

Proposed Residential Development
Trem Echni
Rhoose Point
Vale of Glamorgan

Transport Statement

August 2012

Table of Contents

1	INTRODUCTION & BACKGROUND.....	2
2	EXISTING CONDITIONS.....	3
3	PROPOSED DEVELOPMENT	9
4	CONCLUSION.....	12

Appendices

Appendix 1	Location Plan
Appendix 2	TRICS Trip Rate Data - Employment
Appendix 3	Site Context
Appendix 4	Committee Report Extract (Ref:2006/01807/OUT)
Appendix 5	TRICS Trip Rate Data - Residential

Revision History

Issue 1	7 th August 2012	Draft
Issue 2	22 nd August 2012	Final

0472 Transport Assessment2.docx

This report has been prepared for the exclusive use of our client and unless otherwise agreed in writing by Acstro Limited, no other party may copy, reproduce, distribute, make use of, or rely on the contents of the report. Acstro Limited assumes no responsibility to any other party in respect of or arising out of or in connection with this document and/or its content.

© 2012 Acstro Limited

Acstro Ltd., Ty Penbryn, Salem, Llandeilo, SA19 7LT
www.acstro.com
 T. 01558 824021
 E. mail@acstro.com

acstro
 Priffyrdd a Thrafnidiaeth
 Highways & Transportation

1 INTRODUCTION & BACKGROUND

- 1.1 Acstro Ltd. has been appointed by Taylor Wimpey to prepare a Transport Statement in relation to the proposed development of land adjacent to Trem Echni, Rhoose Point, Vale of Glamorgan. The site's location is shown in Appendix 1.
- 1.2 The site is previously developed land, having been part of the former Rhoose Point Quarry. The application site was included within the wider Rhoose Point mixed-use development granted planning permission in 1996.
- 1.3 Subsequently planning permission for a district centre and employment development has been granted for the application site in 2003 and 2005 respectively. These permissions have since lapsed.
- 1.4 This Transport Statement considers the accessibility of the application site by all modes of transport, estimates the likely trip generation of the proposed development and considers the potential transport impacts.
- 1.5 This Transport Statement will be structured as follows,
 - o Section 2 will review the current transport and land use policies relevant to the development proposals.
 - o Section 3 describes the site in the context of the existing conditions that surround the site.
 - o Section 4 describes the proposed development, its traffic generation and proposals to improve its accessibility.
 - o Section 5 provides a summary and conclusion.

2 EXISTING CONDITIONS

- 2.1 The application site is located on the northern boundary of the Rhose Point development. The application site's northern boundary is formed by the Vale of Glamorgan Railway Line and its southern boundary by Trem Echni. To its east and west is residential development.
- 2.2 The application site is some 2.9 hectares in area and is currently served by two accesses (bell-mouth) junctions onto Trem Echni.
- 2.3 The application site is previously developed land being part of the former Blue Circle Quarry. The site is within the Rhose Point mixed use development that was granted planning permission in 1996. Most recently the site was granted outline planning permission for employment use (B1/B2/B8) in 2005 (LPA Ref: 03/01380/OUT). This planning permission has now lapsed but it is evident that in granting this planning permission the LPA considered that this scale of development and its associated traffic generation was acceptable. A planning application for residential development with community uses was submitted but withdrawn prior to determination in 2006 (LPA Ref: 2006/01807/OUT).
- 2.4 An assessment of the potential traffic generation of the previously permitted employment use of the land has been undertaken by reference to the TRICS trip rate database. We are advised that the 2.9 hectare site could comfortably accommodate 12,000m² of office space and the trip generation estimate is made on this basis. The TRICS output is provided in detail in Appendix 2. Based on typical trip rates for office developments the development of this site for employment use has the potential to site has the potential to generate some 1035 daily vehicle movements with some 149 and 131 vehicle movements generated in the morning and afternoon peak hours respectively.

Time Range	ARRIVALS		DEPARTURES		TOTALS	
	Trip Rate	Trip Generation	Trip Rate	Trip Generation	Trip Rate	Trip Generation
07:00-08:00	0.423	51	0.044	5	0.467	56
08:00-09:00	1.11	133	0.128	15	1.238	149
09:00-10:00	0.819	98	0.221	27	1.04	125
10:00-11:00	0.348	42	0.204	24	0.552	66
11:00-12:00	0.276	33	0.266	32	0.542	65
12:00-13:00	0.262	31	0.328	39	0.59	71
13:00-14:00	0.339	41	0.272	33	0.611	73
14:00-15:00	0.26	31	0.241	29	0.501	60
15:00-16:00	0.218	26	0.391	47	0.609	73
16:00-17:00	0.164	20	0.848	102	1.012	121
17:00-18:00	0.116	14	0.976	117	1.092	131
18:00-19:00	0.039	5	0.335	40	0.374	45
Daily Trip Rates:	4.374	525	4.254	510	8.628	1035

Table 1 Typical Trip Rate (per 100m² GFA) & Potential Trip Generation of Employment Use of the Application Site

Highway Infrastructure

- 2.5 The transport infrastructure serving the application site and its proximity to nearby services and facilities is shown in Appendix 3.
- 2.6 Trem Echni is subject to a 20mph speed limit as it passes the application site.
- 2.7 The Rhose Point development is accessed from two directions. Pentir y De provides access from the east and is referred to in various documents as the 'primary' access. Heol y Pentir provides a 'secondary' access, via a railway level crossing, from the west.
- 2.8 The status of the 'secondary' access has been the subject of much discussion throughout the period of Rhose Point's development. Concerns have previously been raised that the level crossing does not provide a legal means of access to Rhose Point. However, residents of Rhose Point, including the eventual residents of the proposed development subject to this application, have access rights as 'successors in title' to Blue Circle who had access rights relating to the previous quarry use.
- 2.9 At the time of the initial mixed use planning permission in 1996 and subsequent applications in for this application site in 2003 and 2005 highway design guidance was set out in 'Design Bulletin 32' (DB32), which recommended that a secondary means of access should be provided for developments of over 300 dwellings. It is evident that in allowing the already 500 or so dwellings to be completed that the LPA is satisfied that the level crossing provides the secondary access required by DB32.
- 2.10 DB32 was superseded in 2007 by TAN18 and 'Manual for Streets', which take a more flexible approach and impose no absolute threshold of development that would trigger the need for a secondary access.
- 2.11 The matter is discussed in detail in the Committee Report that was prepared for the most recent application (residential and community use) for the application site (2006/01807/OUT). This application was recommended for approval by Officers but withdrawn prior to determination. The Committee Report is included as Appendix 4. It states the following about the secondary access on pages 115 and 116:

'Counsel's advice has been sought in order to achieve a way forward in light of the Council aims of providing a mix used [sic] development at the site and having regard to the previous planning permissions and current undetermined applications.

In relation to the planning history of the site outline planning permission Ref93/01186/OUT was granted for mixed use development. The only planning condition relating to highways was the requirement to submit highway details as part of the reserved matters, and there was no S. 106 obligation in respect of the provision of a second access to serve the development. It should be noted that in the outline application for employment development ref: 03/01380/OUT, the Highway Authority continued to raise no objection subject to (inter alia) the requirement for 'an additional (secondary) safe means of vehicular/pedestrian access

open to the public 365 days of the year to ensure that an alternative access is available'. However this application was subsequently approved on 22 August 2005 subject to conditions and the outline consent is still extant for the submission of a reserved matter application.

In terms of the current position it should be noted that Network Rail have, for over 2 years [as of 2007, over 7 years as of 2012] been allowing full public access to both pedestrians and vehicles without incident over the level crossing. One of the principal requirements for a secondary access to serve Rhoose Point is to provide a secondary means of access in case of emergency or in the case of any obstruction or loss of the use of the primary access. Counsel advice states that following consultation with the emergency services, they have advised that in case of an emergency, the level crossing could be opened for use, even if DfT restricted user rights in line with HMRI's request for an amended order. In this regard the emergency services would have a right and ability to cross irrespective of the status of the crossing.

Further to the above, the highway comments refer to policy document DB32 which is no longer Government Guidance. Technical Advice Note (TAN) 18 – Transport published March 2007, has recently been adopted and takes a more flexible approach to highway and related matters.

In conclusion Counsel advice states that in light of provision for emergency procedures, the planning history of the site and the fact that DB32 is no longer Government Guidance, the refusal on the grounds of the absence of an unrestricted second access is unlikely to be upheld at appeal. Furthermore the uncertainty over user rights of the second access may last indefinitely, and Members are therefore respectfully asked to consider the above given the Council's desire to resolve the matter, provide certainty and to ensure the final phases of this mixed use development site are delivered.'

- 2.12 The requirement for a second access stems from guidance that is now superseded that developments of over 300 dwellings require an alternative means of access in emergencies. In already permitting for the 300 dwelling threshold to be exceeded the LPA is evidently satisfied that Heol y Pentir, via the level crossing, provides that secondary access. In light of this, the Counsel advice summarized above and the rights to use the level crossing that have/will pass to residents of Rhoose Point as successors in Title it is concluded that the status of the level crossing does not cause any obstruction to the development of the application site.

Proximity to Services

- 2.13 Heol y Pentir provides the most direct route between the application site and the services and facilities available within Rhoose's village centre. These include a number of facilities on Fontygary Road concentrated between its junctions with Stewart Road and Station Road (approximately 800m/10 minute walk from the site). These include the following:

Hairdresser	Mini-mart
Estate Agent	Dog Grooming Parlour
Newsagent	Optician
Café	Barber
GP Surgery	Spar Convenience Store
Fish & Chip Shop	Cashpoint
Chinese Take-away	Social Club

- 2.14 Other facilities located on Fontygary Road and some 800m to 1200m (10 to 15 minutes walk) from the application site include Rhoose Primary School, a library, pharmacy, post office and Tesco convenience store.
- 2.15 A broader range of services and facilities is available in Barry, some 5km to the east of the application site. Barry and other larger settlements can be accessed by a range of public transport services. These are described below.

Public Transport Network

- 2.16 The nearest bus stops to the site are located on Station Road, adjacent to Rhoose's railway station. The bus stop and railway station is some 700m walk from the site.
- 2.17 Trains run to and from Rhoose Station every hour from Monday to Saturday and every two hours on Sundays to and from Bridgend to the west and Barry and Cardiff Central to the east.
- 2.18 It is understood that the number of train services to Rhoose are to be increased to two per hour and current improvements elsewhere on the railway line are imminent to enable these improved services.
- 2.19 The train station therefore provides regular and frequent services that are attractive to commuters, shoppers and others.
- 2.20 The IHT's 'Planning for Public Transport in Developments' provides advice on developments served by rail stations and says¹ that '*A significant difference between rail- and bus-served developments is that people have been found to be willing to walk about twice as far to or from a station than a bus stop; about 800m for rail compared with about 400m for bus*'. So as the development is within 800m from the rail station, this is considered equal to being within 400m of a bus stop.

¹ IHT Planning for 'Public Transport in Developments' pp 6.16

- 2.21 The excellent train service that serves the village is complimented by a good selection of bus services. The bus stop on Station Road is served by the 905 service that runs hourly between Rhoose and Cardiff Airport and has recently been extended to link with the Enterprise Zone at St Athan during travel to work times. This provides good access to employment opportunities available at the airport and the St Athan Enterprise Zone.
- 2.22 More bus services can be accessed from the stops located near the junction of Station Road and Rhoose Road, approximately 800m or 10 minutes walk from the application site. These are listed in the table below.

Service Number	Route	Details
905	Cardiff Airport – Rhoose – St Athan Enterprise Zone	Mon – Sun (Every 60 Mins)
M1	Llantwit Major – Barry (Morrisons)	Wed (3 Trips)
T4	Llantwit Major – Barry (Tesco)	Wed (2 Trips)
V5	Barry – Cowbridge	Mon – Sat (3 Trips)
V5	Rhoose – Cowbridge	Mon – Sat (1 Trip)
X5	Cardiff – Llantwit Major	Sun (8 Trips)
X45	Llantwit Major – Barry	Mon – Sat (Every 60 Mins)
X91	Cardiff – Llantwit Major	Mon – Sat (6 Trips)

Table 2 Bus Services Accessed from Rhoose

- 2.23 We note from page 116 of the Committee Report relating to the previously withdrawn application (2006/01807/OUT) for residential and community use (see Appendix 4) that the LPA sought to secure a double length bus lay-by as part of the development for the use of school buses and any possible future public bus services.
- 2.24 It is considered that the provision of a double length bus lay-by is unnecessary and unjustified.
- 2.25 There are currently no public bus services that run through Rhoose Point and it is suggested that the majority of Rhoose Point is sufficiently established to have already attracted interest from commercial bus operators if it was considered attractive or viable for a bus service to be routed through the development. The lack of interest suggests that it is unlikely that commercial operators will choose to route services through the development in future.
- 2.26 Later within this document an estimate of the likely trip generation of the development by various modes of transport is made. It is estimated that some 12 daily trips by public transport will be generated. These are likely to be split between bus and rail services. It is therefore considered unnecessary and unjustified for the developer to provide a double-length bus lay-by given the modest number of public transport journeys that will be generated by the development.

- 2.27 Furthermore, design guidance regarding the provision and use of bus lay-bys has evolved in the years since the previous application. Bus lay-bys are no longer encouraged as they 'deflect pedestrians walking along the street from their desire lines'². In this case the path of cyclists travelling along the designated cycle route would also be deflected.
- 2.28 Bus lay-bys can also create difficulties for buses seeking to rejoin the main stream of traffic making services slower and less reliable. Their use should only be considered 'when a stationary bus would otherwise create a significant safety problem.'³
- 2.29 In this case, the infrequent stopping of a school bus does not create a significant safety problem and the introduction of a bus lay-by is not warranted.

Pedestrian & Cycle Network

- 2.30 There are high quality footways throughout the modern Rhoose Point development and these connect with a good network of footways and footpaths that link the site to Rhoose's facilities.
- 2.31 A Public Right of Way crosses the application site along its eastern boundary
- 2.32 A cycle route runs along Trem Echni, linking the application site to the village and the railway station. Currently the cycle route is interrupted as it passes the application site and the proposed development of the site will allow this missing section of the cycle route to be delivered.
- 2.33 The Council has plans to improve National Cycle Route 88 that will run through Rhoose. This will eventually provide a safe and uninterrupted cycle route across the county from Penarth to Bridgend.

Summary

- 2.34 The application site is in a sustainable location with a range of services and facilities nearby. The site is accessible by all modes of transport.

² Manual for Streets pp 6.5.10

³ Manual for Streets 2 pp 7.4.1

3 PROPOSED DEVELOPMENT

- 3.1 It is proposed to develop 90 homes on the site consisting of a mix of 2, 3 and 4-bed properties.

Access & Street Layout

- 3.2 The development will be served by a looped internal street linking two points of access onto Trem Echni. The existing eastern access to the development site will be utilised and reconfigured to suit the dimensions of a residential road. A new access point will be created to on the western side of the development. The existing centrally located access bellmouth that serves the site will be stopped-up.
- 3.3 Both development accesses provide significantly more than the required 2.4 x 25m visibility splays, which are appropriate where 20mph speed limits apply.
- 3.4 The street that runs through the development will be 5.5m wide with 2m wide footways on both sides. Variations in surface materials and horizontal alignment will be used to slow traffic.
- 3.5 A foot/cycleway will be created along the northern side of Trem Echni across the site's frontage, linking the existing foot/cycleways that currently terminate at the western and eastern ends of the application site. This will provide safe access to the development for its eventual residents and also benefit existing pedestrians and cyclists.
- 3.6 The existing public footpath that runs through the site, along its eastern boundary, will be diverted through the development along a safe route.

Traffic Generation

- 3.7 The likely trip generation of the proposed development has been estimated by reference to evidence of the trips generated by similar developments throughout the UK and Ireland. These are contained within the TRICS trip rate database. The following filtering criteria have been applied to the database in order to identify sites within it that compare with the proposed development.

Land Use - 03/A – Houses Privately Owned (GDO use class C3)

This is defined within the database as:

'Housing developments where at least 75% of units are privately owned. Of the total number of units, 75% must also be houses (sum of "non-split" terraced, detached, semi-detached, bungalows, etc), with no more than 25% of the total units being flats. Includes properties that are privately owned and then privately rented. Trip rates are calculated by Site Area, Dwellings, Housing Density, or Total Bedrooms.'

Development Size

The database search was confined to sites of up to 150 dwellings. Sites larger than this are considered to be unrepresentative of the development proposal.

Location / Population

Database sites where the population within 1 mile is greater than 10,000 have been dismissed from the search as these are considered to be unrepresentative of a residential development site in Rhose.

- 3.8 After applying these search criteria a sample of surveys from sites that compare well with the proposed development is provided by the database. Full details of the typical trip rates for all modes of transport and the resultant estimate of the modal trip generation of the proposed development are provided in Appendix 5.

Time Range	Pedestrians			Cyclists			Public Transport			Vehicles			Vehicle Occupants			Total People		
	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot
07:00-08:00	1	3	4	0	0	0	0	0	1	5	22	27	5	24	29	6	28	34
08:00-09:00	2	12	14	0	1	1	1	2	2	13	35	48	15	51	66	18	65	83
09:00-10:00	2	4	6	0	0	0	1	1	1	16	24	40	20	30	50	23	35	57
10:00-11:00	3	4	8	0	0	0	0	0	0	13	13	26	15	17	32	18	22	40
11:00-12:00	4	3	6	1	1	1	0	1	2	15	14	29	18	17	35	23	22	45
12:00-13:00	3	3	7	0	0	1	1	1	1	15	15	30	17	20	37	21	24	45
13:00-14:00	5	3	8	0	0	1	1	1	1	18	19	37	24	25	50	30	29	59
14:00-15:00	3	3	6	1	1	2	1	0	1	21	17	37	29	21	51	34	25	59
15:00-16:00	7	4	11	0	1	1	1	0	1	23	16	39	33	21	54	41	26	68
16:00-17:00	8	6	15	1	1	2	0	0	0	28	19	48	40	30	70	50	38	88
17:00-18:00	8	5	14	1	0	2	1	0	1	39	22	61	52	30	82	63	36	99
18:00-19:00	5	3	8	1	0	1	0	0	0	30	20	50	37	28	65	43	31	74
Daily Trips:	51	54	105	6	7	13	6	6	12	235	236	472	307	314	621	370	380	750

Table 3 Multi Modal Trip Generation Estimate – 90 Dwellings

- 3.9 The proposed development is expected to generate around 750 people movements on an average weekday. Of those, 472 will result in vehicle movements, 12 will be made by public transport, 13 will be cycled and 105 trips will be made by foot.

- 3.10 It is estimated that the proposed development will generate some 472 daily vehicle trips with some 48 and 61 generated in the morning and afternoon respectively. This is significantly less than the traffic generating potential of the previously permitted employment use of the land described in 2.4 (1035 daily vehicle movements, 149 morning peak hour and 131 afternoon peak hour movements).

- 3.11 By virtue of the fact that the traffic generation of the previously permitted employment development was evidently considered acceptable by the LPA it stands to reason that the significantly lower traffic generation of the proposed residential development is acceptable and can be accommodated by the highway infrastructure.

4 CONCLUSION

4.1 The salient issues are:

- The application site is previously developed land. It formed part of the original Rhoose Point mixed use development proposal that was granted planning permission in the 1990's and has subsequently benefited from planning permission for a district centre and employment uses. It is estimated that the previously permitted employment use of the land had the potential to generate over 1,000 daily vehicle movements.
- The application site is accessible by foot, bicycle, public transport and vehicular traffic.
- There is a wide range of services and facilities available within Rhoose, which is within walking distance to the application site. This reduces the need to travel by car and reduces the distances travelled by car. Barry, Cardiff and Bridgend offer a wider range of services and these destinations can be easily accessed by public transport (train and bus).
- Regular bus services provide good public transport links to employment opportunities at Cardiff Airport and the St Athan Enterprise Zone.
- The proposed development can be safely accessed.
- The proposed development will generate some 472 daily vehicle movements, significantly less than could be developed by the land's previous permissions.
- The development will enable the Trem Echni pedestrian/cycle way that currently terminates at the eastern and western boundary of the site to be linked and completed.

4.2 Our conclusion is that the development is accessible by all forms of transport, can be safely accessed and will not generate significant impacts on the surrounding highway network. It is our view that the development raises no significant transport or highway issues and for this reason it is considered that the planning application should be supported.

acstro

Priffyrdd a Thrafnidiaeth
Highways & Transportation

Appendix 1



copyright 2012. All rights reserved. Licence number 100020449. Plotted Scale - 1:10000

A	First Issue	07/08/12
 <p>Priffyrdd a Thrafnidiaeth Highways & Transportation Ty Penbryn, Salem, Llandeilo, SA19 7LT E-mail: mail@acstro.com www.acstro.com Tel: 01558 824021</p>		
TREM ECHNI, RHOOSE POINT		
LOCATION PLAN		
0472	001	A
AS SHOWN		@ A3

acstro

Priffyrdd a Thrafnidiaeth
Highways & Transportation

Appendix 2

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT

Category : A - OFFICE

VEHICLES

Selected regions and areas:

01	GREATER LONDON	
	CN CAMDEN	1 days
02	SOUTH EAST	
	HC HAMPSHIRE	1 days
	SC SURREY	1 days
03	SOUTH WEST	
	DC DORSET	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	2 days
	SF SUFFOLK	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	2 days
08	NORTH WEST	
	LC LANCASHIRE	2 days
	MS MERSEYSIDE	1 days
09	NORTH	
	TW TYNE & WEAR	1 days
11	SCOTLAND	
	GC GLASGOW CITY	2 days
15	GREATER DUBLIN	
	DL DUBLIN	1 days
17	ULSTER (NORTHERN IRELAND)	
	AN ANTRIM	1 days

Filtering Stage 2 selection:

Parameter: Gross floor area
 Actual Range: 6056 to 13827 (units: sqm)
 Range Selected by User: 6000 to 15000 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/04 to 28/11/11

Selected survey days:

Monday	3 days
Tuesday	2 days
Wednesday	1 days
Thursday	10 days
Friday	1 days

Selected survey types:

Manual count	17 days
Directional ATC Count	0 days

Selected Locations:

Town Centre	6
Edge of Town Centre	3
Suburban Area (PPS6 Out of Centre)	4
Edge of Town	4

Selected Location Sub Categories:

Industrial Zone	1
Commercial Zone	8
Development Zone	1
Residential Zone	1
Built-Up Zone	3
No Sub Category	3

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 08:00	17	9550	0.423	17	9550	0.044	17	9550	0.467
08:00 - 09:00	17	9550	1.110	17	9550	0.128	17	9550	1.238
09:00 - 10:00	17	9550	0.819	17	9550	0.221	17	9550	1.040
10:00 - 11:00	17	9550	0.348	17	9550	0.204	17	9550	0.552
11:00 - 12:00	17	9550	0.276	17	9550	0.266	17	9550	0.542
12:00 - 13:00	17	9550	0.262	17	9550	0.328	17	9550	0.590
13:00 - 14:00	17	9550	0.339	17	9550	0.272	17	9550	0.611
14:00 - 15:00	17	9550	0.260	17	9550	0.241	17	9550	0.501
15:00 - 16:00	17	9550	0.218	17	9550	0.391	17	9550	0.609
16:00 - 17:00	17	9550	0.164	17	9550	0.848	17	9550	1.012
17:00 - 18:00	17	9550	0.116	17	9550	0.976	17	9550	1.092
18:00 - 19:00	17	9550	0.039	17	9550	0.335	17	9550	0.374
19:00 - 20:00	0	0	0.000	0	0	0.000	0	0	0.000
20:00 - 21:00	0	0	0.000	0	0	0.000	0	0	0.000
21:00 - 22:00	0	0	0.000	0	0	0.000	0	0	0.000
22:00 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			4.374			4.254			8.628

Parameter summary

Trip rate parameter range selected: 6056 - 13827 (units: sqm)
 Survey date range: 01/01/04 - 28/11/11
 Number of weekdays (Monday-Friday): 17
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 2

acstro

Priffyrdd a Thrafnidiaeth
Highways & Transportation

Appendix 3



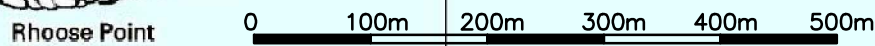
- Key**
- Bus Stop
 - Railway Station
 - Cycle Route
 - Public Footpath
 - 400m / 5 Min. Distance from Site & Approximate Walk Time

NOTE

Shopping area on Fontygary Road between Stewart Road and Station Road junctions includes:

Hairdresser, Estate Agent, Newsagent, Cafe, Surgery, Fish & Chip Shop, Butcher, Chinese Take-Away, Mini-mart, Dog Grooming Parlour, Optician, Barber, Convenience Store & cashpoint

copyright 2012. All rights reserved. Licence number 100020449. Plotted Scale - 1:10000



B	Public Footpath Added	22/08/12
A	First Issue	07/08/12
 Prifffyrdd a Thrafnidiaeth Highways & Transportation Ty Penbryn, Salem, Llandeilo, SA19 7LT E-mail: mail@acstro.com www.acstro.com Tel: 01558 824021		
TREM ECHNI, RHOOSE POINT		
SITE CONTEXT		
0472	002	B
AS SHOWN		@ A3

acstro

Priffyrdd a Thrafnidiaeth
Highways & Transportation

Appendix 4

2006/01807/OUT Received on 19 December 2006

Cofton Ltd, C/o Agent
Savills 12 Windsor Place, Cardiff, CF10 3BY.

Land to the south side of the railway line Rhoose Point, Rhoose

Residential Development and community uses with associated infrastructure

SITE DESCRIPTION

The application site relates to a vacant rectangular shaped area of land measuring 2.95 hectares, located within the Rhoose Point housing estate.

To the north the site abuts the Vale of Glamorgan railway line and beyond that lies the site which is allocated for housing under Policy HOU1(22) of the Vale of Glamorgan Adopted Unitary Development Plan 1996-2011. To the south, the site adjoins Trem Echni, the main highway through the Rhoose Point development. To the west and east the application site adjoins modern residential dwellings built as part of the Rhoose Point development.

DESCRIPTION OF DEVELOPMENT

The application is for outline planning permission with all matters reserved for residential development and community uses with associated infrastructure.

Whilst all matters are reserved the site layout plan as now submitted and subsequently amended indicates that the community uses will comprise of offices, a health centre, a public house and a children's nursery.

The residential element of the application which comprise of approximately two thirds of the site and indicates in illustrative form the provision of 54 dwellings located on the western side of the site, with the community uses provided in the eastern portion of the site. The revised scheme now includes the provision of a double length bus lay-by and an area of land reserved to facilitate the possible provision of an improved means of pedestrian crossing to the railway at its point over the railway to the land to the north.

PLANNING HISTORY

Application Site

03/01380/OUT - Outline application for employment development. Approved 22 August 2005, subject to conditions.

02/01518/OUT - Outline application for residential development. An appeal was made against non-determination to the Welsh Assembly on 7 July 2003. Planning Committee resolved on 30 July 2003 that the application would have been refused had the application been determined prior to the appeal. The appeal was withdrawn on 21 April 2006.

Rhoose Point (General)

04/01809/FUL - 2 storey commercial and residential mixed use development, with retail at ground floor with flats at first floor at land adjacent to interchange. Application not yet determined, but being reported to this Committee.

03/01311/OUT - Outline application for pub/restaurant. Refused 18 October 2004.

02/01515/FUL - Full planning permission was granted for a new district centre including a mixed retail unit, car parking, bus stop and shelters and a public car park on 23 October, 2003.

98/01065/FUL - Determination of updated conditions for mineral site at Rhoose Quarry. Outstanding to date.

93/01186/OUT - 500 dwellings, employment (B1/B2/B8), shop(s), pub/hotel/restaurant, environmental centre, nine hole golf course & club house, open space, playing fields, new access road etc. Approved 20 March 1996 with a Section 106 Legal Agreement.

CONSULTATIONS

Environment Agency Wales were consulted and their response of 26 January 2007 does not raise an objection to the development in principle but suggests conditions relating to contaminated land, infill materials and drainage / flood defence.

The Health and Safety Executive advised to check the PADH+ system. On consultation with PADH+ system the response states that the HSE do not advise against the proposed development.

HM Railway Inspectorate were consulted on 31 January and their response received on 22 February 2007 stated that the development must not interfere with the level crossing or cause traffic queues to form in the vicinity of the level crossing. Following re-consultation on 7 January they have responded by stating that they note the contents of the letter and that Network Rail should be consulted on the application.

Network Rail were consulted and their response received on 23 January 2007 stated no objection in principle. They provide advice in relation to safety, construction and impact upon the railway that will need to be taken into account at the reserved matters stage. Following being advised on 7 January of the intention to report the matter to Planning Committee on 27 January they have responded, in which they re-emphasise that there should be no additional discharge into the existing railway culverts and that the developers were ask to demonstrate that the site can be adequately drained without overloading the existing drainage system.

Furthermore it has also been agreed that the MUGA and a playing pitch will be served by a fully serviced changing facility. Members should also be aware that whilst not part of this application the landowner has also agreed to provide a full-sized football / rugby pitch, which is an outstanding matter which should have been provided under the original Section 106 Legal Agreement attached to planning permission ref: 93/01186/OUT. It has also been agreed that the recreational facilities will be adopted by the Council and the developer pay a 20 year maintenance contribution to the Council to maintain these.

In this regard subject to the MUGA being provide off site (secured by a Section 106 Legal Agreement) it is considered that the balance of uses on the application site would be considered appropriate. However in accepting this balance the Council will seek to ensure that the non residential elements (community and employment uses) are delivered at the site in a phased manner. Therefore the Section 106 Legal Agreement will include a clause regarding phasing to ensure that the commercial uses are provided before or alongside the residential development in a staged manner.

Highway and Related Considerations

The proposed development is to be served by two separate access points, from Tern Echri with dedicated access serving the residential element and the community uses. No objection has been raised to a suitable designed layout for the employment (community) element however an objection is raised on the residential use of the site on the grounds of the provision of a safe secondary access into Rhoose Point. The Head of Visible Services (Highway Development) requires an additional (secondary) safe means of vehicular/pedestrian access open to the public 365 days of the year to ensure that an alternative means of access is available, as recommended on pages 21 and 22 of "Design Bulletin 32, Second Edition" published by the Department of the Environment and Transport. Members of the Planning Committee will be aware that there was a large degree of legal uncertainty as to the precise status of the level crossing and the necessary procedural route whereby full public use of the crossing could be achieved.

An application was made in June 2005 by Network Rail (the line operator) for an Order under the Level Crossings Act 1983 with regard to the dedication of the roadway over the level crossing to reflect the current position, that is for the barriers to be kept in the raised position, except when the train needs to pass. In response the Railway Inspector (HMRI) were of the view that the changes proposed at the level crossing would ultimately lead to it being used by the general public with vehicles as of right rather than invitation. In this regard HMRI has sought to amend the draft, proposing that the barriers be kept in a closed position. It granted in the terms sought by HMRI, the Order would provide for manually controlled barriers at the crossing, where every person, whether on foot or in a car would have to telephone the signalman for permission to cross.

Such restrictions of normal access rights over the crossing, (which currently provide un fettered access), would strictly limit the convenience of the level crossing as a general second access into Rhoose Point, impacting both on the viability of the interchange and Rhoose Station, the sustainability of the site in providing a direct vehicular link between the village and Rhoose Point and access to community facilities.

The draft Order was referred by HMRI to the Department for Transport (DfT) to decide the legal issues. The Council through Counsel advice have sought an indication from DfT as to likely timescale for a decision, but no clear answer has been received and to date the legal position remains unconfirmed.

Counsel's advice has been sought in order to achieve a way forward in light of the Council aims of providing a mix used development at the site and having regard to the previous planning permissions and current undetermined applications.

In relation the planning history at the site outline planning permission Ref 93/01186/OUT was granted for a mixed use development (see planning history). The only condition relating to highways was the requirement to submit highway details as part of the reserved matters, and there was no S.106 obligation in respect of the provision of the second access to serve the development. It should be noted that in the outline application for employment development ref: 03/01380/OUT, the Highway Authority continued to raise no objection subject to (inter alia) the requirement for "an additional (secondary) safe means of vehicular/pedestrian access open to the public 365 days of the year to ensure that an alternative means of access is available". However this application was subsequently approved on 22 August 2005, subject to conditions and the outline consent is still extant for the submission of a reserved matters application.

In terms of the current position it should be noted that Network Rail have, for over 2 years been allowing full public access to both pedestrians and vehicles without incident over the level crossing. One of the principal requirements for a secondary access to serve Rhoose Point is to provide a secondary means of access in case of emergency or in the case of any obstruction or loss of the use of the primary access. Counsel advice states that following consultation with the emergency services, they have advised that in case of an emergency, the level crossing could be opened for use, even if DfT restricted user rights in line with HMRI's request for an amended Order. In this regard the emergency services would have a right and ability to cross irrespective of the status of the crossing.

Further to the above, the Highway comments refer to policy document DB32 which is no longer Government guidance. Technical Advice Note (TAN) 18 – Transport published March 2007, has recently been adopted and takes a more flexible approach to highway and related matters.

In conclusion Counsel Advice states that in light of provision for emergency procedures, the planning history of the site and the fact that DB32 is no longer Government guidance, the refusal on the grounds of the absence of an unrestricted second access is unlikely to be upheld at appeal. Furthermore the uncertainty over user rights of the second access may last indefinitely, and Members are therefore respectfully asked to consider the above given the Council's desire to resolve this matter, provide certainty and to ensure the final phases of this mixed use development site are delivered.

More specifically, given that the application site falls centrally within the Rhoose Point Development, and given its proposed community uses, it is likely to provide a community focus. In this regard there is also an opportunity to provide an enhanced pedestrian link to the land to the north. The developer has agreed to provide a PROW Contribution of £10,500 towards the feasibility works for the transfer of the land necessary to undertake these work free of charge to the Council.

In support of the enhancement of the Public Right of Way and to promote and enhance more sustainable means of transport the Council has also sought to secure a double length bus lay which will form part of the application site to provide a suitable and centrally located bus lay by for use by school buses and other future dedicated services through Rhoose Point. A bus stop maintenance contribution will also be sought through Section 106 contributions in addition to a contribution to improve public transport services and public transport information for future users of the site. Contributions are also sought to provide or enhance facilities for cyclists in the vicinity of the site.

Other Related Considerations

Drainage

Members of the Planning Committee will be aware of the outstanding matters within Rhoose Point and the concerns raised by local residents is in respect of the adoption of the sewers, the carrier drain which passes through the site and concerns with flooding.

In this regard whilst the application is in outline, if planning permission is granted conditions attached to the outline consent will ensure that any reserved matters application provide full details for foul and surface water drainage and identify all existing land drainage ditches, pipes and drains through the site and details of how the existing flows will be maintained. Furthermore a condition will also ensure that subsequent applications have full regard to the location of the carrier drain to ensure that future development will not impact on the existing system either directly or indirectly.

The application was deferred at 17th January Committee for a site visit and to provide an updated report. In light of the late representations received, the following points are clarified.

P. 116

Consideration of Late representations

As stated earlier in this report, the application was deferred at 17 January Committee for a site visit and to provide an updated report, in light of the late representations received. In this regard the previous late representations received are attached as Appendix C and for completeness these are as follows:

- Letter dated 17 January 2008 from a K. Gallimore c/o 9, Nyth-yr-Eos (a bundle of papers attached to this letter is not appended but has been placed in the Members' room).
- Letter dated 14 January 2008 from Network Rail (this is addressed in the consultation section of the report).
- Letter dated 15 January from Eluned Parrott (Glyn-y-Gog).
- Letter dated 13 January (by e-mail) from a Mr. A. Bailey and the Head of Planning and Transportation's response of 17 January.

The following points are made in response to these late representations:

Letters of Representation

The first point made is that the letter attached as Appendix A in the report does not constitute the representations to the proposed development. However Members will note that the letter in question refers to the application reference 2006/01807/OUT. Given this fact it is understandably assumed that the letter was a letter of representation and was therefore highlighted as a sample letter of those received.

Use of the Site and Departure from the Plan

In relation to the suggestion that the application relates to a 'change of use' from the original Rhoose Point Design Guidance Document, whilst the proposal does relate to a departure to the design guide, the reasoning is clearly set out in the report. The representation states that a change of use requires a full application, this is incorrect and the application has been submitted in outline which is procedurally correct to assess the principle of the development proposed. Respective of the above facts, the site is a vacant, undeveloped site which in effect does not have an existing use. The application therefore cannot and should not be a change of use as one cannot change the use of something that does not exist. I am therefore satisfied that the appropriate application description has been put forward and the correct procedure followed.

P. 117

acstro

Priffyrdd a Thrafnidiaeth
Highways & Transportation

Appendix 5

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : A - HOUSES PRIVATELY OWNED

MULTI-MODAL VEHICLESSelected regions and areas:

03 SOUTH WEST		
CW	CORNWALL	1 days
GS	GLOUCESTERSHIRE	1 days
09 NORTH		
CB	CUMBRIA	1 days
11 SCOTLAND		
FI	FIFE	1 days
12 CONNAUGHT		
MA	MAYO	1 days
RO	ROSCOMMON	1 days
14 LEINSTER		
KD	KILDARE	1 days

Filtering Stage 2 selection:

Parameter: Number of dwellings
 Range: 58 to 82 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/03 to 26/09/11

Selected survey days:

Monday	1 days
Tuesday	3 days
Thursday	1 days
Friday	2 days

Selected survey types:

Manual count	7 days
Directional ATC Count	0 days

Selected Locations:

Edge of Town Centre	1
Suburban Area (PPS6 Out of Centre)	4
Edge of Town	2

Selected Location Sub Categories:

Residential Zone	4
No Sub Category	3

LIST OF SITES relevant to selection parameters

- | | | | |
|----------|---|---|------------------------|
| 1 | CB-03-A-04 | SEMI DETACHED, WORKINGTON | CUMBRIA |
| | MOORCLOSE ROAD
SALTERBACK
WORKINGTON
Edge of Town
No Sub Category
Total Number of dwellings: 82 | | |
| 2 | CW-03-A-02 | SEMI D./DETACHED, TRURO | CORNWALL |
| | BOSVEAN GARDENS

TRURO
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 73 | | |
| 3 | FI-03-A-02 | SEMI DETACHED, GLENROTHES | FIFE |
| | WAROUT ROAD

GLENROTHES
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 58 | | |
| 4 | GS-03-A-01 | SEMI D./TERRACED, GLOUCESTER | GLOUCESTERSHIRE |
| | KINGSHOLM ROAD
KINGSHOLM
GLOUCESTER
Edge of Town Centre
No Sub Category
Total Number of dwellings: 73 | | |
| 5 | KD-03-A-02 | TERRACED/SEMI-D., NEWBRIDGE | KILDARE |
| | CEDARWOOD PARK
MORRISTOWN ROAD
NEWBRIDGE
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 71 | | |
| 6 | MA-03-A-01 | SEMI-DET. & TERRACED,BALLINA | MAYO |
| | N26 STATION ROAD

BALLINA
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 74 | | |
| 7 | RO-03-A-01 | MIXED HOUSES, ROSCOMMON | ROSCOMMON |
| | GALWAY ROAD

ROSCOMMON
Edge of Town
No Sub Category
Total Number of dwellings: 80 | | |

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL VEHICLES**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 08:00	7	73	0.053	7	73	0.243	7	73	0.296
08:00 - 09:00	7	73	0.149	7	73	0.387	7	73	0.536
09:00 - 10:00	7	73	0.174	7	73	0.272	7	73	0.446
10:00 - 11:00	7	73	0.143	7	73	0.149	7	73	0.292
11:00 - 12:00	7	73	0.162	7	73	0.155	7	73	0.317
12:00 - 13:00	7	73	0.164	7	73	0.170	7	73	0.334
13:00 - 14:00	7	73	0.200	7	73	0.213	7	73	0.413
14:00 - 15:00	7	73	0.229	7	73	0.184	7	73	0.413
15:00 - 16:00	7	73	0.256	7	73	0.176	7	73	0.432
16:00 - 17:00	7	73	0.315	7	73	0.215	7	73	0.530
17:00 - 18:00	7	73	0.438	7	73	0.241	7	73	0.679
18:00 - 19:00	7	73	0.331	7	73	0.221	7	73	0.552
19:00 - 20:00	0	0	0.000	0	0	0.000	0	0	0.000
20:00 - 21:00	0	0	0.000	0	0	0.000	0	0	0.000
21:00 - 22:00	0	0	0.000	0	0	0.000	0	0	0.000
22:00 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			2.614			2.626			5.240

Parameter summary

Trip rate parameter range selected: 58 - 82 (units:)
 Survey date date range: 01/01/03 - 26/09/11
 Number of weekdays (Monday-Friday): 7
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL CYCLISTS**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 08:00	7	73	0.000	7	73	0.004	7	73	0.004
08:00 - 09:00	7	73	0.000	7	73	0.012	7	73	0.012
09:00 - 10:00	7	73	0.000	7	73	0.002	7	73	0.002
10:00 - 11:00	7	73	0.002	7	73	0.002	7	73	0.004
11:00 - 12:00	7	73	0.008	7	73	0.006	7	73	0.014
12:00 - 13:00	7	73	0.004	7	73	0.004	7	73	0.008
13:00 - 14:00	7	73	0.004	7	73	0.002	7	73	0.006
14:00 - 15:00	7	73	0.006	7	73	0.012	7	73	0.018
15:00 - 16:00	7	73	0.004	7	73	0.010	7	73	0.014
16:00 - 17:00	7	73	0.012	7	73	0.012	7	73	0.024
17:00 - 18:00	7	73	0.016	7	73	0.004	7	73	0.020
18:00 - 19:00	7	73	0.012	7	73	0.004	7	73	0.016
19:00 - 20:00	0	0	0.000	0	0	0.000	0	0	0.000
20:00 - 21:00	0	0	0.000	0	0	0.000	0	0	0.000
21:00 - 22:00	0	0	0.000	0	0	0.000	0	0	0.000
22:00 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			0.068			0.074			0.142

Parameter summary

Trip rate parameter range selected: 58 - 82 (units:)
 Survey date range: 01/01/03 - 26/09/11
 Number of weekdays (Monday-Friday): 7
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL VEHICLE OCCUPANTS**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 08:00	7	73	0.057	7	73	0.268	7	73	0.325
08:00 - 09:00	7	73	0.172	7	73	0.564	7	73	0.736
09:00 - 10:00	7	73	0.221	7	73	0.333	7	73	0.554
10:00 - 11:00	7	73	0.164	7	73	0.186	7	73	0.350
11:00 - 12:00	7	73	0.204	7	73	0.190	7	73	0.394
12:00 - 13:00	7	73	0.190	7	73	0.221	7	73	0.411
13:00 - 14:00	7	73	0.268	7	73	0.282	7	73	0.550
14:00 - 15:00	7	73	0.327	7	73	0.237	7	73	0.564
15:00 - 16:00	7	73	0.366	7	73	0.235	7	73	0.601
16:00 - 17:00	7	73	0.446	7	73	0.335	7	73	0.781
17:00 - 18:00	7	73	0.583	7	73	0.333	7	73	0.916
18:00 - 19:00	7	73	0.409	7	73	0.309	7	73	0.718
19:00 - 20:00	0	0	0.000	0	0	0.000	0	0	0.000
20:00 - 21:00	0	0	0.000	0	0	0.000	0	0	0.000
21:00 - 22:00	0	0	0.000	0	0	0.000	0	0	0.000
22:00 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			3.407			3.493			6.900

Parameter summary

Trip rate parameter range selected: 58 - 82 (units:)
 Survey date date range: 01/01/03 - 26/09/11
 Number of weekdays (Monday-Friday): 7
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL PEDESTRIANS**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 08:00	7	73	0.010	7	73	0.035	7	73	0.045
08:00 - 09:00	7	73	0.022	7	73	0.129	7	73	0.151
09:00 - 10:00	7	73	0.022	7	73	0.045	7	73	0.067
10:00 - 11:00	7	73	0.035	7	73	0.049	7	73	0.084
11:00 - 12:00	7	73	0.039	7	73	0.033	7	73	0.072
12:00 - 13:00	7	73	0.037	7	73	0.037	7	73	0.074
13:00 - 14:00	7	73	0.051	7	73	0.035	7	73	0.086
14:00 - 15:00	7	73	0.035	7	73	0.029	7	73	0.064
15:00 - 16:00	7	73	0.074	7	73	0.049	7	73	0.123
16:00 - 17:00	7	73	0.094	7	73	0.070	7	73	0.164
17:00 - 18:00	7	73	0.094	7	73	0.057	7	73	0.151
18:00 - 19:00	7	73	0.055	7	73	0.029	7	73	0.084
19:00 - 20:00	0	0	0.000	0	0	0.000	0	0	0.000
20:00 - 21:00	0	0	0.000	0	0	0.000	0	0	0.000
21:00 - 22:00	0	0	0.000	0	0	0.000	0	0	0.000
22:00 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			0.568			0.597			1.165

Parameter summary

Trip rate parameter range selected: 58 - 82 (units:)
 Survey date range: 01/01/03 - 26/09/11
 Number of weekdays (Monday-Friday): 7
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL PUBLIC TRANSPORT USERS**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 08:00	7	73	0.004	7	73	0.002	7	73	0.006
08:00 - 09:00	7	73	0.006	7	73	0.018	7	73	0.024
09:00 - 10:00	7	73	0.010	7	73	0.006	7	73	0.016
10:00 - 11:00	7	73	0.002	7	73	0.002	7	73	0.004
11:00 - 12:00	7	73	0.002	7	73	0.016	7	73	0.018
12:00 - 13:00	7	73	0.006	7	73	0.006	7	73	0.012
13:00 - 14:00	7	73	0.006	7	73	0.006	7	73	0.012
14:00 - 15:00	7	73	0.008	7	73	0.004	7	73	0.012
15:00 - 16:00	7	73	0.014	7	73	0.000	7	73	0.014
16:00 - 17:00	7	73	0.002	7	73	0.002	7	73	0.004
17:00 - 18:00	7	73	0.008	7	73	0.002	7	73	0.010
18:00 - 19:00	7	73	0.000	7	73	0.000	7	73	0.000
19:00 - 20:00	0	0	0.000	0	0	0.000	0	0	0.000
20:00 - 21:00	0	0	0.000	0	0	0.000	0	0	0.000
21:00 - 22:00	0	0	0.000	0	0	0.000	0	0	0.000
22:00 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			0.068			0.064			0.132

Parameter summary

Trip rate parameter range selected: 58 - 82 (units:)
 Survey date date range: 01/01/03 - 26/09/11
 Number of weekdays (Monday-Friday): 7
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL PEOPLE**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 08:00	7	73	0.070	7	73	0.309	7	73	0.379
08:00 - 09:00	7	73	0.200	7	73	0.722	7	73	0.922
09:00 - 10:00	7	73	0.252	7	73	0.386	7	73	0.638
10:00 - 11:00	7	73	0.204	7	73	0.239	7	73	0.443
11:00 - 12:00	7	73	0.252	7	73	0.245	7	73	0.497
12:00 - 13:00	7	73	0.237	7	73	0.268	7	73	0.505
13:00 - 14:00	7	73	0.329	7	73	0.325	7	73	0.654
14:00 - 15:00	7	73	0.376	7	73	0.282	7	73	0.658
15:00 - 16:00	7	73	0.458	7	73	0.294	7	73	0.752
16:00 - 17:00	7	73	0.554	7	73	0.419	7	73	0.973
17:00 - 18:00	7	73	0.701	7	73	0.395	7	73	1.096
18:00 - 19:00	7	73	0.476	7	73	0.342	7	73	0.818
19:00 - 20:00	0	0	0.000	0	0	0.000	0	0	0.000
20:00 - 21:00	0	0	0.000	0	0	0.000	0	0	0.000
21:00 - 22:00	0	0	0.000	0	0	0.000	0	0	0.000
22:00 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			4.109			4.226			8.335

Parameter summary

Trip rate parameter range selected: 58 - 82 (units:)
 Survey date range: 01/01/03 - 26/09/11
 Number of weekdays (Monday-Friday): 7
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

acstro

Priffyrdd a Thrafnidiaeth
Highways & Transportation

