLIGHT	2 Female	20
2 Car	Female	20			
3 Car	Male	38			

**080180441** SLIGHT 272154/196132 17/05/2008 17:10  
**LOCATION** M4 OFF SLIP EASTBOUND J/W A465 NORTHBOUND, LLANDARCY, NEATH  
**DESCRIPTION** V2 COLLIDED WITH V1. V2 DRIVER AND TWO PASSENGER HAS SUSTAINED INJURIES.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 0.00	Not traced	-1 1 Driver/Rider	SLIGHT	2 Female	25
2 Car	Female	25 2 Passenger	SLIGHT	2 Female	46
		3 Passenger	SLIGHT	2 Male	2

**050130917** SLIGHT 272159/195895 03/05/2005 09:30  
**LOCATION** M4 JCT 43 SLIPROAD AT LLANDARCY  
**DESCRIPTION** V2 WAS WAITING IN A QUEUE OF TRAFFIC WHEN V1 COLLIDED WITH ITS REAR. THE DETAILS GIVEN BY V1 ARE FALSE.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Female	49 1 Driver/Rider	SLIGHT	2 Male	52
2 Car	Male	52			

**060151584** SLIGHT 272160/196130 09/04/2006 13:19  
**LOCATION** M4 JCT 43 EASTBOUND OFF SLIP J/W A465 , NEATH  
**DESCRIPTION** V1 COLLIDED INTO REAR OF V2 WHEN TRAFFIC LIGHTS TURNED GREEN, DRIVER V1 CLAIMS IT WAS CAUSED BY HIM SNEEZING

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	45 1 Driver/Rider	SLIGHT	2 Male	46
2 Car	Male	46			

**0104970** SLIGHT 272171/196127 09/03/2004 16:50  
**LOCATION** 4 OFFSLIP JCT 43 AT LLANDARCY ROUNDABOUT  
**DESCRIPTION** BOTH VEHS ON OFFSLIP - V2 IN NEARSIDE LANE - V1 IN OFFSIDE LANE V1 ATTEMPTED TO TURN LEFT AT ROUNDABOUT AND COLLIDED WITH REAR OF V2 WHICH WAS GOING AHEAD

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Female	39 1 Driver/Rider	SLIGHT	2 Female	32
2 Car	Female	32			

**0101953** SLIGHT 272172/195943 27/01/2004 10:00  
**LOCATION** M4 100YDS EAST OF JUNCTION 43 LLANDARCY  
**DESCRIPTION** WHILST CHANGING LANES VEH 1 COLLIDED INTO VEH 2

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Goods 3.5 - 7.5t	Male	40 1 Passenger	SLIGHT	2 Female	56
2 Car	Male	66 2 Passenger	SLIGHT	2 Female	20

Stats 19: Fabian Way to M4 J43 1 July 2003 to 30 June 2008

**050137489** SLIGHT 272177/195930 25/08/2005 13:00  
**LOCATION** M4 JCT NEAR 43 LLANDARCY, EASTBOUND  
**DESCRIPTION** V1 COLLIDED WITH V2

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Female	18 1 Driver/Rider	SLIGHT 2 Male	27
2 Car	Male	27		

**060160308** SLIGHT 272181/195848 17/11/2006 15:30  
**LOCATION** M4 BOTTOM OF J43 WESTBOUND OFF SLIP NEATH PORT TALBOT  
**DESCRIPTION** V1 WAS TRAVELLING ALONG M4, IT HAD BEEN RAINING VERY HEAVILY IMMEDIATELY PRIOR TO RTC, V1 HIT SURFACE WATER AND SKIDDED AND COLLIDED WITH CRASH BARRIER. V1 DRIVER SUSTAINED INJURIES.

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Female	69 1 Driver/Rider	SLIGHT 1 Female	69

**060157700** SLIGHT 272187/195911 09/08/2006 18:15  
**LOCATION** M4 200 METRES EAST OF A48 LLANDARCY NEATH  
**DESCRIPTION** V1 MISJUDGED THE SPEED OF TRAFFIC AHEAD OF HIM. HE BRAKED LOST CONTROL AND SWERVED INTO THE OFF SIDE OF V2. BOTH DRIVERS SUSTAINED INJURIES.

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Male	26 1 Driver/Rider	SLIGHT 1 Male	26
2 Car	Female	31 2 Driver/Rider	SLIGHT 2 Female	31

**050141738** SLIGHT 272208/195107 30/10/2005 01:20  
**LOCATION** B4290 LLANDARCY, 1000M WEST OF TANK FARM ROAD, LLANDARCY  
**DESCRIPTION** V1 LEFT THE ROAD TO THE NEARSIDE, COLLIDED WITH A CRASH BARRIER AND SPUN BACK INTO THE ROADWAY.

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Male	22 1 Driver/Rider	SLIGHT 1 Male	22

**0117081** SLIGHT 272211/195869 11/09/2004 10:20  
**LOCATION** M4 EASTBOUND CARRAIGEWAY JCT 43  
**DESCRIPTION** VEHs 1 2 & 3 TRAVELLING EBOUND. VEH 1 VEERED INTO LANE 1 COLLIDING WITH VEHs 2 & 3

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Male	19 1 Passenger	SLIGHT 1 Female	35
2 Goods 3.5 - 7.5t	Male	27 2 Passenger	SLIGHT 1 Female	39
3 Car	Male	57		

**0110905** SLIGHT 272212/195813 01/06/2004 17:00  
**LOCATION** M4 WESTBOUND J/W JUNCTION 43 ONSLIP  
**DESCRIPTION** WHILST CHANGING LANES VEH 1 COLLIDED INTO VEH 2

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Goods 3.5 - 7.5t	Male	41 1 Driver/Rider	SLIGHT 2 Female	32
2 Car	Female	32		

Stats 19: Fabian Way to M4 J43 1 July 2003 to 30 June 2008

**0114609** SLIGHT 272215/196078 06/08/2004 09:00  
**LOCATION** M4 JCT 43 ROUNDABOUT WITH A465 SOUTHBOUND  
**DESCRIPTION** VEH 2 ENTERED ROUNDABOUT & VEH 1 COLLIDED WITH IT

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Female	51 1 Driver/Rider	SLIGHT 2 Female	40
2 Car	Female	40		

**0122041** SLIGHT 272216/196012 29/11/2004 08:40  
**LOCATION** M4 MOTORWAY LLANDARCY J43  
**DESCRIPTION** VEH 1 COLLIDED WITH VEH 2 ON MOTORWAY CAUSING DAMAGE FAILING TO STOP

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Male	32 1 Driver/Rider	SLIGHT 2 Female	34
2 Car	Female	34 2 Passenger	SLIGHT 2 Female	14

**0106006** SLIGHT 272235/195883 21/03/2004 11:37  
**LOCATION** JUNCTION 43 M4 ONSLIP EASTBOUND  
**DESCRIPTION** BOTH VEHICLES TRAVELLING ON ON SLIP. VEH2 CAME TO A STOP DUE TO LORRY IN LANE 1. VEH1 FAILED TO STOP IN TIME COLLIDING WITH REAR OF VEH2.

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Female	21 1 Driver/Rider	SLIGHT 1 Female	21
2 Car	Male	63		

**0098320** SLIGHT 272248/195772 05/12/2003 08:40  
**LOCATION** M4 WESTBOUND J/W OFFSLIP JUNCTION 43 LLANDARCY  
**DESCRIPTION** VEH 1 CHANGED LANES AND COLLIDED INTO VEH 2

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Female	28 1 Driver/Rider	SLIGHT 1 Female	28
2 Car	Female	38 2 Driver/Rider	SLIGHT 2 Female	38

**0098646** SLIGHT 272249/194964 10/12/2003 10:09  
**LOCATION** B4291 FROM JERSEY MARINE TO LLANDARCY  
**DESCRIPTION** AS VEH1 APPROACHED BEND DRIVER FAILED TO SEE VEH2 IN FRONT WHICH HAD STOPPED. VEH1 FAILED TO BRAKE IN TIME COLLIDING WITH VEH2.

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Car	Male	34 1 Passenger	SLIGHT 2 Female	59
2 Car	Male	60		

**060158972** SERIOUS 272285/195729 13/09/2006 09:48  
**LOCATION** M4 MOTORWAY J43 W/B OFFSLIP NEATH  
**DESCRIPTION** V2 ENTERED DEDICATED LANE. TRAFFIC FLOW SLOW. V2 STOPPED. V1 ENTERED MOTORWAY AND CONTINUED INTO DEDICATED LANE AND COLLIDED WITH REAR OF V2. V2 DRIVER SUSTAINED INJURIES.

VEHICLES	DRIVER	CASUALTIES	VEH SEX	AGE
1 Goods > 7.5t	Male	35 1 Driver/Rider	SERIOUS 2 Male	35
2 Car	Male	35		

Stats 19: Fabian Way to M4 J43 1 July 2003 to 30 June 2008

**070165684** SLIGHT 272285/195764 15/04/2007 09:22  
**LOCATION** M4 E/B JCT43 TO JCT42 ALONGSIDE EAST ON-SLIP J43, NEATH  
**DESCRIPTION** V1 SUFFERED A BLOW OUT, LOST CONTROL COLLIDING WITH CENTRAL RESERVATION

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Female	18 1 Passenger	SLIGHT	1 Male	21

**070162895** SLIGHT 272309/195750 15/01/2007 17:35  
**LOCATION** M4 EASTBOUND END OF ONSLIP JUNCTION 43, NEATH  
**DESCRIPTION** BOTH VEHICLES TRAVELLING IN SAME DIRECTION. V2 BRAKED IN HEAVY TRAFFIC, V1 COLLIDED WITH REAR OF V2. DRIVER OF V2 SUSTAINED INJURIES.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	26 1 Driver/Rider	SLIGHT	2 Male	52
2 Car	Male	52			

**0111640** SLIGHT 272310/195748 15/06/2004 10:55  
**LOCATION** M4 EASTBOUND J/W ONSLIP AT JUNCTION 43 LLANDARCY  
**DESCRIPTION** WHILST CHANGING LANES VEH 1 COLLIDED INTO VEH 2

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Not traced	-1 1 Driver/Rider	SLIGHT	2 Male	42
2 Goods 3.5 - 7.5t	Male	42			

**070169293** SLIGHT 272318/195703 10/07/2007 12:15  
**LOCATION** M4 W/B CARRIAGEWAY J/W OFF-SLIP W/B CARRIAGEWAY, LLANDARCY, NEATH  
**DESCRIPTION** TRAFFIC WAS SLOWED TO AN ALMOST STOP. V1 BRAKED SHARPLY TO AVOID QUEUING TRAFFIC. V1 DID THE SAME BUT COLLIDED WITH REAR OF V2.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Goods > 7.5t	Male	42 1 Driver/Rider	SLIGHT	1 Male	42
2 Car	Male	43 2 Driver/Rider	SLIGHT	2 Male	43
		3 Passenger	SLIGHT	2 Male	31

**060160800** SLIGHT 272339/195702 24/11/2006 18:26  
**LOCATION** M4 400M EAST OF JCT 43 LLANDARCY INTERCHANGE  
**DESCRIPTION** V1 COLLIDED WITH THE REAR OF V2 WHILST IN A QUEUE OF HEAVY TRAFFIC.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Goods < 3.5t	Male	44 1 Driver/Rider	SLIGHT	1 Male	44
2 Goods < 3.5t	Male	43 2 Driver/Rider	SLIGHT	2 Male	43

**060159817** SLIGHT 272347/195671 27/10/2006 17:35  
**LOCATION** M4 300M EAST OF J43 LLANDARCY INTERCHANGE  
**DESCRIPTION** V1 COLLIDED WITH THE REAR OF V2 WHILST QUEUEING IN TRAFFIC.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Female	19 1 Driver/Rider	SLIGHT	2 Female	40
2 Car	Female	40 2 Passenger	SLIGHT	2 Female	67

Stats 19: Fabian Way to M4 J43 1 July 2003 to 30 June 2008

**080176704** SLIGHT 272390/195610 04/02/2008 11:52

**LOCATION** M4 JCT 42-43 WESTBOUND, LLANDARCY.

**DESCRIPTION** THE DRIVER OF V1 WAS UNFAMILIAR WITH THE AUTOMATIC CONTROLS OF THE VEHICLE, IN ERROR SHE PLACE HER FOOT ON THE FOOT BRAK, CAUSING HER TO BRAKE SHARPLY AND V2 COLLIDING INTO HE REAR OF V2.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Female	25 1 Driver/Rider	SLIGHT	2 Male	28
2 Car	Male	28			
3 Car	Male	51			

**060158870** SLIGHT 272414/195576 06/10/2006 19:49

**LOCATION** M4 JUNCTION 42 - 43 WESTBOUND, O/S MARKER POST NO 297/8

**DESCRIPTION** V1 HAS OVERTAKEN A VEHICLE AND FOR REASONS UNKNOWN LOST CONTROL, CROSSES LANES ONE AND TWO AND COLLIDED WITH CENTRAL RESERVATION CRASH BARRIER AND LAMP POST.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Female	19 1 Driver/Rider	SLIGHT	1 Female	19

**070164277** SLIGHT 272434/193407 26/02/2007 10:34

**LOCATION** A483 FABIAN WAY J/W M4 OFF SLIP J42, NEATH

**DESCRIPTION** V2 STARTED TO OVERTAKE V1 PULLED INTO HER PATH CAUSING A COLLISON. V2 DRIVER SUSTAINED INJURIES.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	72 1 Driver/Rider	SLIGHT	2 Female	26
2 Car	Female	26 2 Passenger	SLIGHT	1 Female	68

**060160340** SLIGHT 272462/195528 17/11/2006 16:55

**LOCATION** M4 EASTBOUND 1/4 MILE EAST OF J43 NEATH PORT TALBOT

**DESCRIPTION** V1, V2, V3 AND V4 TRAVELLING IN SAME LANE. TRAFFIC AT THIS TIME WAS VERY HEAVY. VEHICLES IN FRONT OF V4 SLOWED SUDDENLY, CAUSING V4 TO SLOW. V1 THEN COLLIDED WITH V2 WHICH WAS PUSHED FORWARD INTO V3 WHICH IN TURN WAS PUSHED FORWARD INTO V4. DRIVER OF V1 AND V2 SUSTAINED INJURIES.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Female	57 1 Driver/Rider	SLIGHT	1 Female	57
2 Car	Male	60 2 Driver/Rider	SLIGHT	2 Male	60
3 Car	Male	29			
4 Car	Male	61			

**070163707** SLIGHT 272473/195469 29/01/2007 17:10

**LOCATION** M4 300M EAST OF JCT 43 OFFSLIP, LLANDARCY

**DESCRIPTION** V1 CROSSED FROM LANE 3 STRAIGHT INTO LANE 1 AND COLLIDED WITH THE REAR OF V2.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	20 1 Driver/Rider	SLIGHT	2 Female	40
2 Car	Female	40			

**0120146** SLIGHT 272544/195376 13/09/2004 01:25

**LOCATION** M4 400 MTS PRIOR TO J42 EASTBOUND

**DESCRIPTION** DRIVER LOST CONTROL IN BAD WEATHER AND HIT NEAR SIDE BARRIER.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Female	31 1 Driver/Rider	SLIGHT	1 Female	31
		2 Passenger	SLIGHT	1 Male	33

Stats 19: Fabian Way to M4 J43 1 July 2003 to 30 June 2008

**060159386** SLIGHT 272621/195185 26/10/2006 16:05  
**LOCATION** M4 100M WEST OF JCT 42 WESTBOUND ON SLIP, EARLSWOOD  
**DESCRIPTION** AS V1 STARTED TO MOVE INTO THE CENTRE LANE IT COLLIDED WITH V2 ALREADY TRAVELLING IN THAT LANE. V2 THEN COLLIDED WITH THE NEARSIDE CRASH BARRIER.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Goods > 7.5t	Male	38 1 Driver/Rider	SLIGHT	2 Female	47
2 Car	Female	47			

**0115787** SLIGHT 272641/193476 20/08/2004 11:36  
**LOCATION** A483 FABIAN WAY 300YDS W OF J43 M4 E/B  
**DESCRIPTION** V1 FAILED TO JUDGE SPEED OF V2 AND COLLIDED

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	28 1 Driver/Rider	SLIGHT	2 Female	40
2 Car	Female	40			

**0096392** SLIGHT 272694/195031 07/11/2003 16:32  
**LOCATION** M4 JUNCTION 42 - 43 WESTBOUND  
**DESCRIPTION** VEH2 SLOWED DOWN VEH1 FAILED TO BRAKE IN TIME COLLIDING INTO VEH2.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Goods < 3.5t	Male	41 1 Driver/Rider	SLIGHT	2 Female	49
2 Car	Female	49			
3 Car	Male	20			

**070172175** SLIGHT 272708/194978 08/10/2007 17:50  
**LOCATION** M4 WESTBOUND JCT 42 ONSLIP  
**DESCRIPTION** V1 PULLED INTO LANE 2 DUE TO A CONED OFF AREA ON MOTORWAY, CAUSING V3 TO BRAKE, V2 COLLIDED INTO THE REAR OF V3. V1 FTS.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Not traced	-1 1 Driver/Rider	SLIGHT	3 Male	22
2 Car	Male	18 2 Passenger	SLIGHT	2 Female	27
3 Car	Male	22			

**050125905** SLIGHT 272726/195070 29/01/2005 22:52  
**LOCATION** M4 JCT 43-42 E/B OFFSLIP  
**DESCRIPTION** DRIVER OF V1 WAS INTOXICATED WHEN HE LOST CONTROL OF THE VEHICLE, HIT THE CENTRAL RESERVATION, CROSSED BOTH LANES AND COLLIDED WITH THE OFFSLIP BARRIER.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	36 1 Driver/Rider	SLIGHT	1 Male	36

**050140212** SERIOUS 272745/193563 08/10/2005 13:00  
**LOCATION** A483 FABIAN WAY, 100M FROM M4 JCT 42 ONSLIP  
**DESCRIPTION** AS V1 WAS CHANGING LANES IT AQUAPLANED ON SURFACE WATER, SPUN OUT OF CONTROL, MOUNTED CENTRAL RESERVATION AND COLLIDED WITH LAMP POST.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	18 1 Driver/Rider	SERIOUS	1 Male	18

Stats 19: Fabian Way to M4 J43 1 July 2003 to 30 June 2008

**070163506** SLIGHT 272820/194243 23/01/2007 08:00  
**LOCATION** M4 JCT 42 PORT TALBOT  
**DESCRIPTION** V1 HAS CHANGED FROM SLOW LANE TO FAST LANE AND COLLIDED WITH V2, V1 FAILED TO STOP.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Goods < 3.5t	Not traced	-1 1 Driver/Rider	2	Female	46
2 Car	Female	46			

**060148812** SLIGHT 272820/194250 23/02/2006 17:23  
**LOCATION** M4 JCT 42 EARLSWOOD  
**DESCRIPTION** V2 HAD TO BRAKE SHARPLY TO ALLOW FOR HEAVY TRAFFIC, V1 FAILED TO STOP IN TIME AND COLLIDED WITH THE REAR OF V2.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	26 1 Passenger	1	Female	37
2 Goods < 3.5t	Male	20 2 Passenger	2	Male	23

**050130688** SERIOUS 272834/194221 01/05/2005 16:45  
**LOCATION** M4 MOTORWAY EASTBOUND J 42 EARLSWOOD.  
**DESCRIPTION** VEH 1 FAILED TO NEGOTIATE BEND AND COLLIDED WITH OFFSIDE CRASH BARRIER, CAUSING INJURY TO RIDER AND PASSENGER.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 M/cycle > 500cc	Male	20 1 Driver/Rider	1	Male	20
		2 Passenger	1	Female	16

**070162877** SLIGHT 272837/194230 15/01/2007 15:35  
**LOCATION** M4 E/B JCT 42 EARLSWOOD ONSLIP  
**DESCRIPTION** V1 MOVED FROM LANE 1 TO LANE 2 TO ALLOW VEHICLES ONTO MOTORWAY ON MOVING BACK INTO LANE 1, HE SAW FLASHING LIGHTS BEHIND THEN HE COLLIDED WITH V2

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Goods > 7.5t	Male	28 1 Driver/Rider	2	Female	42
2 Car	Female	42 2 Passenger	2	Male	39

**0091012** SERIOUS 272843/194206 01/09/2003 18:22  
**LOCATION** JUNCTION 42 M4 SLIP ROAD EASTBOUND  
**DESCRIPTION** V1 & V2 HAVE BOTH MOVED INTO THE SAME LANE AND COLLIDED

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	52 1 Driver/Rider	2	Male	38
2 M/cycle 125 - 500cc	Male	38			

**060147229** SLIGHT 272845/194208 27/01/2006 23:24  
**LOCATION** M4 J42 SLIP ROAD E/B LLANDARCY  
**DESCRIPTION** V2 WAS ENTERING THE M4 VIA THE SLIP ROAD. ROADWORKS AND TRAFFIC CONES CAUSED VEHICLES TO GIVE WAY FROM THE SLIP ROAD. V1 BELIEVED V2 HAD MOVED AWAY AND COLLIDED WITH THE REAR OF V2.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	54 1 Driver/Rider	2	Male	42
2 Car	Male	42 2 Passenger	1	Male	49
		3 Passenger	2	Female	40
		4 Passenger	2	Female	43
		5 Passenger	2	Female	36

Stats 19: Fabian Way to M4 J43 1 July 2003 to 30 June 2008

**050135632** SLIGHT 272846/194788 03/07/2005 01:20  
**LOCATION** M4 JCT 42 WESTBOUND ONSLIP  
**DESCRIPTION** V1 OVERTOOK 2 VEHs WHILST NEGOTIATING A LEFT HAND BEND, AS IT WAS VEERING TO THE LEFT IT OVERTURNED AND CAME TO A HALT ON ITS ROOF.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	42 1 Driver/Rider	SLIGHT	1 Male	42

**050141906** SLIGHT 272855/194189 04/11/2005 06:50  
**LOCATION** M4 JCT 42 EASTBOUND, BAGLAN, PORT TALBOT  
**DESCRIPTION** V2 WAS IN LANE 2 OVERTAKING A VEH WHEN V1 WAS APPROACHING AT SPEED BEHIND HER FLASHING ITS HEADLIGHTS, THIS CAUSED V2 TO COLLIDE WITH THE CENTRAL CRASH BARRIER

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Goods < 3.5t	Not traced	-1 1 Driver/Rider	SLIGHT	2 Female	21
2 Car	Female	21			

**050143267** SLIGHT 272856/193804 11/11/2005 18:05  
**LOCATION** M4 E/B 800 METRES EAST OF FABIAN WAY EAST ON SLIP PORT TALBOT  
**DESCRIPTION** ALL VEHICLES WERE TRAVELLING E/B IN L2. V1 CAME TO A STANDSTILL.V3 COLLIDED WITH V2. V2 COLLIDED WITH V1.V6 HIT V5 INTO V4.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	42 1 Driver/Rider	SLIGHT	2 Male	27
2 Car	Male	27 2 Driver/Rider	SLIGHT	5 Female	54
3 Car	Male	20			
4 Car	Male	57			
5 Car	Female	54			
6 Car	Male	31			

**0121559** SLIGHT 272860/193780 19/11/2004 11:44  
**LOCATION** A483 FABIAN WAY 200YDS FROM J/W OLD BRITON FERRY BRIDGE E/B  
**DESCRIPTION** V2 AND V3 STATIONARY IN TRAFFIC V1 COLLIDED WITH V2 WHICH IN TURN WAS PUSHED INTO V3

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Female	20 1 Driver/Rider	SLIGHT	3 Female	20
2 Car	Male	49			
3 Car	Female	20			

**0117550** SLIGHT 272870/194169 08/09/2004 16:50  
**LOCATION** M4 E/B APPROX. 40 METRES PAST J42 ONSLIP  
**DESCRIPTION** V1 COLLIDED INTO THE REAR OF V2. V3 STOPPED BEFORE COLLIDING WITH THE REAR OF V1 HOWEVER V4 COLLIDED WITH THE REAR OF V3 AND V5 COLLIDED WITH THE REAR OF V4.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	29 1 Driver/Rider	SLIGHT	2 Female	30
2 Car	Female	30 2 Driver/Rider	SLIGHT	3 Male	22
3 Car	Male	22 3 Driver/Rider	SLIGHT	4 Male	44
4 Car	Male	44			
5 Car	Male	36			

Stats 19: Fabian Way to M4 J43 1 July 2003 to 30 June 2008

**0113857** SLIGHT 272887/194334 23/07/2004 06:10  
**LOCATION** M4 MOTORWAY JCT42 EASTBOUND ONSLIP  
**DESCRIPTION** V1 HAS APPROACHED A BEND AND SPILLED DIESEL ON THE ROAD V2 HAS SKIDDED AND SLIPPED ON THE DIESEL. V1 FAILED TO STOP.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	25 1 Driver/Rider	SLIGHT	2 Male	48
2 M/cycle 125 - 500cc	Male	48			

**060151934** SLIGHT 272907/194332 17/04/2006 13:55  
**LOCATION** M4 WESTBOUND ONSLIP JCT 42 EARLSWOOD, NEATH  
**DESCRIPTION** DRIVER V1 LOST CONTROL OF VEH CROSSING BOTH LANES COLLIDING WITH CRASH BARRIER

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	41 1 Driver/Rider	SLIGHT	1 Male	41

**070164226** SLIGHT 272920/194100 24/02/2007 21:50  
**LOCATION** M4 JCT 41 - JCT 42, NEATH, PORT TALBOT  
**DESCRIPTION** V1 COLLIDED WITH THE CENTRAL RESERVATION THEN REBOUNDING INTO THE NEARSIDE BARRIER. V1 DRIVER SUSTAINED INJURIES.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	23 1 Driver/Rider	SLIGHT	1 Male	23

**070163407** SLIGHT 272927/194108 22/01/2007 08:15  
**LOCATION** M4 J42 E/B CARRIAGEWAY, BRITON FERRY  
**DESCRIPTION** VEH2 & VEH3 TRAVELLING E/B IN LANE 2, CAUSED TO STOP DUE TO TRAFFIC ENTERING M'WAY V1 FAILED TO STOP IN TIME AND COLLIDED WITH REAR OF V2 FORCING IT INTO REAR OF V3

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Female	33 1 Driver/Rider	SLIGHT	1 Female	33
2 Car	Male	53 2 Passenger	SLIGHT	2 Male	17
3 Car	Male	18			

**060157576** SLIGHT 272970/194270 27/07/2006 12:45  
**LOCATION** A48 EARLSWOOD ROUNDABOUT, WITH A483 FABIAN WAY  
**DESCRIPTION** VEH 1 LOST CONTROL AND CROSSED LANES, COLLIDING WITH CRASH BARRIER

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	71 1 Driver/Rider	SLIGHT	1 Male	71

**070163311** SLIGHT 272970/194320 22/01/2007 15:06  
**LOCATION** A483 FABIAN WAY, EARLSWOOD  
**DESCRIPTION** V1 REALISED HE MAY BE IN THE RONG LANE, LOOKED BEHIND TO CHECK IT WAS OK TO CHANGE LANES, BUT FAILED TO SEE V2 HAD STOPPED AT RED TRAFFIC LIGHT.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	23 1 Driver/Rider	SLIGHT	2 Male	27
2 Car	Male	27			

Stats 19: Fabian Way to M4 J43 1 July 2003 to 30 June 2008

**070165859** SLIGHT 272971/194260 24/04/2007 16:40  
**LOCATION** A483 FABIAN WAY 100 METRES EAST OF A48 EARLSWOOD, JERSEY MARINE, NEATH  
**DESCRIPTION** V1 COLLIDED WITH THE REAR OF V2. V2 DRIVER SUSTAINED INJURIES. ONE PASSENGER SUSTAINED INJURIES (VEHICLE NOT STATED).

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Goods < 3.5t	Male	22 1 Driver/Rider SLIGHT	2	Female	19
2 Car	Female	19 2 Passenger SLIGHT	2	Female	20

**0088294** SLIGHT 272976/194212 11/07/2003 12:46  
**LOCATION** FABIAN WAY 100YDS WEST FROM BRITON FERRY BRIDGE TOWARDS JERSEY MARINE.  
**DESCRIPTION** V1 DROVE INTO THE PATH OF V2 CAUSING IT TO COLLIDE WITH V2.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Goods < 3.5t	Male	46 1 Driver/Rider SLIGHT	2	Female	20
2 Car	Female	20			

**0093476** SLIGHT 272991/194353 08/10/2003 23:40  
**LOCATION** EARLSWOOD TRAFFIC LIGHTS WITH ITS JCT WITH A483 FABIAN WAY AND A48 BRITON FERRY  
**DESCRIPTION** V1 HAS DRIVEN THROUGH RED TRAFFIC LIGHTS AND COLLIDED WITH V2 WHO HAS PRIORITY THROUGH THE LIGHTS.

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Female	65 1 Driver/Rider SLIGHT	1	Female	65
2 Minibus	Male	45 2 Driver/Rider SLIGHT	2	Male	45
		3 Passenger SLIGHT	2	Female	38
		4 Passenger SLIGHT	2	Male	61

**070167468** SLIGHT 273003/194351 30/05/2007 20:30  
**LOCATION** A48 BRITON FERRY BRIDGE 50 MTRS NORTH OF A483 FABIAN WAY, NEATH  
**DESCRIPTION** V1 HAS COLLIDED WITH V2

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Female	17 1 Driver/Rider SLIGHT	2	Male	42
2 Car	Male	42			

**080178741** SLIGHT 273007/194363 23/01/2008 08:20  
**LOCATION** M4 E/B JCT 42 OFFSLIP J/W A48 BRITON FERRY BRIDGE, NEATH  
**DESCRIPTION** V1 HAS HIT THE REAR OF V2 WHILST IT WAS STOPPED AT TRAFFIC LIGHTS

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	22 1 Driver/Rider SLIGHT	2	Male	43
2 Car	Male	43			

**070171694** SLIGHT 273010/194310 13/09/2007 09:20  
**LOCATION** A48 EARLSWOOD BYPASS J/W A483 FABIAN WAY, BRITON FERRY, NEATH  
**DESCRIPTION** V2 WAITING TO NEGOTIATE TRAFFIC LIGHT THAT WERE NOT WORKING V1 MISJUDGED JUNCTION SWERVED & COLLIDED WITH V2 AND NO ENTRY SIGN & TRAFFIC LIGHT POST

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	38 1 Driver/Rider SLIGHT	1	Male	38
2 Car	Male	44 2 Passenger SLIGHT	1	Female	31

Stats 19: Fabian Way to M4 J43 1 July 2003 to 30 June 2008

**070168841**      SERIOUS      273010/194340      05/07/2007      21:25  
**LOCATION**      A48 EARLSWOOD INTERCHANGE, NEATH  
**DESCRIPTION**      V1 COLLIDED WITH V2, V2 SUSTAINED INJURIES

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Male	37 1 Driver/Rider	SERIOUS	2 Female	23
2 Car	Female	23			

**0094800**      SLIGHT      273013/194310      23/10/2003      11:03  
**LOCATION**      A48 BRITON FERRY BRIDGE JUNCTION WITH A483 FABIAN WAY  
**DESCRIPTION**      VEH 1 FAILED TO STOP AT TRAFFIC LIGHTS AND COLLIDED IN TO THE PATH OF AN  
 ONCOMING GOODS VEHICLE

VEHICLES	DRIVER	CASUALTIES	VEH	SEX	AGE
1 Car	Female	29 1 Driver/Rider	SLIGHT	1 Female	29
2 Goods > 7.5t	Male	30			

Appendix F

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**Composition of  
Stakeholder Group**

## Composition of Stakeholder Group

The number of Stakeholders was limited to provide a focused group that was of a suitable size for Workshop activities. It was ensured that the interests of other parties with links to the site area would be represented by one or more of the Stakeholders in the selected group.

The organisations invited to become part of the Stakeholder group were:

### Client Steering Group

- Welsh Assembly Government
- City and County of Swansea
- Neath Port Talbot County Borough Council

### Economic Interests

- Swansea Business Improvement Ltd
- South West Wales Economic Forum

### Environmental Interests

- Countryside Council for Wales (CCW)
- Environment Agency Wales (EA)

### Social Interests

- Abertawe Bro Morgannwg University NHS Trust
- Swansea University
- Disability Wales

### General Transport Interests

- SWWITCH
- Mid & South Wales Safety Camera Partnership

### Freight Interests

- Freight Transport Association
- DB Schenker Rail (UK) Ltd
- Network Rail

### Public Transport Interests

- First Cymru Buses Ltd
- Bus Users UK
- Arriva Trains Wales

### Walking and Cycling Interests

- Sustrans Cymru
- Wheelrights

### Landowners

- Linamar

- Amazon
- RT Properties
- Neath Port Talbot (Recycling) Ltd (MREC)
- Associated British Ports Swansea
- Richard Hayward Properties
- British Petroleum (BP)

**Developers**

- St Modwens
- Hammerson
- The Prince's Foundation

**Other Consultants working within Site Area**

- Hyder Consulting Ltd
- URS
- Porphyrios Architects

It was assumed that the EA and CCW represented the interests of CADW, Glamorgan-Gwent Archaeological Trust, the Environment Centre Swansea, Campaign for the Protection of Rural Wales (CPRW), the Wildlife Trust of South and West Wales, Friends of the Earth Cymru, WWF Cymru, the Royal Society for the Protection of Birds (RSPB), Greenpeace and Wales Environmental Link. Neither the Inland Waterway Association nor the National Trust own land locally, so their general environmental interests could also be represented by the EA and CCW.

The interests of the "blue light" emergency services including South Wales Police, South Wales Fire and Rescue Service and the Welsh Ambulance Service NHS Trust were represented by Abertawe Bro Morgannwg University NHS Trust.

It was assumed that the Swansea Business Improvement Ltd and the South West Wales Economic Forum represented the interests of the Wales Tourist Board, South West Wales Tourism Partnership, Confederation of British Industry Wales, West Wales Chamber of Trade and Commerce, Federation of Small Businesses and Wales Trade Union Congress.

As there is no farmland within the site area, the general economic interests of the National Farmers Union and the Farmers' Union of Wales were also assumed to be represented by the Swansea Business Improvement Ltd and the South West Wales Economic Forum.

It was assumed that the interests of the Confederation of Passenger Transport, Passenger Focus and the Community Transport Association were represented by Bus Users UK.

There are no schools or Housing Association sites that would be directly impacted by any proposals for the development of the corridor.

The South Wales Trunk Road Agency was represented by members WAG's Network Management team.

Sustrans Cymru and Wheelrights were assumed to represent the interests of the Welsh Cycling Union. Sustrans Cymrun was also assumed to represent the British Horse Society and the Ramblers Association.

Appendix G

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**Record of Stakeholder  
Workshop 1**

Welsh Assembly  
Government

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**Fabian Way Corridor  
Transport Assessment**

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Summary of Stakeholder  
Workshop 1

Welsh Assembly  
Government

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**Fabian Way Corridor  
Transport Assessment**

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Summary of Stakeholder  
Workshop 1

December 2008

**Ove Arup & Partners Ltd**

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This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party

Job number 207815

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## Appendices

Appendix A

Presentation Slides

Appendix B

Flipchart Notes from Breakout Sessions

# 1 Introduction

## 1.1 Project Background

---

Arup has been commissioned on behalf of the Welsh Assembly Government to undertake a strategic assessment of the transportation options for the A483 Fabian Way corridor into the city of Swansea. The corridor is scheduled to experience significant development in the next 25 years, generating increased travel demand. It is important that a balanced transport strategy is developed to support the sustainable development of the corridor and to facilitate wider economic regeneration in the surrounding catchment area. The study has the following goals:

- to review the outputs of previous studies and assessments within the study area;
- to assess the opportunities and constraints on the corridor;
- to identify appropriate transport options and package of options, to enhance the movement of people and freight throughout the corridor;
- to present a robust, comprehensive and sustainable strategy for the corridor, including determining the potential funding streams; and
- to ensure full engagement with all stakeholders.

## 1.2 Aims of Stakeholder Workshop 1

---

Stakeholder participation is important to this study, as stakeholders can provide a major source of information on existing and possible future transportation challenges along the Fabian Way corridor. The support and collaboration of stakeholders will be essential to the long term success of the corridor.

A series of 27 organisations were invited to become part of the Stakeholder Group for this study. The first Stakeholder Workshop was held on Thursday 4th December 2008 at the Welsh Assembly Government offices at Penllergaer Business Park, Swansea. The main purpose of this Workshop was to identify the characteristics of the existing corridor and discuss objectives and possible options for the future. A copy of the slides presented by Arup during the Workshop is contained in Appendix A.

## 2 Stakeholders

### 2.1 Attendance at Workshop

The following representatives of the Stakeholder Group organisations attended Workshop 1. Participants were divided into three focus groups corresponding to the Welsh Impact Areas. Contact details have been provided where possible to enable participants to continue individual discussions after the event if required.

#### Economic Group

<i>Name</i>	<i>Company</i>	<i>Email</i>
Laurence Aaron	Welsh Assembly Government	laurence.aaron@wales.GSI.gov.uk
Ian Davies	Welsh Assembly Government	ip.davies@wales.gsi.gov.uk
Simon Shouler	Welsh Assembly Government	simon.shouler@wales.gsi.gov.uk
Jason Thomas	Welsh Assembly Government	Jason.Thomas@Wales.GSI.Gov.UK
Dave Adlam	Neath Port Talbot County Borough Council	d.adlam@neath-porttalbot.gov.uk
Dave Williams	City and County of Swansea	David.Williams4@swansea.gov.uk
Rhiannon Kingsley	Swansea Business Improvement Ltd	rhiannonkingsley@btconnect.com
Richard Crawshaw	South West Wales Economic Forum	swwef@wales.gsi.gov.uk
Colin Fox	First Cymru Buses Ltd	colin.fox@firstgroup.com
Clive Thomas	Associated British Ports Swansea	cjthomas@abports.co.uk
Katie Johnson	Neath Port Talbot (Recycling) Ltd (MREC)	katiej@nptrecycling.co.uk

#### Environmental

<i>Name</i>	<i>Company</i>	<i>Email</i>
Phil Morris	Welsh Assembly Government	philip.morris@wales.gsi.gov.uk
Paul Evans	Welsh Assembly Government	Paul.Evans4@Wales.GSI.Gov.UK
Richard Harris	Welsh Assembly Government	Richard.Harris@Wales.GSI.Gov.UK
David Whitehead	City & County of Swansea	david.whitehead@swansea.gov.uk
Melissa Hall	Neath Port Talbot County Borough Council	m.hall1@npt.gov.uk
Emma Trainor	Countryside Council for Wales	e.trainor@ccw.gov.uk
Rebecca Robinson	Sustrans Cymru	Rebecca.robinson@sustrans.org.uk
Simon Charles	SWWITCH	SCharles@carmarthenshire.gov.uk
Steve Davies	Hyder Consulting Ltd	Steve.Davies2@hyderconsulting.com
Kevin Stewart	Neath Port Talbot (Recycling) Ltd (MREC)	kevinstewart@nptrecycling.co.uk
David Watkins	Environment Agency Wales	David.Watkins@environment-agency.wales.gov.uk

**Social**

<i>Name</i>	<i>Company</i>	<i>Email</i>
Anne Reynish	Welsh Assembly Government	anne.reynish@wales.GSI.gov.uk
Haydn Fitchett	Welsh Assembly Government	Haydn.Fitchett@Wales.GSI.Gov.UK
Tony Larcombe	Welsh Assembly Government	Tony.Larcombe@Wales.GSI.Gov.UK
Geoff Sheel	City & County of Swansea	geoff.sheel@swansea.gov.uk
Chris Davies	Neath Port Talbot County Borough Council	c.j.davies@neath-porttalbot.gov.uk
Iwan Davis	Swansea University	i.r.davies@swansea.ac.uk
Craig Nowell	Swansea University	c.nowell@swansea.ac.uk
Joanne Davies	Abertawe Bro Morgannwg University NHS	joanne.davies3@abm-tr.wales.nhs.uk
Rhodri Davies	Abertawe Bro Morgannwg University NHS	Rhodri.Davies@abm-tr.wales.nhs.uk
David Naylor	Wheelrights	davidjohnnaylor@tiscali.co.uk
Geraint Morgan	Arriva Trains Wales	Geraint.Morgan@arrivatw.co.uk

The following organisations are part of the Stakeholder Group but could not attend Workshop 1. They will also be copied in on this Note.

- South & Mid Wales Safety Camera Partnership;
- Confederation of Passenger Transport;
- Freight Transport Association;
- RT Properties;
- Richard Hayward Properties;
- British Petroleum;
- Network Rail;
- The Prince's Foundation; and
- Hammerson.

In addition there were 5 facilitators from Arup in attendance at Stakeholder Workshop 1.

**Arup Facilitators**

<i>Name</i>	<i>Company</i>	<i>Email</i>
Jonathan Kinghorn	Arup	jonathan.kinghorn@arup.com
John Smith	Arup	john.smith@arup.com
Chris Lindley	Arup	chris.lindley@arup.com
Debbie Hudd	Arup	debbie.hudd@arup.com
Elouise Smith	Arup	elouise.smith@arup.com

## 3 Outcome of Breakout Session 1

### 3.1 Purpose of Session

---

Participants were asked to identify and discuss problems and opportunities within the study area based on their own experience. As Groups identified many of the same problems, the outcome of the session is summarised overall rather than by individual Group. A copy of the flipchart notes made during the breakout sessions is contained in Appendix B.

### 3.2 Problems

---

The following problems were identified by the participants during the session:

**1. Congestion near Tawe Bridges**

The Tawe Bridges represent a bottleneck to traffic flow along Fabian Way. The bridges cause congestion for traffic approaching Swansea City Centre in the morning peak in particular. The current situation is likely to worsen in the future with traffic from planned developments along the corridor.

**2. Baldwins Bridge**

The existing structure is of a poor standard and in poor condition. The junction arrangement is not considered fit for purpose and there are ongoing maintenance issues.

**3. Park and Ride too close to City Centre**

The existing Park and Ride facility on Fabian Way is too close to the City Centre to appeal to those drivers approaching Swansea from the east.

**4. Lack of eastern gateway to Swansea**

There is no clear gateway to the city of Swansea from the east. The current industrial and commercial uses along Fabian Way give rise to an out-of-town feel almost until the Tawe Bridges. The visual aspects of these uses also conflicts with the panoramic view of Swansea Bay.

**5. Negative local perception of transport**

Local perception of both traffic conditions and public transport provision along the Fabian Way corridor is currently poor. On a UK-wide scale, the congestion problems on the eastern approach to Swansea are not significant.

**6. Barrier between north and south**

Fabian Way raises both physical and perceived severance problems between north and south. The existing communities to the north of Fabian Way cannot easily access new development to the south, such as SA1. This problem is likely to worsen as more land is developed along the corridor.

**7. Social exclusion**

Existing and emerging communities along the Fabian Way corridor could face social exclusion over future years as a result of planned developments. Lack of connectivity via alternative modes to the car can influence the situation.

**8. Lack of continuous cycle facilities**

There are gaps in the designated cycle routes along Fabian Way and a lack of adequate crossing facilities across junctions, particularly at the Jersey Marine roundabout by the Amazon development.

**9. Lack of linkages between green areas**

There are limited linkages for movement of biodiversity and people between the green areas along the corridor.

**10. Pollution from traffic**

Existing traffic flows along Fabian Way cause noise and air pollution. This is likely to worsen in future with planned developments.

**11. Flood risk**

Land to the south of Fabian Way is at risk of flooding from the sea. The university development will have to raise ground levels on its site to avoid tidal inundation. This may have a negative impact on the adjacent Crymlyn Burrows SSSI. Fabian Way itself is not currently at risk.

**12. Land contamination**

The former industrial uses within the corridor have created contamination issues that will require remediation prior to development.

**13. Insufficient capacity of existing utilities**

Significant new infrastructure will be required to implement all the planned development along the corridor. The wastewater treatment works and primary substation are known to have insufficient capacity at present.

**3.3 Opportunities**

---

The following opportunities were identified by the participants during the session:

- provide additional Park and Ride site further east along Fabian Way;
- improve connectivity between north and south of Fabian Way;
- add passenger capability to existing freight line north of Fabian Way;
- implement and promote more sustainable modes of transport;
- improve access to coastline and designated sites of environmental interest;
- exploit Swansea docks and Tennant canal for water-based tourism and leisure, and to enhance biodiversity; and
- incorporate renewable energy sources into new development.

## 4 Outcome of Breakout Session 2

### 4.1 Purpose of Session

---

Participants were asked to identify and discuss a vision and possible objectives for the corridor, and any potential options for its future development to address the problems identified in the previous session. A copy of the flipchart notes made during the breakout sessions is contained in Appendix B.

### 4.2 Vision

---

The following visions for the corridor were proposed by each Group of participants:

- a) To provide a flexible and sustainable transport solution to improve inclusivity and accessibility solutions for the Swansea Bay region (Social Group);
- b) A modern, efficient, integrated gateway that must maintain strategic function and safeguard access to the City and the docks in an environmentally sensitive manner (Economic Group); and
- c) Balancing the needs of the environment, transport, community and the economy, whilst ensuring future development and any strategy for economic regeneration promotes mixed-use development, sustainability and integration whilst recognising the gateway function of the corridor (Environmental Group).

### 4.3 Objectives and Options

---

The following objectives and options were proposed by the participants during the session:

- promote sustainable, integrated transport solutions;
- reduce single occupancy vehicle trips;
- reduce public transport journey times between the M4 and the City Centre and between Neath and Port Talbot and Swansea City Centre;
- improve local public perception of congestion;
- increase capacity of the Tawe Bridges for public transport purposes;
- maintain the existing rail freight network and increase the proportion of freight using the rail line;
- redesign Baldwins Bridge to improve local access and safety;
- ensure connectivity of new developments;
- improve Park and Ride facilities;
- protect and enhance green spaces;
- balance the opportunity for future development with demand and need;
- improve social integration and inclusion for existing and emerging communities;
- integrate businesses and communities along the corridor; and
- encourage dispersal of the private car away from Fabian Way.

## 5 Next Steps

### 5.1 Stakeholder Workshop 2

---

A further half-day workshop will be held on Thursday 26 February 2009 at the same venue, the Welsh Assembly Government offices at Penllergaer Business Park, Swansea SA4 9NX.

The second workshop will discuss the various transport measures under consideration and the emerging Study conclusions. Further details regarding timings and proposed Agenda will be confirmed nearer the time.

Appendix A

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**Presentation Slides**

# Fabian Way Corridor Transport Assessment

Stakeholder Workshop 1  
4th December 2008



ARUP

## Welcome

- All participants please sign in and take a name badge
- 3 tables represent 3 groups for breakout sessions
- Background information is provided on each table
- General Housekeeping issues

ARUP

## Format of the Workshop

9.45	Introductory Presentation
10.15	Breakout Session 1 – Problems and Opportunities
11.00	Group feedback
11.30	Tea/coffee break
11.50	Presentation from Arup on objectives, vision
12.00	Breakout Session 2 – Vision and Objectives
12.45	Group feedback
1.15	Presentation by Arup summarising the day's events
1.30	Lunch

ARUP

## Introductory Session

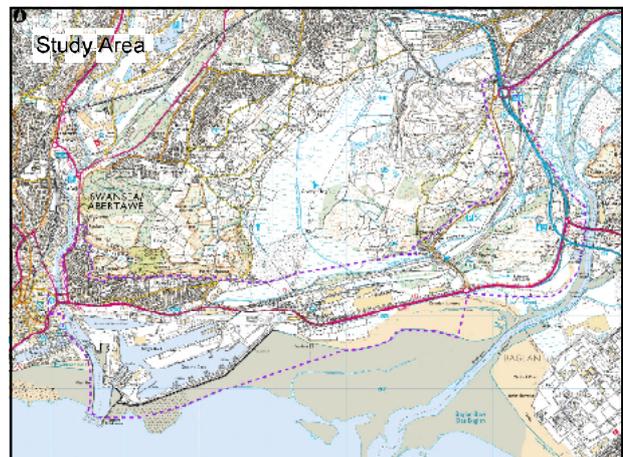


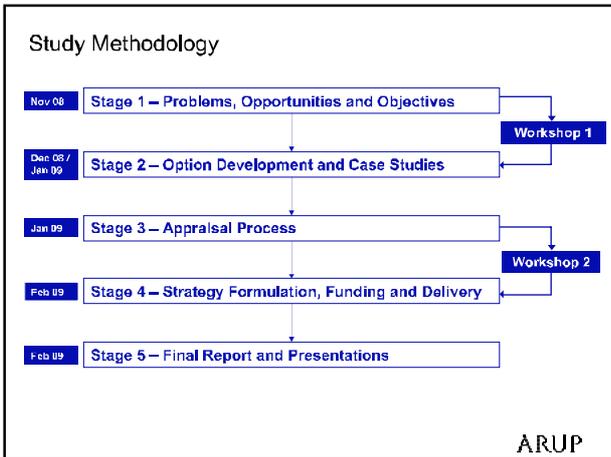
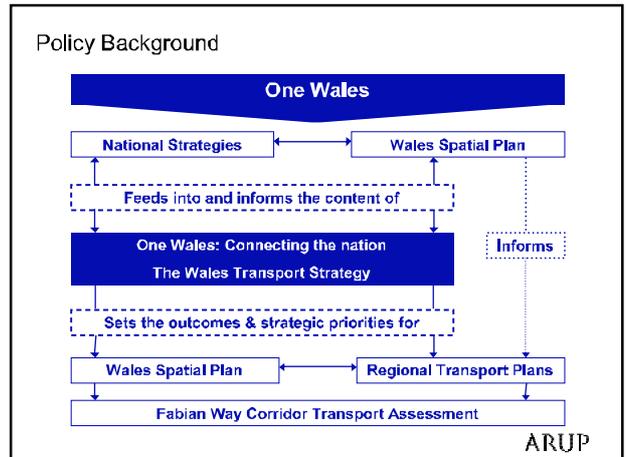
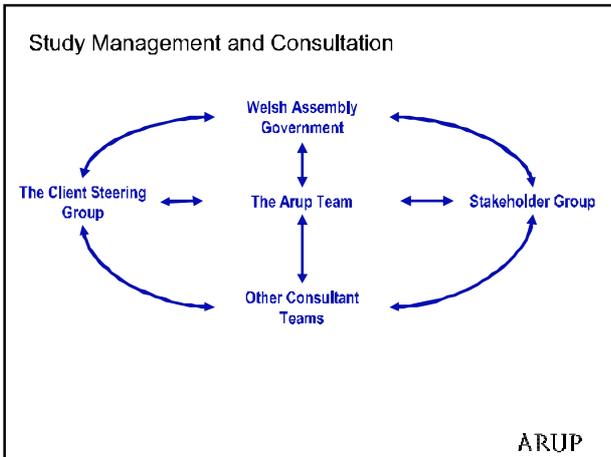
ARUP

## Aims of the Study

- To prepare a phased transport strategy for the next 25 years that will enable sustainable development along the Fabian Way Corridor by:
  - formulating a coherent regeneration policy framework
  - building on the success and progress of key developments
  - creating linkage between existing and future developments
  - realising the tourism/leisure potential
  - creating a forum to engage all stakeholders
  - providing a framework for future public funding and private investment decision making

ARUP

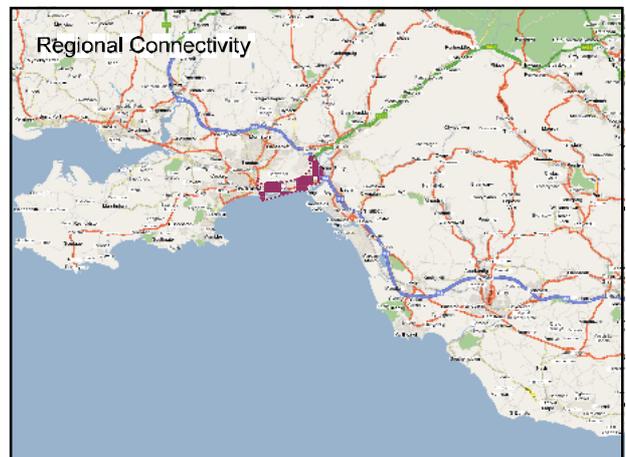


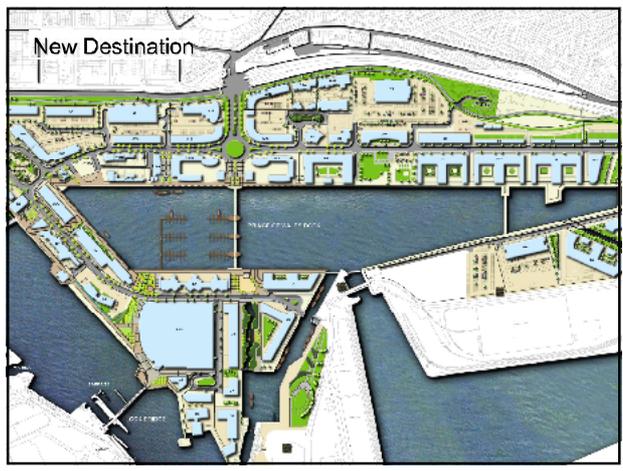
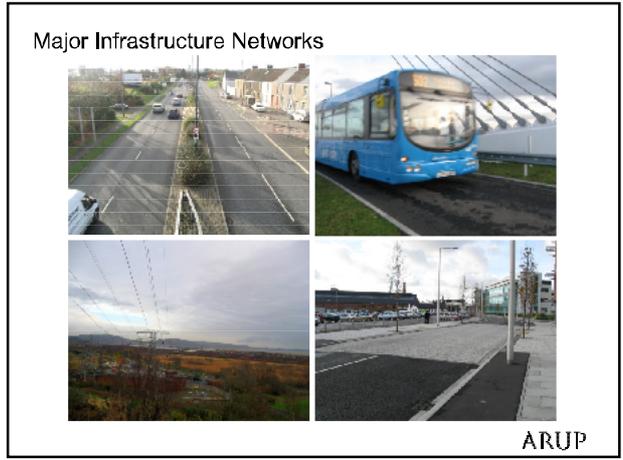
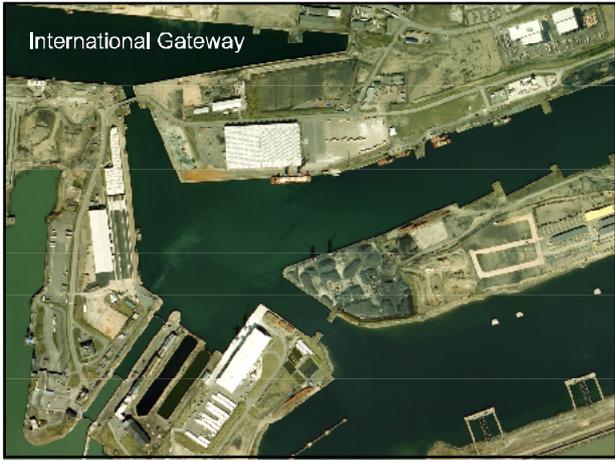


### Importance of Stakeholder Participation

Arup is seeking input from key Stakeholders as those who know the corridor best. Stakeholders have been identified who are impacted by or who have an impact on the corridor.

ARUP





### Break Out Session 1

You have been seated in groups corresponding to the 3 Welsh Impact Areas: Economic, Environment and Social. We would like each group to consider problems and opportunities within the Study Area particularly relevant to each individual Stakeholder's interest.

ARUP

### Break Out Session 1

- Each group will be required to feedback to the main Workshop at the end of the breakout session. Please elect a Spokesperson
- You may find it helpful to elect a Chairperson
- Each group will have an Arup facilitator, although they will not contribute to the discussion
- Please record your findings on the flipchart paper provided
- You have 45 minutes. Any questions, please ask

ARUP

### Breakout Session 1 – Group Feedback



ARUP

### Vision, Objectives and Options



ARUP

### Policy Background

- Welsh Transport Planning Appraisal Guidance (WeTAG)
- New policy guidance which adopts an objective-led approach, so that solutions directly address the problems and / or aspirations of the Study Area. This avoids implementation of 'solutions' that may not improve the situation.
- Direct related to Welsh Impact Areas:
  - Economy
  - Environment
  - Society

ARUP

### Vision

- A regeneration focused Vision – which assists in the delivery of sustainable economic growth through an integrated approach to transport provision by:
  - reducing the impact of the private car in key areas without jeopardising regeneration
  - delivering high-quality/integrated public transport, cycling and walking networks
  - delivering efficient transport links between development areas and the region

ARUP

### WellTAG Objectives

- Transport Planning Objectives are a key feature of the Study and should be **SMART**, i.e.
  - **S**pecific
  - **M**easurable
  - **A**ttainable
  - **R**elevant
  - **T**imed

ARUP

### Possible Objectives

- *Competitiveness and Productivity*: Deliver reliable and efficient transport networks that support economic growth
- *Climate Change*: Enable people and businesses to choose lower carbon transport options and reduce short trips by carbon intensive modes
- *Health*: Reduce deaths and serious injuries across all transport networks
- *Quality of Life*: Minimise the impact of transport networks

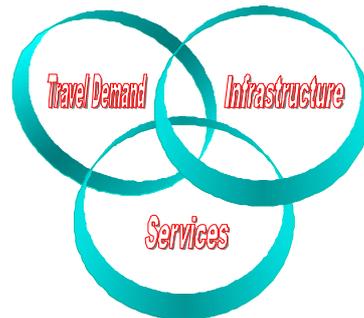
ARUP

### Possible Interventions

- Changing travel behaviour
- Making better use of existing infrastructure
- Investing in technology and innovation
- Improving public transport
- Establishing regulatory requirements
- Providing new infrastructure
- Improving accessibility not just mobility

ARUP

### Strategy Development



ARUP

### Breakout Session 2



ARUP

### Breakout Session 2

- We would like each group to propose a vision for the Fabian Way Corridor over the next 25 years. We would also like groups to discuss potential options for development of the transport links within the Study Area.
- We will propose a series of objectives for the Fabian Way Corridor to the client steering group once the problems and opportunities identified during this Stakeholder Workshop have been reviewed in detail. We are not asking the Stakeholder Workshop Groups to identify objectives at this stage, but any suggestions would be welcomed.

ARUP

## Breakout Session 2

- Each group will be required to feedback to the main Workshop at the end of the breakout session. Please elect a Spokesperson
- You may find it helpful to elect a Chairperson
- Each group will have an Arup facilitator, although they will not contribute to the discussion
- Please record your findings on the flipchart paper provided
- You have 45 minutes. Any questions, please ask

ARUP

## Breakout Session 2 – Group Feedback



6

ARUP

## Conclusions



7

ARUP

## Summary of Stakeholder Workshop 1

- Introduction to the Study
- Identification of problems and opportunities
- Proposed visions for the corridor

Many thanks for your valued contributions

ARUP

## Next Steps

- Arup will collate and review all information gathered here today, then formulate objectives
- A series of options will be developed that aim to address the problems and achieve the objectives
- Options will be appraised against WelTAG guidance
- A proposed implementation strategy will be developed

ARUP

## Stakeholder Workshop 2

A second Stakeholder Workshop will be arranged for February 2009. This will focus on option development and seek to gain Stakeholder opinion of the various proposals. Further details will be sent out nearer the time.

ARUP

**Workshop Close**

Many thanks for your time and effort during this Workshop.

Your knowledge and views are vital to this Study.

Lunch will be served on the balcony.

Please leave your name badge in the box by the door.

If you have any questions, please do not hesitate to ask.

**ARUP**

**Fabian Way Corridor  
Transport Assessment**

Stakeholder Workshop 1  
4th December 2008



**ARUP**

Appendix B

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**Flipchart Notes from  
Breakout Sessions**

## THEMES.

VISION FOR SWANSEA IS TO BE SEEN AS A MAJOR MARITIME CITY BY 2020.

NEATH/P.T SEE THIS AS A MAJOR JOB CREATION AREA.

MODERN EFFICIENT INTEGRATED GATEWAY THAT MUST ....

MAINTAIN STRATEGIC FUNCTION - SAFEGUARD ACCESS TO THE CITY AND THE DOCKS IN AN ENVIRONMENTALLY SUSTAINABLE MANNER

## OBJECTIVES

IMPROVED BUS ROUTES + PARK AND RIDE

REDUCE PUBLIC TRANSPORT JOURNEY TIME

- M4 TO CITY CENTRE

- NEATH + P. TALBOT → SWANSEA CENTRE

INCREASE CAPACITY AT THE BRIDGE / CORRIDOR FOR PUBLIC TRANSPORT

MAINTAIN THE EXISTING RAIL FREIGHT NETWORK + INCREASE THE % OF FREIGHT MOVING BY RAIL.

PROTECT + ENHANCE THE ENVIRONMENT & SSSI

REDESIGN BALDWIN'S BRIDGE TO PROVIDE BETTER LOCAL ACCESS + SAFETY

CONNECTIVITY FOR NEW DEVELOPMENTS

\* CONGESTION AT BRIDGES

SAL ENTRY POINT

POSSIBLE NEW CAMPUS

PEAK TIMES

CITY CENTRE REDEVELOPMENT / SHOPPERS

PARK + RIDE LOCATION CLOSE TO CONGESTION

STRATEGIC USE VS LOCAL USE

PORT DEVELOPMENT LAND C. 100 ACRES

COED DARCY ACCESS ROAD

MAINTAIN RAIL ROUTE FOR FREIGHT

AIR QUALITY

VISUAL ASPECT / ECONOMIC DEVELOPMENT - CONFLICT?

BALDWIN BRIDGE MAINTENANCE

SIGNAGE TO DIRECT VISITORS

CURRENT PORT ROADS NOT SUITABLE FOR ACCESS  
PUBLIC TRANSPORT.

## ISSUES

### CONGESTION

- BRIDGES NOW
- ANAZON
- SA4
- CAMPUS
- SHOPPING REDEVELOPMENT.
- FREIGHT / FERRY

### INFORMATION / GATEWAY

### VISUAL ASPECTS

### BALDWIN'S BRIDGE

TYPE OF DEVELOPMENT CAN CREATE ISSUES  
EG RETAIL PARK

STRENGTHS / OPPORTUNITIES.

LAND AVAILABILITY

QUICK ACCESS TO CITY

OPPORTUNITY TO MAKE IT A TEST CASE  
FOR INTEGRATED TRANSPORT

RAIL INFRASTRUCTURE @ BURROWS

LINK TO M4

\* FLOODING - TIDAL INUNDATION  
EFFECT ON SSSI FROM  
MITIGATION

\* LAND CONTAMINATION - FROM PREVIOUS INDUST.  
LAND USES  
es. TIR JOHN  
CARBON BLACK  
BP

\* POLLUTION - NOISE & AIR RESULTING MAINLY  
FROM TRAFFIC CONGESTION

\* INCREASED PRESSURE ON ROAD FROM SWANSGIA UNI  
& FUTURE DEVELOPMENTS

\* CAPACITY OF TREATMENT WORKS AND  
ELECTRICITY SUB STATION

\* LACK OF LINKAGES BETWEEN GREEN  
AREAS FOR BIODIVERSITY & SUSTAINABLE  
TRANSPORT

- \* POTENTIAL TO IMPROVE MANAGEMENT, ACCESS & LINKAGES BETWEEN es. GREEN SPACE CORRIDORS, SSSI.
- \* IMPROVE CONNECTIVITY TO THE COASTLINE
- \* POTENTIAL TO REDUCE NOISE & AIR POLLUTION THROUGH ALTERNATIVE MEANS OF TRANSPORT es. LIGHT RAIL / TRAMS / CYCLING / PARK & RIDE / CANAL.
- \* POTENTIAL FOR TOURISM, LEISURE, BIODIVERSITY & ACTIVE TRAVEL THROUGH RE-USE OF CANAL
- \* RE-DEVELOPMENT OF THE BP TRANSIT SITE BY SWANSEA UNI - OPP. TO IMPROVE CONNECTIVITY
- \* POTENTIAL FOR CHP & USE OF RENEWABLE ENERGY.

# VISION

BALANCING THE NEEDS OF THE ENVIRONMENT,  
TRANSPORT, COMMUNITY & THE ECONOMY, WHILST  
ENSURING FUTURE DEVELOPMENT & ANY STRATEGY  
FOR ECONOMIC REGENERATION PROMOTES MIXED USE  
DEVELOPMENT, SUSTAINABILITY & INTEGRATION  
WHILST RECOGNISING THE GATEWAY FUNCTION OF  
THE CORRIDOR.

# OBJECTIVES

- \* REDUCING SINGLE OCCUPANCY JOURNEYS. BY PROMOTING THE RIGHT TYPE OF INTEGRATED TRANSPORT SOLUTIONS.
- \* PROTECTION & ENHANCEMENT OF GREEN SPACES & CORRIDORS
- \* BALANCE THE OPPORTUNITY FOR FUTURE DEVELOPMENT ~~WITH THE~~ WITH DEMAND & NEED IN A SUSTAINABLE WAY

## VISION - SOCIAL.

TO PROVIDE A FLEXIBLE  
AND SUSTAINABLE TRANSPORT  
SOLUTION TO IMPROVE INCLUSIVITY  
AND ACCESSIBILITY SOLUTIONS  
FOR THE SWANSEA BAY REGION.

# OBJECTIVES.

1. GREATER PHYSICAL & SOCIAL INTEGRATION / INCLUSION.  
↳ TRANSPORT ASSISTS AS ENABLER RATHER THAN SOLUTION.
2. INTEGRATION OF BUSINESS & COMMUNITIES.
3. SUSTAINABLE / MIXED USE TRANSPORT SYSTEM.
4. LESS OF A 'CORRIDOR', - NO / LIMITED RETAIL -  
↳ DON'T WANT ANOTHER CARDIFF NEWPORT RD
5. DISPERSAL OF CAR ~~TRAFFIC~~ AWAY FROM FABIAN WAY.
6. EQUAL PRIORITY GIVEN TO A RANGE OF TRANSPORT SOLUTIONS (I.E. BIKE / CAR / BUS)
7. SPECIFIC CONSIDERATION GIVEN TO CENTRAL COMPONENT OF FABIAN WAY (NR. CITY CENTRE)  
↳ MOST SQ. TRAFFIC 'HOT-SPOT'

## STRENGTHS

Pd R Successful

Express bus route

Extension of Metro system.

## WEAKNESSES

CONNECTIVITY BETWEEN  
COMMUNITIES

CYCLE TRACK CROSSES MAJOR JUNCTIONS.

- Develop south of Fabian Way.

## OPPORTUNITIES

~~ADDITIONAL~~ Pd R Further out } MAKE THEM AFFORDABLE.  
SWANSEA WEST P+R

MASS TRANSIT - CONSIDER RAIL HALT

CHANGE PERCEPTION OF CONGESTION

- CORRIDOR FOR PUBLIC TRANSPORT

- DESIGN IN BRIDGES.

## THREATS

MORE USAGE OF CORRIDOR  
STRADDLES LA'S.

NEED TO CONSIDER  
CITY CENTRE

Appendix H

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**Record of Stakeholder  
Workshop 2**

Welsh Assembly  
Government

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**Fabian Way Corridor  
Transport Assessment**

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Record of Stakeholder  
Workshop 2

Welsh Assembly  
Government

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**Fabian Way Corridor  
Transport Assessment**

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Record of Stakeholder  
Workshop 2

March 2009

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It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party

Job number 207815

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# 1 Introduction

## 1.1 Project Background

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Arup has been commissioned on behalf of the Welsh Assembly Government to undertake a strategic assessment of the transportation options for the A483 Fabian Way corridor into the city of Swansea. The corridor is scheduled to experience significant development in the next 25 years, generating increased travel demand. It is important that a balanced transport strategy is developed to support the sustainable development of the corridor and to facilitate wider economic regeneration in the surrounding catchment area. The study has the following goals:

- to review the outputs of previous studies and assessments within the study area;
- to assess the opportunities and constraints on the corridor;
- to identify appropriate transport options and package of options, to enhance the movement of people and freight throughout the corridor;
- to present a robust, comprehensive and sustainable strategy for the corridor, including determining the potential funding streams; and
- to ensure full engagement with all stakeholders.

## 1.2 Aims of Stakeholder Workshop 2

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Stakeholder participation is important to this study, as stakeholders can provide a major source of information on existing and possible future transportation challenges along the Fabian Way corridor. The support and collaboration of stakeholders will be essential to the long term success of the corridor.

A series of 34 organisations were invited to become part of the Stakeholder Group for this study. The first Stakeholder Workshop was held on Thursday 4th December 2008 at the Welsh Assembly Government offices at Penllergaer Business Park, Swansea. The main purpose of this Workshop was to identify the characteristics of the existing corridor and to discuss objectives and possible options for the future.

The second Stakeholder Workshop was held on Thursday 26th February 2009 at the same venue. The aim of this event was to obtain feedback from the Stakeholders on the Packages of transportation measures proposed. Attendees participated in group exercises during two breakout sessions.

A summary of the four Packages presented at the Workshop is given in Appendix A.

A copy of the slides presented by Arup during the second Workshop is contained in Appendix B.

## 1.3 Structure of this Report

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The structure of this report is as follows:

- Section 1 provides an introduction;
- Section 2 gives details of the attendees and Groups;
- Section 3 describes the outcome of Breakout Session 1;
- Section 4 summarises the outcome of Breakout Session 2; and
- Section 5 explains the next steps.

## 2 Stakeholders

### 2.1 Attendance at Workshop

The following representatives of the Stakeholder Group organisations attended Workshop 2. Participants were divided into four focus groups broadly corresponding to their interests. Contact details have been provided where possible to enable participants to continue individual discussions after the event if required.

#### Economy Group

<i>Name</i>	<i>Company</i>	<i>Email</i>
Ian Davies	Welsh Assembly Government	ip.davies@wales.gsi.gov.uk
Jason Thomas	Welsh Assembly Government	Jason.Thomas@Wales.GSI.Gov.UK
Dave Adlam	Neath Port Talbot County Borough Council	d.adlam@neath-porttalbot.gov.uk
Dave Williams	City and County of Swansea	David.Williams4@swansea.gov.uk
Teresa Healy	Mid & South Wales Safety Camera Partnership	teresa.healy@swansea.gov.uk
Bob Irvine	Arup	bob.irvine@arup.com

#### Environment and Community Group

<i>Name</i>	<i>Company</i>	<i>Email</i>
Phil Morris	Welsh Assembly Government	philip.morris@wales.gsi.gov.uk
Richard Harris	Welsh Assembly Government	Richard.Harris@Wales.GSI.Gov.UK
Ben George	City & County of Swansea Council	Ben.George@swansea.gov.uk
David Naylor	Wheelrights	davidjohnnaylor@tiscali.co.uk
Steve Davies	Hyder Consulting Ltd	Steve.Davies2@hyderconsulting.com
Helen Davies	Sustrans Cymru	helen.davies@sustrans.org.uk

#### Development Group

<i>Name</i>	<i>Company</i>	<i>Email</i>
Laurence Aaron	Welsh Assembly Government	laurence.aaron@wales.GSI.gov.uk
Anne Reynish	Welsh Assembly Government	anne.reynish@wales.GSI.gov.uk
Iwan Davis	Swansea University	i.r.davies@swansea.ac.uk
Craig Nowell	Swansea University	c.nowell@swansea.ac.uk
Neil Williams	St Modwens	neil.williams@stmodwen.co.uk
Adam May	Linamar	Adam.May@Linamar.com
Steve Coates	URS	steve_coates@urscorp.com

**Freight and Public Transport Group**

<i>Name</i>	<i>Company</i>	<i>Email</i>
Chris Davies	Neath Port Talbot County Borough Council	c.j.davies@neath-porttalbot.gov.uk
Lindsay Bush	DB Schenker	L.Bush@ews-railway.co.uk
Colin Fox	First Cymru Buses Ltd	colin.fox@firstgroup.com
Clive Thomas	Associated British Ports Swansea	cjthomas@abports.co.uk
Barclay Davies	Bus Users UK	wales@bususers.org

The following organisations are part of the Stakeholder Group but could not attend Workshop 2. They will also be copied in on this Note.

- Countryside Council for Wales;
- Environment Agency Wales;
- Neath Port Talbot (Recycling) Ltd, Material Recovery & Energy Centre (MREC);
- Abertawe Bro Morgannwg University NHS;
- South West Wales Economic Forum;
- Swansea Business Improvement Ltd;
- SWWITCH;
- British Petroleum;
- Network Rail;
- Arriva Trains Wales;
- Freight Transport Association;
- RT Properties;
- Richard Hayward Properties;
- Amazon;
- Hammerson;
- The Prince's Foundation;
- Porphyrios Associates; and
- Eversheds.

In addition there were 5 facilitators from Arup in attendance at Stakeholder Workshop 2.

<i>Name</i>	<i>Company</i>	<i>Email</i>
Jonathan Kinghorn	Arup	jonathan.kinghorn@arup.com
Chris Lindley	Arup	chris.lindley@arup.com
Paul Carr	Arup	paul.carr@arup.com
Debbie Hudd	Arup	debbie.hudd@arup.com
Elouise Smith	Arup	elouise.smith@arup.com

### 3 Outcome of Breakout Session 1

#### 3.1 Purpose of Session

Participants were asked to discuss and assess how well each proposed Package of measures addresses the study objectives and the Wales Transport Strategy outcomes. Groups were asked to rank each package using a six-point scale as follows:

- ++ Package would substantially meet the study objectives
- + Package would help to meet the study objective
- o Package is unlikely to have any impact on meeting the study objective
- Package could compromise the delivery of the study objective
- Package would seriously compromise the delivery of the study objective
- ? Effect of the package is uncertain

The results of each Group’s discussions were recorded on pre-printed forms. Participants were also asked to consider any omissions from the Packages.

Each Group’s responses are included in summary tables contained in Appendix C.

#### 3.2 Fit with Objectives

The combined scores for each Package give an indication of how well each Group felt each Package met the Study Objectives and fitted with the Wales Transport Strategy outcomes.

Numerical scores were assigned with 2 points for each ++, 1 point for each +, zero points for a score of o, -1 points for each - and -2 points for each --.

It should be noted that although some of the Study Objectives may be considered more important than the others, for the purposes of this exercise no weightings have been applied.

Table 3.1 below summarises how each Group scored each package in terms of fit with the Study Objectives. Packages 2 and 4 were considered to meet the Study Objectives most positively.

**Table 3.1 Package Fit with Study Objectives**

<i>Group</i>	<i>Highest Scoring Package</i>	<i>Second Highest Scoring Package</i>	<i>Third Highest Scoring Package</i>	<i>Lowest Scoring Package</i>
Economy	4	2	3	1
Environment and Community	4	2	3	1
Development	2	4	1	3
Public Transport and Freight	2	4	1	3

Table 3.2 below summarises how each Group scored each package in terms of fit with the Wales Transport Strategy outcomes. It is more difficult to provide a summary of each Group’s scores for this element due to the high number of question marks allocated. Nonetheless, Package 2 scored highest overall across all the Stakeholders present.

**Table 3.2 Package Fit with Wales Transport Strategy Outcomes**

<i>Group</i>	<i>Highest Scoring Package</i>	<i>Second Highest Scoring Package</i>	<i>Lowest Scoring Package</i>
Economy	3 and 4	n/a	1 and 2
Environment and Community	Not scored		
Development	2	4	1 and 3
Public Transport and Freight	2	1 and 4	3

### **3.3 Omissions**

The following omissions were identified by the participants during the session:

- Link to railway station;
- Grade separated junction serving the proposed university campus;
- Access to green spaces;
- Extend dedicated bus route to Park and Ride; and
- Highway access to Burrows Sidings.

It also became clear that the wording on several of the Study Objectives needs to be amended to ensure clarity.

## 4 Outcome of Breakout Session 2

### 4.1 Purpose of Session

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Participants were asked to discuss the significance of the measures within each Package, relevant to each Group's theme and individual interests. Groups were asked to rank each measure within each Package according to its importance, with 1 as the most significant.

The results of each Group's discussions were recorded on pre-printed forms. Each Group's responses are included in summary tables contained in Appendix B.

### 4.2 Most Significant Measures

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The most significant measures in each Package have been determined by adding up all the rankings for each measure from all Groups. The three measures with the lowest score in each Package were taken to be the top three most significant measures within that Package. These are given below:

#### Package 1: Community Corridor with On-Line Public Transport

1. Convert Tawe Bridges to a gyratory
2. New / additional Park and Ride site north of Amazon development
3. Improve/increase pedestrian and cycle bridges linking SA1 to the communities north of Fabian Way

#### Package 2: Community Corridor with Segregated Public Transport

1. New bus-only bridge to south of existing Tawe Bridges
2. Convert Tawe Bridges to a gyratory
3. Segregated busway north of Fabian Way with two-way working across existing Park and Ride bridge

#### Package 3: Strategic Transport Link with On-Line Public Transport

1. Convert Tawe Bridges to a gyratory
2. New grade-separated junction at Baldwins Bridge
3. New / additional Park and Ride site north of Amazon development

#### Package 4: Strategic Transport Link with Segregated Public Transport

1. New bus-only bridge to south of existing Tawe Bridges
2. Convert Tawe Bridges to a gyratory
3. Segregated busway north of Fabian Way with two-way working across existing Park and Ride bridge

Converting the Tawe bridges to a gyratory system appears in the top three most significant measures in each Package.

The most significant measure in Packages 2 and 4 was the proposed bus-only bridge across the Afon Tawe utilising the disused piers south of the existing bridges. The third most significant measure in Packages 2 and 4 was the segregated busway north of Fabian Way. Packages 1 and 3 do not include either the new bus-only bridge or the segregated busway.

## 5 Next Steps

### 5.1 Package Appraisal

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The four Packages presented at the second Stakeholder Workshop will be appraised in accordance with WeITAG guidance. This exercise will take into account the opinions of the Stakeholders as expressed at both the Stakeholder Workshop events and during individual consultation.

A Preferred Strategy will be formulated based on the results of the appraisal. It may comprise a combination of measures from more than one Package. An implementation strategy over 25 years will also be recommended to define proposed priorities and potential longer term aspirations.

The Study is due to be complete by the end of March 2009.

Appendix A

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**Summary of Option  
Packages**

## A1 Stakeholder Workshop 2 – Option Packages

Groups of mutually supportive measures were formed around the significant options to generate themed packages as follows:

### **Package 1 – Fabian Way as a Community Corridor with On-Line Public Transport**

Speed limit along Fabian Way reduced to 30mph beyond Jersey Marine. New at-grade junction provided at Baldwins Bridge, existing layout of the Jersey Marine junction retained. Convert Tawe Bridges to a gyratory system.

Public transport services routed along the Fabian Way main line between existing Park and Ride site and proposed new/additional Park and Ride site north of the Amazon development.

### **Package 2 – Fabian Way as a Community Corridor with Segregated Public Transport**

Speed limit along Fabian Way reduced to 30mph beyond Jersey Marine. New at-grade junction provided at Baldwins Bridge. Convert Tawe Bridges to a gyratory system and provide additional bus-only bridge utilising the existing piers south of the main bridges.

Segregated two-way bus route between existing Park and Ride site and proposed new/additional Park and Ride site north of the Amazon development, with two-way shuttle working across existing Park and Ride bridge. Grade-separated junction at Jersey Marine to route westbound cars off Fabian Way towards the Park and Ride.

### **Package 3 – Fabian Way as a Strategic Transport Link with On-Line Public Transport**

New grade-separated junctions at both Jersey Marine and Baldwins Bridge with a parallel development access road and reduced accesses directly onto Fabian Way. Convert Tawe Bridges to a gyratory system.

Public transport services routed along the Fabian Way main line between existing Park and Ride site and proposed new/additional Park and Ride site north of the Amazon development.

### **Package 4 – Fabian Way as a Strategic Transport Link with Segregated Public Transport**

New grade-separated junctions at both Jersey Marine and Baldwins Bridge with a parallel development access road and reduced direct accesses onto Fabian Way. Convert Tawe Bridges to a gyratory system and provide additional bus-only bridge utilising the existing piers south of the main bridges.

Segregated two-way bus route between existing Park and Ride site and proposed new/additional Park and Ride site north of the Amazon development, with two-way shuttle working across existing Park and Ride bridge.

Note that all packages include other measures such as parking controls, Travel Planning, improvements to walking and cycling facilities, new/extended bus services etc. The descriptions above cover the significant infrastructure measures only.

Appendix B

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**Presentation Slides**

# Fabian Way Corridor Transport Assessment

Stakeholder Workshop 2  
26th February 2009



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## Welcome

- All participants please sign in and take a name badge
- 4 tables represent 4 groups for breakout sessions
- Background information is provided on each table
- General housekeeping issues

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## Format of the Workshop

9.45	Introductory Presentation
10.15	Breakout Session 1 – Package fit with Objectives
11.00	Group feedback
11.30	Tea/coffee break
11.50	Presentation from Arup on prioritisation and phasing
12.00	Breakout Session 2 – Ranking within Packages
12.45	Group feedback
1.15	Presentation by Arup summarising the day's events
1.30	Lunch

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## Introductory Session

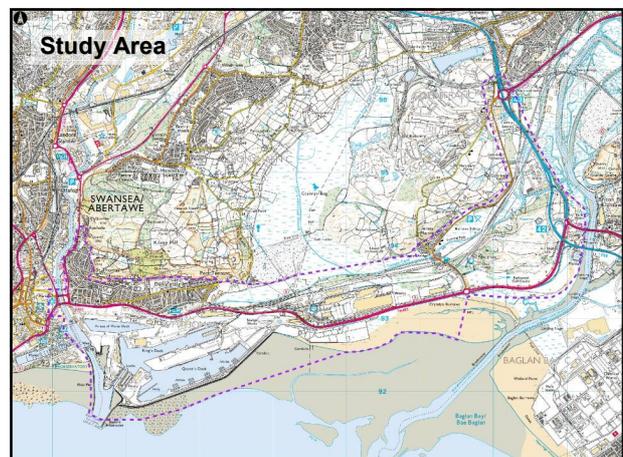


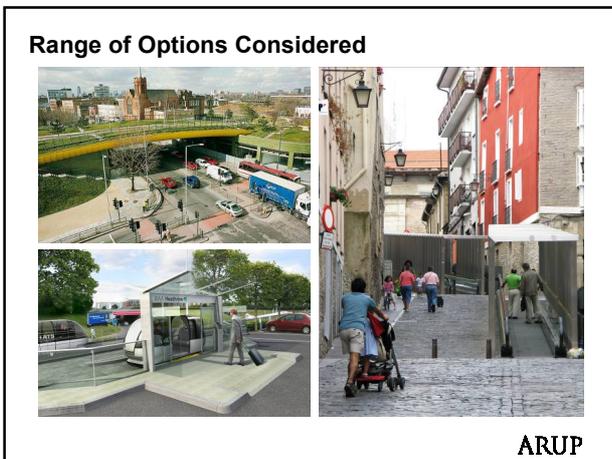
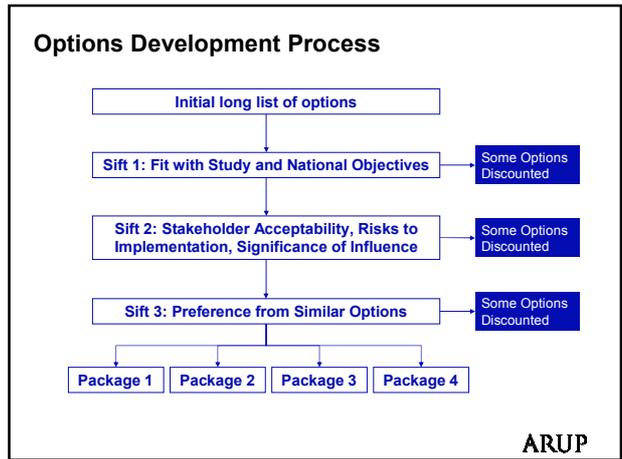
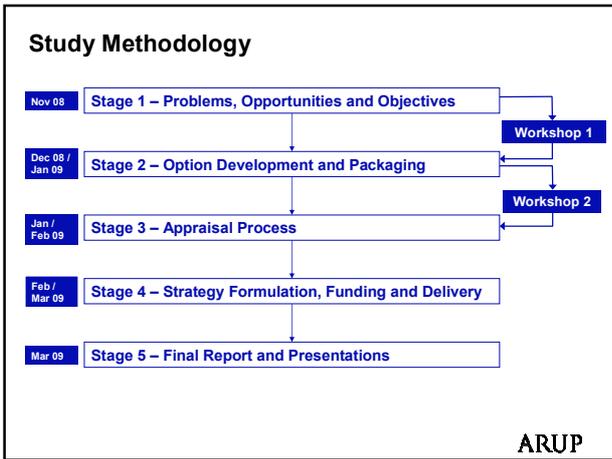
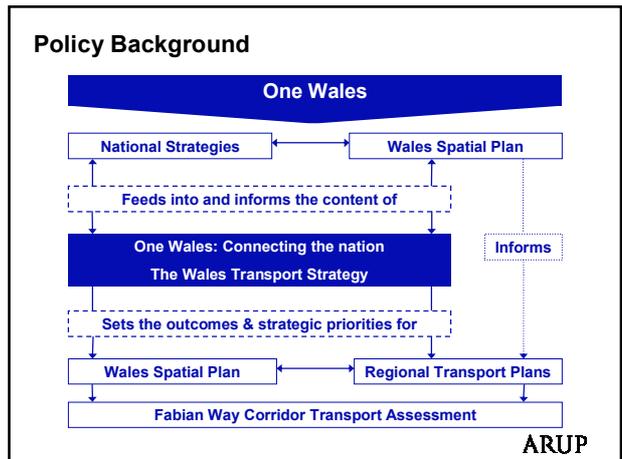
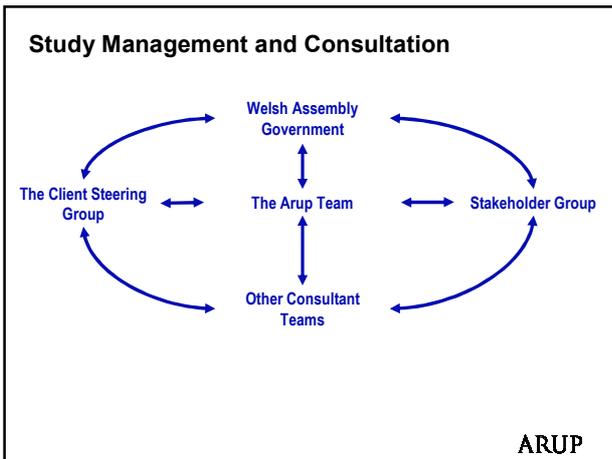
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## Aims of the Study

- To prepare a phased transport strategy for the next 25 years that will enable sustainable development along the Fabian Way Corridor by:
  - formulating a coherent regeneration policy framework
  - building on the success and progress of key developments
  - creating linkage between existing and future developments
  - realising the tourism/leisure potential
  - creating a forum to engage all stakeholders
  - providing a framework for future public funding and private investment decision making

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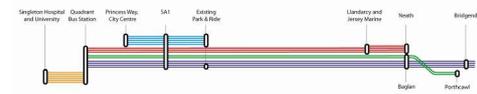
### Significant Options Common to all Packages

- Convert Tawe Bridges to a gyratory system
- Provide a new / additional Park and Ride site north of the Amazon development
- Transport hub providing high quality interchange north of the proposed University second campus
- New pedestrian / cycle bridge linking SA1 to the communities north of Fabian Way

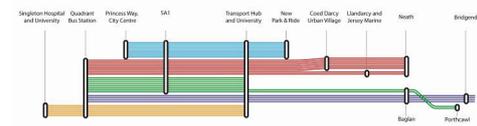
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### Significant Options Common to all Packages: Bus Network Restructure

Before Network Restructuring and Implementation of Transport Hub



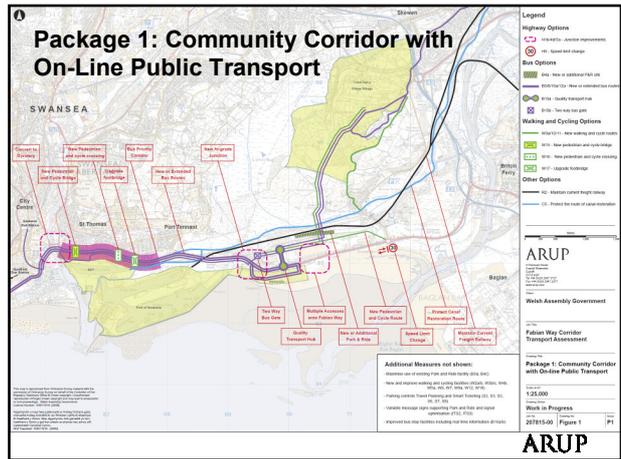
After Network Restructuring and Implementation of Transport Hub



- 0 Key Bus Stops
- Express Regional Services
- Local Daily Services
- Park & Ride Services
- R&R Interchange Services
- Other Fabian Way Services

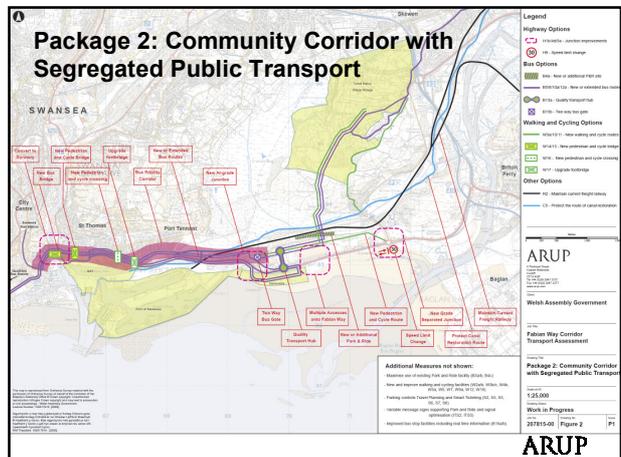
### Package 1: Community Corridor with On-Line Public Transport

- Reduce the speed limit to 30mph west of Jersey Marine
- New at-grade junction at Baldwins Bridge
- New at-grade pedestrian crossings
- Buses routed along Fabian Way
- New developments could have multiple accesses directly onto Fabian Way



### Package 2: Community Corridor with Segregated Public Transport

- Reduce the speed limit to 30mph west of Jersey Marine
- New at-grade junction at Baldwins Bridge
- New grade-separated junction at Jersey Marine to divert cars towards new Park and Ride site
- New at-grade pedestrian crossings
- Buses routed along segregated busway north of Fabian Way, including two-way shuttle working across existing Park and Ride bridge
- New bus-only bridge across Afon Tawe utilising piers south of existing bridges
- New developments could have multiple accesses directly onto Fabian Way





### Break Out Session 1

You have been seated in the following groups roughly corresponding to your area of interest:

- Economy
- Environment and Community
- Development
- Freight and Public Transport

We would like each group to consider how well each Package meets both the Study and national objectives, and record your views on the pre-printed form.

We would also like you to note if you feel anything has been excluded from the Packages in the Omissions section.

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### Break Out Session 1

- Background materials are available on each table
- Each group will be required to feedback to the main Workshop at the end of the breakout session. Please elect a Spokesperson
- You may find it helpful to elect a Chairperson
- Each group will have an Arup facilitator, although they will not contribute to the discussion
- Please record your findings on the pre-printed form provided
- You have 45 minutes. Any questions, please ask

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### Breakout Session 1 – Group Feedback



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### Prioritisation and Phasing



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### Implementation Strategy

Delivery of the transport strategy will be phased, with the various measures being implemented either in:

- The short term (within 5 years)
- The medium term (within 10 years)
- The long term (within 25 years)

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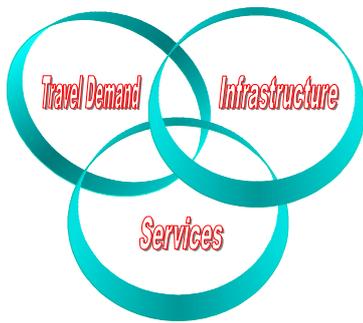
### Implementation Strategy

Aspects Arup will take into consideration when formulating the implementation programme:

- Time taken to deliver large-scale infrastructure projects
- Availability of funding
- Inter-relationships between strategy measures
- Need for investment based on network capacity indicators
- Timing of key regeneration proposals

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## Strategy Development



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## Breakout Session 2



5

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## Breakout Session 2

- We would like you to rank each significant measure in order of importance within each Package and record your views on the pre-printed form provided
- Each group will be required to feedback to the main Workshop at the end of the breakout session. Please elect a Spokesperson
- You may find it helpful to elect a Chairperson
- Each group will have an Arup facilitator, although they will not contribute to the discussion
- You have 45 minutes. Any questions, please ask

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## Breakout Session 2 – Group Feedback



6

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## Conclusions



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## Summary of Stakeholder Workshop 2

- Brief introduction to the Study
- Options development process and packaging
- Assessing Packages fit with Objectives
- Ranking Measures within each Package

Many thanks for your valued contributions

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### Next Steps

- Arup will collate and review all information gathered here today and issue a formal record to all invitees
- The four Packages of options will be appraised against WeITAG guidance
- The preferred package will be developed into a proposed implementation strategy

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### Workshop Close

Many thanks for your time and effort during this Workshop, your knowledge and views are vital to this Study.

Lunch will be served on the balcony.

Please leave your name badge on your table.

If you have any questions, please do not hesitate to ask.

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## Fabian Way Corridor Transport Assessment

Stakeholder Workshop 2  
26th February 2009



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Appendix C

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**Notes from Breakout  
Sessions**

# C1 Breakout Session 1: Fit with Objectives

## C1.1 Economy Group

Study Objectives		Package			
		1	2	3	4
<b>ECONOMY</b>					
1	To maintain or improve the reliability and predictability of journey times on the corridor for business, commuting and freight	+	++	++	++
2	To reduce congestion and delay at the Tawe Bridges	+	+	+	+
3	To actively promote ultra-low carbon alternatives such as walking and cycling and low carbon alternatives such as public transport options in order to double the modal share for alternative modes of travel along the length of the corridor	+	++	0	+
4	To increase public transport capacity along the corridor	+	++	+	++
5	To improve the journey experience of transport users along the corridor by defining a clear gateway into Swansea	-	0	+	+
6	To improve connectivity and accessibility between communities and developments north and south of Fabian Way	++	++	0	++
7	To protect, enhance and improve access to green space within the study area, particularly Crymlyn Bog and Crymlyn Burrows	+	+	+	+
8	To minimise the adverse impacts on air quality for local residents arising from transport	-	-	0	0
<b>Wales Transport Strategy Outcomes</b>		<b>Package</b>			
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Economy:</b> Improve the efficient, reliable and sustainable movement of people and freight; improve access to employment opportunities and visitor attractions; and improve connectivity within Wales and internationally.		-	-	+	+
<b>Environment:</b> Improve the impact of transport on our heritage, biodiversity and the local environment; reduce the contribution of transport to air pollution, greenhouse gas and other harmful emissions; and adapt to the impacts of climate change.		?	?	?	?
<b>Social:</b> Improve the actual and perceived safety of travel; access to healthcare, education, training and life-long learning, shopping and leisure facilities; and encourage healthy lifestyles.		+	+	+	+
<b>Omissions:</b> Link to railway station					

### C1.2 Environment and Community Group

Study Objectives		Package			
		1	2	3	4
1	To maintain or improve the reliability and predictability of journey times on the corridor for business, commuting and freight	-	?	+	++
2	To reduce congestion and delay at the Tawe Bridges	-	++	-	++
3	To actively promote ultra-low carbon alternatives such as walking and cycling and low carbon alternatives such as public transport options in order to double the modal share for alternative modes of travel along the length of the corridor	0	+	0	++
4	To increase public transport capacity along the corridor	--	++	-	++
5	To improve the journey experience of transport users along the corridor by defining a clear gateway into Swansea	-	+	-	+
6	To improve connectivity and accessibility between communities and developments north and south of Fabian Way	+	?	0	?
7	To protect, enhance and improve access to green space within the study area, particularly Crymlyn Bog and Crymlyn Burrows	+	?	+	?
8	To minimise the adverse impacts on air quality for local residents arising from transport	-	?	+	?
Wales Transport Strategy Outcomes		Package			
		1	2	3	4
<b>Economy:</b> Improve the efficient, reliable and sustainable movement of people and freight; improve access to employment opportunities and visitor attractions; and improve connectivity within Wales and internationally.		?	?	?	?
<b>Environment:</b> Improve the impact of transport on our heritage, biodiversity and the local environment; reduce the contribution of transport to air pollution, greenhouse gas and other harmful emissions; and adapt to the impacts of climate change.		?	?	?	?
<b>Social:</b> Improve the actual and perceived safety of travel; access to healthcare, education, training and life-long learning, shopping and leisure facilities; and encourage healthy lifestyles.		?	?	?	?
<b>Omissions:</b> None recorded.					

Note that the Environment and Community Group did not complete the exercise within the allocated time.

**C1.3 Development Group**

Study Objectives		Package			
		1	2	3	4
1	To maintain or improve the reliability and predictability of journey times on the corridor for business, commuting and freight	-	+	0	++
2	To reduce congestion and delay at the Tawe Bridges	--	++	--	0/+
3	To actively promote ultra-low carbon alternatives such as walking and cycling and low carbon alternatives such as public transport options in order to double the modal share for alternative modes of travel along the length of the corridor	+	++	-	--
4	To increase public transport capacity along the corridor	-	++	-	++
5	To improve the journey experience of transport users along the corridor by defining a clear gateway into Swansea	-	++	-	++
6	To improve connectivity and accessibility between communities and developments north and south of Fabian Way	++	+	0	-
7	To protect, enhance and improve access to green space within the study area, particularly Crymlyn Bog and Crymlyn Burrows	++	+	0	-
8	To minimise the adverse impacts on air quality for local residents arising from transport	-	+	0	+
Wales Transport Strategy Outcomes		Package			
		1	2	3	4
<b>Economy:</b> Improve the efficient, reliable and sustainable movement of people and freight; improve access to employment opportunities and visitor attractions; and improve connectivity within Wales and internationally.		-	+	0	++
<b>Environment:</b> Improve the impact of transport on our heritage, biodiversity and the local environment; reduce the contribution of transport to air pollution, greenhouse gas and other harmful emissions; and adapt to the impacts of climate change.		-	+	0	+
<b>Social:</b> Improve the actual and perceived safety of travel; access to healthcare, education, training and life-long learning, shopping and leisure facilities; and encourage healthy lifestyles.		+	++	-	0
<b>Omissions:</b> Grade separated junction serving the proposed university campus					

### C1.4 Freight and Public Transport Group

Study Objectives		Package			
		1	2	3	4
1	To maintain or improve the reliability and predictability of journey times on the corridor for business, commuting and freight	+	++	+	++
2	To reduce congestion and delay at the Tawe Bridges	+	++	0/+	++
3	To actively promote ultra-low carbon alternatives such as walking and cycling and low carbon alternatives such as public transport options in order to double the modal share for alternative modes of travel along the length of the corridor	+	++	0	+
4	To increase public transport capacity along the corridor	0	++	0	++
5	To improve the journey experience of transport users along the corridor by defining a clear gateway into Swansea	+	++	+	+
6	To improve connectivity and accessibility between communities and developments north and south of Fabian Way	+	+	0/+	+
7	To protect, enhance and improve access to green space within the study area, particularly Crymlyn Bog and Crymlyn Burrows	?	?	0	?
8	To minimise the adverse impacts on air quality for local residents arising from transport	+	++	0	+
Wales Transport Strategy Outcomes		Package			
		1	2	3	4
<b>Economy:</b> Improve the efficient, reliable and sustainable movement of people and freight; improve access to employment opportunities and visitor attractions; and improve connectivity within Wales and internationally.		?	?	?	?
<b>Environment:</b> Improve the impact of transport on our heritage, biodiversity and the local environment; reduce the contribution of transport to air pollution, greenhouse gas and other harmful emissions; and adapt to the impacts of climate change.		+	+	0	+
<b>Social:</b> Improve the actual and perceived safety of travel; access to healthcare, education, training and life-long learning, shopping and leisure facilities; and encourage healthy lifestyles.		+	++	0/+	+
<b>Omissions:</b> Access to green spaces; Extend dedicated bus route to Park and Ride; and Highway access to Burrows Sidings.					

## C2 Breakout Session 2: Ranking of Measures within Packages

### C2.1 Group Name Abbreviations

Economy – E

Environment and Community – E & C

Development – D

Freight and Public Transport – F & PT

### C2.2 Package 1

Package 1: Community Corridor with On-Line Public Transport	Ranking (1 – 7)			
	E	E & C	D	F & PT
Convert Tawe Bridges to a gyratory	1	1	1	1
Improve/increase pedestrian and cycle bridges linking SA1 to the communities north of Fabian Way	2	2	4	5
New at-grade junction at Baldwins Bridge	4	7	6	6
Do minimum at Jersey Marine junction with Fabian Way	7	6	7	7
Reduce speed limit to 30mph from Jersey Marine	5	5	3	3
New / additional Park and Ride site north of Amazon development	3	4	2	2
Two-way bus-only access north of Baldwins Bridge between Port Tennant and rail sidings	6	3	5	4

### C2.3 Package 2

Package 2: Community Corridor with Segregated Public Transport	Ranking (1 – 9)			
	E	E & C	D	F & PT
Convert Tawe Bridges to a gyratory	1	2	3	4
Improve/increase pedestrian and cycle bridges linking SA1 to the communities north of Fabian Way	5	3	6	7
New at-grade junction at Baldwins Bridge	6	9	9	8
New grade-separated junction at Jersey Marine junction with Fabian Way	9	7	8	9
Reduce speed limit to 30mph from Jersey Marine	7	6	5	5
New bus only bridge to south of existing Tawe Bridges	2	1	2	1
Segregated busway north of Fabian Way with two-way working across existing Park and Ride bridge	3	8	1	2
Two-way bus-only access north of Baldwins Bridge between Port Tennant and rail sidings	4	4 =	7	3
New / additional Park and Ride site north of Amazon development	8	4 =	4	6

**C2.4 Package 3**

Package 3: Strategic Transport Link with On-Line Public Transport	Ranking (1 – 7)			
	E	E & C	D	F& PT
Convert Tawe Bridges to a gyratory	2	1	3	1
Improve/increase pedestrian and cycle bridges linking SA1 to the communities north of Fabian Way	7	2 =	6	6 =
New grade-separated junction at Baldwins Bridge	3	2 =	4	2
New grade-separated junction at Jersey Marine junction with Fabian Way	6	6	7	3
Parallel development access road	4	7	1	4
Remove or reduce development accesses onto Fabian Way	5	5	5	5
New / additional Park and Ride site north of Amazon development	1	4	2	6 =

**C2.5 Package 4**

Package 4: Strategic Transport Link with Segregated Public Transport	Ranking (1 – 10)			
	E	E & C	D	F& PT
Convert Tawe Bridges to a gyratory	3	2	4	3
Improve/increase pedestrian and cycle bridges linking SA1 to the communities north of Fabian Way	10	3 =	9	8
New grade-separated junction at Baldwins Bridge	7	3 =	5	4
New grade-separated junction at Jersey Marine junction with Fabian Way	9	9	10	5
Parallel development access road	6	10	1	9
Remove or reduce development accesses onto Fabian Way	8	7	7	10
New bus only bridge to south of existing Tawe Bridges	2	1	3	1
Segregated busway north of Fabian Way with two-way working across existing Park and Ride bridge	1	8	6	2
Two-way bus-only access north of Baldwins Bridge between Port Tennant and rail sidings	4	5 =	8	6
New / additional Park and Ride site north of Amazon development	5	5 =	2	7

Appendix I

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**Community Newsletter**



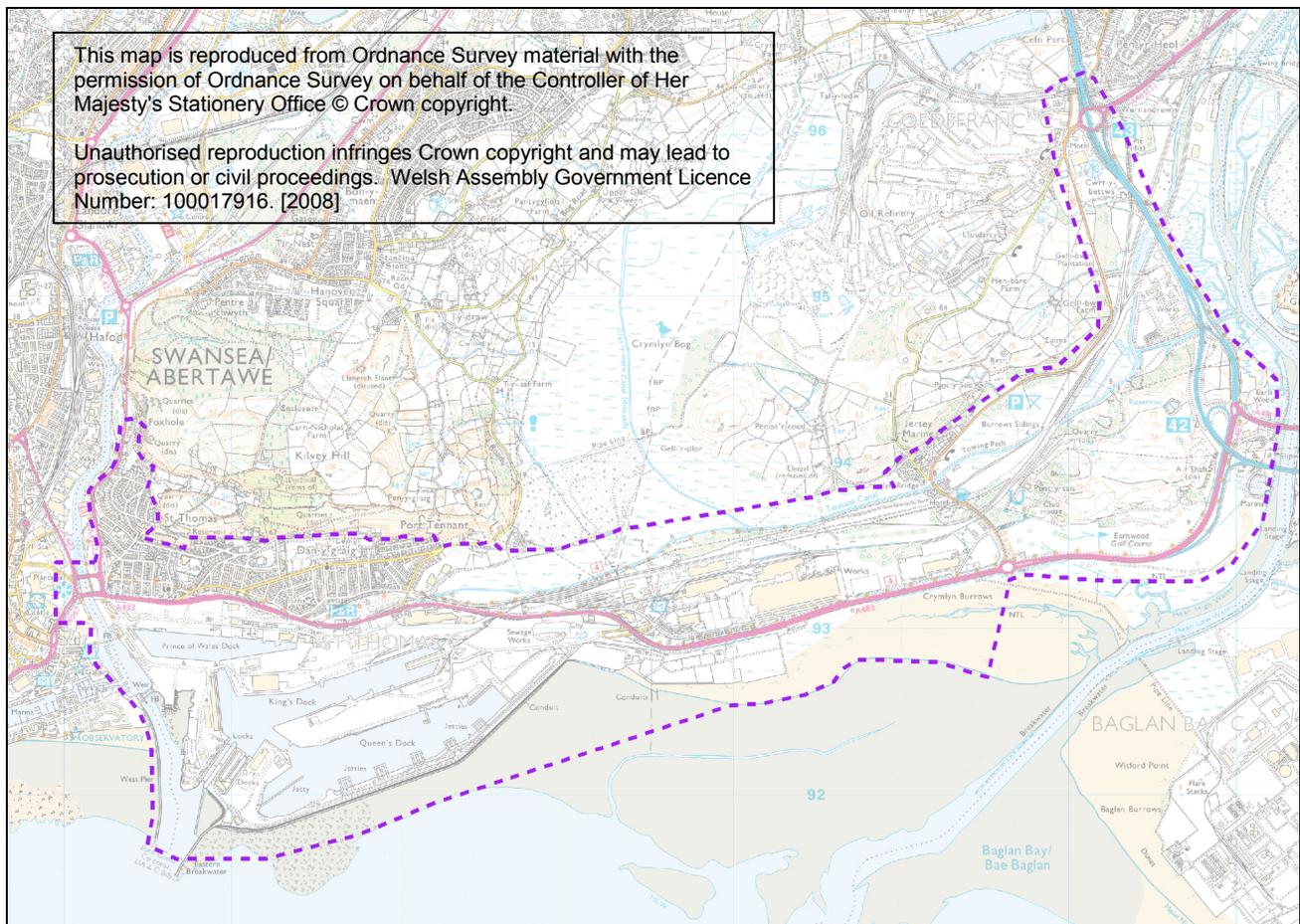
## Fabian Way Corridor Transport Strategy – Community Newsletter 1

Llywodraeth Cynulliad Cymru  
Welsh Assembly Government

### Project Background

The A483 Fabian Way corridor into east Swansea is scheduled to experience significant development over the next 25 years. This development will generate increased demand for travel.

The Welsh Assembly Government has commissioned consultant Arup to undertake a strategic assessment of the transportation options for the Fabian Way corridor, from the M4 to the Tawe Bridges in Swansea. The anticipated outcome of the study will be a balanced transport strategy to support the sustainable development of the corridor and to facilitate wider economic regeneration in the surrounding catchment area.



Plan of the Study Area

The Steering Group for the study includes representatives from Welsh Assembly Government, Neath Port Talbot County Borough Council and City and County of Swansea.

## **Approach**

The study commenced in November 2008 with a review of the corridor today.

We have had meetings with the key transport providers and sourced information regarding all modes including bus, rail, walking, cycling, car, the canal and the docks. We have also obtained all available details of possible new developments in the area, including the proposed Swansea University second campus.

Our aim is to build up a picture of transport related problems and opportunities that exist along the corridor today or that may develop in the future. This information will be used to develop possible options to improve travel conditions within the corridor. This could include more public transport services, additional walking and cycling routes, improvements to junctions and more comprehensive parking enforcement.

## **Community Involvement**

It is vital that we understand the extent of any community-based issues, such as lack of parking spaces, traffic congestion, unreliable bus services or pedestrian safety.

We are very keen to hear your views and to have your involvement in the study – this is your opportunity to influence transport along this important travel corridor. Please let us have your comments, your concerns and any suggestions you may have by filling in the blank section at the end of this newsletter and returning it by Monday 16<sup>th</sup> February 2009 to one of the locations detailed at the end of the comments form.

If required a Welsh version of this newsletter can be provided on request.

## **The Next Steps**

The next stage of the study will be to agree a series of objectives for the Transport Strategy for the corridor with the Steering Group. We will then investigate various transport options and assess their effectiveness by considering how well each meets the objectives and addresses the identified problems.

We envisage that a further update will be provided to the communities within the study area at this stage.

The study is due to be completed at the end of March 2009.

## **Access to information**

The Welsh Assembly Government will use the comments to provide evidence for developing ways to improve transport within the Fabian Way corridor. A summary of the responses to this Newsletter will be published.

All personal identifying information on your comment form is confidential to the Welsh Assembly Government and its agents.

## **Fabian Way Corridor Transport Strategy Consultation**

No identifiable information about you will be provided to local authorities, other bodies, members of the public or the press. The comment form will be disposed of securely after it has served these purposes.

### **Comments**

Please provide your comments on transport issues within the Fabian Way corridor in the box below. We would find it helpful if you complete your name and address when you fill in this form. See the note about "Access to Information" to see what we will do with the information you provide us.

Name (optional):

Address (optional):

Return by **Monday 16<sup>th</sup> February 2009** to: Arup, 4 Pierhead Street, Capital Waterside, Cardiff CF10 4QP

***or put in the drop in box at one of the following locations:***

Port Tennant Community Centre, Wern Fawr Road, Port Tennant, SA1 8LQ

St Thomas Community Primary School, 80 Grenfell Park Road, SA1 8EZ

St Stephens Church Hall, Danygraig Road, Port Tennant, SA1 8NB

***or post through Cllr Harry Bebell's letter box of:***

38 Elba Crescent, Crymlyn Burrows, Swansea, SA1 8QQ

Appendix J

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**Summary of  
Community  
Consultation**

## Summary of Community Consultation

### Community Newsletter

Arup produced a community newsletter in conjunction with the Welsh Assembly Government (WAG) to explain the purpose of the Study to residents of the Fabian Way corridor. It provided a brief background to the Study and summarised the activities that had been undertaken to date. The newsletter asked residents to provide comments relating to community-based problem and suggestions.

WAG discussed the newsletters with the relevant Councillors before being hand delivered to every house within the site area. Responses were collected at four drop-in boxes in key locations within the communities or posted directly to Arup. A total of 53 replies were received, representing approximately a 2% response rate.

### Problems Raised in Response

Concerns raised in response to the community newsletter were sorted into five general categories. Table 1 below shows that over a third of respondents were concerned about community issues such as parking, safety and accessibility. Nearly a quarter of respondents raised congestion as an issue.

**Table 1: Problems Raised in Response to the Community Newsletter – General**

Category of Concern	Percentage of Respondents
Community	34 %
Highways	19 %
Congestion	22 %
Footpaths and Cycleways	17 %
Public Transport	9 %

Table 2 shows a more detailed breakdown of concerns raised in response to the community newsletter. It can be seen that the issues raised most frequently were congestion along Fabian Way and residential parking in Port Tennant and St Thomas. It appears that on street parking in Port Tennant and St Thomas is being used as a free long stay parking option for drivers working at the SA1 development. This increases the volume of traffic within the communities and limiting available parking for residents. Congestion along Fabian Way causes concern for local residents due to problems with air and noise pollution, accessibility and safety.

**Table 2: Problems Raised in Response to the Community Newsletter – Specific**

Category of Concern	Issues of Concern	Percentage of Respondents
Community	Residential parking in Port Tennant and St. Thomas	13 %
	Speed and volume of traffic related to safety of crossing to SA1 from Port Tennant and St. Thomas	10 %
	Speed and volume of traffic in Jersey Marine	5 %
	Poor accessibility to local amenities and schools	5 %
	Lack of safe parking in Jersey Marine	2 %
Highways	Traffic signals timing	6 %
	Safety of Fabian Way	6 %
	Safety of Jersey Marine roundabout	5 %
Congestion	Congestion along Fabian Way	13 %
	Congestion on the Tawe Bridges	7 %
	Congestion in the City Centre	2 %
Footpaths and Cycleways	Walking and Cycling along Fabian Way	6 %
	Crossings along Fabian Way	6 %
	Pedestrian safety in Port Tennant and St. Thomas	2 %
	Canal footpath in Jersey Marine	2 %
	Lack of crossings in Landore	1 %
Public Transport	Poor bus services along Fabian Way and in residential areas	7 %
	Park and Ride too close to the City Centre and too expensive	2 %

The concerns raised by the respondents to the community newsletter broadly reflect some of the problems identified at the first Stakeholder Workshop.

### Opportunities Identified in Response

A summary of the suggestions raised in response to the community newsletter is given below, utilising the category system employed in the previous section.

#### Community

- Cheaper parking in SA1;
- Speed bumps and speed cameras in the residential areas; and
- Residential parking scheme.

#### Highways

- Improved traffic light timings;
- Part time traffic lights in peak times only;
- Lower speed limits along Fabian Way;

- More road exits out of SA1;
- New road from Amazon to the M4;
- New route to the Gower from the M4; and
- Reduce the current two lanes to one at the Jersey Marine roundabout.

**Congestion**

- Covert Tawe Bridges into a gyratory system;
- New river crossing south of the Sail Bridge; and
- Mini roundabout at junction of Delhi Street and Bankway.

**Footpaths and Cycleways**

- Convert the railway line to a tram system;
- Pedestrian bridge across Jersey Marine roundabout;
- More and attractive crossings across Fabian Way;
- Extend canal cycle path to Neath;
- Off-road cycleways and footpaths along entire length of Fabian Way;
- Complete National Cycle Network Route 4 along Fabian Way; and
- More pedestrian routes and cycle routes, particularly around residential areas.

**Public Transport**

- Relocation and price reduction for Park and Ride;
- Consistent bus lanes along Fabian Way and bus priority measures;
- Tramway alongside the Wales Coastal Path and through SA1;
- Opening the rail line to passengers;
- Re-introduce half hourly bus service 44 along its original route through Port Tennant and via Delhi St;
- More flexible bus services; and
- Better advertising of public transport.

Appendix K

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**Summary of Responses  
from SA1 Travel Forum**

## **SA1 Travel Forum - Response to Fabian Way Corridor Transport Study**

### **Introduction**

The Forum welcomes the opportunity to contribute to the development of a strategic framework for the transport network of Fabian Way Corridor over the next 25 years. We feel this framework is essential to accommodate the committed and proposed development, without detriment to the many existing developments and communities within the Fabian Way Corridor. We stress that the output of this study be used to maximise and channel both public and private sector contributions in a sustainable and co-ordinated manner.

### **Key Issues for SA1 Swansea Waterfront**

#### Severance

1. Fabian Way currently acts as a constraint on movements between SA1 Swansea Waterfront and communities of Port Thomas and Port Tennant to the north. The speeds and volume of traffic on this road largely prohibits pedestrian movements except where there is crossing provision.

2. The existing highway arrangement at Tawe Bridges creates severance between SA1 Swansea Waterfront and the High Street/ Railway Station. The number of road crossings required deters people from using this otherwise direct route by foot or cycle.

#### Attractiveness of walking and cycling

3. Fabian Way makes for unattractive east-west movements by foot or cycle where the infrastructure is immediately alongside the busy Fabian Way. Pedestrian and cycle routes between SA1 Swansea Waterfront/ Fabian Way and key local destinations (City Centre, Swansea Train Station and Quadrant Bus Station) are unattractive. These routes are fundamental to maximising the potential of walking and cycling for local journeys, and therefore should have high priority in the context of the Fabian Way study.

#### Congestion

4. Peak time congestion reduces the reliability of local and regional bus services that serve SA1 Swansea Waterfront. Where public transport shares road space with general traffic, improving the traffic flow on Fabian Way will improve public transport access to SA1 Swansea Waterfront. However without compensating measures, this improvement in traffic flow is likely to be at the expense of increased severance.

#### Park and Ride

Travel surveys and observations reveal that the existing Fabian Way site is hardly used for access to SA1 Swansea Waterfront. This is because it is too close and too expensive. If price could be reduced or distance increased, the park and Ride would be a more feasible option for travel to SA1 Swansea Waterfront. Opportunities (including pricing and access) to encourage cycling from the park and ride should also be encouraged.

Parking in SA1 Swansea Waterfront on a daily basis can be expensive, especially for employees on lower incomes. Public transport is not a feasible option for everyone, especially given the bus access and availability limitations set out below. The result is the potential for overspill parking in adjacent communities. Park and Ride needs to provide a compromise for a significant number of journeys where the car is the most rational means of travel.

### Bus access

Bus access to SA1 Swansea Waterfront has improved in recent years with the opening of Langdon Gateway 2<sup>nd</sup> access. And there is a balance between express services and those diverted into SA1 Swansea Waterfront. However pedestrian access between the SA1 development and Fabian Way is limited, especially to eastbound services.

### Bus availability

Successive surveys have shown that most buses serving SA1 Swansea Waterfront start too late and/ or finish too early in the day for the travel needs of SA1 Swansea Waterfront employees and residents. Existing commercial services are falling well short of what is needed to make bus travel a viable option in SA1 Swansea Waterfront.

Access to SA1 Swansea Waterfront from the west and north is poor. There are no direct services from West Swansea or Swansea Train Station. Despite being of short distance, both journeys require interchange and are consequently not a viable option.

### Rail availability

SA1 Swansea Waterfront and Swansea in general would benefit from better rail access to passenger services from the Fabian Way Corridor.

## **Addressing the key issues in context of Options 1- 4**

The outline level provided for consultation, along with the number and variety of stakeholders represented on the SA1 Travel Forum, makes it difficult to reach consensus on any of the 4 themed options. Some organisations will welcome options 1 and 2 which focus on Fabian Way as a Community Corridor. Others will favour the benefits of 3 and 4, developing Fabian Way as Strategic Transport Link.

The Forum considers that the correct option taken forward for Fabian Way will need to balance strategic and community aspects. Whether the strategy encompasses segregated or on-line public transport should depend on which works best in terms of performance (i.e. bus/ coach journey times and reliability).

Regardless of the option(s) taken forward and recommended to the Welsh Assembly Government, the SA1 Travel Forum would like to see the following components to address the key issues set out above:

**1. Improved and better opportunities to safely cross Fabian Way** from all parts of the SA1 Swansea Waterfront development. Either at-grade or via foot/cycle bridges, whichever is more appropriate. The solution should be both convenient and accessible to all.

**2. Improved environment on the Fabian Way Corridor** to make journeys by foot and cycle more attractive, including connections to Coed Darcy, Amazon and other proposed or committed developments for the corridor. This could be achieved through speed reductions on Fabian Way or alternatively through the parallel provision of high quality segregated routes.

3. **Tawe Bridge infrastructure improvements** should consider the needs of pedestrians and cyclists as a priority and not an add-on, making High Street and Swansea Station more accessible.
4. **Significantly improved pedestrian and cycle routes** (convenience and attractiveness) between Fabian Way and the City Centre.
5. Infrastructure and/ or demand management measures to **reduced journey times and improve reliability of bus services using the Fabian Way Corridor**- Either through improvements to general traffic flows or through provision of high quality segregated bus routes.
6. **New Park and Ride site located in vicinity of Amazon** along with **reduced park and ride/ cycle prices** to make park and ride a more viable option for travel to SA1 Swansea Waterfront from the east and Vale of Neath.
7. **More bus routes directly serving SA1 Swansea Waterfront**, especially from the west and north of Swansea (including Swansea Train Station). Future phases of the new Metro should expand the network to cover the Fabian Way Corridor.
8. Improved **direct and express links** between SA1 Swansea Waterfront, Bridgend and Cardiff.
9. **High frequency bus services connecting existing and future developments along Fabian Way** with each other and with the City Centre.
10. **Better penetration of bus services** to developments like SA1 Swansea Waterfront - Where appropriate leaving Fabian Way to provide more convenient access to key services and major trip attractions within the SA1 development.
11. **Bus services to operate over significantly longer day than they currently do**, fully covering the am and pm peaks, and also providing adequate provision for evenings and weekends.
12. **Consider feasibility of passenger rail services** through enhancements and new station to the east of Fabian Way, on the existing freight line through Jersey Marine/ Barrows yard.

## Summary

The SA1 Travel Forum considers that the details and way that the significant infrastructure measures outlined in the 4 option packages are delivered are more important than the themes themselves. All 4 packages of options seem capable of either fully addressing or not addressing at all our key issues and priority option components above. Funding (sourcing and securing) and co-ordination (development, planning process and travel planning) will be key delivery mechanisms for the sustainable development of the Fabian Way Corridor.

Rob Jones (on behalf of the SA1 Travel Forum)  
SA1 Travel Plan Co-ordinator

Tel: 029 2072 0920  
E-mail: jonesr1@halcrow.com

Appendix L

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**Option Development:  
First Sift**

**Fabian Way Corridor Transport Assessment  
207815  
Options Development: First Sift**

Option Reference: H1a
Option Title: Do minimum at the Tawe Bridges
Description of Option
Retain the existing arrangement at the Tawe Bridges, with a pair of two way bridges across the river connected by four signal controlled junctions with some restricted turning movements.
Advantages
Low cost Retain direct through route for Fabian Way traffic
Disadvantages
Restricted capacity Confusing manoeuvres for some movements Limited opportunity for bus priority
Fit with Study Objectives
None
Fit with Wales Transport Strategy Objectives
None
Fit with Other Options
None
Recommendations
Retaining the existing arrangement will not assist in achieving either the Study Objectives or national policy objectives.
Develop option further: No

**Fabian Way Corridor Transport Assessment  
207815  
Options Development: First Sift**

Option Reference: H1b
Option Title: Capacity improvements at the Tawe Bridges
Description of Option Reconfigure the bridge to provide capacity improvements. This could take the form of a one way gyratory, with revised signal controlled junctions at the four corners. This configuration has been considered previously on a number of occasions, including the Arup Port Tawe Transport Assessment (2002) and the Faber Maunsell Tawe Bridges Feasibility Study (2003).
Advantages Increased capacity Simplified/standardised manoeuvres for all movements Some scope for bus priority
Disadvantages High cost and disruption during construction Less direct route for eastbound Fabian Way traffic Reduced number of accesses to the Tawe Bridges junction including likely partial closure of Delhi Street and reduced access options from Parc Tawe link
Fit with Study Objectives 1, 2
Fit with Wales Transport Strategy Objectives 1, 2, 4, 5, 14, 15, 16
Fit with Other Options ITS3, H2
Recommendations Although this option would directly address Study Objective 2, there are potential issues regarding the partial closure of at least two accesses onto the existing bridge junctions. However, the overall improvement in efficiency of operation will help to achieve both the Study Objectives and the Wales Transport Strategy outcomes.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
207815  
Options Development: First Sift**

Option Reference: H2
Option Title: New bridge for general traffic to south of existing Tawe Bridges
Description of Option
Construct a new bridge over the Tawe utilising the existing bridge piers immediately south of the southern bridge for use by general traffic, with associated reconfiguration of the signal controlled junctions at either side.
Advantages
Some increase in capacity (depending on junction configurations) May assist buildability of gyratory option
Disadvantages
Further complicates existing arrangements High cost Environmental considerations
Fit with Study Objectives
1, 2
Fit with Wales Transport Strategy Objectives
1, 2
Fit with Other Options
H1b
Recommendations
A new bridge for general traffic would make the existing situation more complicated but would offer little increase in capacity. This option therefore does not support either the Study Objectives or national policy.
Develop option further: No

**Fabian Way Corridor Transport Assessment  
207815  
Options Development: First Sift**

Option Reference: H3a
Option Title: Allow general traffic to use Park and Ride bridge over Fabian Way (one-way only)
Description of Option
Reconfigure the western approach road to connect into the SA1 internal road network to allow westbound traffic to utilise the existing bus-only bridge.
Advantages
Additional access into the eastern end of SA1 Use of existing infrastructure
Disadvantages
Reduced bus priority for Park and Ride buses Reduced capacity for pedestrians and cyclists Poor public perception of local authority's decision making process, as existing bridge only opened in 2007 Link would not provide an improved route for many drivers
Fit with Study Objectives
None
Fit with Wales Transport Strategy Objectives
4, 5, 16
Fit with Other Options
None
Recommendations
Opening the Park and Ride bridge to general westbound traffic would provide little benefit but would have a negative impact on the Park and Ride buses, pedestrians and cyclists. This option therefore contradicts the Study Objectives.
Develop option further: No

**Fabian Way Corridor Transport Assessment**  
**207815**  
**Options Development: First Sift**

Option Reference: H3b
Option Title: Allow general traffic to use Park and Ride bridge over Fabian Way (two-way shuttle working)
Description of Option
Reconfigure the western approach road to connect into the SA1 internal road network to allow both eastbound and westbound traffic to utilise the existing bus-only bridge.
Advantages
Additional access into and out of the eastern end of SA1 Use of existing infrastructure
Disadvantages
Reduced bus priority for Park and Ride buses Reduced capacity for pedestrians and cyclists Poor public perception of local authority's decision making process, as existing bridge only opened in 2007 Link would not provide an improved route for many drivers Shuttle working section will reduce capacity of two way link
Fit with Study Objectives
None
Fit with Wales Transport Strategy Objectives
4, 5, 16
Fit with Other Options
None
Recommendations
Opening the Park and Ride bridge to general traffic would provide little benefit but would have a negative impact on the Park and Ride buses, pedestrians and cyclists. This option therefore contradicts the Study Objectives.
Develop option further: No

**Fabian Way Corridor Transport Assessment  
207815  
Options Development: First Sift**

Option Reference: H4a
Option Title: Do minimum at Baldwins Bridge
Description of Option
Retain the existing bridge and slip roads
Advantages
Low cost No disruption during construction Turning traffic and through traffic on Baldwins Crescent does not impact on Fabian Way through traffic
Disadvantages
Sub standard slips reduce capacity and increase vehicle conflict Substandard mainline alignment reduces capacity and increased vehicle conflict Existing bridge requires heavy maintenance regime
Fit with Study Objectives
None
Fit with Wales Transport Strategy Objectives
None
Fit with Other Options
None
Recommendations
Retaining the existing arrangements will not support either the Study or national Objectives.
Develop option further: No

**Fabian Way Corridor Transport Assessment  
207815  
Options Development: First Sift**

Option Reference: H4b
Option Title: Amend slips at Baldwins Bridge, maintaining existing bridge structure
Description of Option
Retain the bridge, but replace the sub-standard slip roads with longer slips connected to new junctions
Advantages
Minimal disruption during construction Lower cost than replacing entire junction Some improvement in capacity Turning traffic and through traffic on Baldwins Crescent does not impact on Fabian Way through traffic
Disadvantages
Existing bridge requires heavy maintenance regime Junction layout still not ideal Substandard mainline alignment reduces capacity and increases vehicle conflict
Fit with Study Objectives
1
Fit with Wales Transport Strategy Objectives
1, 2
Fit with Other Options
None
Recommendations
This option would give some improvements to capacity and assist in achieving the Study Objectives and the Wales Transport Strategy outcomes.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
207815  
Options Development: First Sift**

Option Reference: H4c
Option Title: New grade-separated junction at Baldwins Bridge
Description of Option
Replace the existing junction with a new bridge, new slips and new internal junctions
Advantages
Increased capacity Improved mainline alignment Reduced maintenance liability Turning traffic and through traffic on Baldwins Crescent does not impact on Fabian Way through traffic
Disadvantages
High cost High level of disruption during construction
Fit with Study Objectives
1, 6
Fit with Wales Transport Strategy Objectives
1, 2, 4, 5, 12, 14, 15, 16
Fit with Other Options
H10, H11
Recommendations
Capacity improvements at this junction would assist in achieving both the Study and national Objectives.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
207815  
Options Development: First Sift**

Option Reference: H4d
Option Title: New at-grade junction at Baldwins Bridge
Description of Option
Replace the existing junction with a new at-grade junction. This could take the form of a large roundabout or signal controls, depending on traffic levels and the intended nature of Fabian Way in the future.
Advantages
Reduced visual impact of junction Reduced maintenance liability
Disadvantages
Lower capacity than grade-separated option for through traffic Potentially larger land take than grade-separated option Turning traffic and through traffic on Baldwins Crescent would impact on Fabian Way traffic
Fit with Study Objectives
1, 6
Fit with Wales Transport Strategy Objectives
1, 2, 4, 5, 12, 14, 15, 16
Fit with Other Options
H9
Recommendations
Capacity improvements at this junction would assist in achieving both the Study and national Objectives.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
207815  
Options Development: First Sift**

Option Reference: H4e
Option Title: Close Baldwins Bridge as a junction, maintaining existing bridge structure
Description of Option
Remove existing sub standard slips to close access to Fabian Way at this point. Maintain existing bridge structure.
Advantages
Lower cost than entirely replacing junction Reduced turning traffic on Fabian Way Improved safety due to reduced conflict between vehicle streams Development traffic removed from Fabian Way, thereby reducing overall traffic levels on Fabian Way
Disadvantages
Existing bridge requires heavy maintenance regime More complicated access to some areas May increase distance travelled by some vehicles Substandard mainline alignment reduces capacity and increases vehicle conflict
Fit with Study Objectives
1
Fit with Wales Transport Strategy Objectives
1, 2
Fit with Other Options
H10, H11
Recommendations
This option would improve conditions for through traffic, although other measures would be necessary to address development traffic. The proposal would assist in achieving the Study Objectives and support national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
207815  
Options Development: First Sift**

Option Reference: H5a
Option Title: Do minimum at Jersey Marine junction with Fabian Way
Description of Option
Retain the newly installed signal controlled gyratory which includes a two lane bypass for westbound through traffic. The junction was constructed to provide a connection into the new Amazon Distribution Centre, and will form a link to the Southern Access Road to Coed Darcy Urban Village.
Advantages
Low cost Limited environmental impact
Disadvantages
Previous studies have shown that the junction will reach capacity due to traffic growth by 2017. This growth excludes many of the specific development aspirations along the Fabian Way Corridor and thus the junction may be over capacity earlier No specific bus priority measures Cycle crossing facilities unpopular with local users
Fit with Study Objectives
None
Fit with Wales Transport Strategy Objectives
None
Fit with Other Options
None
Recommendations
The recent upgrade of this junction supports both the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
207815  
Options Development: First Sift**

Option Reference: H5b
Option Title: New grade-separated junction at Jersey Marine junction with Fabian Way
Description of Option
Replace the existing junction with a grade-separated junction, either a roundabout or signalised gyratory with an overbridge.
Advantages
Significantly improved capacity for through traffic on Fabian Way Turning traffic would no longer affect through traffic capacity
Disadvantages
High cost Possible negative environmental impact on Crymlyn Burrows SSSI
Fit with Study Objectives
1
Fit with Wales Transport Strategy Objectives
1, 2, 4, 5, 14, 15, 16
Fit with Other Options
None
Recommendations
A grade-separated junction would increase capacity at Jersey Marine. This option assists in achieving both the Study Objectives and national policy objectives.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: H6a
Option Title: Convert one lane of existing two lanes on Fabian Way to a bus lane
Description of Option
One lane in each direction to become a bus-only lane, leaving one lane in each direction open for use by other traffic.
Advantages
Improved bus priority for through routes along Fabian Way
Disadvantages
Significantly reduced capacity for general traffic on currently busy route May complicate junction operations
Fit with Study Objectives
3, 4
Fit with Wales Transport Strategy Objectives
None
Fit with Other Options
None
Recommendations
It is unlikely that enough people would switch modes to the bus to justify the significant reduction in capacity for other road users and the consequent congestion. A reduction in efficiency directly contradicts individual Study Objectives and national policy.
Develop option further: No

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: H6b
Option Title: Convert one lane of existing two lanes on Fabian Way to a high occupancy vehicle (HOV) lane
Description of Option
One lane in each direction to become a high occupancy vehicle (HOV) lane, leaving one lane in each direction open for use by other traffic. HOVs include buses and taxis.
Advantages
Improved priority for buses and high occupancy vehicles along Fabian Way Encourage increase in vehicle occupancy, and thus a reduction in vehicle numbers
Disadvantages
Reduced capacity for single occupancy vehicles Enforcement is complicated Not a common arrangement in the UK, though local examples exist near Bristol (Avon Ring Road and A370) May complicate junction operations
Fit with Study Objectives
3, 4
Fit with Wales Transport Strategy Objectives
None
Fit with Other Options
None
Recommendations
It is unlikely that enough people would car share or switch modes to the bus to justify the significant reduction in capacity for other road users and the consequent congestion. A reduction in efficiency directly contradicts individual Study Objectives and national policy.
Develop option further: No

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: H7a
Option Title: Widen Fabian Way to dual 3 lane
Description of Option
Fabian Way could be widened to 3 lanes in each direction. The widening could be undertaken largely within the highway boundary.
Advantages
Improved capacity for all vehicles
Disadvantages
High cost Possible environmental impact on Crymlyn Burrows SSSI Potential loss of footways / cycleways along Fabian Way Structures and junctions would need to be reconfigured No specific bus priority No incentive for new developments to prioritise public transport
Fit with Study Objectives
1
Fit with Wales Transport Strategy Objectives
1, 2
Fit with Other Options
None
Recommendations
The increased vehicular capacity of widening Fabian Way is unlikely to result in reduced or more predictable journey times as the Tawe Bridges present a bottleneck on the route. The potentially negative impact on pedestrians, cyclists and the local environment does not justify an increase in capacity over only the eastern part of the corridor.
Develop option further: No

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: H7b
Option Title: Widen Fabian Way to dual 3 lane and convert one lane to a bus lane
Description of Option
Fabian Way could be widened to 3 lanes in each direction, with the additional lane dedicated to buses. The widening could be undertaken largely within the highway boundary.
Advantages
Improved bus priority for through routes along Fabian Way No impact on capacity for other vehicles Improved facilities and incentive for new developments to promote green travel
Disadvantages
High cost Possible environmental impact on Crymlyn Burrows SSSI Potential loss of footways / cycleways along some sections of Fabian Way Structures and junctions would need to be reconfigured
Fit with Study Objectives
3, 4
Fit with Wales Transport Strategy Objectives
1, 4, 5, 14, 15, 16
Fit with Other Options
None
Recommendations
Although there is a potentially negative impact on pedestrians, cyclists and the local environment, this is justified by the improved bus priority.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: H7c
Option Title: Widen Fabian Way to dual 3 lane and convert one lane to a high occupancy vehicle (HOV) lane
Description of Option
Fabian Way could be widened to 3 lanes in each direction, with the additional lane to become a high occupancy vehicle (HOV) lane. The widening could be undertaken largely within the highway boundary.
Advantages
Improved priority for buses and high occupancy vehicles along Fabian Way No impact on capacity for other vehicles Encourage increase in vehicle occupancy, and thus a reduction in vehicle numbers
Disadvantages
High cost Possible environmental impact on Crymlyn Burrows SSSI Structures and junctions would need to be reconfigured, and some junctions may have complicated operation Enforcement is complicated Not a common arrangement in the UK, though local examples exist near Bristol (Avon Ring Road and A370) Potential loss of footways / cycleways along Fabian Way
Fit with Study Objectives
3, 4
Fit with Wales Transport Strategy Objectives
1, 4, 5, 14, 15, 16
Fit with Other Options
None
Recommendations
Although there is a potentially negative impact on pedestrians, cyclists and the local environment, this is justified by the improved bus priority and opportunity for car sharing.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: H7d
Option Title: Segregated busway north of Fabian Way
Description of Option
Construct a two-way segregated bus way north of Fabian Way to link the existing Park and Ride site with the developments east of Baldwins Bridge.
Advantages
<ul style="list-style-type: none"> <li>Bus services unaffected by traffic conditions</li> <li>Builds on existing bus-only facilities associated with Park and Ride</li> <li>Improved facilities and incentive for new developments to promote green travel</li> <li>Reduced traffic on Fabian Way main line, as buses follow alternative route</li> <li>May encourage mode switch to public transport</li> <li>Demonstrates local authorities' commitment to public transport</li> </ul>
Disadvantages
<ul style="list-style-type: none"> <li>High cost</li> <li>Potential impact on Crymlyn Bog SSSI and Tennant Canal</li> <li>Third party land take required</li> <li>Route would have to cross existing freight railway line to access development plots</li> <li>Significant additional infrastructure and land take required</li> </ul>
Fit with Study Objectives
1, 2, 3, 4, 8
Fit with Wales Transport Strategy Objectives
1, 3, 4, 5, 6, 7, 8, 9, 13, 14, 15, 16
Fit with Other Options
B15
Recommendations
This proposal directly addresses several of the Study Objectives and would aid the achievement of the Wales Transport Strategy outcomes.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: H8
Option Title: Remove central reservation to create fifth lane to allow tidal flow operation
Description of Option
A tidal flow lane would provide 3 lanes for the busiest direction of traffic flow, and 2 lanes in the lower flow direction. This would be controlled by overhead gantries every 200m indicating the lane usage which could be changed to match demand. A reduction in speed limit would probably be required.
Advantages
Increased capacity for busiest direction without widening beyond existing highway boundary
Disadvantages
High cost Structures and junctions would need to be reconfigured, and some junctions may have complicated operation Not a common arrangement in the UK, though local examples exist in Cardiff (North Road) and a larger example on the A38(M) in Birmingham Perceived safety issues Significant visually intrusive infrastructure The Tawe Bridges would remain a pinch point
Fit with Study Objectives
1, 5
Fit with Wales Transport Strategy Objectives
1, 2, 4, 5, 14, 15, 16
Fit with Other Options
None
Recommendations
The increased vehicular capacity of a tidal flow system is unlikely to result in reduced journey times as the Tawe Bridges present a bottleneck on the route. The significant infrastructure requirement does not justify an increase in capacity over only the eastern part of the corridor.
Develop option further: No

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: H9
Option Title: Reduce speed limit to 30mph from Jersey Marine
<p>Description of Option</p> <p>The existing speed limit along Fabian Way for westbound traffic reduces from 70mph (national speed limit) to 50mph east of the Jersey Marine junction, then to 30mph east of the Park and Ride junction. The speed limit for eastbound traffic increases from 30mph to 50mph east of the SA1 Gateway junction, then increases to 70mph (national speed limit) east of the Jersey Marine junction. The speed limit could be reduced for traffic travelling in both directions west of the Jersey Marine junction.</p>
<p>Advantages</p> <p>Introduce an 'urban-feel' to the corridor Improve conditions for non-motorised users Reduce severance caused by Fabian Way Could allow more compact junctions Reduced likelihood and severity of accidents Drivers would be aware they are entering Swansea</p>
<p>Disadvantages</p> <p>Increased journey time to City Centre and docks Greater levels of congestion due to reduced highway capacity</p>
<p>Fit with Study Objectives</p> <p>3, 4, 5, 6</p>
<p>Fit with Wales Transport Strategy Objectives</p> <p>1, 2, 4, 5, 12, 15, 16</p>
<p>Fit with Other Options</p> <p>None</p>
<p>Recommendations</p> <p>Whilst this option would not contribute towards Objectives aimed at increasing efficient use of the highway and reducing congestion, it would provide improved conditions for pedestrians, cyclists and bus users. The proposal therefore supports both the Study and national Objectives.</p>
<p>Develop option further: Yes</p>

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: H10
Option Title: Parallel development access road
Description of Option
Access to developments along the Fabian Way corridor to be provided from a development access road parallel to Fabian Way.
Advantages
Development traffic could follow the alternative route, resulting in less traffic on Fabian Way mainline Direct access to developments Clear segregation between through traffic and development traffic
Disadvantages
More complicated access to some areas May increase distance travelled by some vehicles
Fit with Study Objectives
1, 2
Fit with Wales Transport Strategy Objectives
1, 2
Fit with Other Options
H4e, H11
Recommendations
This option would improve the efficiency of the operation of the local road network by introducing a road hierarchy. It would assist in achieving the Study Objectives and the Wales Transport Strategy outcomes.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: H11
Option Title: Remove or reduce development accesses onto Fabian Way
Description of Option
Direct access from Fabian Way to some developments removed and relocated. Remaining accesses formalised.
Advantages
Reduced turning traffic on Fabian Way Improved safety due to reduced conflict between vehicle streams
Disadvantages
More complicated access to some areas May increase distance travelled by some vehicles
Fit with Study Objectives
1, 2
Fit with Wales Transport Strategy Objectives
1, 2
Fit with Other Options
H4e, H10
Recommendations
In conjunction with Option H10, this option would improve the efficiency of the operation of the local road network by introducing a road hierarchy. It would assist in achieving the Study Objectives and the Wales Transport Strategy outcomes.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: H12
Option Title: Fabian Way in a tunnel near University campus
Description of Option
The level of the carriageway to be lowered and Fabian Way as vehicle route to be covered to create a tunnel near the University campus.
Advantages
Reduces severance caused by Fabian Way, joining the University Campus with other land uses Promotes walking and cycling by reducing conflict with motorised vehicles Increases developable area
Disadvantages
High cost Difficult to construct, particularly within existing built up areas Possible environmental impact on Crymlyn Burrows SSSI May require removal of junction at Baldwins Bridge May be liable to flooding
Fit with Study Objectives
1, 3, 5, 6, 7, 8
Fit with Wales Transport Strategy Objectives
1. 4. 5. 13. 14. 15. 16
Fit with Other Options
H10, H11
Recommendations
This option would increase segregation between motorised and non-motorised users. It therefore supports both the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: H13
Option Title: Fabian Way in a tunnel between existing communities and SA1
Description of Option
The level of the carriageway to be lowered and Fabian Way as vehicle route to be covered to create a tunnel between existing communities and SA1.
Advantages
Reduces severance caused by Fabian Way, joining the community at Port Tennant/St Thomas with the development at SA1 Promotes walking and cycling by reducing conflict with motorised vehicles
Disadvantages
High cost Very difficult to construct within existing urban landscape May restrict access to SA1 due to junction operation May be liable to flooding
Fit with Study Objectives
1, 3, 5, 6, 7, 8
Fit with Wales Transport Strategy Objectives
1, 4, 13, 14, 15, 16
Fit with Other Options
H10, H11
Recommendations
This option would increase segregation between motorised and non-motorised users. It therefore supports both the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: B1
Option Title: Do minimum
Description of Option
Maintain the existing network of bus services within the study area.
Advantages
Existing bus services are all run commercially Park and Ride is well established
Disadvantages
New developments would not be served by buses Demand may outstrip capacity and dissuade people from using the bus
Fit with Study Objectives
None
Fit with Wales Transport Strategy Objectives
None
Fit with Other Options
None
Recommendations
Maintaining the existing system will not assist in achieving either the Study Objectives or national policy Objectives.
Develop option further: No

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: B2
Option Title: New bus-only bridge to south of existing Tawe Bridges
Description of Option
Construct a new bridge over the Tawe utilising the existing bridge piers immediately south of the southern bridge for use by buses only, with associated reconfiguration of the signal controlled junctions at either side. All or some westbound bus services and all eastbound bus services to SA1 could be diverted to use the new bridge.
Advantages
Improved bus priority linking SA1 and Quay Parade More direct bus route to Fabian Way (compared to gyratory option) May assist buildability of gyratory option Infrastructure investment for public transport demonstrates commitment to improving access for non-car users
Disadvantages
High cost Land issues on the eastern part of the bridge, which is currently Sainsbury's customer car park Environmental considerations
Fit with Study Objectives
1, 2, 3, 4
Fit with Wales Transport Strategy Objectives
1, 2, 14, 15, 16
Fit with Other Options
H1b, ITS3
Recommendations
A bus-only bridge would prioritise buses and assist with the construction of a gyratory on the existing bridges for other traffic. It fits with both the Study and national policy Objectives.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: B3a
Option Title: Expand existing Park and Ride site
Description of Option
Increase the number of car parking spaces from 550 at present to up to 1,100 by including the adjacent site. The existing Park and Ride bus service (no. 502) would follow the same route but will require increased service frequency or higher capacity vehicles. Consider providing Park and Ride service for eastbound journeys from the site.
Advantages
Increased capacity for Park and Ride Use of existing facilities, infrastructure and routes
Disadvantages
Existing site is located very close to City centre, so could only encourage modal shift on the western end of the corridor Existing site is being used as an informal Park and Walk site for access to the SA1 development Inappropriate location for Park and Ride eastbound as too close to City centre
Fit with Study Objectives
2, 3, 4
Fit with Wales Transport Strategy Objectives
1, 2, 4, 5, 6, 7, 8, 14, 15, 16
Fit with Other Options
B3b, B13b
Recommendations
The existing facility is well patronised with good facilities, and its expansion supports both the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: B3b
Option Title: Operate two-way shuttle working for buses across Park and Ride bridge
Description of Option
Reconfigure the western approach road to connect into the SA1 internal road network. Eastbound buses would either travel on a two-way bus lane on the southern side of Fabian Way or within the SA1 development.
Advantages
Improved bus priority for eastbound Park and Ride buses, and potentially other bus services Increase opportunity for through bus routes to service SA1 Improved efficiency of existing infrastructure
Disadvantages
Shuttle working section will reduce capacity of two way link, but should be more than sufficient for buses only Complicated configuration of bus lanes to the south of Fabian Way
Fit with Study Objectives
1, 3, 4, 6
Fit with Wales Transport Strategy Objectives
1, 2, 4, 5, 14, 15, 16
Fit with Other Options
B3a
Recommendations
The efficiency of the bridge would be improved by allowing two-way bus movements, although this may be negated by complicated bus lane arrangements on the south side of Fabian Way. This option assists in achieving several of the Study Objectives and national policy Objectives.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: B4a
Option Title: New/additional Park and Ride site on vacant land north of Amazon development
Description of Option
<p>This site is split either side of the railway freight line, so either one or both areas could be assigned for Park and Ride services. Up to 2,000 parking spaces could be provided in each part of the site.</p> <p>The route of the existing Park and Ride bus service (no. 502) could be extended eastwards to include this site, although service frequency may need to be increased or higher capacity buses utilised.</p> <p>The new site could be operated as a stand alone Park and Ride service or in conjunction with the existing site.</p> <p>Park and Ride service for eastbound journeys could also be operated from the site.</p>
Advantages
<p>Well located for traffic to and from Coed Darcy urban village</p> <p>Site is a suitable distance from Swansea City Centre to encourage use and generate a reduction in private car movements along most of the corridor</p> <p>Shows drivers they are entering Swansea</p>
Disadvantages
<p>Site is not visible from Fabian Way for incoming drivers</p> <p>Site is on the wrong side of Fabian Way for westbound traffic into Swansea City Centre</p> <p>Potential conflict with existing Park and Ride site</p> <p>May encourage people from Coed Darcy to drive along Southern Access Road rather than take the bus door-to-door</p>
Fit with Study Objectives
1, 2, 3, 4, 5
Fit with Wales Transport Strategy Objectives
1, 2, 4, 5, 14, 15, 16
Fit with Other Options
B13c
Recommendations
<p>The established Park and Ride systems in Swansea are well patronised with good facilities. Expansion of the existing system is a viable option that supports both the Study Objectives and national policy.</p>
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: B4b
Option Title: New/additional Park and Ride site within University development
Description of Option
<p>This site could provide up to 3,000 parking spaces. The route of the existing Park and Ride bus service (no. 502) could be extended eastwards and cross Fabian Way at the existing Elba Crescent junction to include this site. Service frequency may need to be increased or higher capacity buses utilised.</p> <p>The new site could be operated as a stand alone Park and Ride service or in conjunction with the existing site.</p> <p>Park and Ride service for eastbound journeys could also be operated from the site.</p>
Advantages
<p>This option could be a temporary solution before the University development is completed</p> <p>Site is located on the same side of the road as westbound traffic heading into the City Centre</p> <p>Site should be visible from Fabian Way</p> <p>Site is a suitable distance from Swansea City Centre to encourage use and generate a reduction in private car movements along most of the corridor</p> <p>Shows drivers they are entering Swansea</p>
Disadvantages
<p>Students may use the car park but not the bus service</p> <p>Buses would have to cross Fabian Way at-grade so will encounter conflict with other vehicles</p> <p>Potential conflict with existing Park and Ride site</p>
Fit with Study Objectives
1, 2, 3, 4, 5,
Fit with Wales Transport Strategy Objectives
1, 2, 4, 5, 14, 15, 16
Fit with Other Options
B13a
Recommendations
<p>The established Park and Ride systems in Swansea are well patronised with good facilities. Expansion of the existing system is a viable option that supports both the Study Objectives and national policy.</p>
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
207815  
Options Development: First Sift**

Option Reference: B4c
Option Title: Convert existing Park and Ride site to Park and Walk site serving SA1
Description of Option
The existing Park and Ride site is connected to SA1 via a non-car bridge over Fabian Way. Some drivers accessing SA1 park in the Park and Ride then walk over the bridge to SA1. This option would formalise this arrangement.
Advantages
Use of existing infrastructure Encouraging walking and cycling between the Park and Ride site and SA1
Disadvantages
Removal of the existing Park and Ride system may discourage use of alternative modes Success of this option may be limited depending on final parking provision within SA1 and differences in pricing structure
Fit with Study Objectives
1, 6
Fit with Wales Transport Strategy Objectives
4, 5, 13, 16
Fit with Other Options
B4a, B4b, B13b
Recommendations
This option would formalise observed behaviour on the existing site, but should only be implemented in conjunction with a new Park and Ride site.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
207815  
Options Development: First Sift**

Option Reference: B5
Option Title: Divert/extend existing bus services 155 and 156 to cover Coed Darcy urban village
Description of Option
Both services would utilise the proposed Southern Access Road to join Ffordd Amazon west of the Amazon development. The routes into the City Centre are dependent on other options, but could all offer longer operating periods.
Advantages
Increased connectivity for Coed Darcy urban village Potential to relocate bus services from Fabian Way to development access roads Opportunity to provide bus priority measures and dedicated busway north of Fabian Way Routes could incorporate a stop for Crymlyn Bog SSSI as they pass the eastern boundary
Disadvantages
Implementation dependant on progress of Coed Darcy development which is controlled by a private developer
Fit with Study Objectives
1, 2, 3, 4, 6, 7
Fit with Wales Transport Strategy Objectives
1, 3, 4, 5, 6, 11, 14, 15, 16
Fit with Other Options
B2, B13c, B15a, B15b, B16a, B16b
Recommendations
Diverting/extending these services is linked to the Coed Darcy urban village development. This option supports the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
207815  
Options Development: First Sift**

Option Reference: B6
Option Title: Divert existing bus service 31/32/33 (Swansea - Birchgrove) to cover SA1
Description of Option
This service could be diverted to route through the SA1 development rather than straight over the Tawe Bridges. Service enhancements could include longer operating periods.
Advantages
Access to the SA1 development would be increased Direct link between SA1 and the community of Port Tennant
Disadvantages
Limited impact on travel behaviour
Fit with Study Objectives
3, 6
Fit with Wales Transport Strategy Objectives
1, 3, 4, 5, 14, 15, 16
Fit with Other Options
B2
Recommendations
Diverting this service would increase accessibility to SA1 from existing communities north of Fabian Way. This option directly supports both the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: B7
Option Title: Divert existing regional bus services to include Fabian Way developments
Description of Option
Divert existing through routes via developments to the north of Fabian Way using Park and Ride bridge. Service enhancements could include longer operating periods.
Advantages
Opportunity to provide bus priority measures and a dedicated busway to avoid traffic congestion Increased accessibility to development plots from east and west directions
Disadvantages
Through trips would be delayed by more stops
Fit with Study Objectives
1, 2, 4, 6
Fit with Wales Transport Strategy Objectives
1, 3, 4, 5, 6, 11, 14, 15, 16
Fit with Other Options
B2, B13c, B15a, B15b, B16a, B16b
Recommendations
Diverting these services would increase accessibility to the Fabian Way developments from both an easterly and westerly direction. This option assists in achieving the Study Objectives and national policy objectives.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
207815  
Options Development: First Sift**

Option Reference: B8
Option Title: Extend bus services 82 and 82A (Bright Orange Bus (BOB)) linking existing University campus to City Centre
Description of Option
The existing BOB service is well patronised by students from the park campus. It could be extended to link the two campuses via the City Centre
Advantages
Provide a dedicated link between the campuses Opportunity for bus priority measures to encourage public transport use
Disadvantages
Likely route would follow Fabian Way so services would be affected by traffic conditions
Fit with Study Objectives
3
Fit with Wales Transport Strategy Objectives
1, 15
Fit with Other Options
B2, B14, H6a, H7a, H9
Recommendations
The popularity of the existing service indicates that an extension of the route to the new campus should be well received. The option supports the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
207815  
Options Development: First Sift**

Option Reference: B9a
Option Title: New bus routes between University and City Centre
Description of Option
New services could be implemented between the University and the City Centre, either via the SA1 development or Fabian Way.
Advantages
Increased accessibility for the University and SA1 developments
Disadvantages
Provision of additional public transport services often has a limited impact on travel behaviour
Fit with Study Objectives
1, 3, 4
Fit with Wales Transport Strategy Objectives
1, 3, 4, 5, 14, 15, 16
Fit with Other Options
B2, B7, B13a
Recommendations
New services between the University and the City Centre should be combined with BOB services to increase connectivity and network coverage from the University site. This option complies with both the Study and national policy Objectives.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
**207815**  
**Options Development: First Sift**

Option Reference: B9b
Option Title: New light rail service between University and City Centre
Description of Option
A new light rail service between the University and the City Centre, either via the SA1 development or Fabian Way. The link would be segregated from general traffic to avoid congestion.
Advantages
Increased accessibility for the University and SA1 developments Positive public perception of light rail may encourage modal switch, thereby reducing general traffic on Fabian Way Shows drivers they are entering Swansea
Disadvantages
Significant visually intrusive infrastructure required High cost Third party land take may be required
Fit with Study Objectives
1, 3, 4, 5
Fit with Wales Transport Strategy Objectives
1, 3, 4, 5, 14, 15, 16
Fit with Other Options
B2, B7, B13a
Recommendations
A light rail service between the University and the city centre would encourage modal switch and therefore reduce congestion. This option supports the Study Objectives and the Wales Transport Strategy outcomes.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: B10a
Option Title: New bus routes between Coed Darcy and City Centre
Description of Option
New services could be implemented between Coed Darcy urban village and the City Centre, either via the new Southern Access Road or the existing B4290.
Advantages
Increased accessibility for Coed Darcy urban village New services could improve access to Crymlyn Bog SSSI by including a stop adjacent to the eastern boundary
Disadvantages
Provision of additional public transport services often has a limited impact on travel behaviour
Fit with Study Objectives
1, 3, 4, 6, 7
Fit with Wales Transport Strategy Objectives
1, 3, 4, 5, 14, 15, 16
Fit with Other Options
B5
Recommendations
New services between Coed Darcy and the city centre should be combined with proposals for diverting and/or extending existing services to avoid over-provision. This option supports the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
**207815**  
**Options Development: First Sift**

Option Reference: B10b
Option Title: New light rail service between Coed Darcy and City Centre
Description of Option
A new light rail service could be implemented between Coed Darcy urban village and the City Centre, either via the new Southern Access Road or existing B4290.
Advantages
Increased accessibility for Coed Darcy urban village New services could improve access to Crymlyn Bog SSSI by including a stop adjacent to the eastern boundary Positive public perception of light rail may encourage modal switch, thereby reducing general traffic on Fabian Way Shows drivers they are entering Swansea
Disadvantages
Significant visually intrusive infrastructure required High cost Third party land take may be required
Fit with Study Objectives
1, 3, 4, 5, 6, 7
Fit with Wales Transport Strategy Objectives
1, 3, 4, 5, 14, 15, 16
Fit with Other Options
B5
Recommendations
A light rail service between Coed Darcy urban village and the city centre would encourage modal switch and therefore reduce congestion. This option supports the Study Objectives and the Wales Transport Strategy outcomes.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: B11a
Option Title: New shuttle service between SA1 and City Centre (potentially extension of Swansea Metro)
Description of Option
New bus service between the City Centre and the SA1 development along the Fabian Way mainline.
Advantages
Direct public transport link between the SA1 development and the City Centre
Disadvantages
Issues with acquisition of third party land Provision of additional public transport services often only has a limited impact on travel behaviour Service would not cover new developments to the east of the SA1 development
Fit with Study Objectives
1, 3, 4, 5
Fit with Wales Transport Strategy Objectives
1, 4, 12, 16
Fit with Other Options
None
Recommendations
New services between SA1 and the City Centre should be combined with proposals to extend and/or divert existing services to avoid over-provision. Improved public transport supports the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: B11b
Option Title: New light rail service between SA1 and City Centre (potentially extension of Swansea Metro)
Description of Option
A new light rail service linking the SA1 development and the City Centre along the Fabian Way main line.
Advantages
Direct public transport link between the SA1 development and the City Centre Positive public perception of light rail may encourage modal switch, thereby reducing general traffic on Fabian Way Shows drivers they are entering Swansea
Disadvantages
Issues with acquisition of third party land Significant visually intrusive infrastructure required High cost Service would not cover new developments to the east of SA1
Fit with Study Objectives
1, 3, 4, 5
Fit with Wales Transport Strategy Objectives
1, 4, 12, 16
Fit with Other Options
None
Recommendations
A light rail service between the SA1 development and the City Centre would encourage modal switch and therefore reduce congestion. This option supports the Study Objectives and the Wales Transport Strategy outcomes.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: B12a
Option Title: New shuttle service between University, Science Park Clusters, SA1 and City Centre (potentially extension of Swansea Metro)
Description of Option
New bus service between the City Centre, the SA1 development and the University along either the Fabian Way mainline or via a dedicated bus way to the north of Fabian Way.
Advantages
Improved accessibility to employment areas.
Disadvantages
Provision of additional public transport services often only has a limited impact on travel behaviour
Fit with Study Objectives
1, 3, 4, 5
Fit with Wales Transport Strategy Objectives
1, 2, 3, 4, 6, 16
Fit with Other Options
H7d
Recommendations
New services between the University, the SA1 development and the City Centre should be combined with proposals to extend and/or divert existing services to avoid over-provision. This option promotes public transport therefore supports both the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: B12b
Option Title: New light rail service between the University, Science Park Clusters, SA1 and City Centre
Description of Option
A new light rail service between the City Centre, the SA1 development and the University along either the Fabian Way main line or a dedicated busway to the north of Fabian Way.
Advantages
Key service route to serve most employment areas along Fabian Way Positive public perception of light rail may encourage modal switch, thereby reducing general traffic on Fabian Way Shows drivers they are entering Swansea
Disadvantages
Provision of additional public transport services often only has a limited impact on travel behaviour Issues with acquisition of third party land Significant visually intrusive infrastructure required High cost
Fit with Study Objectives
1, 3, 4, 5
Fit with Wales Transport Strategy Objectives
1, 2, 3, 4, 6, 16
Fit with Other Options
H7d
Recommendations
A light rail service between the University and the City Centre would encourage modal switch and therefore reduce congestion. This option supports the Study Objectives and the Wales Transport Strategy outcomes.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: B13a
Option Title: Transport hub providing high quality interchange point adjacent to/within University site
Description of Option
A transport hub will offer commuters a convenient point to interchange between local and regional buses. Good bicycle storage facilities can encourage more commuters to use regional buses to further destinations such as Bridgend and Cardiff.
Advantages
Located close to densely populated University site Within walking distance of most existing/proposed developments north of Fabian Way Little diversion off mainline for region services
Disadvantages
Potential third party land issues No pedestrian access from the SA1 development
Fit with Study Objectives
3, 4, 5
Fit with Wales Transport Strategy Objectives
1, 3, 4, 5, 12, 13, 15
Fit with Other Options
B7, B8, B9a, B9b, B12a, B12b
Recommendations
A quality transport hub within the Fabian Way corridor will help the site to become a destination in itself. Promotion of public transport supports the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: B13b
Option Title: Transport hub providing high quality interchange point at existing Park and Ride site
Description of Option
A transport hub will offer commuters a convenient point to interchange between local and regional buses. Good bicycle storage facilities can encourage more commuters to use regional buses to further destinations such as Bridgend and Cardiff.
Advantages
Build on success of established Park and Ride scheme Within walking distance of SA1 development and Port Tennant/St Thomas communities Little diversion off mainline for regional services
Disadvantages
Located too near to City Centre to enable pedestrian access from new developments to the centre and east of the corridor Preferable to keep Park and Ride services separate from main bus services to encourage patronage of Park and Ride
Fit with Study Objectives
3, 4, 5
Fit with Wales Transport Strategy Objectives
1, 3, 4, 5, 12, 13
Fit with Other Options
B3a, B4c, B6, B7, B11a, B11b
Recommendations
A quality transport hub within the Fabian Way corridor will help the site to become a destination in itself. Promotion of public transport supports the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: B13c
Option Title: Transport hub providing high quality interchange point at new Park and Ride site
Description of Option
A transport hub will offer commuters a convenient point to interchange between local and regional buses. Good bicycle storage facilities can encourage more commuters to use regional buses to further destinations such as Bridgend and Cardiff.
Advantages
Located within walking distance of most of the existing and new developments to the centre and east of the corridor Ideal location for bus services linking Coed Darcy urban village and the City Centre
Disadvantages
Preferable to keep Park and Ride facilities separate from main bus services to encourage use of Park and Ride Regional services would have to take a significant diversion off the mainline to access the hub No pedestrian access from the SA1 development
Fit with Study Objectives
3, 4, 5
Fit with Wales Transport Strategy Objectives
1, 3, 4, 5, 12, 13
Fit with Other Options
B7, B10a, B10b, B12a, B12b
Recommendations
A quality transport hub within the Fabian Way corridor will help the site to become a destination in itself. Promotion of public transport supports the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: B14
Option Title: Bus priority measures for University and Science Park Cluster junctions on Fabian Way
Description of Option Provide bus priority measures at the University second campus and Science Park junctions with Fabian Way. This would include widening the approaches to these junctions to create an additional bus-only lane allowing buses to bypass any queuing traffic.
Advantages Delays to buses minimised, thereby increasing the efficiency of bus services
Disadvantages Difficult to combine with walking and cycling provision Capacity for general traffic reduced Potential requirement for additional land take Limited impact on travel behaviour
Fit with Study Objectives 1, 3, 4, 6, 8
Fit with Wales Transport Strategy Objectives 1, 4, 6, 7, 8, 9
Fit with Other Options B7, B8, B9a, B9b, B12a, B12b
Recommendations Bus priority measures can speed the movement of buses through junctions, thereby reducing journey times. Prioritising public transport assists in achieving both the Study Objectives and the Wales Transport Strategy outcomes.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: B15
Option Title: Two-way bus-only access north of Baldwins Bridge between Port Tennant and rail sidings
Description of Option
New bus gate on eastern end of Wern Fawr Road to enable buses to access developments on the northern side of the Fabian Way directly from the existing Park and Ride site. Access to the rail sidings for Network Rail/DB Schenker to be ensured.
Advantages
Provides more direct route and shorter journey times than by car
Disadvantages
Limited impact on travel behaviour as a stand alone measure
Fit with Study Objectives
1, 3, 4, 6, 8
Fit with Wales Transport Strategy Objectives
1, 3, 4, 5, 14, 15, 16
Fit with Other Options
H7d, B3a, B3b, B4a, B5, B10, B12, B13b, B13c
Recommendations
Bus priority measures make bus travel more attractive, thereby supporting both the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: B16a
Option Title: Improved bus stops: better facilities such as seating and lighting
Description of Option
Provision of better seating, lighting and easy to read timetable information at all bus stops along Fabian Way.
Advantages
High quality stops can improve the image of bus services and encourage modal switch
Disadvantages
Limited impact on travel behaviour as a stand alone measure
Fit with Study Objectives
1, 3, 6
Fit with Wales Transport Strategy Objectives
1, 3, 4, 12
Fit with Other Options
B5, B7, B8, B9a, B10a, B11a, B12a
Recommendations
Increasing the perceived attractiveness of bus use supports the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: B16b
Option Title: Improved bus stops: digital real-time passenger information
Description of Option
Provision of digital real-time passenger information at all key bus stops within the corridor
Advantages
High quality stops can improve the image of bus services and encourage modal switch Improved information regarding waiting time for the next bus
Disadvantages
Cost of implementation Limited impact on travel behaviour as a stand alone measure Only suitable for high frequency routes
Fit with Study Objectives
1, 3
Fit with Wales Transport Strategy Objectives
1
Fit with Other Options
B5, B7, B8, B9a, B10a, B11a, B12a
Recommendations
Increasing the perceived attractiveness of bus use supports the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: B17a
Option Title: Personal rapid transit loop within Fabian Way developments
Description of Option
A personal rapid transport (PRT) system with an on-demand service within the Fabian Way corridor.
Advantages
Limited waiting time due to on-demand facility No additional stops between origin and destination System selects most direct route Positive public perception of new technology
Disadvantages
High cost Large amount of visually intrusive infrastructure Third party land take issues Increased congestion for general traffic if on-road system No links beyond Fabian Way, interchange required
Fit with Study Objectives
1, 2, 3, 4, 5, 8
Fit with Wales Transport Strategy Objectives
1, 4, 7, 8, 9, 10
Fit with Other Options
B13a, B13b, B13c, B15
Recommendations
PRT could provide a more bespoke public transport option than buses or light rail, although it would be significantly more expensive to implement. This option supports both the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
**207815**  
**Options Development: First Sift**

Option Reference: B17b
Option Title: Personal rapid transit loop linking Swansea City Centre and Neath, through Fabian Way developments
Description of Option
A personal rapid transit (PRT) system with an on-demand service linking Swansea and Neath via the Fabian Way developments.
Advantages
Limited waiting time due to on-demand facility No additional stops between origin and destination System selects most direct route Positive public perception of new technology
Disadvantages
Very high cost Large amount of visually intrusive infrastructure Third party land take issues Increased congestion for general traffic if on-road system
Fit with Study Objectives
1, 2, 3, 4, 5, 8
Fit with Wales Transport Strategy Objectives
1, 3, 4, 7, 8, 9, 10, 15, 16
Fit with Other Options
B13a, B13b, B13c, B15
Recommendations
PRT could provide a more bespoke public transport option than buses or light rail, although it would be significantly more expensive to implement. This option supports both the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: W1
Option Title: Do minimum
Description of Option
Maintain the existing network of footways, cycleways and bridlepaths with the study area.
Advantages
Low cost No requirement for additional land take
Disadvantages
New developments may not be accessible to non-motorised users
Fit with Study Objectives
None
Fit with Wales Transport Strategy Objectives
None
Fit with Other Options
None
Recommendations
Maintaining the existing system will not assist in achieving either the Study Objectives or national policy objectives.
Develop option further: No

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: W2a
Option Title: Phase 1: extend canal shared route from Celtic Trail NCN Route 4 to Jersey Marine
Description of Option
This proposed extension would continue from the existing off-road Celtic Trail Route 4. The route would follow the canal on the south side as far as the west side of the Jersey Marine canal bridge. The extension of this path has been proposed by Sustrans and NPT as part of the Wales Coastal Path.
Advantages
The existing route ends abruptly; extending it to Jersey Marine would provide a through route. Provide links to green areas within the site. Route is generally flat
Disadvantages
The land is privately owned, and NPT's consultation with the owners has indicated there are concerns regarding safety.
Fit with Study Objectives
3, 7, 8
Fit with Wales Transport Strategy Objectives
3, 6, 7, 8, 9, 13
Fit with Other Options
C2, C3, C4, C5, W2b, W3a, W3b, B4a, B13c
Recommendations
This option would extend an existing route and provide increased access to green areas. It supports the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: W2b
Option Title: Phase 2: extend canal shared route from Celtic Trail NCN Route 4 to the M4
Description of Option
<p>This proposed extension would continue the existing off-road Celtic Trail Route 4 along the south side of the canal as far as the Jersey Marine bridge, when it would cross to the northern side. The route would then continue to the eastern side of the M4, when it would leave the canal and follow the route over the railway line (bridge already present) to join the M4 cycle route.</p> <p>The first part of this route is described as Option W2a.</p>
Advantages
<p>The existing route ends abruptly.</p> <p>Link to the Celtic Trail at the M4 to provide a continuous loop.</p> <p>Increased access to green areas within the site.</p> <p>Route is generally flat.</p>
Disadvantages
<p>The section north of the canal is adjacent to the Crymlyn Bog SSSI, which may limit opportunities for widening</p> <p>Maintenance would be costly due to width restrictions and the presence of the SSSI</p> <p>The land is privately owned, and NPT's consultations with the owners has indicated there are concerns regarding safety.</p>
Fit with Study Objectives
3, 7, 8
Fit with Wales Transport Strategy Objectives
3, 6, 7, 8, 9, 13
Fit with Other Options
C2, C3, C4, C5, W2a, W3a, W3b, B4a, B13c
Recommendations
<p>This option would link two existing off-road cycle routes and footways and increase access to green areas. It assists in achieving both the Study Objectives and national policy Objectives.</p>
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: W2c
Option Title: New footway/cycleway along existing railway from proposed Celtic Trail NCN Route 4 to the M4
Description of Option
Improve the existing cycleway and footpath alongside the railway freight line to provide a shared route.
Advantages
This route would link the existing NCN Route 4 adjacent to the M4 to a proposed section of NCN 4 behind the Amazon development
Disadvantages
May be safety issues due to proximity of live railway line.
Fit with Study Objectives
3, 7, 8
Fit with Wales Transport Strategy Objectives
3. 6. 7. 8. 9. 13
Fit with Other Options
R5, W12, W11,
Recommendations
This option would link two existing off-road cycle routes and footways and increase access to green areas. It assists in achieving both the Study Objectives and national policy Objectives.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: W3a
Option Title: New on-road cycle route linking Coed Darcy urban village and Fabian Way along proposed Southern Access Road
Description of Option
Cycleway route from Coed Darcy to Fabian Way to link the proposed community to the City Centre. The route would follow the proposed Southern Access Road to the NCN Route 4 adjacent to the Tennant Canal.
Advantages
Low cost. Increased access to green areas and Crymlyn Bog SSSI
Disadvantages
Coed Darcy to Tawe Bridge is approximately 5.5 km, greater than a reasonable distance to cycle. Agreement of the route with the proposed Coed Darcy Southern Access Road across the Crymlyn Bog SSSI has been obtained, but the restricted corridor width may preclude a cycleway in both directions at this pinch point.
Fit with Study Objectives
3, 7, 8
Fit with Wales Transport Strategy Objectives
3, 6, 7, 8, 9, 13
Fit with Other Options
W3b, W2a, W2b, W12, B10a, B5, B10b, B13c, B4a
Recommendations
This option would provide a key link for cyclists between Coed Darcy and the Fabian Way developments. It supports both the Study Objectives and national policy.
Develop option further: Yes

## Fabian Way Corridor Transport Assessment

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### Options Development: First Sift

Option Reference: W3b
Option Title: New off-road pedestrian and cycle route linking Coed Darcy urban village and Fabian Way along the eastern side of Crymlyn Bog
Description of Option
Off-road pedestrian and cycle leisure route linking Coed Darcy to the eastern side of the existing community of Port Tennant via the eastern side of the Crymlyn Bog SSSI and the Tir John landfill site. This route would have a link to Option W3a.
Advantages
Increased access to green areas, including the Crymlyn Bog SSSI Off-road route generates no conflict with other traffic streams Level gradient
Disadvantages
Bridge crossing of Glan-Y-Wern canal required Potential negative impact on the Crymlyn Bog SSSI as the route passes through short sections
Fit with Study Objectives
3, 7, 8
Fit with Wales Transport Strategy Objectives
3, 6, 7, 8, 9, 13
Fit with Other Options
W3a, W2a, W2b, W3c, W12
Recommendations
Although there may be a slight negative impact on the Crymlyn Bog SSSI, this option would open up the area to leisure walkers and cyclists. This option assists the achievement of both the Study Objectives and national policy objectives.
Develop option further: Yes

## Fabian Way Corridor Transport Assessment

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### Options Development: First Sift

Option Reference: W3c
Option Title: New off-road pedestrian and cycle route linking Coed Darcy urban village and Port Tennant along the western side of Crymlyn Bog
Description of Option
Off-road pedestrian and cycle leisure route linking Coed Darcy to the eastern side of the existing community of Port Tennant via the western side of the Crymlyn Bog SSSI.
Advantages
Increased access to green areas, including the Crymlyn Bog SSSI Off-road route generates no conflict with other traffic streams Level gradient No bridge crossing of the Glan-Y-Wern canal required
Disadvantages
Potential negative impact on the Crymlyn Bog SSSI as the route crosses a longer wetland area than option W3b
Fit with Study Objectives
3, 7, 8
Fit with Wales Transport Strategy Objectives
3, 6, 7, 8, 9, 13
Fit with Other Options
W3b, W18
Recommendations
Although there may be a slight negative impact on the Crymlyn Bog SSSI, this option would open up the area to leisure walkers and cyclists. This option assists the achievement of both the Study Objectives and national policy objectives.
Develop option further: Yes

# Fabian Way Corridor Transport Assessment

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## Options Development: First Sift

Option Reference: W4a
Option Title: New off-road pedestrian and cycle route from Jersey Marine junction with Fabian Way through Crymlyn Burrows (Wales Coastal Path proposal)
Description of Option
Off-road pedestrian footpath and cycleway linking the Jersey Marine junction on Fabian Way with NCN Route 4 beneath the M4 junction 42 off-slip.
Advantages
Increase access to green areas, including the Crymlyn Burrows SSSI Off-road route generates no conflict with other traffic streams Allows leisure cyclists/walkers to follow a more scenic loop to NCN 4 Route has been proposed by NPT for extending the Wales Coastal Path
Disadvantages
The first section of the route is subject to tidal flooding Potential negative impact on the Crymlyn Burrows SSSI as the route passes through the eastern section
Fit with Study Objectives
5, 7, 8
Fit with Wales Transport Strategy Objectives
3, 6, 7, 8, 9, 13
Fit with Other Options
W4b, W11
Recommendations
This option provides access to Crymlyn Burrows SSSI for leisure walkers and cyclists. It supports the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: W4b
Option Title: New off-road pedestrian and cycle route from Jersey Marine village through golf course (Wales Coastal Path proposal)
Description of Option
Off-road pedestrian footpath and cycleway through the existing golf course and joining the on-road footpath into Jersey Marine.
Advantages
Increase access to green areas Off-road route operates no conflict with other traffic streams Allows leisure cyclists/walkers to follow a more scenic loop to NCN 4 Route has been proposed by NPT for extending the Wales Coastal Path
Disadvantages
Potential conflict with golf activity
Fit with Study Objectives
3, 7, 8,
Fit with Wales Transport Strategy Objectives
3, 6, 7, 8, 9, 13
Fit with Other Options
W4a, W11
Recommendations
This option provides access to Crymlyn Burrows SSSI for leisure walkers and cyclists. It supports the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
**207815**  
**Options Development: First Sift**

Option Reference: W5a
Option Title: New on-road cycle route through SA1 north of Prince of Wales Dock linking to the Sail Bridge
Description of Option
On-road cycle route between Port Tennant junction on Fabian Way via the SA1 development to the Sail Bridge over the Afon Tawe.
Advantages
Cyclists do not have to travel along Fabian Way between Port Tennant and the Afon Tawe Route will be convenient for accessing many of the SA1 development plots.
Disadvantages
Route would have to pass through an active area of Swansea Docks, for which permission may not be gained due to security risks.
Fit with Study Objectives
3, 7, 8
Fit with Wales Transport Strategy Objectives
3, 6, 7, 8, 9, 13
Fit with Other Options
S5, W8, W5b, W14, B6, B11a, B11b, B12a, B12b
Recommendations
This option would provide a quieter alternative to the western part of Fabian Way for cyclists. It assists in achieving both the Study Objectives and national policy objectives.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: W5b
Option Title: New on-road cycle route through SA1 south of Prince of Wales Dock linking to the Sail Bridge
Description of Option
On-road cycle route between Port Tennant junction on Fabian Way via the SA1 development to the Sail Bridge over the Afon Tawe
Advantages
Cyclists do not have to travel along Fabian Way between Port Tennant and the Afon Tawe Route will be convenient for accessing many of the SA1 development plots.
Disadvantages
Route would have to pass through an active area of Swansea Docks, for which permission may not be gained due to security risks.
Fit with Study Objectives
3, 7, 8
Fit with Wales Transport Strategy Objectives
3, 6, 7, 8, 9, 13
Fit with Other Options
S5, W8, W5a, W14, B6, B11a, B11b, B12a, B12b
Recommendations
This option would provide a quieter alternative to the western part of Fabian Way for cyclists. It assists in achieving both the Study Objectives and national policy objectives.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: W6
Option Title: New pedestrian and cycle route through University site
Description of Option
Extension of NCN Route 4 Celtic Trail route into and through the second University campus as far as Baldwins Bridge.
Advantages
Opportunity to promote alternative modes of travel to staff, students and visitors Route should be convenient for many locations within the campus
Disadvantages
The layout proposals for the second campus are still being finalised, so the exact route cannot be confirmed
Fit with Study Objectives
3, 7, 8
Fit with Wales Transport Strategy Objectives
3, 6, 7, 8, 9, 13
Fit with Other Options
S5, W8, W7, B13a, B4b, B8, B5, B9a, B9b, B12a, B12b, B11a, B11b
Recommendations
This option will include the University in the wider pedestrian and cycle route network. It supports both the Study and national policy objectives.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
**207815**  
**Options Development: First Sift**

Option Reference: W7
Option Title: Provide continuous pedestrian and cycle facilities along both sides of Fabian Way
Description of Option
The existing pedestrian and cycle routes along Fabian Way are discontinuous. Ensure any gaps in the routes are linked and crossing facilities are adequate.
Advantages
Upgrade of existing system, so current users will benefit immediately Route is highly visible to traffic on Fabian Way, so good facilities may encourage new users
Disadvantages
Traffic passing at speed adjacent to the route can be intimidating
Fit with Study Objectives
3, 7, 8
Fit with Wales Transport Strategy Objectives
3, 6, 7, 8, 9, 13
Fit with Other Options
H9, W6, W8, W11, B8
Recommendations
Improving the existing routes along Fabian Way will provide continuous facilities. This option conforms to the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
**207815**  
**Options Development: First Sift**

Option Reference: W8
Option Title: New pedestrian and cycle route linking SA1 and the University
Description of Option
A new pedestrian and cycle route following the existing privately owned Swansea Docks road behind the waste water treatment works and north of Kings Dock to meet the SA1 development on-road cycle network.
Advantages
Link between the University and SA1 without the need to access Fabian Way Opportunity to promote alternative modes to University students, staff and visitors
Disadvantages
Route would have to pass through an active area of Swansea Docks, for which permission may not be gained due to security risks The distance between SA1 and the University campus is approximately 3.2km, longer than the maximum recommended reasonable walking distance A bridge would be required to cross the route of the canal link to the marina
Fit with Study Objectives
3, 7, 8
Fit with Wales Transport Strategy Objectives
3, 6, 7, 8, 9, 13
Fit with Other Options
W5a, W5b, W6, S5, B11a, B11b
Recommendations
This route would link two new developments without the need for cyclists and pedestrians to access Fabian Way. It supports the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
207815  
Options Development: First Sift**

Option Reference: W9a
Option Title: Extend on-road cycleway on the B4290 north of Jersey Marine roundabout on Fabian Way through Jersey Marine village as far as the picnic site
Description of Option
The existing on-road cycleway installed as part of the Jersey Marine junction improvements undertaken to facilitate the Amazon development stops before the village of Jersey Marine. This route could be extended as far as the picnic site for leisure purposes.
Advantages
Improving and extending existing infrastructure to encourage more use Providing link to picnic site as a leisure destination
Disadvantages
Limited road width within Jersey Marine village may limit proposals.
Fit with Study Objectives
3, 7, 8
Fit with Wales Transport Strategy Objectives
3, 6, 7, 8, 9, 13
Fit with Other Options
W2a, W2b, W9b, W10
Recommendations
This option would provide an additional leisure route based on upgrading and extending existing infrastructure. It assists in achieving the Study Objectives and supports national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
**207815**  
**Options Development: First Sift**

Option Reference: W9b
Option Title: Extend on-road cycleway on the B4290 north of Jersey Marine roundabout on Fabian Way through Jersey Marine village as far as the M4
Description of Option
The existing on-road cycleway installed as part of the Jersey Marine junction improvements undertaken to facilitate the Amazon development stops before the village of Jersey Marine. This route could be extended as far as the cycle route along the M4 via the Coed Darcy urban village.
Advantages
Potential for use by commuters from Coed Darcy to the Fabian Way development Improving and extending infrastructure to encourage more use
Disadvantages
Limited road width within Jersey Marine village may limit proposals.
Fit with Study Objectives
3, 7, 8
Fit with Wales Transport Strategy Objectives
3, 6, 7, 8, 9, 13
Fit with Other Options
W2a, W2b, W3, W9a, W10, S5
Recommendations
This option could provide an additional commuter route from Coed Darcy by extending and improving existing infrastructure. It supports the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
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Option Reference: W10
Option Title: Extend on-road cycleway north of Jersey Marine roundabout on Fabian Way along the minor unclassified road through Jersey Marine village as far as Llandarcy
Description of Option
The existing on-road cycleway installed as part of the Jersey Marine junction improvements undertaken to facilitate the Amazon development stops before the village of Jersey Marine. This route could be extended as far as Llandarcy.
Advantages
Potential for use by commuters from Llandarcy to the Fabian Way development Improving and extending infrastructure to encourage more use
Disadvantages
Limited road width within Jersey Marine village may limit proposals.
Fit with Study Objectives
3, 7, 8
Fit with Wales Transport Strategy Objectives
3, 6, 7, 8, 9, 13
Fit with Other Options
W2a, W2b, W3, W9a, W9b
Recommendations
This option could provide an additional commuter route from Llandarcy by extending and improving existing infrastructure. It supports the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: W11
Option Title: Extend footway and cycleway west along Amazon Road
Description of Option
This route will go from the Amazon roundabout, around the back of the development and join either the existing cycle route on Fabian Way; the proposed bus link route; or connect to the University cycle and footpath network beneath Baldwins Bridge.
Advantages
Alternative route to the on-road NCN Route 4 along Fabian Way Improved access for Amazon employees Potential to connect with existing cycle network and proposed cycle and footpath networks (W6 and W8)
Disadvantages
Potentially complicated links at western end
Fit with Study Objectives
3, 8
Fit with Wales Transport Strategy Objectives
3, 6, 7, 8, 9, 13
Fit with Other Options
W6, W8, W12, W7,B7, B13c, B5, B10a, B10b
Recommendations
This route would run alongside the access road to the rear of the Amazon development. A section of cycleway and footpath has already been constructed just off Jersey Marine roundabout into the Amazon development. This option would assist in achieving both the Study Objectives and the Wales Transport Strategy outcomes.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: W12
Option Title: Bridlepath, link from canal shared route to Pant-y-Sais stables
Description of Option
The route will follow Sustrans' proposed cycleway southeast from the Tennant Canal, but will continue across the B4290 into Pant-y-Sais stables instead of continuing to Jersey Marine roundabout. This route will cross the railway using the proposed Coed Darcy Southern Access Road bridge which will contain separate paths for each mode. A shared path from Jersey Marine roundabout to the rear of Amazon has recently been constructed as a separate footpath and cycleway. A Pegasus crossing would be needed over the B4290 for access to the stables.
Advantages
Improved access for equestrians to the Pant-y-Sais stables
Disadvantages
Consultation and agreement would be needed for the separate bridlepath, cycleway and footpath over the Coed Darcy Southern Access Road bridge. A sufficient width would be needed for these paths over the bridge.
Fit with Study Objectives
3, 6, 7, 8
Fit with Wales Transport Strategy Objectives
3, 6, 7, 8, 9, 13
Fit with Other Options
W11, W2a, W2b, W3a, W3b, B7, B13c,
Recommendations
This bridlepath allows good access to the stables, thereby promoting alternative modes of travel. This option complies with the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: W13
Option Title: Moving walks network to link University and Science Park Clusters to transport hub
Description of Option
A series of moving walkways would be situated between the University site and the Science Park Clusters and the proposed transport hub.
Advantages
Modern and attractive Improve the image of Fabian Way Improve accessibility between the University clusters and University site Safer pedestrian option Sheltered mode of transport
Disadvantages
High cost of implementation and maintenance Limited experience of this technology in the UK in an outdoors environment
Fit with Study Objectives
3, 6, 8
Fit with Wales Transport Strategy Objectives
3, 6, 7, 8, 9
Fit with Other Options
W6, W8, B13a
Recommendations
Moving walkways could link bus stops and key development access points, thereby encouraging pedestrian activity and supporting both the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: W14
Option Title: New cycleway over new bus-only bridge to the south of the existing Tawe Bridges
Description of Option
On-road Celtic Trail Route 4 would carry on over a new bus-only bridge adjacent to the southern Tawe Bridge to avoid diverting to the Sail Bridge.
Advantages
A more direct cycle route into the City Centre from Fabian Way
Disadvantages
Cyclists may prefer the traffic-free route through SA1 and over the Sail Bridge rather than along the Fabian Way mainline
Fit with Study Objectives
1, 2, 3, 4, 5, 8
Fit with Wales Transport Strategy Objectives
3, 6, 7, 8, 9, 13
Fit with Other Options
W5a, W5b,B2
Recommendations
This Option would facilitate a direct route into the City Centre and could be easily implemented next to the bus lanes. This option supports both the Study and national Objectives.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: W15
Option Title: New smooth gradient pedestrian and cycle bridge located between the Tawe Bridges and the SA1 crossing
Description of Option
The bridge would loop over the road diagonally and join the existing off-road cycle path between SA1 and Fabian Way.
Advantages
Allows access for people with disabilities, cyclists and push chairs People would be more likely to use this bridge to access SA1 than a signalised crossing Safest option for crossing the road Potentially an iconic gateway to Swansea from the east
Disadvantages
High cost Limited working space during construction due to built up nature of area
Fit with Study Objectives
3, 5, 6, 8
Fit with Wales Transport Strategy Objectives
3, 6, 7, 8, 9, 13
Fit with Other Options
W18, W5a
Recommendations
This bridge would have the potential to form an iconic gateway to Swansea from the east whilst reducing community severance. It therefore supports both the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: W16
Option Title: New at-grade pedestrian/cycle crossing between SA1 junction and existing footbridge
Description of Option
Pedestrian and cycle crossing located between SA1 junction and first footbridge
Advantages
Improved permeability to the residents of Port Tennant Accessible to all users as no change in level
Disadvantages
Already two bridges to the east of this proposed crossing Would cause delay to through traffic
Fit with Study Objectives
3, 6, 8
Fit with Wales Transport Strategy Objectives
3, 6, 7, 8, 9, 13
Fit with Other Options
W5a
Recommendations
This option would assist in reducing community severance, and therefore complies with national policy and the Study Objectives.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: W17
Option Title: Upgrade existing footbridge west of Park and Ride junction
Description of Option
The existing footbridge is substandard with only stair access
Advantages
Improvements will attract more use, increasing permeability across the road Making best use of established crossing point
Disadvantages
May be insufficient land available to construct ramped accesses
Fit with Study Objectives
3, 6, 8
Fit with Wales Transport Strategy Objectives
3, 6, 7, 8, 9, 13
Fit with Other Options
W5a
Recommendations
This option would make the best use of an established crossing point by improving the facilities present. It is in line with the Study and national Objectives.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: W18
Option Title: New on-road cycle route through the residential areas of Port Tennant and St Thomas
Description of Option
This network would start in the north east area of Port Tennant, following Dan-y-graig Road to join Port Tennant Road and onto Fabian Way. Links to this main section include parts of the following: Grenfell Park Road, St Leger Crescent, Delhi St, Wallace Road, Margaret Terrace, Longford Crescent and St Illtyds Crescent.
Advantages
Improved permeability within residential area In some sections there is enough space to have an off-road cycleway on a shared footpath
Disadvantages
Most sections would be on-road
Fit with Study Objectives
3, 5, 6, 8
Fit with Wales Transport Strategy Objectives
3, 6, 7, 8, 9, 13
Fit with Other Options
W3c
Recommendations
This cycleway would link bus stops and NCN Route 4 allowing access to the wider network. This option supports both national policy and the Study Objectives.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: R1
Option Title: Do minimum
Description of Option
Maintain the current freight line comprising 4 miles of single track railway from Jersey Marine Junction South to Swansea Docks and the Swansea Burrows sidings to the south of the single line. These are an array of 10 sidings plus reception lines.
Advantages
Low cost Existing use of the line remains unaffected
Disadvantages
Current infrastructure is not being used to its full capacity Limited control over rail freight operated by private companies
Fit with Study Objectives
None
Fit with Wales Transport Strategy Objectives
None
Fit with Other Options
None
Recommendations
The option offers no improvement on the existing situation so does not support either the Study Objectives or national policy.
Develop option further: No

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: R2
Option Title: Maximise use as a freight line
Description of Option The allocated number of train paths per day is not being used at present on the Neath and Brecon branch line or the Vale of Neath branch line. There may also be further capacity for train paths from east or west along the South Wales main line.
Advantages Low cost No infrastructure improvements required to increase efficiency Additional road freight along Fabian Way could be avoided
Disadvantages Limited control over rail freight operated by private companies
Fit with Study Objectives 8
Fit with Wales Transport Strategy Objectives 2, 7, 8, 9, 10, 11
Fit with Other Options All
Recommendations This option would make better use of existing facilities and potentially reduce growth in road freight along the corridor. It supports both the Study and national Objectives.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: R3
Option Title: Convert to passenger line
Description of Option
The freight line could be converted to a passenger line to provide a heavy rail link to the Fabian Way area. It is likely to require additional infrastructure such as passing loops or lengths of double track.
Advantages
Additional public transport option for the Fabian Way developments Improved regional links to the east
Disadvantages
Loss of freight services to Swansea Docks No direct rail link to Swansea High Street Station, trains would have to travel via Llanelli Cost of improvements to existing infrastructure
Fit with Study Objectives
2, 4, 6, 8
Fit with Wales Transport Strategy Objectives
3, 4, 5, 14, 15, 16
Fit with Other Options
B13c
Recommendations
This option would provide a link to the east with an established form of public transport, although freight to the docks would have to be moved by road. This option supports the Study and national Objectives.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: R4
Option Title: Combined passenger/freight line
Description of Option
Passenger services could be run in addition to freight services along the existing line.
Advantages
Freight services are maintained Additional public transport option for the Fabian Way developments Improved regional links to the east
Disadvantages
No direct rail link to Swansea High Street Station, passenger trains would have to travel via Llanelli Limited capacity for expansion for either passenger or freight services if the two are combined Cost of improvements to existing infrastructure
Fit with Study Objectives
3, 4, 6
Fit with Wales Transport Strategy Objectives
1, 3, 4, 5, 9, 14, 15, 16
Fit with Other Options
B13c
Recommendations
This option would provide a link to the east via an established form of public transport, whilst allowing freight to continue to be moved by rail. This option therefore assists in achieving both the Study Objectives and the Wales Transport Strategy outcomes.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: R5
Option Title: Abandon existing line and re-use corridor for other transport purposes
Description of Option
The existing line is underused at present. If the line was abandoned the corridor could be reused for other transport purposes, such as light rail or an extension of the Swansea Metro.
Advantages
Additional public transport service for the Fabian Way developments
Disadvantages
The corridor does not extend into Swansea City Centre Existing freight services to the docks would be lost
Fit with Study Objectives
1, 2, 3, 4, 8
Fit with Wales Transport Strategy Objectives
1, 4, 5, 14, 15, 16
Fit with Other Options
B12a, B12b, B13b, B13c
Recommendations
This option would aim to make better use of an existing transport corridor by altering the infrastructure. It therefore supports both the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: C1
Option Title: Do minimum
Description of Option
Canal management within the study area that continues only to maintain existing water supply function.
Advantages
Low cost Retain access to Crymlyn Bog for maintenance purposes
Disadvantages
No potential for use as a navigation route either for leisure or commuter craft
Fit with Study Objectives
None
Fit with Wales Transport Strategy Objectives
None
Fit with Other Options
None
Recommendations
The option offers no improvement on the existing situation so does not support either the Study Objectives or national policy.
Develop option further: No

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: C2
Option Title: Full integrated waterway restoration, including link into SA1 marina and the Afon Tawe
Description of Option
Full restoration of Neath, Tennant and Swansea Canals as an integrated waterway. Includes links through the docks and SA1 development into the Afon Tawe.
Advantages
More than 30 miles of cruising waterway would be attractive to a national tourism market Improved access to green areas within the site including Crymlyn Bog SSSI Opportunity to support development of adjacent footway and cycle routes
Disadvantages
High cost of restoration Much of this restoration is outside of the study area Issues with acquisition of third party land
Fit with Study Objectives
3, 7
Fit with Wales Transport Strategy Objectives
5, 13
Fit with Other Options
W2a, W2b
Recommendations
This option would create a significant tourist attraction, although much of the works would be beyond the Study area. It assists in achieving the Study Objectives and supports national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: C3
Option Title: Full restoration of the Neath and Tennant Canals, including link into SA1 marina at the Prince of Wales Dock
Description of Option
Full restoration of Neath and Tennant canals, including restoration of Aberdulais aqueduct and link into SA1 marina development.
Advantages
Weekend tourism market and potential commuter services, e.g. water-taxi between Coed Darcy and Swansea This option would create around 20 miles of navigable waterway Improved access to green areas within the site including Crymlyn Bog SSSI Opportunity to support development of adjacent footway and cycle routes
Disadvantages
High cost of restoration Much of this restoration is outside of the study area Issues with acquisition of third party land
Fit with Study Objectives
3, 7
Fit with Wales Transport Strategy Objectives
5, 13
Fit with Other Options
W2a, W2b
Recommendations
This option would generate tourism opportunities, although much of the restoration work would be beyond the Study area. It assists in achieving the Study Objectives and supports national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: C4
Option Title: Partial Restoration of Neath and Tennant Canals, not including link into SA1 marina at the Prince of Wales Dock
Description of Option
Partial restoration of the Neath and Tennant Canals of all sections within the Study area, but not including link into SA1 development.
Advantages
Create around 20 miles of navigable waterway Improved access to green areas within the site including Crymlyn Bog SSSI Opportunity to support development of adjacent footway and cycle routes
Disadvantages
No link through to the Afon Tawe High cost of restoration
Fit with Study Objectives
3, 7
Fit with Wales Transport Strategy Objectives
5, 13
Fit with Other Options
W2a, W2b
Recommendations
This option would create limited opportunities for tourism within the Study area. Its implementation would support both the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: C5
Option Title: Protect the route of the restoration proposals
Description of Option A separate study by another consultant is considering the cost-benefit analysis for a strategy for developing the canal network between Swansea and Neath. The route of the canal corridor within the Fabian Way Study area could be protected to enable future development of the canal.
Advantages Low cost Improved access to green areas within the site including Crymlyn Bog SSSI Opportunity to support development of adjacent footway and cycle routes
Disadvantages No navigable waterway created as part of the Fabian Way transport strategy
Fit with Study Objectives 3, 7
Fit with Wales Transport Strategy Objectives 5, 13
Fit with Other Options W2a, W2b
Recommendations This option would support the work being undertaken by the consultant looking at the costs and benefits of the various canal restoration options. It supports the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: ITS1
Option Title: Do minimum
Description of Option
Maintain the existing Variable Message Signs (VMS) on the approach to junctions 42 and 43 of the M4. These were installed in the mid 1990s primarily to warn of closures and restrictions on the M4 and A48 Briton Ferry bridges.
Advantages
Simple system Successfully provides warning of any issues on the M4
Disadvantages
No information about traffic conditions within the site Only for vehicles exiting the site to the east
Fit with Study Objectives
None
Fit with Wales Transport Strategy Objectives
None
Fit with Other Options
None
Recommendations
Maintaining the existing system will not assist in achieving either the Study Objectives or national policy Objectives, therefore option will not be developed further.
Develop option further: No

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: ITS2
Option Title: Variable message signs to show traffic conditions and support Park and Ride
Description of Option
<p>Variable message signs (VMS) can be used to support network management and promote the use of alternative forms of transport. Information provided could include journey times by different mode, accidents or congestion within the site, diversion/alternative route guidance, information on major events and availability of spaces at Park and Ride sites.</p> <p>Potential VMS locations for inbound journeys are on the B4290 or Southern Access Road from Coed Darcy, along Fabian Way east of the Jersey Marine junction and prior to any Park and Ride sites.</p>
Advantages
<p>Improved management of incidents  Encourages use of alternative modes  Shows drivers they are entering Swansea</p>
Disadvantages
<p>Little evidence of effectiveness at encouraging changes in travel choices  Risk of cluttering roadside with large signs</p>
Fit with Study Objectives
1, 3, 5
Fit with Wales Transport Strategy Objectives
1, 2
Fit with Other Options
B3a, B4a, B4b
Recommendations
<p>Variable message signs can provide real time information for drivers to encourage particular travel choices. This option fits with both the Study and national policy Objectives.</p>
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: ITS3
Option Title: Signal optimisation
Description of Option The three signalised junctions on Fabian Way are connected via a SCOOT system. The signals at junction 43 of the M4 are controlled via a MOVA system. MOVA is designed to work on isolated junctions, whereas SCOOT is a tool for managing flows on a section of urban road network. The existing systems can be combined with City Centre signals and any new signalised junctions into a SCOOT system.
Advantages Stops and delays minimised across the network Priority given to major traffic stream, ie through traffic
Disadvantages As priority given to major traffic stream, minor streams such as side roads off Fabian Way may experience increased delay and congestion Limited improvements to efficiency as individual systems already in place.
Fit with Study Objectives 1, 2
Fit with Wales Transport Strategy Objectives 1, 2
Fit with Other Options B14, H1b
Recommendations Signal optimisation should increase network efficiency and journey time predictability, although its impact on Fabian Way may be limited. This option fits with both the Study and national policy Objectives.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: ITS4
Option Title: Variable speed limit depending on traffic conditions
Description of Option
Variable speed limits are displayed on overhead gantries approximately 800m apart. They allow reduction of mandatory speed limits based on real time traffic conditions.
Advantages
Improved efficiency of the network Shows drivers they are entering Swansea
Disadvantages
Significant visually intrusive infrastructure required Potentially confusing for drivers Unlikely to improve existing conditions as congestion occurs at junctions only
Fit with Study Objectives
5
Fit with Wales Transport Strategy Objectives
1, 2
Fit with Other Options
ITS5
Recommendations
Variable speed limits linked to traffic conditions are unsuitable for Fabian Way as the visually intrusive and costly infrastructure required is unlikely to generate any improvements with regard to congestion. This option would not assist in addressing the Study Objectives.
Develop option further: No

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: ITS5
Option Title: Tolling / Congestion charging
Description of Option A system of charging for using a particular section of road or entering a zone in order to reduce congestion, encourage modal shift and provide increased revenue to support public transport initiatives.
Advantages Congestion reduced Revenue generation
Disadvantages High cost Significant infrastructure required Likely to be unpopular with the public Congestion impacts on other areas Negative impact on local businesses
Fit with Study Objectives
5
Fit with Wales Transport Strategy Objectives
1, 2, 6, 7, 8, 9
Fit with Other Options
ITS4
Recommendations Although this option is high cost and likely to be unpopular with both Stakeholders and the public, it would reduce the traffic along Fabian Way and therefore supports the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: S1
Option Title: Do minimum
Description of Option
Maintain the existing system where parking controls and Travel Planning for new developments are defined as part of individual planning consents.
Advantages
Experience of existing system by all Low cost
Disadvantages
Individual developments could have a negative impact on traffic flows within the Study area if not suitably managed Inconsistencies between standards applied to different developments No assistance for existing residences/businesses that may be negatively affected by parking from new developments
Fit with Study Objectives
None
Fit with Wales Transport Strategy Objectives
None
Fit with Other Options
None
Recommendations
This option does not propose any improvement to the existing situation, so does not conform to either the Study Objectives or national policy objectives.
Develop option further: No

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: S2
Option Title: Controlled parking zones for public parking with residential parking scheme
Description of Option
Implement a consistent pricing approach to off- and on-street public parking throughout Study area. This would include a residents parking scheme for the existing residential communities to the north of Fabian Way.
Advantages
Residents' parking spaces are protected from use by drivers accessing new developments Drivers should choose to park near their desired destination if pricing is the same throughout the Study area Opportunity to encourage use of other modes
Disadvantages
Cost of implementation and enforcement Coordination with Park and Ride sites pricing structure could be complicated
Fit with Study Objectives
3, 6
Fit with Wales Transport Strategy Objectives
1, 6, 7, 8, 9, 13
Fit with Other Options
S3, S4, S5, S6, S8
Recommendations
This option would benefit local residents and encourage the use of alternative modes. It supports the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: S3
Option Title: Limit parking spaces provided in new developments
Description of Option
New developments would be subject to strict maximum numbers of parking spaces per employee or per square unit of floor area. Potential to introduce levies on employers per parking space.
Advantages
Consistent transparent approach to parking for new developments within the Study area Opportunity to promote use of alternative modes Increased control of traffic operated by new developments
Disadvantages
May dissuade potential commercial enterprises from opening sites within the Study area May encourage illegal parking
Fit with Study Objectives
3, 8
Fit with Wales Transport Strategy Objectives
6, 7, 8, 9, 13
Fit with Other Options
S2, S5, S8
Recommendations
This option would help to limit traffic generated from new developments and to encourage use of alternative modes. It therefore assists in achieving both the Study Objectives and national policy Objectives.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: S4
Option Title: Priority spaces for car pooling in public car parks
Description of Option
Parking spaces designated for use by car pooling or car sharing vehicles could be given prime positions within public car parks.
Advantages
Encouragement of car sharing and car pooling to generate multiple occupancy vehicles Reduction in numbers of private cars on the road network Reduction in public parking spaces required
Disadvantages
Difficult to enforce
Fit with Study Objectives
8
Fit with Wales Transport Strategy Objectives
6, 7, 8, 9
Fit with Other Options
S2
Recommendations
Although difficult to enforce, this option could provide a reduction in vehicles using the local road network. It supports the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: S5
Option Title: All new developments to conform to site-wide Travel Plan, managed and monitored by an overall Travel Plan Coordinator
Description of Option
All new developments within the site area would have to implement Travel Plans conforming to the general principles of the site-wide Travel Plan. This would be managed and monitored by an overall Travel Plan Co-ordinator
Advantages
Consistent transparent approach to transport issues for all new developments within the Study area Opportunity to promote use of alternative modes Positive form of controlling traffic generation
Disadvantages
Cost of implementation and monitoring Negative perception of the usefulness of Travel Plans by many employers Difficult to enforce travel behaviour changes
Fit with Study Objectives
3, 8
Fit with Wales Transport Strategy Objectives
6, 7, 8, 9, 13
Fit with Other Options
S6, S7, S8
Recommendations
This option provides a positive way for individual employers to control the traffic generated by new developments, although its success is dependent on the enthusiasm of individuals. This option assists in achieving both the Study and national policy Objectives.
Develop option further: Yes

## Fabian Way Corridor Transport Assessment

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### Options Development: First Sift

Option Reference: S6
Option Title: Residential Travel Plan for communities to the north of Fabian Way, managed and monitored by an overall Travel Plan Coordinator
Description of Option
A residential Travel Plan for the existing communities to the north of Fabian Way to reduce residents' reliance on the car. This would be managed and monitored by an overall Travel Plan Co-ordinator.
Advantages
Improved perception of accessibility by local residents Opportunity to encourage use of alternative modes and to reduce reliance on the private car Positive approach to include existing residents in the development of the corridor
Disadvantages
Cost of implementation and monitoring Negative perception of the usefulness of Travel Plans Difficult to enforce changes in travel behaviour
Fit with Study Objectives
3, 8
Fit with Wales Transport Strategy Objectives
6, 7, 8, 9, 13
Fit with Other Options
S2, S5, S8
Recommendations
This option would include existing residents in the development proposals, although its effectiveness at influencing travel behaviour may be limited. This option supports the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
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Options Development: First Sift**

Option Reference: S7
Option Title: Travel information website showing real-time public transport information, traffic conditions and any issues with pedestrian or cycle links
Description of Option
Implementation of a travel information website, showing real-time public transport information, traffic conditions and any issues with pedestrian or cycle links. This could be managed and monitored by an overall Travel Plan Co-ordinator.
Advantages
Improved perception of reliability of journeys Promotion of alternative modes
Disadvantages
Cost of implementation and operation May not be well-used depending on efficiency of existing public transport services and likelihood of traffic congestion
Fit with Study Objectives
1, 3
Fit with Wales Transport Strategy Objectives
1, 4, 5, 6, 7, 8, 9, 12, 13, 14, 15, 16
Fit with Other Options
S5, S6, S8
Recommendations
This option would increase confidence in and awareness of public transport services within the Study area, although its use by the public may be limited. This option confirms to the Study Objectives and national policy.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment**  
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**Options Development: First Sift**

Option Reference: S8
Option Title: Smart Card ticketing system throughout the corridor
Description of Option
Smart Card ticketing allows frequent travellers fast and easy interchange on public transport services without the need to buy individual tickets for each journey.
Advantages
Time savings for regular users Opportunity for rewards for public transport users
Disadvantages
High cost to implement May have limited impact on modal share Visitors disadvantaged
Fit with Study Objectives
1, 3, 5
Fit with Wales Transport Strategy Objectives
1, 6, 7, 8, 9, 13
Fit with Other Options
S2, S3, S5, S6, S7
Recommendations
This option would improve the efficiency of journeys by public transport for regular users. It assists in achieving both the Study Objectives and the Wales Transport Strategy outcomes.
Develop option further: Yes

Appendix M

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**Option Development:  
Second Sift**

**Fabian Way Corridor Transport Assessment  
207815  
Options Development: Second Sift**

Option Reference: H1b
Option Title:
Capacity improvements at the Tawe Bridges
Description of Option
Reconfigure the bridge to provide capacity improvements. This could take the form of a one way gyratory, with revised signal controlled junctions at the four corners. This configuration has been considered previously on a number of occasions, including the Arup Port Tawe Transport Assessment (2002) and the Faber Maunsell Tawe Bridges Feasibility Study (2003).
Stakeholder Acceptability (client steering group, community, transport providers, landowners, developers)
This option is generally popular with Stakeholders and has been discussed for several years.
Risks to Implementation
The construction works would be disruptive and permanent alterations to surrounding roads would also be required.
Influence on Transport Movements within the Corridor
Significant: <input checked="" type="checkbox"/> Minor:                      Negligible:
Recommendations
Although this option is viewed positively by many Stakeholders, construction would be difficult. This option will be developed further.
Develop option further: Yes



**Fabian Way Corridor Transport Assessment  
207815  
Options Development: Second Sift**

Option Reference: H4c
Option Title:
New grade-separated junction at Baldwins Bridge
Description of Option
Replace the existing junction with a new bridge, new slips and new internal junctions
Stakeholder Acceptability (client steering group, community, transport providers, landowners, developers)
A new junction layout would be welcomed by many Stakeholders. Grade-separated would suit Swansea Docks and the University and conform to WAG's aspiration to trunk Fabian Way.
Risks to Implementation
The bend in the carriageway at Baldwins would allow a new bridge to be constructed off-line, greatly reducing disruption to traffic.
Influence on Transport Movements within the Corridor
Significant: <input checked="" type="checkbox"/> Minor:                      Negligible:
Recommendations
A new grade-separated junction would not be too disruptive to construct and would be well received by the majority of Stakeholders. This option will be developed further.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
207815  
Options Development: Second Sift**

Option Reference: H4d
Option Title:
New at-grade junction at Baldwins Bridge
Description of Option
Replace the existing junction with a new at-grade junction. This could take the form of a large roundabout or signal controls, depending on traffic levels and the intended nature of Fabian Way in the future.
Stakeholder Acceptability (client steering group, community, transport providers, landowners, developers)
A new junction layout would be welcomed by many Stakeholders. An at-grade solution would suit pedestrians and cyclists and help to reduce traffic speeds, but would not conform to WAG's aspiration to trunk Fabian Way.
Risks to Implementation
There would be some degree of disruption during construction, although the new circulatory could be constructed off-line.
Influence on Transport Movements within the Corridor
Significant: <input checked="" type="checkbox"/> Minor: <input type="checkbox"/> Negligible: <input type="checkbox"/>
Recommendations
A new at-grade junction would not be too disruptive to construct and would be well received by the majority of Stakeholders. This option will be developed further.
Develop option further: Yes

**Fabian Way Corridor Transport Assessment  
207815  
Options Development: Second Sift**

Option Reference: H4e
Option Title:
Close Baldwins Bridge as a junction, maintaining existing bridge structure
Description of Option
Remove existing sub standard slips to close access to Fabian Way at this point. Maintain existing bridge structure.
Stakeholder Acceptability (client steering group, community, transport providers, landowners, developers)
The existing bridge structure is seen as a significant maintenance issue by the local authorities, so its retention is not popular with Stakeholders. Existing businesses that utilise Baldwins as a junction would disbenefit. A significant new junction would definitely be required to serve the University development.
Risks to Implementation
No significant risks to implementation.
Influence on Transport Movements within the Corridor
Significant: <input checked="" type="checkbox"/> Minor:                      Negligible:
Recommendations
This option is likely to be received only as a temporary measure by the local authorities. This option will not be developed further.
Develop option further: No







**Fabian Way Corridor Transport Assessment  
207815  
Options Development: Second Sift**

Option Reference: H7c		
Option Title:		
Widen to dual 3 lane and convert one lane to a high occupancy vehicle (HOV) lane		
Description of Option		
Fabian Way could be widened to 3 lanes in each direction, with the additional lane dedicated to buses. The widening could be undertaken largely within the highway boundary.		
Stakeholder Acceptability (client steering group, community, transport providers, landowners, developers)		
A HOV lane would be well received by the bus operators. The works would encroach slightly into the Crymlyn Burrows SSSI site. CCW does not object in principle, but mitigation measures will be required.		
Risks to Implementation		
Limited third party land take required, the majority of the construction works could be completed within the highway boundary with limited disruption to traffic. Pedestrian and cycle routes along Fabian Way would have to be temporarily diverted.		
Influence on Transport Movements within the Corridor		
Significant: ✓	Minor:	Negligible:
Recommendations		
The Client Steering Group and bus operating companies are keen to increase the capacity of public transport along the corridor. This option could be constructed largely within the highway boundary. This option will be developed further.		
Develop option further: Yes		

**Fabian Way Corridor Transport Assessment  
207815  
Options Development: Second Sift**

Option Reference: H7d		
Option Title:		
Segregated busway north of Fabian Way		
Description of Option		
Construct a two-way segregated busway north of Fabian Way to link the existing Park and Ride site with the developments east of Baldwins Bridge.		
Stakeholder Acceptability (client steering group, community, transport providers, landowners, developers)		
A segregated busway would be well received by both the bus operators and the Client Steering Group. All Stakeholders would welcome an increase in public transport capacity without impacting traffic flows. Network Rail and DB Schenker are happy in principle for the route to utilise the disused rail freight line and southern section of Swansea Burrows sidings.		
Risks to Implementation		
Third party land required. All works can be constructed off-line, including the bridge over the canal and rail freight line.		
Influence on Transport Movements within the Corridor		
Significant: ✓	Minor:	Negligible:
Recommendations		
Although this option requires railway land, Network Rail and DB Schenker are happy in principle. The option would be well received by other Stakeholders and could be constructed off-line with minimal disruption. This option will be developed further.		
Develop option further: Yes		







**Fabian Way Corridor Transport Assessment  
207815  
Options Development: Second Sift**

Option Reference: H12
Option Title:
Fabian Way in a tunnel near University campus
Description of Option
The level of the carriageway to be lowered and Fabian Way as vehicle route to be covered to create a tunnel near the University campus.
Stakeholder Acceptability (client steering group, community, transport providers, landowners, developers)
No specific Stakeholder feedback received regarding this option.
Risks to Implementation
A tunnel would be very difficult to construct, particularly whilst maintaining traffic through flows. There is limited land available for diversions. Significant measures would be required to mitigate against flood risk on completion.
Influence on Transport Movements within the Corridor
Significant: <input checked="" type="checkbox"/> Minor: <input type="checkbox"/> Negligible: <input type="checkbox"/>
Recommendations
This option would create an enormous amount of disruption during construction. This option will not be developed further.
Develop option further: No

**Fabian Way Corridor Transport Assessment  
207815  
Options Development: Second Sift**

Option Reference: H13
Option Title:
Fabian Way in a tunnel between existing communities and SA1
Description of Option
The level of the carriageway to be lowered and Fabian Way as vehicle route to be covered to create a tunnel between existing communities and SA1.
Stakeholder Acceptability (client steering group, community, transport providers, landowners, developers)
No specific Stakeholder feedback received regarding this option.
Risks to Implementation
A tunnel would be very difficult to construct, particularly whilst maintaining traffic through flows. There is limited land available for diversions. Significant measures would be required to mitigate against flood risk on completion.
Influence on Transport Movements within the Corridor
Significant: <input checked="" type="checkbox"/> Minor: <input type="checkbox"/> Negligible: <input type="checkbox"/>
Recommendations
This option would create an enormous amount of disruption during construction This option will not be developed further.
Develop option further: No



**Fabian Way Corridor Transport Assessment  
207815  
Options Development: Second Sift**

Option Reference: B3a		
Option Title:		
Expand existing Park and Ride site		
Description of Option		
<p>Increase the number of car parking spaces from 550 at present to up to 1,100 by including the adjacent site. The existing Park and Ride bus service (no. 502) would follow the same route but will require increased service frequency or higher capacity vehicles.</p> <p>Consider providing Park and Ride service for eastbound journeys from the site.</p>		
Stakeholder Acceptability (client steering group, community, transport providers, landowners, developers)		
<p>The existing service is well patronised, although some Stakeholders have criticised its location as being too near to the City Centre.</p>		
Risks to Implementation		
<p>The adjacent land is disused and the existing facilities would require minimal upgrade. The service is established in this location and is well patronised, therefore risks are limited.</p>		
Influence on Transport Movements within the Corridor		
Significant: ✓	Minor:	Negligible:
Recommendations		
<p>This option does not have the support of all Stakeholders but is comparatively low risk. This option will be developed further.</p>		
Develop option further: Yes		















**Fabian Way Corridor Transport Assessment**  
**207815**  
**Options Development: Second Sift**

Option Reference: B8		
Option Title:		
Extend bus services 82 and 82A (Bright Orange Bus (BOB)) linking the existing University campus to the City Centre.		
Description of Option		
The existing BOB service is well patronised by students from the Park campus. It could be extended to link the two campuses via the City Centre		
Stakeholder Acceptability (client steering group, community, transport providers, landowners, developers)		
The First bus operator supports this option in principle. The University and its consultants URS agree this option is sensible and likely to happen.		
Risks to Implementation		
No significant risks to implementation.		
Influence on Transport Movements within the Corridor		
Significant: ✓	Minor:	Negligible:
Recommendations		
This option will be developed further.		
Develop option further: Yes		







**Fabian Way Corridor Transport Assessment  
207815  
Options Development: Second Sift**

Option Reference: B10b
Option Title:
New light rail service between Coed Darcy and the City Centre
Description of Option
A new light rail service could be implemented between Coed Darcy urban village and the City centre, either via the new Southern Sccess Road or existing B4290.
Stakeholder Acceptability (client steering group, community, transport providers, landowners, developers)
A light rail service would be popular with the local authorities and potential users.
Risks to Implementation
A light rail system would be very costly due to infrastructure requirements and land acquisition. The service it would provide could equally be provided by buses at a fraction of the cost.
Influence on Transport Movements within the Corridor
Significant: <input checked="" type="checkbox"/> Minor:                      Negligible:
Recommendations
The benefits of a light rail service could not be justified by its prohibitive cost. This option will not be developed further.
Develop option further: No

















**Fabian Way Corridor Transport Assessment  
207815  
Options Development: Second Sift**

Option Reference: B15
Option Title:
Two-way bus-only access north of Baldwins Bridge between Port Tennant and rail sidings
Description of Option
New bus gate on eastern end of Wern Fawr Road to enable buses to access developments on the northern side of the Fabian Way directly from the existing Park and Ride site. Access to the rail sidings for Network Rail/DB Schenker to be ensured.
Stakeholder Acceptability (client steering group, community, transport providers, landowners, developers)
This option is included in the Transport Assessment for Coed Darcy, and as such is supported by the client steering group.
Risks to Implementation
No significant risks to implementation.
Influence on Transport Movements within the Corridor
Significant: <input checked="" type="checkbox"/> Minor: <input type="checkbox"/> Negligible: <input type="checkbox"/>
Recommendations
This option will be developed further.
Develop option further: Yes





**Fabian Way Corridor Transport Assessment**  
**207815**  
**Options Development: Second Sift**

Option Reference: B17a
Option Title:
Personal rapid transit loop within the Fabian Way developments
Description of Option
A personal rapid transport (PRT) system with an on-demand service within the Fabian Way corridor.
Stakeholder Acceptability (client steering group, community, transport providers, landowners, developers)
A personal rapid transit service would be popular with the local authorities and potential users.
Risks to Implementation
A personal rapid transit system would be very costly due to infrastructure requirements and land acquisition. The service it would provide could equally be provided by buses at a fraction of the cost.
Influence on Transport Movements within the Corridor
Significant: <input checked="" type="checkbox"/> Minor: <input type="checkbox"/> Negligible: <input type="checkbox"/>
Recommendations
The benefits of a personal rapid transit system could not be justified by its prohibitive cost. This option will not be developed further.
Develop option further: No

**Fabian Way Corridor Transport Assessment**  
**207815**  
**Options Development: Second Sift**

Option Reference: B17b
Option Title:
Personal rapid transit loop linking Swansea City Centre and Neath, through Fabian Way developments
Description of Option
A personal rapid transit (PRT) system linking Swansea and Neath via the Fabian Way developments
Stakeholder Acceptability (client steering group, community, transport providers, landowners, developers)
A personal rapid transit service would be popular with the local authorities and potential users.
Risks to Implementation
A personal rapid transit system would be very costly due to infrastructure requirements and land acquisition. The service it would provide could equally be provided by buses at a fraction of the cost.
Influence on Transport Movements within the Corridor
Significant: <input checked="" type="checkbox"/> Minor: <input type="checkbox"/> Negligible: <input type="checkbox"/>
Recommendations
The benefits of a personal rapid transit system could not be justified by its prohibitive cost. This option will not be developed further.
Develop option further: No





















































**Fabian Way Corridor Transport Assessment  
207815  
Options Development: Second Sift**

Option Reference: R4
Option Title:
Convert to passenger/freight line
Description of Option
Passenger services could be run in addition to freight services along the existing line.
Stakeholder Acceptability (client steering group, community, transport providers, landowners, developers)
There is limited support for this option among the rail Stakeholders due to continuing need for rail-based freight.
Risks to Implementation
Land acquisition Cost of infrastructure works Uncertain patronage due to limited connections
Influence on Transport Movements within the Corridor
Significant: <input checked="" type="checkbox"/> Minor:                      Negligible:
Recommendations
This option is likely to comprise a longer term aspiration to introduce passenger services at some point. This option will be developed further.
Develop option further: Yes















**Fabian Way Corridor Transport Assessment**  
**207815**  
**Options Development: Second Sift**

Option Reference: ITS5
Option Title:
Tolling/congestion charging
Description of Option
A system of charging for using a particular section of road or entering a zone in order to reduce congestion, encourage modal shift and providing increased revenue to support public transport initiatives.
Stakeholder Acceptability (client steering group, community, transport providers, landowners, developers)
This option is unpopular with the Stakeholders due to its likely reception by the general public.
Risks to Implementation
Cost of infrastructure support Enforcement issues Reallocation of areas of congestion rather than use of tolled route
Influence on Transport Movements within the Corridor
Significant: <input checked="" type="checkbox"/> Minor:                      Negligible:
Recommendations
This option is likely to be very unpopular with the public as well as difficult to deliver. This option will not be developed further.
Develop option further: No

**Fabian Way Corridor Transport Assessment**  
**207815**  
**Options Development: Second Sift**

Option Reference: S2
Option Title:
Controlled parking zones for public parking with residential parking scheme
Description of Option
Implement a consistent pricing approach to off- and on-street public parking throughout Study area. This would include a residents parking scheme for the existing residential communities to the north of Fabian Way.
Stakeholder Acceptability (client steering group, community, transport providers, landowners, developers)
This option is popular with Stakeholders, particularly the local community.
Risks to Implementation
No significant risks to implementation.
Influence on Transport Movements within the Corridor
Significant: <input checked="" type="checkbox"/> Minor:                      Negligible:
Recommendations
This option will be developed further.
Develop option further: Yes













Appendix N

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**Transport Modelling**

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## N1 Introduction

This Appendix covers the transport modelling aspects of the Study in more detail than sections 8.3 and 8.5 of the main Transport Assessment Report. It describes the demand analysis, future year base traffic, journey times, modal splits, and capacity analysis aspects of the study, as referenced in the appraisal sections of the main Transport Assessment Report.

## N2 Demand Analysis

### N2.1 Development Aspirations

---

The development aspirations for the corridor over the next 25 years are outlined in Section 5 of the Transport Assessment report, and summarised in Table 5.3. The development zones boundaries are shown on Figure 5.1 in the main report.

The SA1 and Coed Darcy development levels are based on the most recently available information, while the Amazon and neighbouring developments are based on information collected for the recent study of the Jersey Marine junction. The current proposals for the University second campus are unknown, but assumptions have been made based on the understanding that the development will contain 4000 residential students.

The level of development for the remaining plots has been estimated based on the development densities of local sites, taking into account the different land take required for alternative land uses. Where a mix of land uses has been proposed for the plot, the gross floor area of each use is assumed to be the same.

### N2.2 Trip Rates

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Due to the multi-modal nature of the study, it is necessary to consider more than just car trips. Standardised Person Trip Rates from TRICS 2008(b) have been used to estimate the trip generation for all the developments along the Fabian Way Corridor, including those where vehicle only trip rates have been assumed for previous studies.

The trip rates include:

- weekday data only;
- sites whose location is described only as:
  - Edge of Town Centre;
  - Suburban Area;
  - Edge of Town;
  - Neighbourhood Centre; and
- excludes sites in Greater London.

For robustness, for each land use the AM Peak Hour has been assumed to be the highest trip generating hour between 07:00 and 09:30, while the PM Peak Hour has been assumed to be the highest hour between 16:00 and 18:00.

Due to the large scale mixed use developments along the corridor, the trip generation has been based on the mean person trip rate rather than the 85th percentile trip rate as this was considered that most realistic approach.

While the mean trip rates have been used in the analysis, the 85th percentile trip rates are included in Table N2.1 below for comparison and completeness.

**Table N2.1: Person Trip Rates from TRICS 2008(b)**

Land Use		Mean				85th Percentile			
		AM Peak		PM Peak		AM Peak		PM Peak	
		Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
<b>Residential (Flats)</b>	unit	0.059	0.48	0.376	0.162	0.132	0.659	0.466	0.250
<b>Residential (Houses)</b>	unit	0.234	0.931	0.646	0.398	0.383	1.169	0.889	0.581
<b>B1 Office</b>	100 sqm	1.995	0.172	0.241	1.745	3.431	0.470	0.964	3.546
<b>B2 Light Industry</b>	100 sqm	0.547	0.204	0.223	0.535	1.637	0.575	0.783	1.403
<b>B8 Warehousing</b>	100 sqm	0.739	0.275	0.199	0.666	1.214	0.463	0.289	1.093
<b>Hotel</b>	bed	0.144	0.351	0.327	0.169	0.217	0.515	0.519	0.228
<b>Leisure</b>	hectare	24.25	15.23	59.97	50.16	51.09	47.48	229.5	189.7
<b>Local Retail</b>	100 sqm	11.42	10.58	10.23	10.67	21.50	23.01	21.38	24.48
<b>Primary School</b>	100 sqm	25.18	5.085	1.067	2.089	27.08	6.557	1.784	3.276
<b>Secondary School</b>	100 sqm	11.48	0.578	0.338	2.995	16.28	0.732	0.468	5.729

In order to more closely match the trip generation assumptions made in the Coed Darcy Transport Assessment, the residential rates have been taken as an average of the flats and houses rates above, as shown in Table N2.2.

**Table N2.2: Person Trip Rates from TRICS 2008(b) for Coed Darcy Residential**

Land Use		Mean				85th Percentile			
		AM Peak		PM Peak		AM Peak		PM Peak	
		Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
<b>Residential (Coed Darcy)</b>	unit	0.147	0.706	0.511	0.28	0.258	0.914	0.677	0.415

A summary of the TRICS sites considered when generating the above trip rates is included in Table N2.3.

**Table N2.3: TRICS sites used for calculation of trip rates**

Land Use	Site Ref	Description	Location
<b>Residential (Flats)</b>	CA-03-C-01	Block Of Flats, Peterborough	Cambridgeshire
	DL-03-C-05	Flats, Dublin	Dublin
	DL-03-C-06	Flats, Dublin	Dublin
	EG-03-C-02	Blocks Of Flats, Ealing	Ealing
	GR-03-C-01	Flats, Blackheath	Greenwich
	MS-03-C-01	Blocks Of Flats, Liverpool	Merseyside
	NY-03-C-01	Blocks Of Flats, Northallerton	North Yorkshire
	RD-03-C-01	Blocks Of Flats, Kew	Richmond
	RD-03-C-02	Block Of Flats, Barnes	Richmond
	WM-03-C-03	Flats, Solihull	West Midlands
	WT-03-C-01	Flats, Athlone	Westmeath
	WY-03-C-01	Block Of Flats, Leeds	West Yorkshire
	WY-03-C-02	Block Of Flats, Huddersfield	West Yorkshire
<b>Residential (Houses)</b>	AN-03-A-02	Semi Detached, Belfast	Antrim
	AN-03-A-03	Semi Detached, Lisburn	Antrim
	BD-03-A-01	Semi Detached, Luton	Bedfordshire
	BD-03-A-02	Semi Detached, Luton	Bedfordshire
	CA-03-A-01	Semi D./Terraced, Cambridge	Cambridgeshire
	CA-03-A-02	Mixed Houses, Peterborough	Cambridgeshire
	CB-03-A-02	Semi Detached, Workington	Cumbria
	CF-03-A-01	Mixed Houses, Cardiff	Cardiff
	CF-03-A-02	Mixed Houses, Cardiff	Cardiff
	CF-03-A-03	Detached, Cardiff	Cardiff
	CR-03-A-01	Bungalows, Cork	Cork
	CS-03-A-01	Terraced, Sligo	Sligo
	CS-03-A-02	Detached, Sligo	Sligo
	CW-03-A-01	Terraced, Penzance	Cornwall
	CW-03-A-02	Semi D./Detached, Truro	Cornwall
	DE-03-A-03	Bungalows, Londonderry	Derry
	DL-03-A-01	Semi Detached, Dublin	Dublin
	DL-03-A-02	Semi Detached, Dublin	Dublin
	DS-03-A-01	Semi D./Terraced, Dronfield	Derbyshire
	ES-03-A-01	Mixed Houses/Flats, Lewes	East Sussex
EX-03-A-01	Semi-Det., Stanford-Le-Hope	Essex	
FI-03-A-02	Semi Detached, Glenrothes	Fife	

**Table N2.3: TRICS sites used for calculation of trip rates (continued)**

Land Use	Site Ref	Description	Location
Residential (Houses)	FI-03-A-03	Mixed Houses, Dunfermline	Fife
	GA-03-A-01	Semi Detached, Galway	Galway
	GA-03-A-02	Terraced, Galway	Galway
	GA-03-A-03	Semi Det./Terraced, Galway	Galway
	GM-03-A-07	Semi Detached, Manchester	Greater Manchester
	GM-03-A-08	Semi Detached, Stockport	Greater Manchester
	GS-03-A-01	Semi D./Terraced, Gloucester	Gloucestershire
	HF-03-A-01	Mixed Houses, Welwyn Gc	Hertfordshire
	HI-03-A-11	Bungalows, Inverness	Highland
	LC-03-A-22	Bungalows, Blackpool	Lancashire
	LC-03-A-29	Detached/Semi D., Blackburn	Lancashire
	LE-03-A-01	Detached, Melton Mowbray	Leicestershire
	LN-03-A-01	Mixed Houses, Lincoln	Lincolnshire
	LN-03-A-02	Mixed Houses, Lincoln	Lincolnshire
	MS-03-A-01	Terraced, Runcorn	Merseyside
	NT-03-A-03	Semi Detached, Kirkby-In-Ashford	Nottinghamshire
	NY-03-A-01	Mixed Houses, Northallerton	North Yorkshire
	SC-03-A-03	Detached, East Molesey	Surrey
	SF-03-A-01	Semi Detached, Ipswich	Suffolk
	SF-03-A-02	Semi Det./Terraced, Ipswich	Suffolk
	SF-03-A-03	Mixed Houses, Bury St Edmunds	Suffolk
	SR-03-A-01	Detached, Stirling	Stirling
	ST-03-A-03	Mixed Houses, Stafford	Staffordshire
	TV-03-A-01	Mixed Houses/Flats, Hartlepool	Tees Valley
	TW-03-A-01	Semi Detached, Sunderland	Tyne & Wear
	WL-03-A-01	Semi D./Terraced W. Bassett	Wiltshire
	WM-03-A-01	Terraced, Coventry	West Midlands
	WM-03-A-02	Detached/Semi D., Stourbridge	West Midlands
	WM-03-A-03	Mixed Housing, Coventry	West Midlands
	WO-03-A-01	Detached, Bromsgrove	Worcestershire
	WO-03-A-02	Semi Detached, Redditch	Worcestershire
	WO-03-A-03	Detached, Kidderminster	Worcestershire
WO-03-A-06	Det./Terraced, Bromsgrove	Worcestershire	
WR-03-A-01	Semi Detached, Wrexham	Wrexham	

**Table N2.3: TRICS sites used for calculation of trip rates (continued)**

Land Use	Site Ref	Description	Location
<b>B1 Office</b>	AN-02-A-01	Consulting Eng., Belfast	Antrim
	BT-02-A-01	Offices, Kilburn	Brent
	CA-02-A-01	Office, Cambridge	Cambridgeshire
	CA-02-A-02	Sugar HQ, Peterborough	Cambridgeshire
	CA-02-A-03	Office, Peterborough	Cambridgeshire
	CW-02-A-01	Council Offices, Camborne	Cornwall
	CW-02-A-02	Inland Revenue, St Austell	Cornwall
	CW-02-A-03	Council Offices, Truro	Cornwall
	EX-02-A-02	Telephone Co., Brentwood	Essex
	HC-02-A-08	DIY Company HQ, Chandler's Ford	Hampshire
	HF-02-A-02	Council Offices, Welwyn Garden City	Hertfordshire
	HI-02-A-02	Data Science Company, Nairn	Highland
	KC-02-A-01	County Hall, Maidstone	Kent
	LC-02-A-07	Council Offices, Blackpool	Lancashire
	LC-02-A-08	Council Offices, Chorley	Lancashire
	LE-02-A-01	Council Offices, M. Mowbray	Leicestershire
	LE-02-A-03	Council Offices, M. Mowbray	Leicestershire
	OX-02-A-01	Council Offices, Oxford	Oxfordshire
	SC-02-A-12	Pharmaceuticals, Weybridge	Surrey
	TV-02-A-01	Inland Revenue, Middlesborough	Tees Valley
	TW-02-A-01	Radio Studios, Gateshead	Tyne & Wear
	WH-02-A-01	It Company, Putney	Wandsworth
	WM-02-A-01	Council Offices, Stourbridge	West Midlands
WY-02-A-01	Call Centre, Bradford	West Yorkshire	
WY-02-A-02	Housing Assoc., Bradford	West Yorkshire	
<b>B2 Light Industry</b>	CA-02-D-01	Ind. Estate, Peterborough	Cambridgeshire
	CB-02-D-03	Industrial Estate, Brampton	Cumbria
	CH-02-D-02	Industrial Est., Northwich	Cheshire
	CW-02-D-02	Industrial Estate, Camborne	Cornwall
	DL-02-D-03	Industrial Estate, Dublin	Dublin
	ER-02-D-01	Industrial Estate, Barrhead	East Renfrewshire
	ER-02-D-02	Industrial Estate, Near Glasgow	East Renfrewshire
	KH-02-D-02	Industrial Estate, Hull	Kingston Upon Hull
	LC-02-D-04	Industrial Estate, Garstang	Lancashire
	LN-02-D-01	Industrial Estate, Grantham	Lincolnshire

**Table N2.3: TRICS sites used for calculation of trip rates (continued)**

Land Use	Site Ref	Description	Location
<b>B2 Light Industry</b>	MS-02-D-05	Industrial Estate, St Helens	Merseyside
	NB-02-D-01	Industrial Estate, Hexham	Northumberland
	NF-02-D-02	Industrial Estate, Dereham	Norfolk
	NT-02-D-01	Ind. Estate, Sutton-In-Ashfield	Nottinghamshire
	SF-02-D-02	Industrial Estate, Ipswich	Suffolk
	TW-02-D-06	Industrial Estate, N. Shields	Tyne & Wear
	WH-02-D-01	Industrial Estate, Balham	Wandsworth
	WL-02-D-01	Ind. Estate, Wootton Bassett	Wiltshire
	WY-02-D-02	Industrial Est., Huddersfield	West Yorkshire
<b>B8 Warehousing</b>	CR-02-F-01	Warehousing Estate, Cork	Cork
	GC-02-F-01	Distribution Cen., Glasgow	Glasgow City
	HF-02-F-02	Superstore Dist., Welwyn Gc	Hertfordshire
	WO-02-F-02	Distribution Centre, Worcester	Worcestershire
<b>Hotel</b>	CA-06-A-02	Hotel, Cambridge	Cambridgeshire
	CF-06-A-02	Macdonald Hotel, Cardiff	Cardiff
	CN-06-A-01	Holiday Inn, Hampstead	Camden
	DS-06-A-01	Days Inn, Derby	Derbyshire
	DU-06-A-01	Travel Inn, Dundee	Dundee City
	DV-06-A-01	Premier Travel Inn, Plymouth	Devon
	GM-06-A-07	Travelodge, Manchester	Greater Manchester
	HI-06-A-03	Express By Holiday Inn, Inverness	Highland
	MR-06-A-01	Express By Holiday Inn, Col. Wood	Merton
	NF-06-A-01	Hotel, Norwich	Norfolk
	NH-06-A-01	Hotel, Stratford	Newham
	TV-06-A-01	Hotel, Middlesbrough	Tees Valley
	TW-06-A-01	Premier Trav. Inn, Newcastle	Tyne & Wear
	WM-06-A-03	Hotel, Coventry	West Midlands
	WS-06-A-02	Express By Holiday Inn, Crawley	West Sussex
	WT-06-A-01	Hotel, Athlone	Westmeath
WY-06-A-01	Express By Holiday Inn, Bradford	West Yorkshire	
<b>Leisure</b>	CB-07-C-01	Leisure Centre, Workington	Cumbria
	CW-07-C-01	Leisure Centre, St Austell	Cornwall
	DC-07-C-05	Leisure Centre, Bridport	Dorset
	DL-07-C-01	Leisure Centre, Dublin	Dublin
	FA-07-C-01	Leisure Centre, Stenhseuir	Falkirk

**Table N2.3: TRICS sites used for calculation of trip rates (continued)**

Land Use	Site Ref	Description	Location
<b>Leisure</b>	GM-07-C-04	Leisure Centre, Sale	Greater Manchester
	GS-07-C-01	Leisure Centre, Gloucester	Gloucestershire
	HC-07-C-06	Leisure Centre, Southampton	Hampshire
	MS-07-C-01	Leisure Centre, Huyton	Merseyside
	MS-07-C-02	Leisure Centre, Liverpool	Merseyside
	WO-07-C-02	Leisure Centre, Droitwich	Worcestershire
	WS-07-C-04	Leisure Centre, Crawley	West Sussex
<b>Local Retail</b>	CF-01-I-01	Local Shops, Cardiff	Cardiff
	DC-01-I-03	Local Shops, Christchurch	Dorset
	DS-01-I-01	Local Shops, Dronfield	Derbyshire
	EX-01-I-01	Local Shops, Loughton	Essex
	HC-01-I-02	Local Shops, Winchester	Hampshire
	MS-01-I-01	Local Shops, Liverpool	Merseyside
	NY-01-I-01	Local Shops, Scarborough	North Yorkshire
	SG-01-I-01	Local Shops, Bristol	South Gloucestershire
	TW-01-I-01	Local Shops, North Shields	Tyne & Wear
	WM-01-I-01	Local Shops, Coventry	West Midlands
	WM-01-I-02	Local Shops, Solihull	West Midlands
<b>Primary School</b>	DV-04-A-03	Primary School, Plymouth	Devon
	MS-04-A-01	RC Primary School, St Helens	Merseyside
	WO-04-A-01	Primary School, Droitwich	Worcestershire
<b>Secondary School</b>	CB-04-B-01	Secondary School, Workington	Cumbria
	DC-04-B-04	Secondary School, Sherborne	Dorset
	EX-04-B-01	Secondary School, Colchester	Essex
	HC-04-B-04	Secondary School, Andover	Hampshire
	KH-04-B-01	Private College, Hull	Kingston Upon Hull
	LE-04-B-01	Grammar School, Lutterworth	Leicestershire
	LN-04-B-01	Secondary School, Lincoln	Lincolnshire
	OX-04-B-01	Secondary School, Oxford	Oxfordshire
ST-04-B-01	Secondary School, Stoke	Staffordshire	

## N2.3 Trip Distribution

### N2.3.1 Internal and External Zones

In order to consider the trip distribution, both within the Fabian Way corridor and further afield, it is useful to group certain neighbouring internal zones to create 'internal super zones' as outlined in Table N2.4 below.

**Table N2.4: Internal Super Zones**

Zones	Description
A	SA1
BCDE	Docks
FGIJ	Baldwins Bridge
HKLM	University Cluster
NOP	Amazon Park
Q	Coed Darcy

Reviewing the 2001 Census Journey to Work data, it is possible to determine the origins of people travelling to the study area, as shown on Figure N2.1. Again it is useful to group these to create a manageable number of external zones as outlined in Table N2.5.

**Table N2.5: External Zones**

Zone	Description
1	Llanelli
2	Pontardulais
3	Gorseinon
4	Mumbles/Bishopston
5	Swansea West
6	Swansea Central
7	Swansea North
8	Ammanford/Brynamman
9	Pontadawe
10	Clydach
11	Birchgrove/Llansamlet
12	Skewen
13	Neath
14	Briton Ferry/Baglan
15	Port Talbot
16	Bridgend
17	Cardiff

**N2.3.2 External Distribution**

The distribution of development related trips has been based on Journey to Work information contained in the 2001 Census. The Study area is covered by three wards: Castle, St Thomas and Coedffranc West. Data has been summarised for each of these three wards, both in terms of people arriving at each ward from the 17 external zones, and people leaving each ward to travel to each of the external zones, as summarised in Table N2.6 below.

**Table N2.6: 2001 Census External Trip Distribution**

Zone		Castle		St Thomas		Coedffranc West	
		Arr	Dep	Arr	Dep	Arr	Dep
1	Llanelli	3%	1%	4%	2%	3%	2%
2	Pontardulais	2%	0%	2%	0%	1%	1%
3	Gorseinon	8%	3%	6%	2%	6%	3%
4	Mumbles/Bishopston	10%	3%	9%	2%	6%	1%
5	Swansea West	20%	13%	15%	11%	9%	5%
6	Swansea Central	10%	48%	6%	31%	2%	13%
7	Swansea North	26%	14%	25%	22%	17%	13%
8	Ammanford/Brynamman	2%	1%	1%	0%	3%	0%
9	Pontadawe	2%	0%	2%	1%	5%	1%
10	Clydach	2%	1%	3%	0%	3%	1%
11	Birchgrove/Llansamlet	6%	10%	12%	20%	7%	13%
12	Skewen	1%	0%	1%	1%	7%	12%
13	Neath	3%	1%	6%	1%	14%	17%
14	Briton Ferry/Baglan	1%	0%	2%	0%	6%	3%
15	Port Talbot	3%	2%	4%	5%	9%	10%
16	Bridgend	1%	0%	1%	0%	1%	1%
17	Cardiff	1%	2%	1%	2%	1%	3%
	Total	100%	100%	100%	100%	100%	100%

For the proposed developments at the western extent of the corridor (SA1 and the Docks) the external distribution has been assumed to match that of the Castle ward. For development towards the middle of the corridor (Baldwins Bridge and University Cluster) the external distribution has been assumed to match that of the St Thomas ward, and development towards the eastern extent of the corridor (Amazon Park and Coed Darcy) has been assumed to match that of the Coedffranc West ward.

**N2.3.3 Internal Trips**

In addition to development trips distributed to the external zones, there will be a level of internal trips within the study area. For the SA1 and Coed Darcy developments, the level of internal trips within each development has been assumed to match the figures in the respective Transport Assessment Reports, as summarised in Table N2.7.

**Table N2.7: SA1 and Coed Darcy Internal Trips**

	Land Use	Internal Trips
<b>SA1</b>	Residential	10%
	Employment - Office	10%
	Leisure	10%
	Local Retail	90%
	Hotel	10%
	Onshore Marine Facilities	10%
<b>Coed Darcy</b>	Residential (Houses)	15%
	Employment - Office	25%
	Employment - Light Ind	25%
	Retail	40%
	Commercial	40%
	Education - Primary	40%
	Education - Secondary	50%

Due to the size of the Study area and mix of land uses, there will also be a high level of internal trips between the internal zones, such as people living in SA1 and working in Amazon Park, or people living in Coed Darcy and working in SA1.

The development mix is such that in the AM Peak the total level of inbound development related trips outnumber the outbound development related trips, and in the PM Peak the opposite is true. As such, the level of trips between the internal zones has been assumed to be 30% of the smaller of the inbound or outbound trip total. For the AM Peak, 30% of the outbound trips equates to 14% of the total development related trips, and for the PM Peak 30% of the inbound trips also equates to 14% of the total.

The level of trips from each internal zone to each other internal zone has been balanced using a matrix Furness process, with initial seed values selected to ensure sensible trip levels (i.e. not allowing any further internal trips within SA1, and increasing the level of internal trips between the University and other neighbouring employment land uses.)

## N2.4 Resultant Person Trip Demand Matrix

The trip generation and distribution assumptions outlined in the previous sections result in the development related person trip demand matrices shown in Tables E2.8 and E2.9 below.

**Table N2.8: AM Peak Person Trip Demand Matrix**

	Zone From\To																		Total						
		A	BCDE	FGJ	HKLM	NOP	Q	1	2	3	4	5	6	7	8	9	10	11		12	13	14	15	16	17
SA1	A	0	14	54	86	50	186	24	18	70	88	183	94	235	20	20	19	53	12	31	11	24	5	6	<b>1303</b>
Docks	BCDE	8	1	4	7	4	15	2	2	7	9	19	10	24	2	2	2	5	1	3	1	2	0	1	<b>132</b>
Baldwins Bridge	FGIJ	24	3	13	20	12	43	10	4	17	24	40	15	69	2	6	9	32	3	16	6	11	2	3	<b>384</b>
University Cluster	HKLM	2	0	1	139	1	3	13	5	21	30	50	19	87	3	8	11	40	3	20	8	13	3	4	<b>485</b>
Amazon Park	NOP	17	2	9	14	8	31	5	3	11	12	18	4	33	5	10	6	14	13	27	12	18	2	1	<b>276</b>
Coed Darcy	Q	284	40	150	238	139	0	51	29	112	123	180	39	338	54	101	65	143	137	273	123	183	18	15	<b>2835</b>
Llanelli	1	18	3	13	29	18	24																		<b>106</b>
Pontardulais	2	3	1	3	7	7	10																		<b>30</b>
Gorseinon	3	35	6	14	32	24	32																		<b>144</b>
Mumbles/Bishopston	4	33	6	15	34	7	10																		<b>105</b>
Swansea West	5	169	31	95	207	42	54																		<b>598</b>
Swansea Central	6	621	114	273	596	109	141																		<b>1853</b>
Swansea North	7	186	34	198	432	109	141																		<b>1100</b>
Ammanford/Brynamman	8	8	1	3	7	0	0																		<b>18</b>
Pontadawe	9	3	1	10	23	9	11																		<b>57</b>
Clydach	10	10	2	3	7	9	11																		<b>41</b>
Birchgrove/Llansamlet	11	126	23	175	382	110	143																		<b>959</b>
Skewen	12	4	1	7	16	101	131																		<b>261</b>
Neath	13	13	2	12	26	139	181																		<b>374</b>
Briton Ferry/Baglan	14	5	1	1	3	21	27																		<b>59</b>
Port Talbot	15	23	4	41	89	79	103																		<b>340</b>
Bridgend	16	5	1	3	7	11	14																		<b>41</b>
Cardiff	17	22	4	16	35	28	36																		<b>141</b>
<b>Total</b>		<b>1620</b>	<b>297</b>	<b>1116</b>	<b>2435</b>	<b>1039</b>	<b>1346</b>	<b>105</b>	<b>62</b>	<b>238</b>	<b>286</b>	<b>489</b>	<b>181</b>	<b>786</b>	<b>86</b>	<b>146</b>	<b>111</b>	<b>288</b>	<b>170</b>	<b>368</b>	<b>163</b>	<b>252</b>	<b>30</b>	<b>31</b>	<b>11644</b>

**Table N2.9: PM Peak Person Trip Demand Matrix**

	Zone From\To	A	BCDE	FGIJ	HKLM	NOP	Q	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total
		SA1	A	0	39	51	2	17	233	19	4	37	34	177	650	194	8	4	11	132	4	14	5	24	6
Docks	BCDE	14	5	7	0	2	30	3	1	6	6	30	110	33	1	1	2	22	1	2	1	4	1	4	<b>287</b>
Baldwins Bridge	FGIJ	51	18	24	1	8	109	13	3	14	15	89	256	186	3	10	3	164	7	11	1	38	3	15	<b>1041</b>
University Cluster	HKLM	79	28	37	140	12	168	28	6	30	32	196	562	408	6	22	6	361	15	25	3	84	6	33	<b>2289</b>
Amazon Park	NOP	46	17	22	1	7	98	17	7	22	7	38	98	98	0	8	8	99	92	126	19	72	10	25	<b>933</b>
Coed Darcy	Q	161	58	75	3	25	0	28	11	37	11	64	166	166	0	13	13	168	155	213	32	121	17	43	<b>1580</b>
Llanelli	1	21	10	19	13	4	38																		<b>106</b>
Pontardulais	2	16	8	8	5	2	22																		<b>62</b>
Gorseinon	3	63	30	31	21	9	84																		<b>239</b>
Mumbles/Bishopston	4	79	37	44	30	10	93																		<b>294</b>
Swansea West	5	165	77	75	51	15	135																		<b>518</b>
Swansea Central	6	85	40	29	19	3	29																		<b>205</b>
Swansea North	7	212	100	128	87	29	254																		<b>810</b>
Ammanford/Brynamman	8	18	8	4	3	5	41																		<b>78</b>
Pontadawe	9	18	8	11	8	9	76																		<b>130</b>
Clydach	10	17	8	16	11	5	48																		<b>106</b>
Birchgrove/Llansamlet	11	48	23	60	41	12	107																		<b>291</b>
Skewen	12	11	5	5	3	12	103																		<b>139</b>
Neath	13	27	13	29	20	23	204																		<b>317</b>
Briton Ferry/Baglan	14	10	5	12	8	10	93																		<b>138</b>
Port Talbot	15	22	10	20	14	16	137																		<b>218</b>
Bridgend	16	4	2	4	3	1	13																		<b>28</b>
Cardiff	17	5	3	6	4	1	11																		<b>31</b>
<b>Total</b>		<b>1173</b>	<b>552</b>	<b>719</b>	<b>490</b>	<b>240</b>	<b>2126</b>	<b>107</b>	<b>31</b>	<b>146</b>	<b>105</b>	<b>593</b>	<b>1843</b>	<b>1085</b>	<b>18</b>	<b>56</b>	<b>42</b>	<b>947</b>	<b>274</b>	<b>391</b>	<b>61</b>	<b>344</b>	<b>42</b>	<b>143</b>	<b>11529</b>

### N3 Future Year Base Traffic

The future year vehicular traffic levels, excluding further development along the Fabian Way corridor, have been estimated using existing traffic information from a variety of sources and applying suitable growth factors to bring these up to 2009 levels, with further growth applied to provide future assessment years.

The AM Peak period represents 08:00 to 09:00 on a typical weekday, while the PM Peak period represents 17:00 to 18:00.

The sources of the traffic count data are as set out below:

- Jersey Marine junction (2008 Arup Study, 2007 Hyder Amazon Transport Assessment, 2003 Arup Study, 2006 NPT link count)
- Elba Crescent / Proposed University Access (2007 and 2008 NPT link counts)
- Baldwins Bridge (2003 Arup Study)
- Langdon Road / Park and Ride (2008 CCS turning count)
- SA1 Main Access (2006 CCS turning count)
- Tawe Bridges (2003 Faber Maunsell Study)

Growth has been applied using the National Trip End Model (NTEM) factors extracted from TEMPRO, using the version 5.4 Datasets. This allows local levels of growth to be applied based on localised information. The Study Area in TEMPRO was limited to the Geographical Regions set out in Table N3.1, for all Trip Purposes, Origin/Destination Trip End Types, and extracted separately for the AM and PM weekday peak periods.

**Table N3.1: TEMPRO Geographical Regions**

<b>Swansea</b>	Swansea (main)
<b>Neath Port Talbot</b>	Neath Port Talbot Pontardawe / Clydach (main) Swansea (part of)

This results in growth factors to be applied to historic data to bring up to 2009 levels, as set out in Table N3.2. The resultant 2009 traffic counts are shown on Figures E3.1 and E3.2 for the AM and PM peaks respectively.

**Table N3.2: TEMPRO Growth Factors to 2009 levels.**

	<b>AM</b>	<b>PM</b>
<b>2003</b>	1.041	1.053
<b>2004</b>	1.033	1.042
<b>2005</b>	1.025	1.031
<b>2006</b>	1.017	1.02
<b>2007</b>	1.011	1.013
<b>2008</b>	1.006	1.007
<b>2009</b>	1	1

The growth factors from 2009 levels to future years are set out in Table N3.3.

**Table N3.3: TEMPRO Growth Factors from 2009 levels**

	AM	PM
<b>2009</b>	1	1
<b>2019</b>	1.048	1.052
<b>2024</b>	1.065	1.073
<b>2029</b>	1.073	1.089
<b>2034</b>	1.082	1.104

The appraisal of all the Packages has been made using 2024 traffic levels (15 years in the future), and the Preferred Strategy (Package 5) has also been assessed for 2019 and 2034 traffic levels (10 and 25 years in the future).

In addition, an allowance has been made for modal shift based on the improved journey times for each mode in each Package. This is described further in Section N5 of this Appendix.

## N4 Journey Times

The journey times between each of the internal and external zones by each mode have been assessed for the existing situation and for each of the Packages.

### N4.1 Journey Times by Car

---

Car journey times have been estimated using Google Maps Directions using representative origins and destinations for each zone, with 5 minutes added to the start and end of the journey to allow for drivers walking between their car and their point of origin and point of destination. The journey times from Google Maps Directions were found to correlate well with measured journey time surveys by car during the peak periods on the routes tested. Assessments have been made as to the effects of the various measures included in the Packages on the journey times.

The resultant journey times by car are summarised in Table N4.1.

### N4.2 Journey Times by Train

---

Train journey times have been estimated using the Traveline website for peak hour journeys, using suitable connecting bus or walking routes to/from representative origins and destinations for each zone. The journey times include allowances for interchange, as well as walking time added to the start and end of the journey to allow for travel from/to the traveller's point of origin or point of destination. Some origins do not lead to sensible trips by train, for example those within Swansea, and have thus been omitted from the table.

The resultant journey times by train are summarised in Table N4.2.

### N4.3 Journey Times by Bus

---

Bus journey times have been estimated using the Traveline website for peak hour journeys, using suitable connecting walking routes to/from representative origins and destinations for each zone. The journey times include allowances for interchange, as well as walking time added to the start and end of the journey to allow for travel from/to the travellers point of origin or point of destination.

The resultant journey times by bus are summarised in Table N4.3.

### N4.4 Journey Times by Cycle

---

Cycle journey times have been estimated by measuring the distance from origin to destination by suitable cycling route, applying an assumed base cycling speed of 16km/h and including allowance for gradient and improved routes. The journey times include a time allowance for preparing for the journey and concluding the journey. Many points of origin lead to unsuitable cycle journeys and have been excluded from the table.

The resultant journey times by cycle are summarised in Table N4.4.

### N4.5 Journey Times by Walking

---

Walking journey times have been estimated by measuring the distance from origin to destination by suitable walking route, and applying a walking speed in line with Naismith's Rule, which includes an allowance for gradient and an allowance for improved routes. Many points of origin lead to unsuitable walking journeys and have been excluded from the table.

The resultant journey times by walking are summarised in Table N4.5.

**Table N4.1: Journey Times by Car (in minutes)**

Zone		Base			Package 1			Package 2			Package 3			Package 4		
		Castle	St Thomas	Coedffranc West	Castle	St Thomas	Coedffranc West	Castle	St Thomas	Coedffranc West	Castle	St Thomas	Coedffranc West	Castle	St Thomas	Coedffranc West
1	Llanelli	38	42	39	38	41	36	38	40	35	38	40	35	38	39	34
2	Pontardulais	32	34	29	32	33	26	32	32	25	32	32	25	32	31	24
3	Gorseinon	29	32	31	29	31	28	29	30	27	29	30	27	29	29	26
4	Mumbles/Bishopston	23	26	32	23	25	29	23	24	28	23	24	28	23	23	27
5	Swansea West	19	25	30	19	24	27	19	23	26	19	23	26	19	22	25
6	Swansea Central	10	18	24	10	17	21	10	16	20	10	16	20	10	15	19
7	Swansea North	17	21	27	17	20	24	17	19	23	17	19	23	17	18	22
8	Ammanford/Brynamman	43	46	41	43	45	38	43	44	37	43	44	37	43	43	36
9	Pontadawe	35	36	31	35	35	28	35	34	27	35	34	27	35	33	26
10	Clydach	30	31	26	30	30	23	30	29	22	30	29	22	30	28	21
11	Birchgrove/Llansamlet	25	23	22	24	21	21	23	23	21	23	23	20	22	23	20
12	Skewen	30	24	19	28	24	19	24	21	15	22	18	17	22	19	17
13	Neath	33	27	22	31	27	22	27	24	19	25	21	20	25	22	20
14	Briton Ferry/Baglan	28	24	17	26	24	17	22	21	14	20	18	15	20	19	15
15	Port Talbot	32	26	21	30	26	21	26	23	18	24	20	19	24	21	19
16	Bridgend	46	40	35	44	40	35	40	37	32	38	34	33	38	35	33
17	Cardiff	65	59	54	63	59	54	59	56	51	57	53	52	57	54	52

**Table N4.2: Journey Times by Train (in minutes)**

Zone		Base			Package 1			Package 2			Package 3			Package 4		
		Castle	St Thomas	Coedffranc West	Castle	St Thomas	Coedffranc West	Castle	St Thomas	Coedffranc West	Castle	St Thomas	Coedffranc West	Castle	St Thomas	Coedffranc West
1	Llanelli	51	52	71	51	52	71	51	52	71	51	52	71	51	52	71
2	Pontardulais	60	61	75	60	61	75	60	61	75	60	61	75	60	61	75
3	Gorseinon	55	56	59	55	56	59	55	56	59	55	56	59	55	56	59
4	Mumbles/Bishopston															
5	Swansea West															
6	Swansea Central															
7	Swansea North															
8	Ammanford/Brynamman	78	79	85	78	79	85	78	79	85	78	79	85	78	79	85
9	Pontadawe	101	76		101	76		101	76		101	76		101	76	
10	Clydach	93	95		93	95		93	95		93	95		93	95	
11	Birchgrove/Llansamlet	34	36		34	36		34	36		34	36		34	36	
12	Skewen	49	51		49	51		49	51		49	51		49	51	
13	Neath	44	46		44	46		44	46		44	46		44	46	
14	Briton Ferry/Baglan	56	58		56	58		56	58		56	58		56	58	
15	Port Talbot	66	68	53	66	68	53	66	68	53	66	68	53	66	68	53
16	Bridgend	70	72	61	70	72	61	70	72	61	70	72	61	70	72	61
17	Cardiff	91	92	116	91	92	116	91	92	116	91	92	116	91	92	116

**Table N4.3: Journey Times by Bus (in minutes)**

Zone		Base			Package 1			Package 2			Package 3			Package 4		
		Castle	St Thomas	Coedffranc West	Castle	St Thomas	Coedffranc West	Castle	St Thomas	Coedffranc West	Castle	St Thomas	Coedffranc West	Castle	St Thomas	Coedffranc West
1	Llanelli	65	65	66	65	64	65	65	63	59	65	63	64	65	63	59
2	Pontardulais	60	60	62	60	59	61	60	58	55	60	58	60	60	58	55
3	Gorseinon	59	59	65	59	58	64	59	57	58	59	57	63	59	57	58
4	Mumbles/Bishopston	40	40	47	40	39	46	40	38	40	40	38	45	40	38	40
5	Swansea West	35	35	41	35	34	40	35	33	34	35	33	39	35	33	34
6	Swansea Central	11	11	23	11	10	22	11	9	16	11	9	21	11	9	16
7	Swansea North	29	29	39	29	28	38	29	27	32	29	27	37	29	27	32
8	Ammanford/Brynamman	78	94	95	78	93	94	78	92	88	78	92	93	78	92	88
9	Pontadawe	57	77	81	57	76	80	57	75	74	57	75	79	57	75	74
10	Clydach	46	64	73	46	63	72	46	62	66	46	62	71	46	62	66
11	Birchgrove/Llansamlet	36	35	41	35	34	41	35	33	36	34	33	39	35	33	36
12	Skewen	39	39	24	38	39	24	32	34	21	37	39	24	32	34	21
13	Neath	43	47	35	42	47	35	36	42	32	41	47	35	36	42	32
14	Briton Ferry/Baglan	36	28	11	35	28	11	29	23	8	34	28	11	29	23	8
15	Port Talbot	47	39	30	46	39	30	40	34	27	45	39	30	40	34	27
16	Bridgend	61	65	57	60	65	57	54	60	54	59	65	57	54	60	54
17	Cardiff	82	98	74	81	98	74	75	93	71	80	98	74	75	93	71

**Table N4.4 Journey Times by Cycle (in minutes)**

Zone		Base			Package 1			Package 2			Package 3			Package 4		
		Castle	St Thomas	Coedffranc West	Castle	St Thomas	Coedffranc West	Castle	St Thomas	Coedffranc West	Castle	St Thomas	Coedffranc West	Castle	St Thomas	Coedffranc West
1	Llanelli															
2	Pontardulais															
3	Gorseinon															
4	Mumbles/Bishopston	45	53	71	43	51	68	42	49	66	44	52	69	42	49	66
5	Swansea West	25	43	58	24	41	56	23	40	54	24	42	56	23	40	54
6	Swansea Central	13	21	41	12	20	39	12	20	38	13	20	40	12	20	38
7	Swansea North	23	30	50	22	29	48	21	28	46	22	29	49	21	28	46
8	Ammanford/Brynamman															
9	Pontadawe															
10	Clydach															
11	Birchgrove/Llansamlet	47	62	47	45	59	45	44	58	44	46	60	46	44	58	44
12	Skewen	60	51	36	57	49	34	56	47	33	58	50	35	56	47	33
13	Neath	71	61	46	68	58	44	66	57	43	69	59	45	66	57	43
14	Briton Ferry/Baglan	56	47	32	54	45	31	52	44	30	54	46	31	52	44	30
15	Port Talbot															
16	Bridgend															
17	Cardiff															

**Table N4.5 Journey Times by Walking (in minutes)**

Zone		Base			Package 1			Package 2			Package 3			Package 4		
		Castle	St Thomas	Coedffranc West	Castle	St Thomas	Coedffranc West	Castle	St Thomas	Coedffranc West	Castle	St Thomas	Coedffranc West	Castle	St Thomas	Coedffranc West
1	Llanelli															
2	Pontardulais															
3	Gorseinon															
4	Mumbles/Bishopston															
5	Swansea West	49			44			44			47			47	44	
6	Swansea Central	5	33		5	30		5	30		5	31		5	31	5
7	Swansea North	42	64		38	58		38	58		40	61		40	61	38
8	Ammanford/Brynamman															
9	Pontadawe															
10	Clydach															
11	Birchgrove/Llansamlet															
12	Skewen															
13	Neath															
14	Briton Ferry/Baglan															
15	Port Talbot															
16	Bridgend															
17	Cardiff															

## N5 Modal Splits

The modal split for each of the external zones was extracted from the 2001 Census Journey to Work information as the basis for the modal splits for each Package. These modal splits are summarised in Table N5.1.

**Table N5.1: 2001 Census Journey to Work**

Zone		Car Occupancy			Car (Driver & Pass'ger)			Train			Bus			Cycle			Walk		
		Castle	St Thomas	Coed FW	Castle	St Thomas	Coed FW	Castle	St Thomas	Coed FW	Castle	St Thomas	Coed FW	Castle	St Thomas	Coed FW	Castle	St Thomas	Coed FW
1	Llanelli	1.10	1.13	1.08	73%	100%	100%	22%	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%	0%
2	Pontardulais	1.17	1.00	1.00	85%	100%	88%	1%	0%	0%	14%	0%	12%	0%	0%	0%	0%	0%	0%
3	Gorseinon	1.17	1.09	1.11	78%	86%	97%	0%	0%	0%	22%	14%	3%	0%	0%	0%	0%	0%	0%
4	Mumbles/Bishopston	1.15	1.00	1.03	86%	90%	97%	0%	0%	0%	12%	5%	0%	2%	5%	3%	0%	0%	0%
5	Swansea West	1.20	1.03	1.06	64%	91%	100%	0%	3%	0%	17%	6%	0%	2%	0%	0%	16%	0%	0%
6	Swansea Central	1.19	1.17	1.11	34%	76%	91%	0%	8%	0%	8%	0%	9%	2%	8%	0%	57%	8%	0%
7	Swansea North	1.26	1.11	1.09	67%	93%	98%	0%	0%	0%	26%	2%	1%	1%	0%	1%	6%	5%	0%
8	Ammanford/Brynamman	1.14	1.00	1.09	96%	100%	100%	0%	0%	0%	4%	0%	0%	0%	0%	0%	0%	0%	0%
9	Pontadawe	1.14	1.00	1.13	84%	100%	100%	0%	0%	0%	16%	0%	0%	0%	0%	0%	0%	0%	0%
10	Clydach	1.22	1.21	1.06	81%	74%	100%	0%	0%	0%	19%	26%	0%	0%	0%	0%	0%	0%	0%
11	Birchgrove/Llansamlet	1.27	1.13	1.08	76%	96%	97%	2%	0%	0%	21%	4%	3%	1%	0%	0%	0%	0%	0%
12	Skewen	1.09	1.00	1.07	78%	100%	97%	7%	0%	0%	15%	0%	3%	0%	0%	0%	0%	0%	0%
13	Neath	1.15	1.28	1.11	78%	100%	93%	12%	0%	0%	10%	0%	4%	0%	0%	3%	0%	0%	0%
14	Briton Ferry/Baglan	1.13	1.21	1.19	81%	100%	97%	2%	0%	0%	17%	0%	0%	0%	0%	3%	0%	0%	0%
15	Port Talbot	1.13	1.19	1.14	87%	86%	96%	3%	0%	2%	9%	14%	2%	0%	0%	0%	0%	0%	0%
16	Bridgend	1.22	1.00	1.33	85%	100%	80%	11%	0%	0%	4%	0%	20%	0%	0%	0%	0%	0%	0%
17	Cardiff	1.00	1.00	1.30	73%	100%	100%	8%	0%	0%	19%	0%	0%	0%	0%	0%	0%	0%	0%

By comparing the modal split from each external zone to each of the wards in the Study area with the journey time for each of these movements, the relative attraction of each mode can be assessed for each zone pair. Given the revised travel times by each mode for each origin and destination, revised modal splits for each zone can be assumed for each Package.

In addition, it was assumed that the corridor-wide Travel Plan proposed in all of the Packages would increase car occupancy by around 10% by actively promoting and rewarding car sharing, and restricting car parking in new developments.

These revised modal splits for each zone were applied to the Person Trip Demand Matrices to give Trip Demand Matrices by each mode for each Package. A summary of these matrices is given in Table N5.2 below.

**Table N5.2: Resultant Overall Modal Splits**

Mode	Package					
	Do- Minimum	1	2	3	4	5
<b>Car</b>	85%	80%	76%	83%	79%	77%
<b>(Car Occupancy)</b>	(1.133)	(1.246)	(1.246)	(1.246)	(1.246)	(1.246)
<b>Train</b>	3%	3%	3%	3%	3%	3%
<b>Bus</b>	5%	7%	9%	7%	9%	9%
<b>Cycle</b>	3%	4%	5%	3%	4%	5%
<b>Walk</b>	4%	6%	7%	4%	5%	6%

The modal shift associated with the improvements in the Packages would also be mirrored in the base traffic, causing modal shift away from the car. In addition to the traffic growth factors applied to the future year base traffic, reduction factors have also been applied to model this modal shift.

In addition, it was assumed that in the Do-Minimum, no additional Park and Ride facility would be provided. In each of the Packages, a new Park and Ride is assumed to be provided within Amazon Park. Due to the high level of bus priority in Packages 2, 4, and 5 it has been assumed that around 750 cars would divert from Fabian Way in the AM peak at the Jersey Marine Junction, and rejoin Fabian Way in the PM peak upon leaving the Park and Ride. With the reduced level of bus priority in Packages 1 and 3, it has been assumed that 500 cars would use the Park and Ride in the peaks.

## N6 Design Traffic Flows

Using the Car Trip Demand Matrices, the car trips associated with the proposed developments have been assigned to the highway network in the Study area using sensible zone to zone routes for each Package. The design traffic flows used to assess each Package are the sum of the future year base traffic flows and Package specific development flows as described in the earlier sections of this appendix.

The resultant traffic flows used in the assessment are shown on the following figures:

- Figure N6.1: 2024 Do-Minimum AM peak traffic flows
- Figure N6.2: 2024 Do-Minimum PM peak traffic flows
- Figure N6.3: 2024 Package 1 AM peak traffic flows
- Figure N6.4: 2024 Package 1 PM peak traffic flows
- Figure N6.5: 2024 Package 2 AM peak traffic flows
- Figure N6.6: 2024 Package 2 PM peak traffic flows
- Figure N6.7: 2024 Package 3 AM peak traffic flows
- Figure N6.8: 2024 Package 3 PM peak traffic flows
- Figure N6.9: 2024 Package 4 AM peak traffic flows
- Figure N6.10: 2024 Package 4 PM peak traffic flows
- Figure N6.11: 2024 Package 5 AM peak traffic flows
- Figure N6.12: 2024 Package 5 PM peak traffic flows
- Figure N6.13: 2019 Package 5 AM peak traffic flows
- Figure N6.14: 2019 Package 5 PM peak traffic flows
- Figure N6.15: 2031 Package 5 AM peak traffic flows
- Figure N6.16: 2031 Package 5 PM peak traffic flows

## N7 Capacity Analysis

### N7.1 Junction Capacity

The capacity of an urban highway network is typically limited by the capacity of its junctions rather than the highway links between them. As such the key junctions along Fabian Way have been assessed using a variety of methods to compare their capacities under each Package. These key junctions are (from east to west):

- Jersey Marine junction;
- Elba Crescent / Proposed University Access;
- Baldwins Bridge;
- Langdon Road / Park and Ride;
- SA1 Main Access; and
- Tawe Bridges.

It is important at this stage to clarify what the measure for capacity is at the junctions in this assessment. Advice on this matter can be found in TA23/81, which covers priority and roundabout junctions. The capacity of a roundabout, for example is normally taken as the Ratio of Flow to Capacity (RFC) of 85% or 0.85. In other words, it allows for +/- 15% of the standard error and provides a level of confidence that for 5 out of every 6 cases queuing can be avoided.

However, it should be noted that a junction can still operate within capacity with an RFC up to 100%, albeit with a much lower level of confidence level in terms of queues occurring. The circular also mentions that higher values of RFCs can be accepted when there are implications on cost, on the environment or in urban areas.

In light of the above, RFCs up to 100% can be acceptable for peak periods. In order to distinguish between these two terms of capacity the following has been used:

- Practical Capacity – 85% for roundabouts and 90% for traffic signals; and
- Theoretical Capacity – 100% for all junctions.

#### N7.1.1 Jersey Marine Junction

The capacity of this junction has been assessed by comparing the traffic flows with the scenarios contained in Arup's Jersey Marine Junction: Junction Capacity Assessment report completed for WAG in April 2008. In this earlier study, a range of development scenarios were considered, and Scenario 11 was selected as the Reference Case by having the most comparable mix of turning movements for the current study, considering 2017 traffic levels including the Amazon warehouse, further development around Amazon Park, and the Coed Darcy development. The results from the 2008 study showed that for Scenario 11 in the AM Peak hour, the junction had total turning movements of 6490 Passenger Car Units or PCUs, resulting in a capacity of 90%, and in the PM Peak hour 6592 PCUs, resulting in a capacity of 94%. Due to the number of links involved, this Reference capacity has been taken as the average of the two worst performing links, rather than just the worst link, as further optimisation and localised improvements could enhance the situation.

By comparing the estimated traffic flows for the Do-Minimum situation and the five Packages to these reference cases, the capacity has been assessed, as summarised in Table N7.1 below.

**Table N7.1: 2024 Jersey Marine Junction Capacities**

		Packages					
		Do- Minimum	1	2	3	4	5
<b>Existing Junction</b>	<b>AM</b>	103%	88%	84%	77%	73%	79%
	<b>PM</b>	103%	88%	84%	76%	72%	78%
<b>Grade Separated Junction</b>	<b>AM</b>	-	-	48%	33%	35%	-
	<b>PM</b>	-	-	46%	30%	33%	-

**N7.1.2 Elba Crescent/Proposed University Access Junction**

The capacity of this junction has been assessed using a LinSig model with an assumed layout of two straight through lanes with additional dedicated right turn lanes on the main line, and two lane approaches on the Elba Crescent and the University arms. This proposed layout has been assessed in the absence of any firm proposals for the University’s second campus, and represents a sensible junction layout building upon the existing Elba Crescent junction layout.

It has been assumed that only half of the traffic associated with the University second campus uses this junction, the other half using an access at Baldwins Bridge. It is understood that the initial planning application will only made with NPT and thus the Baldwins Bridge connection will not be present initially, however discussions with various parties involved with the project agree that the second access is a sensible long-term aspiration.

The resultant junction capacities are summarised for the Do-Minimum situation and the five Packages in Table N7.2 below, stating the highest Degree of Saturation in each case.

**Table N7.2: 2024 Elba Crescent/Proposed University Access Junction Capacity**

		Packages				
		Do- Minimum	1	2	3	4
<b>AM</b>	145%	105%	100%	95%	90%	95%
<b>PM</b>	130%	100%	100%	80%	80%	85%

**N7.1.3 Baldwins Bridge Junction**

The capacity of this junction has been assessed using a LinSig model for the Packages that propose an at-grade signal controlled junction. The assumed layout includes two straight through lanes with additional dedicated left and right turn lanes on the main line, two lane approach on the southern arm, and two lane plus flare on the northern arm.

As discussed above, it has been assumed that this junction will cater for half of the traffic associated with the University second campus, in addition to the landuses in the docks and areas to the north of Baldwins Bridge.

The resultant junction capacities are summarised for the Do-Minimum situation and the two relevant Packages in Table N7.3, stating the highest Degree of Saturation in each case.

**Table N7.3: 2024 Baldwins Bridge At-Grade Signal Controlled Junction Capacity**

	Packages					
	Do- Minimum	1	2	3	4	5
<b>AM</b>	-	90%	90%	-	-	-
<b>PM</b>	-	115%	95%	-	-	-

**N7.1.4 Langdon Road / Park and Ride Junction**

The capacity of this junction has been assessed using a LinSig model matching the existing configuration. It became apparent during the modelling process that the increased vehicular movements associated with the aspirational development would lead to the junction being significantly over capacity during both peak periods in all the Packages, and thus an improved junction arrangement has also been tested. The proposed layout includes additional flares on the main line to provide increased capacity, with widening on the exits to provide lane continuity.

The resultant junction capacities are summarised for the Do-Minimum situation and the five Packages in Table N7.4 below, stating the highest Degree of Saturation in each case.

**Table N7.4: 2024 Langdon Road/Park & Ride Junction Capacity**

		Packages					
		Do- Minimum	1	2	3	4	5
<b>Existing Junction</b>	<b>AM</b>	155%	135%	125%	140%	130%	125%
	<b>PM</b>	150%	130%	120%	130%	125%	120%
<b>Possible Improved Junction</b>	<b>AM</b>	110%	90%	85%	95%	90%	90%
	<b>PM</b>	110%	95%	90%	100%	95%	90%

**N7.1.5 SA1 Main Access Junction**

The capacity of this junction has been assessed using a LinSig model matching the existing configuration. It became apparent during the modelling process that the increased vehicular movements associated with the aspirational development would lead to the junction being significantly over capacity during both peak periods in all the Packages, and thus an improved junction arrangement has also been tested. The proposed layout included reworking the pedestrian crossings to allow more efficient signal staging, and widening the Fabian Way exits to provide lane continuity and improved capacity.

The resultant junction capacities are summarised for the Do-Minimum situation and the five Packages in Table N7.5, stating the highest Degree of Saturation in each case.

**Table N7.5: 2024 SA1 Main Access Junction Capacity**

		Packages					
		Do-Minimum	1	2	3	4	5
<b>Existing Junction</b>	<b>AM</b>	155%	130%	125%	135%	130%	125%
	<b>PM</b>	140%	120%	115%	125%	120%	120%
<b>Possible Improved Junction</b>	<b>AM</b>	125%	105%	100%	110%	105%	105%
	<b>PM</b>	125%	105%	100%	110%	105%	100%

**N7.1.6 Tawe Bridges Gyratory**

The capacity of this junction has been assessed by comparing the traffic flows with the Gyratory Option 2 contained in Faber Maunsell report entitled Tawe Bridges Feasibility Study dated May 2003. The study showed that in the PM peak the junction had total turning movements of 5777 PCUs, resulting in a capacity of 76%. Due to the number of links involved, this Reference capacity has been taken as the average of the two worst performing links, rather than just the worst link, as further optimisation and localised improvements could enhance the situation.

By comparing the estimated traffic flows for the Do-Minimum situation and the five Packages to these reference cases, the capacity has been assessed, as summarised in Table N7.6 below.

**Table N7.6: 2024 Tawe Bridges Gyratory Capacity**

	Package					
	Do-Minimum	1	2	3	4	5
<b>AM</b>	123%	99%	90%	103%	94%	91%
<b>PM</b>	132%	107%	98%	111%	102%	99%

**N7.2 Link Capacity**

Advice on the link capacity of highways is set out in TA 79/99, Design Manual For Roads and Bridges (DMRB), Volume 5. This guidance sets out the maximum hourly vehicle capacity for various types of urban road. The classification of Fabian Way falls into two road types:

- **From M4 Junction 42 to Langdon Road / Park and Ride Junction**  
UAP1: High standard single/dual carriageway road carrying predominantly through traffic with limited access; and
- **From Landon Road / Park and Ride Junction to Tawe Bridges**  
UAP2: Good standard single/dual carriageway road with frontage access and more than two side roads per km.

Both sections of Fabian way have 7.3m wide carriageways. Ffordd Amazon is also a 7.3m wide single carriageway.

Under Packages 1 and 2, the Community Corridor nature of the proposals would reclassify Fabian Way from Baldwins Bridge to Landon Road / Park and Ride Junction from UAP1 to

UAP2, with a corresponding reduction in link capacity. The resultant link capacities are shown in Table N7.8.

**Table N7.8: Fabian Way Link Capacities**

		Link Type and Capacity					
		Package					
Section	Width	Base	1	2	3	4	5
Tawe Bridges to Park and Ride	7.3m Dual	UAP2 3200	UAP2 3200	UAP2 3200	UAP2 3200	UAP2 3200	UAP2 3200
Park and Ride to Baldwins Bridge	7.3m Dual	UAP1 3600	UAP2 3200	UAP2 3200	UAP1 3600	UAP1 3600	UAP2 3200
Baldwins Bridge to Elba Crescent	7.3m Dual	UAP1 3600	UAP2 3200	UAP2 3200	UAP1 3600	UAP1 3600	UAP2 3200
Elba Crescent to Jersey Marine	7.3m Dual	UAP1 3600	UAP1 3600	UAP1 3600	UAP1 3600	UAP1 3600	UAP1 3600
Jersey Marine to J42	7.3m Dual	UAP1 3600	UAP1 3600	UAP1 3600	UAP1 3600	UAP1 3600	UAP1 3600
Amazon Link	7.3m Single	UAP2 1470	UAP2 1470	UAP2 1470	UAP2 1470	UAP2 1470	UAP2 1470

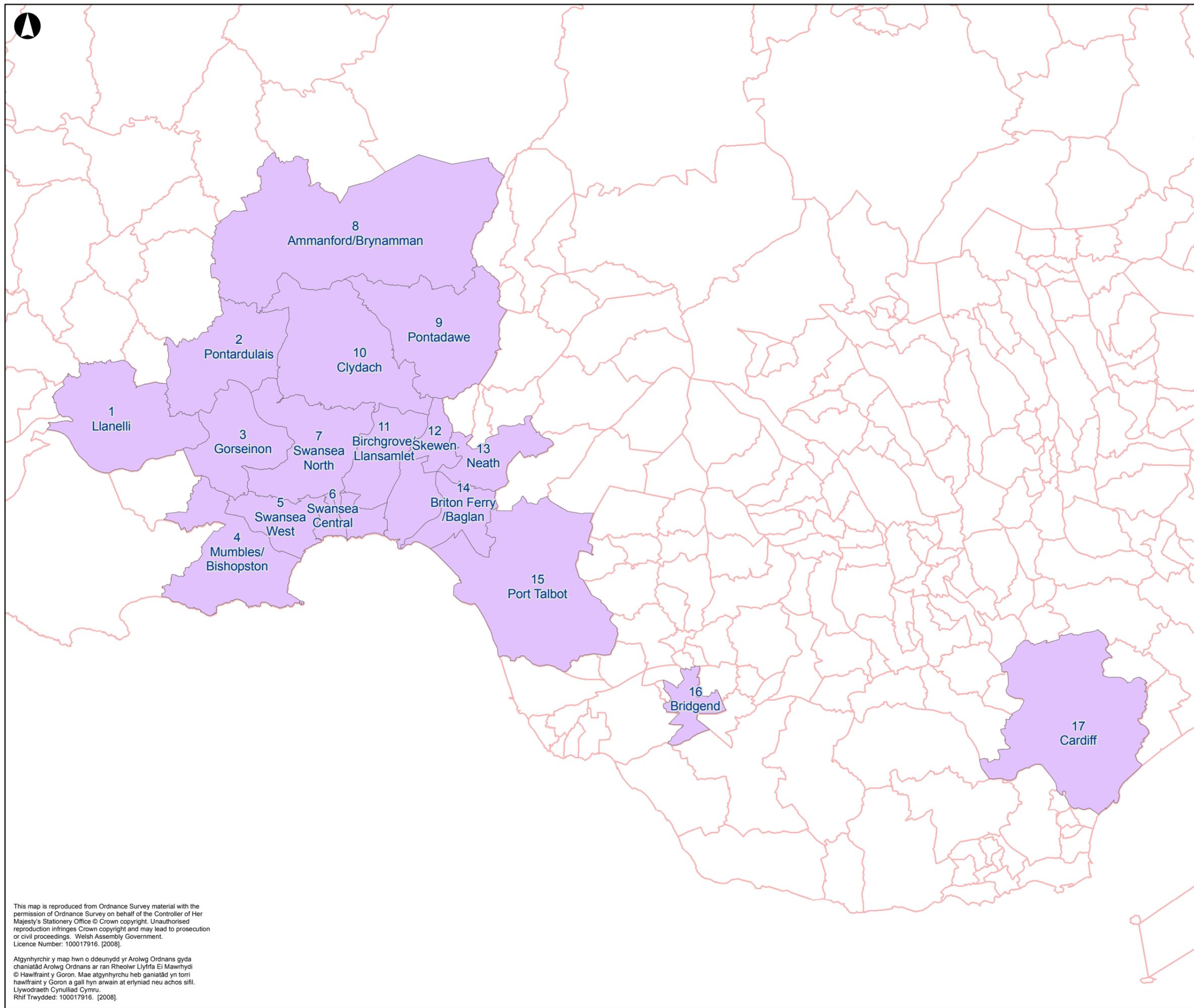
The link capacities along the corridor have been assessed for the five Packages and the Do-Minimum case for the 2024 AM and PM peak hours, as shown in Tables E7.9 and E7.10.

**Table N7.9: 2024 AM Peak Link Flows and Percentage Link Capacities**

	Link Flows (PCUs)						Percentage Capacity					
	Package						Package					
	Do-Minimum	1	2	3	4	5	Do-Minimum	1	2	3	4	5
<b>AM (Westbound)</b>												
Tawe Bridges to Park and Ride	1742	2023	1647	2118	1742	1679	54%	63%	51%	66%	54%	52%
Park and Ride to Baldwins Bridge	1515	1802	1437	1880	1515	1465	42%	56%	45%	52%	42%	46%
Baldwins Bridge to Elba Crescent	1495	2345	1953	1859	1495	2125	42%	73%	61%	52%	42%	59%
Elba Crescent to Jersey Marine	1842	2705	2295	2224	1842	2472	51%	75%	64%	62%	51%	69%
Jersey Marine to J42	2792	2827	2686	2933	2792	2721	78%	79%	75%	81%	78%	76%
Amazon Link	961	1136	1354	722	961	1023	65%	77%	92%	49%	65%	70%
<b>AM (Eastbound)</b>												
Tawe Bridges to Park and Ride	3825	3261	3098	3384	3221	3139	120%	102%	97%	106%	101%	98%
Park and Ride to Baldwins Bridge	3807	3247	3084	3719	3540	3124	106%	101%	96%	103%	98%	98%
Baldwins Bridge to Elba Crescent	3142	2681	2547	2495	2375	2241	87%	84%	80%	69%	66%	62%
Elba Crescent to Jersey Marine	2832	2417	2296	2064	1965	1987	79%	67%	64%	57%	55%	55%
Jersey Marine to J42	1698	1451	1378	1505	1433	1396	47%	40%	38%	42%	40%	39%
Amazon Link	983	836	795	266	253	763	67%	57%	54%	18%	17%	52%

**Table N7.10: 2024 PM Peak Link Flows and Percentage Link Capacities**

	Link Flows (PCUs)						Percentage Capacity					
	Package						Package					
	Do- Minimum	1	2	3	4	5	Do- Minimum	1	2	3	4	5
<b>PM (Westbound)</b>												
Tawe Bridges to Park and Ride	2898	2934	2787	3044	2898	2824	91%	92%	87%	95%	91%	88%
Park and Ride to Baldwins Bridge	2968	3020	2869	3118	2968	2904	82%	94%	90%	87%	82%	91%
Baldwins Bridge to Elba Crescent	2161	2826	2685	2270	2161	2411	60%	88%	84%	63%	60%	67%
Elba Crescent to Jersey Marine	1956	2633	2502	2055	1956	2223	54%	73%	69%	57%	54%	62%
Jersey Marine to J42	1731	1753	1665	1818	1731	1687	48%	49%	46%	51%	48%	47%
Amazon Link	159	574	545	167	159	534	11%	39%	37%	11%	11%	36%
<b>PM (Eastbound)</b>												
Tawe Bridges to Park and Ride	3115	2166	1783	2266	1883	1816	97%	68%	56%	71%	59%	57%
Park and Ride to Baldwins Bridge	2781	1881	1512	2022	1650	1541	77%	59%	47%	56%	46%	48%
Baldwins Bridge to Elba Crescent	3195	2234	1848	2495	1548	2033	89%	70%	58%	69%	43%	56%
Elba Crescent to Jersey Marine	3405	2414	2019	2086	1711	2036	95%	67%	56%	58%	48%	57%
Jersey Marine to J42	2937	2514	2388	2608	2483	2420	82%	70%	66%	72%	69%	67%
Amazon Link	1626	1892	2072	1267	1480	1595	111%	129%	141%	86%	101%	108%



### Legend

- External Zones
- Wards boundaries



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Client  
**Welsh Assembly Government**

Job Title  
**Fabian Way Corridor  
 Transport Assessment**

Drawing Title  
**External Zones**

Scale at A3  
**1:250,000**

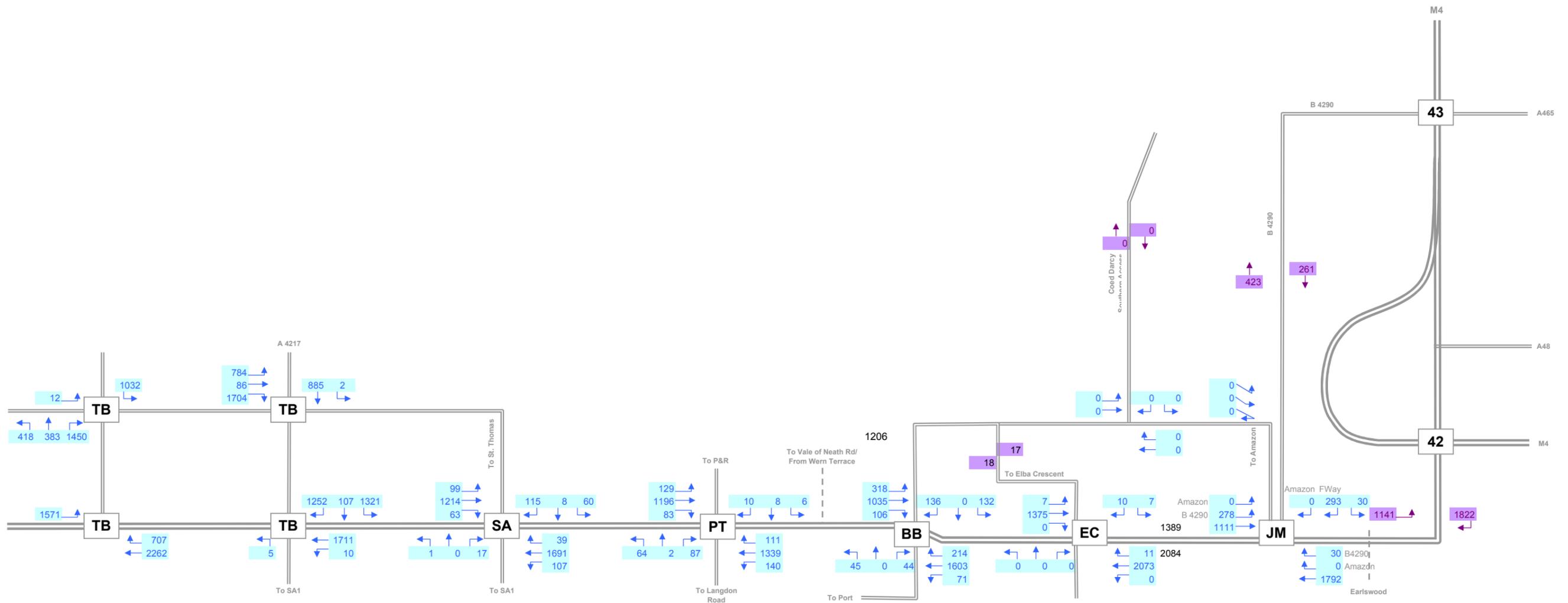
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Job No <b>207815-00</b>	Drawing No <b>Figure N2.1</b>	Issue <b>P1</b>

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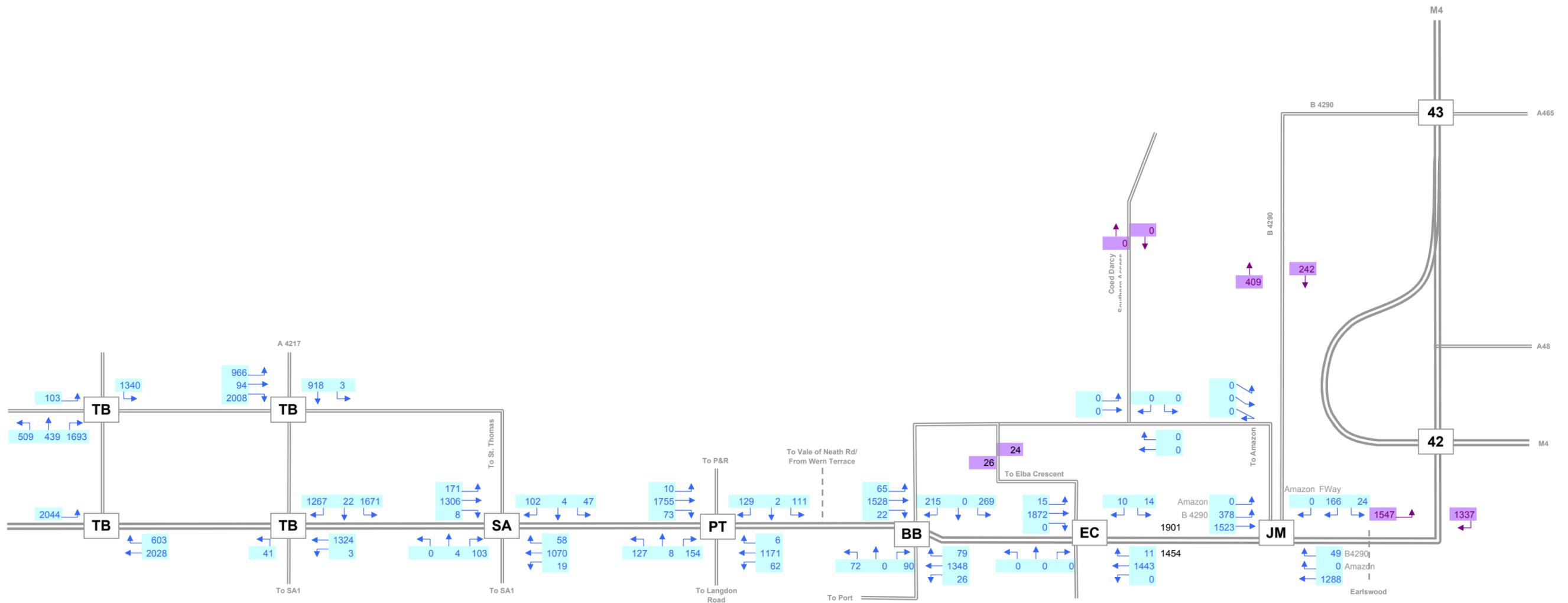
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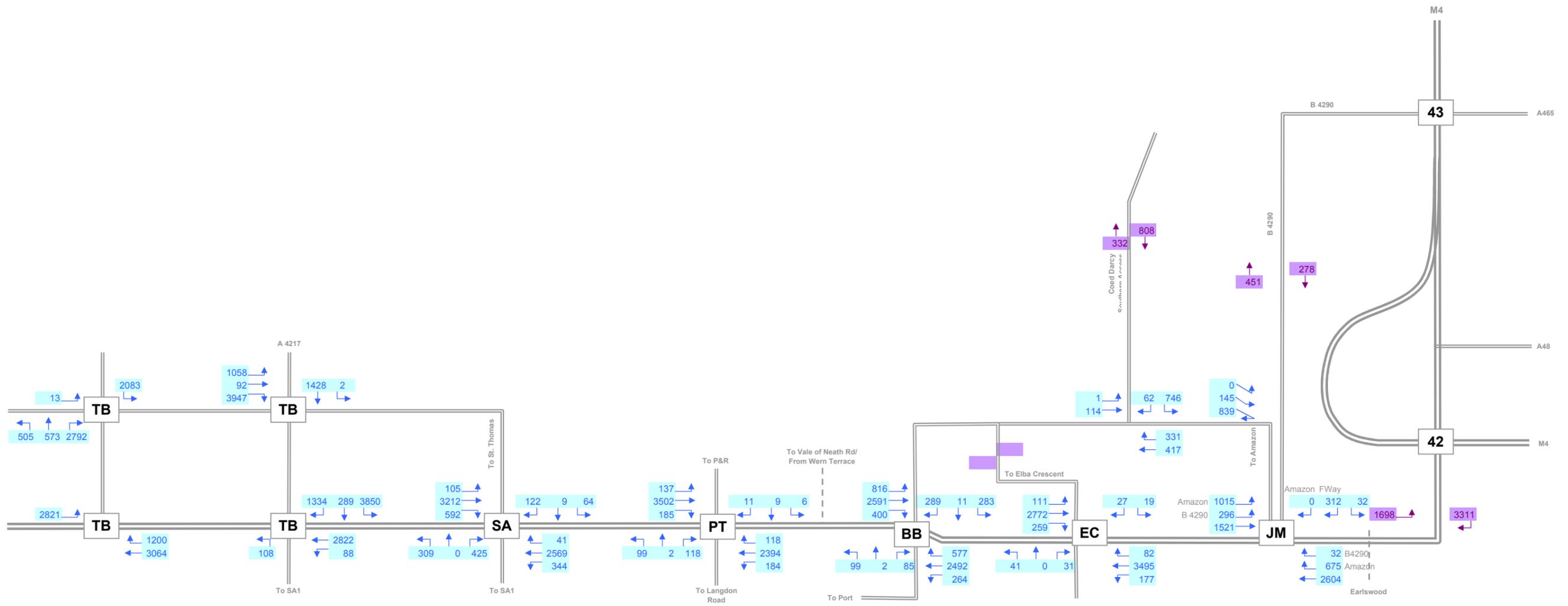
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Job title	2009 Base Traffic Flow Diagram AM PEAK 8:00 - 9:00 (pcus)	Member/Location	WAC Transport				
		Drawing ref.	Figure N3.1				
		Made by	Paul Carr	Date	23/02/2009	Chd.	Paul Carr



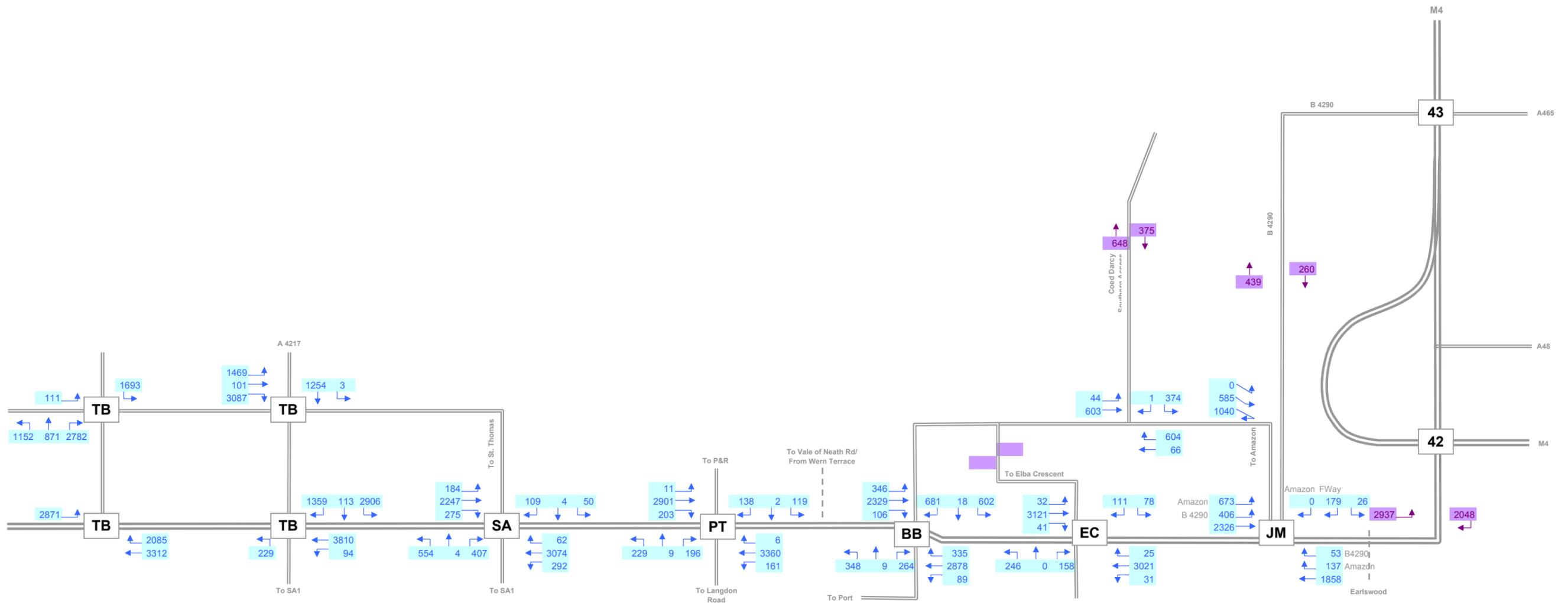
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Job title	2009 Base Traffic Flow Diagram PM PEAK 17:00 - 18:00 (pcus)	Member/Location	WAC Transport				
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		Made by	Paul Carr	Date	23/02/2009	Chd.	Paul Carr



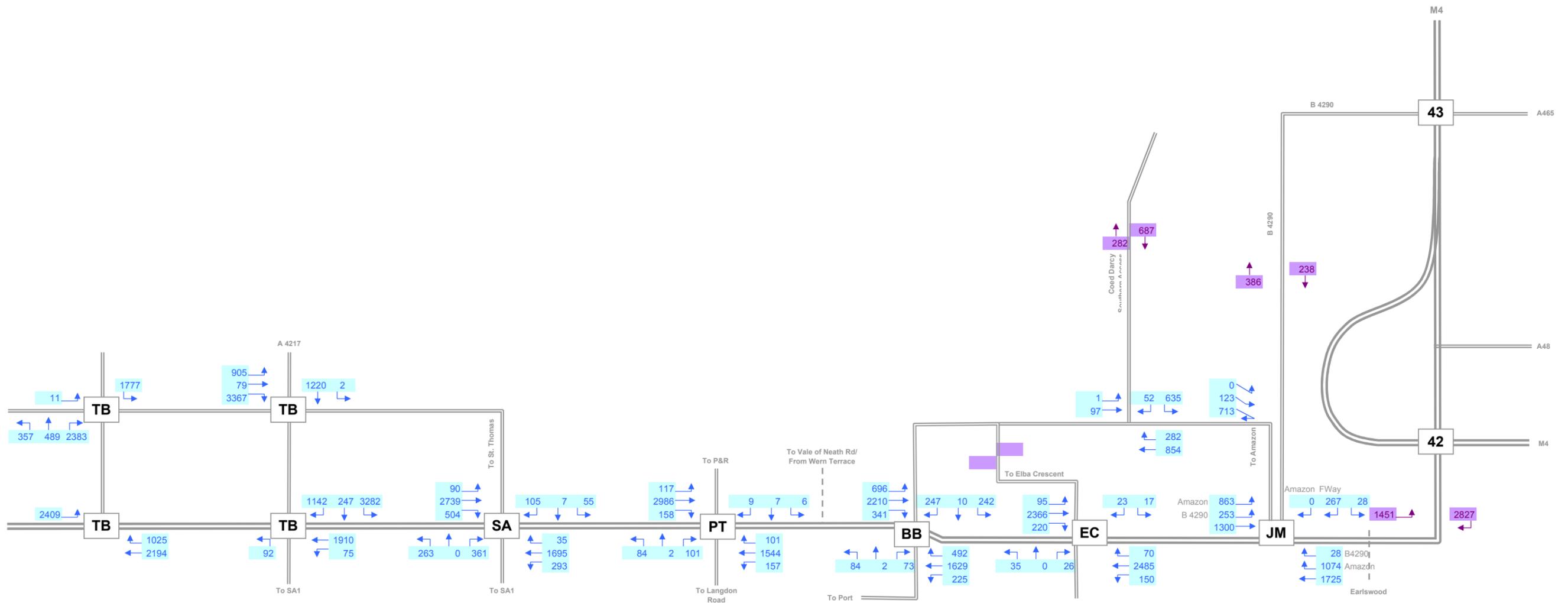
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Job title	2024 'Do-Minimum' Traffic Flow Diagram AM PEAK 8:00 - 9:00 (pcus)	Member/Location	WAC Transport				
		Drawing ref.	Figure N6.1				
		Made by	Paul Carr	Date	02/03/2009	Chd.	Paul Carr



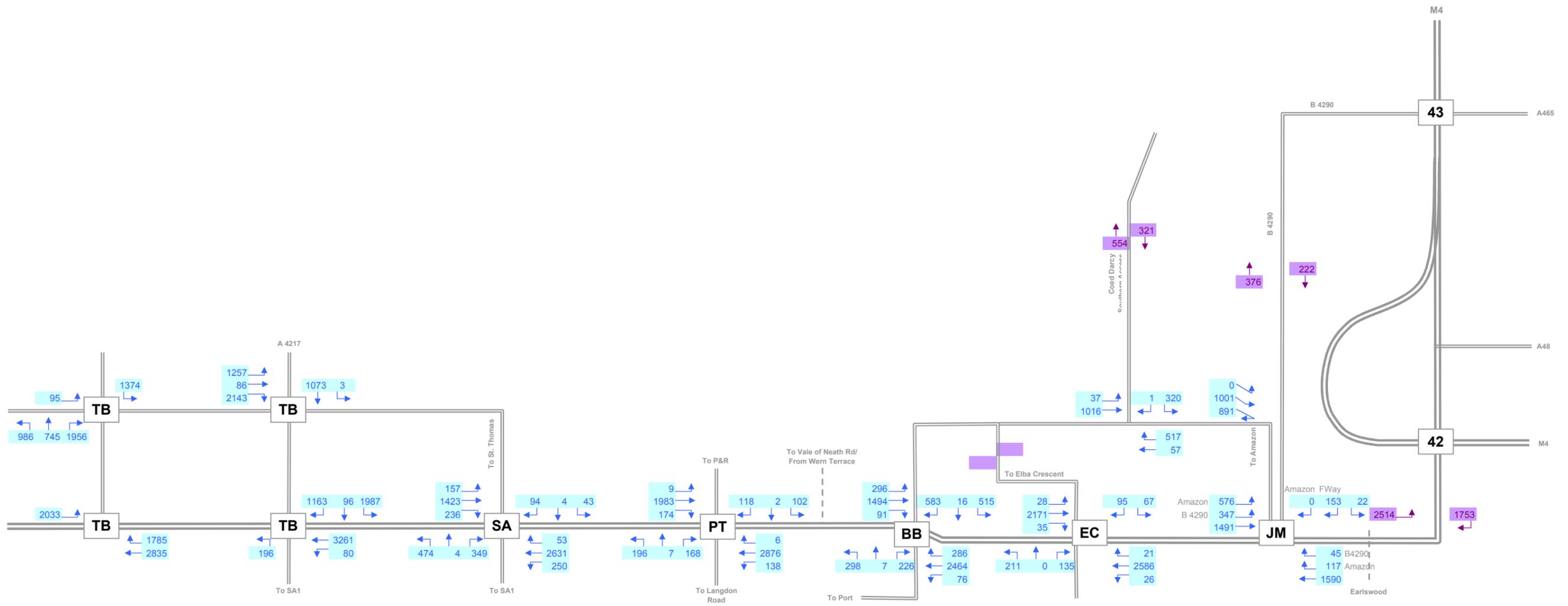
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		Made by	Paul Carr	Date	02/03/2009	Chd.	Paul Carr



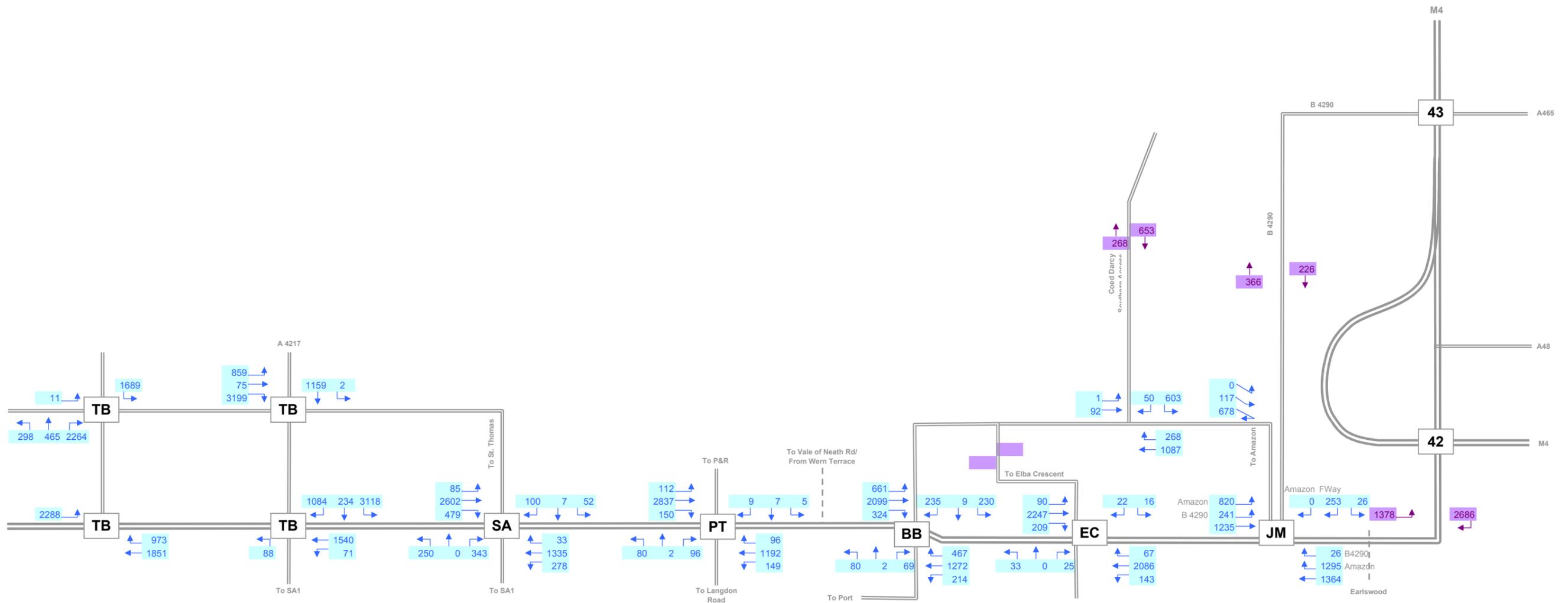
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Job title	2024 Package 1 Traffic Flow Diagram AM PEAK 8:00 - 9:00 (pcus)	Member/Location	WAC Transport				
		Drawing ref.	Figure N6.3				
		Made by	Paul Carr	Date	02/03/2009	Chd.	Paul Carr



Job title	Fabian Way Corridor Transport Assessment Study	Job number	207815-00	Sheet number	001	Revision	001
Job title	2024 Package 1 Traffic Flow Diagram PM PEAK 17:00 - 18:00 (pcus)	Member/Location	WAC Transport				
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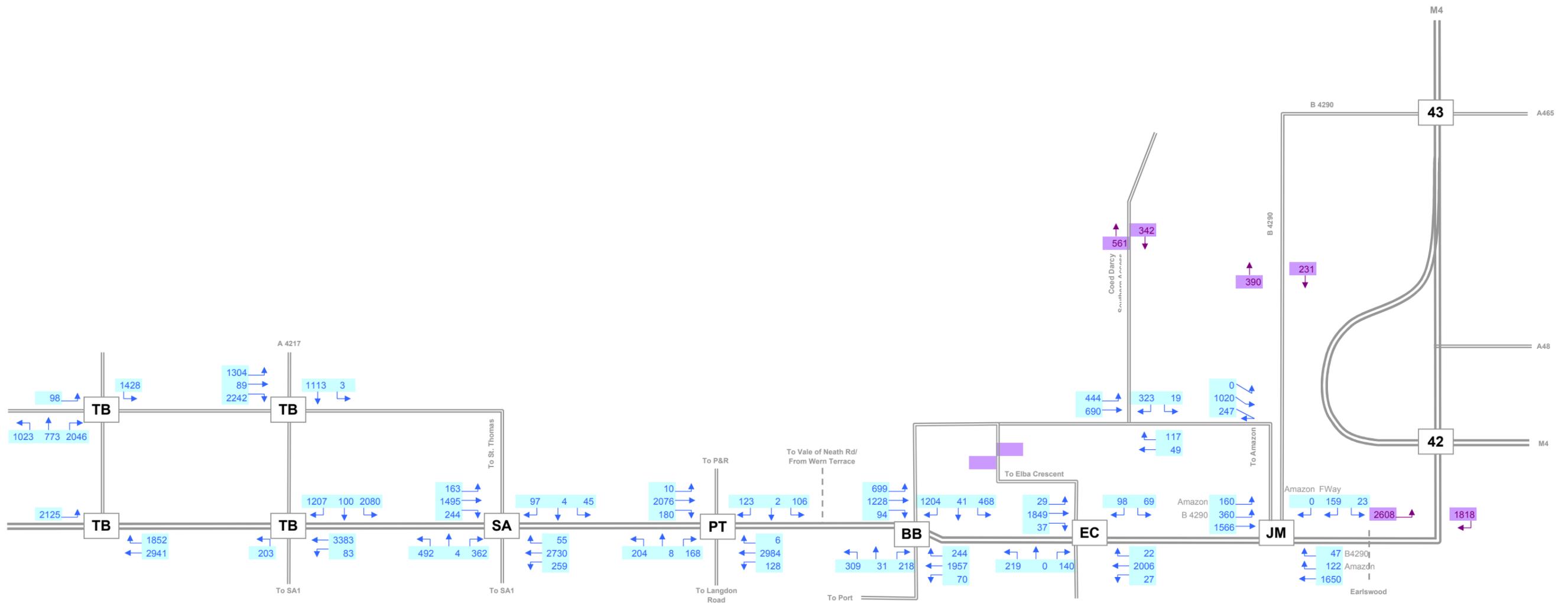
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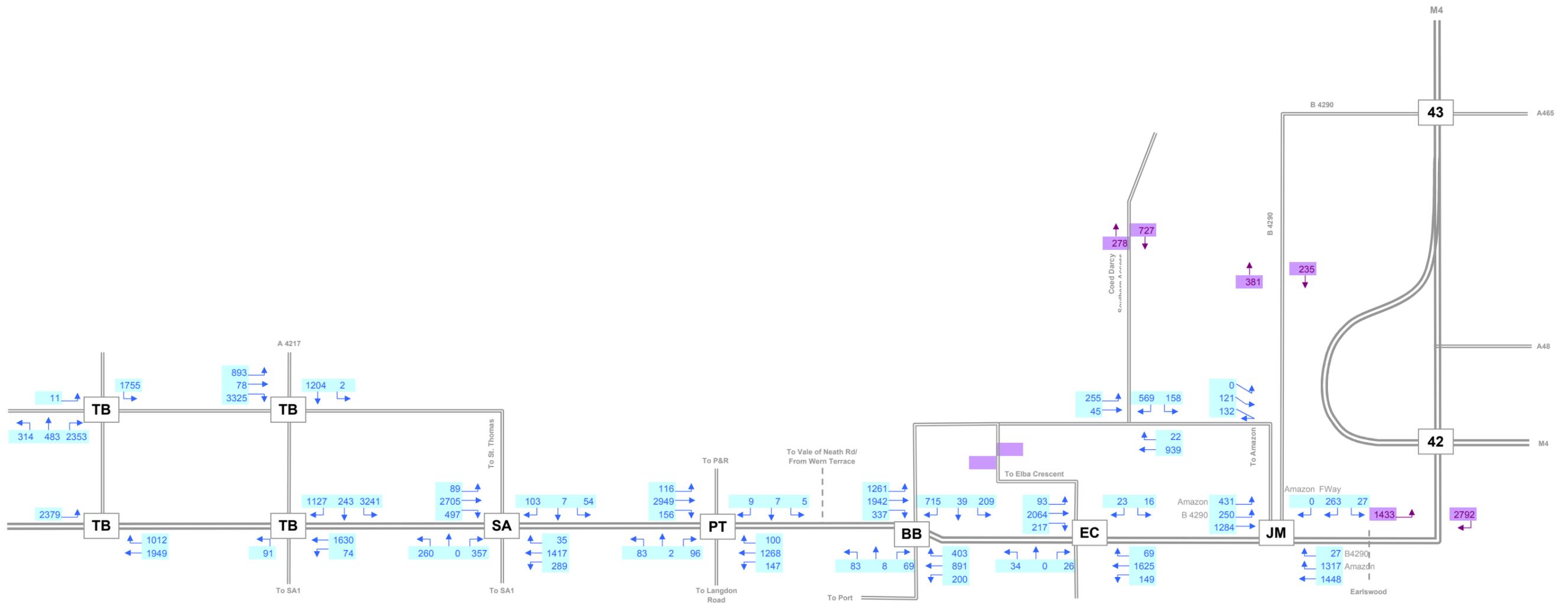




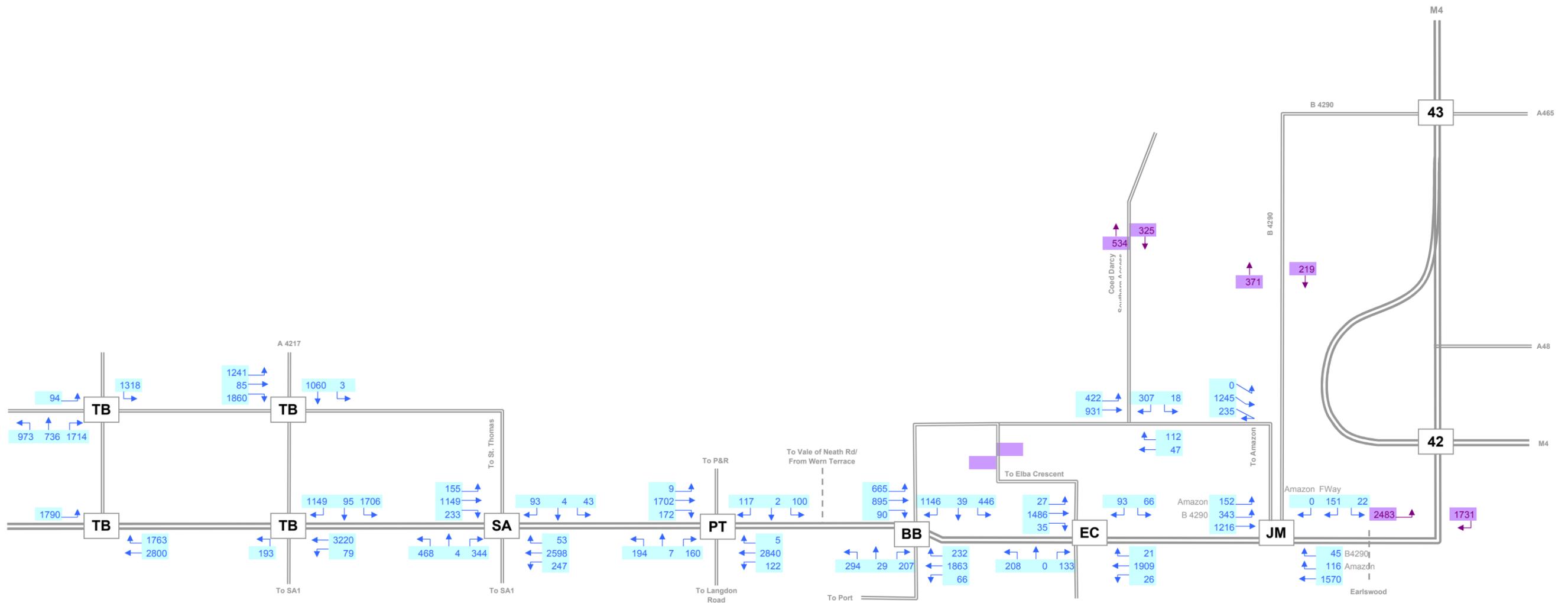
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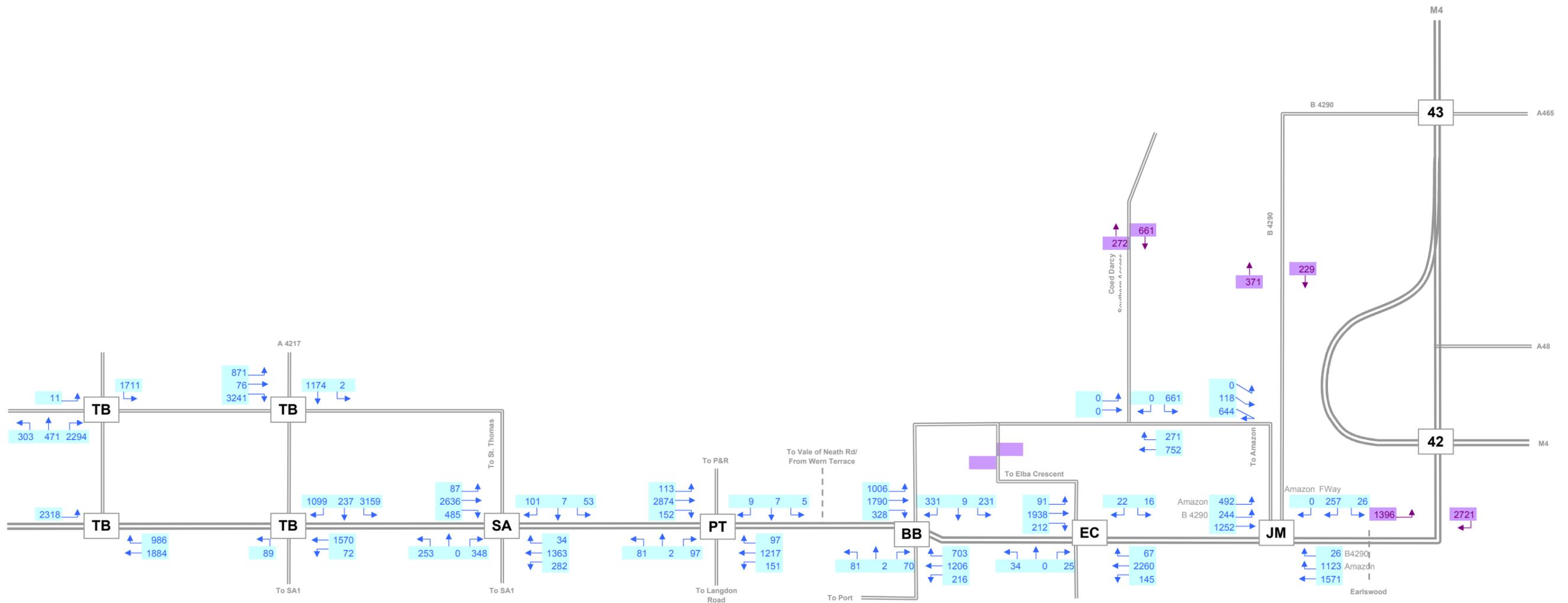
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		Drawing ref.	Figure N6.9				
		Made by	Paul Carr	Date	02/03/2009	Chd.	Paul Carr



Job title	Fabian Way Corridor Transport Assessment Study	Job number	207815-00	Sheet number	001	Revision	001
Job title	2024 Package 4 Traffic Flow Diagram PM PEAK 17:00 - 18:00 (pcus)	Member/Location	WAC Transport				
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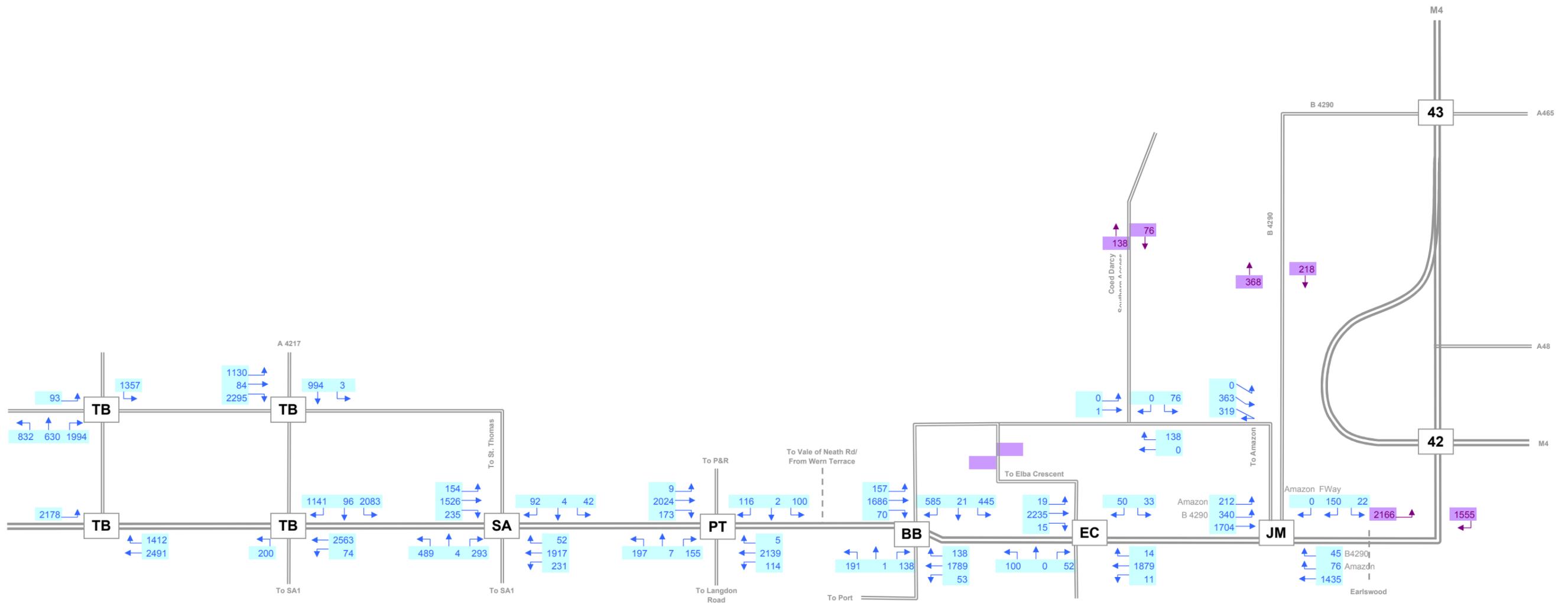
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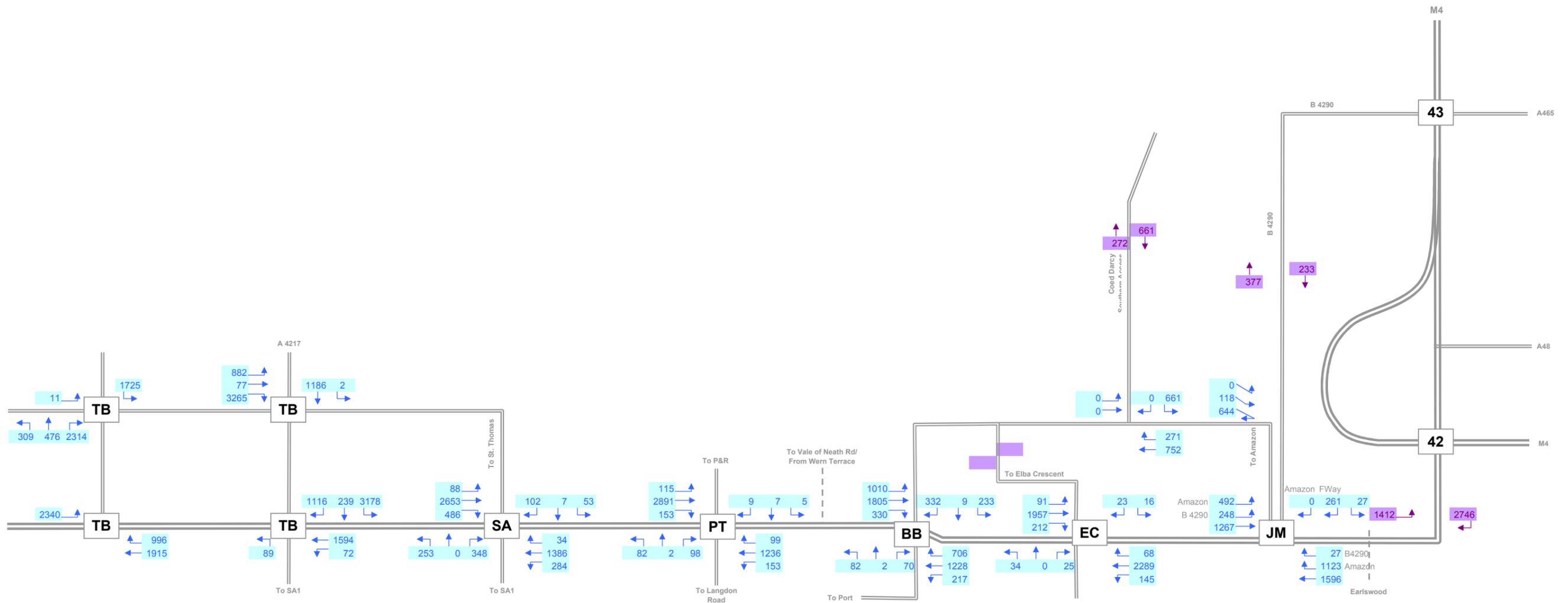




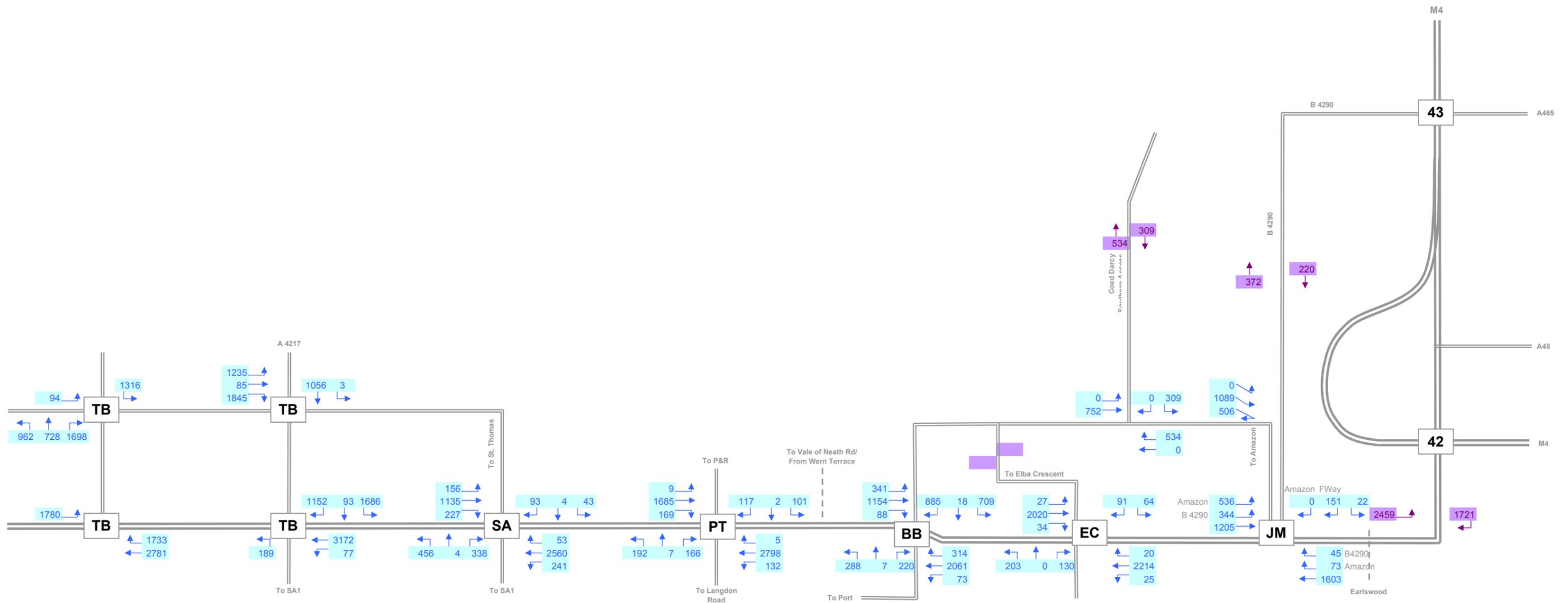
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Job title	2019 Package 5 Traffic Flow Diagram PM PEAK 17:00 - 18:00 (pcus)	Member/Location	WAC Transport				
		Drawing ref.	Figure N6.14				
		Made by	Paul Carr	Date	16/03/2009	Chd.	Paul Carr



Job title	Fabian Way Corridor Transport Assessment Study	Job number	207815-00	Sheet number	001	Revision	001
Job title	2034 Package 5 Traffic Flow Diagram AM PEAK 8:00 - 9:00 (pcus)	Member/Location	WAC Transport				
		Drawing ref.	Figure N6.15				
		Made by	Paul Carr	Date	16/03/2009	Chd.	Paul Carr



Job title	Fabian Way Corridor Transport Assessment Study	Job number	207815-00	Sheet number	001	Revision	001
Job title	2034 Package 5 Traffic Flow Diagram PM PEAK 17:00 - 18:00 (pcus)	Member/Location	WAC Transport				
		Drawing ref.	Figure N6.16				
		Made by	Paul Carr	Date	16/03/2009	Chd.	Paul Carr



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