



Transportation Planning : Infrastructure Design

# **Transport Statement**

**Proposed Residential Development  
Wrexham Road, Abermorddu**

**Castle Green Homes Ltd**

**August 2022**

**Doc Ref: SCP/220529/TS/01**

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RC / CT

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Checked by: Craig Thomson / Peter Todd

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CT / PT

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## Document Revision Control

Revision	Date	Status	Prepared By	Approved By
00	24.08.2022	Draft	RC	PT
01	31.08.2022	Issue	CT	PT

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## 1.0 INTRODUCTION

- 1.1 SCP have been instructed by Castle Green Homes Ltd to provide highways and transportation advice for the proposed construction of 70 dwellings on a parcel of land off Wrexham Road, Abermorddu.
- 1.2 The location of the application site in the context of Abermorddu is shown below in **Figure 1.1**:

**Figure 1.1 – Site Location**



Source: Google Maps

## Planning Background

- 1.3 A Transport Assessment and subsequent Technical Notes were submitted as part of representations for the application site to be allocated in Flintshire County Councils (FCC's) Local Development Plan (LDP). These documents were reviewed by the Highway Officer at FCC and the site was subsequently allocated for 80 units under policy HN1.9 Wrexham Road in the Council's LDP 2015-2030 Deposit Plan.

- 1.4 The Council's LDP 2015-2030 Deposit Plan confirms that the allocations have been assessed as suitable to deliver future housing need following a detailed assessment of candidate sites and alternatives sites. Therefore, the principle of residential development on the site is well established and the associated transport impacts deemed acceptable.
- 1.5 Having regard to the above and given that the proposed number of units (70 dwellings) falls well below the 100-dwelling threshold outlined in TAN 18 for when a Transport Assessment is required, detailed capacity assessments are not required for this application and a Transport Statement (TS) is considered sufficient.
- 1.6 This TS provides an assessment of the traffic and transport implications associated with the development proposals to inform FCC, as the local highway and planning authority, regarding the nature and magnitude of their impact.

### **Structure of Report**

- 1.7 The structure of the TS is set out as follows:-
- Chapter 2 - describes in detail the site location, local highway network and road safety record;
  - Chapter 3 – defines the development proposals including the proposed access, servicing and car parking arrangements;
  - Chapter 4 – considers the location of the site with regard to the existing local sustainable transport infrastructure;
  - Chapter 5 – presents an assessment of the impact of the development on the operational performance of the local highway network; and
  - Chapter 6 – provides summary and conclusions to the above Chapters.

## **2.0 EXISTING CONDITIONS**

2.1 This Chapter provides a detailed description of the location of the site, the local highway network and an appraisal of the road safety record.

### **Site Location**

2.2 The site is located on a parcel of land, made up of two fields with direct frontage along the west of Wrexham Road in Abermorddu, as shown on **Figures 1.1** earlier. The site is bound by Wrexham Road to the east, agricultural land to the north and west and school playing fields to the south.

### **Local Highway Network**

2.3 Wrexham Road runs roughly in a north – south alignment connecting the site to Caergwrle in the north and Cefn-y-bedd in the south. In the vicinity of the site the carriageway has a varying width of between approximately 6.5m-9.5m and benefits from lit footways on both sides.

2.4 Along the site frontage, Wrexham Road is subject to a 40mph speed limit which changes to 30mph at the southern site boundary, in the vicinity of the primary school and the Wrexham Road / A550 / Cymau Lane signalised junction. The speed restrictions are enforced by regular signage along Wrexham Road, including signage indicating speed cameras.

2.5 Double yellow line Traffic Regulation Orders (TROs) are evident on both sides of the carriageway along the southern section of the site frontage. This prevents vehicles from parking on-street.

2.6 Wrexham Road meets the A550 and Cymau Lane in the form of a signalised junction to the south of the development site. This junction is made up of four arms; Wrexham Road north and south, Cymau Lane which serves Cymau to the west and Abermorddu County Primary School more locally, as well as the A550 which connects Abermorddu with Bridge End and Hope to the north. There are pedestrian crossings across each arm with dropped kerbs and tactile paving; signal controlled refuge islands with guard railings on the north and east arms of the junction.

### **Road Safety**

2.7 The now archived DfT document *“Guidance on Transport Assessment”* states that *“Critical locations on the road network with poor accident records should be identified. This is to determine if the proposed development will exacerbate existing problems or, if proposed, whether highway mitigation works or traffic management measures will help to alleviate the problems”*.

2.8 In order to identify any critical locations on the network with a poor accident record, the personal injury accident data has been obtained from [www.crashmap.co.uk](http://www.crashmap.co.uk) for the most recent five-year period. The location and severity of the accidents are shown on **Figure 2.1** below:-

**Figure 2.1 – Road Safety Plan**



2.9 Along Wrexham Road, across the whole site frontage there was a total of three incidents of 'slight' severity recorded, one at either extent of the site frontage and one centrally to the site. In the vicinity of the Wrexham Road / A550 / Cymau Lane signalised junction, two incidents were recorded during the five-year study period which also resulted in 'slight' severity injuries.

2.10 The evidence presented above and illustrated in **Figure 2.1** suggests that the area in the vicinity of the site does not have any recurring highway safety problems that could be affected by the development proposals and therefore, road safety does not present a material concern in the context of the proposed development.

### **3.0 PROPOSED DEVELOPMENT**

#### **Overview**

- 3.1 The development proposals consist of the construction of a residential development, comprising 70 dwellings, on a parcel of land off Wrexham Road, Abermorddu.
- 3.2 The proposed site layout plan is contained in **Appendix A**.

#### **Proposed Site Access Arrangements**

- 3.3 Vehicular access to the development will be provided through the introduction of a priority controlled junction off Wrexham Road, as shown on drawing number SCP/220529/F01 Rev A, presented in **Appendix B**, which has been designed to provide a 5.5m wide carriageway with 6m corner radii and 2m footways on both sides.
- 3.4 Given that the proposed development will extend the built environment along Wrexham Road, it is proposed that the speed limit along the site's frontage is reduced from 40mph to 30mph by relocating the existing change in speed limit to the north-west. The proposed change in speed limit is shown on drawing number SCP/220529/F01 Rev A, presented in **Appendix B**, and includes the introduction of a gateway entry feature at the change in speed limit, including a 30mph surface roundel road marking on red texture flex with dragon teeth and high visibility backed speed limit signs. Regularly spaced street lighting columns are already in place along the site frontage to complement the proposed 30mph speed limit.
- 3.5 Notwithstanding the above and as shown on drawing number SCP/220529/F01 Rev A presented in **Appendix B**, the proposed access has been designed so that visibility splays of 2.4m x 120m, in accordance with guidelines in the Design Manual for Roads for a 40mph road, are achievable in both directions.
- 3.6 Swept path analysis has been undertaken of a refuse vehicle and fire tender, as shown on drawing numbers SCP/220529/ATR01 Rev A, presented in **Appendix C**, which demonstrates that the movements of such vehicles can be accommodate at the proposed site access.
- 3.7 Pedestrian / cycle access to the site will be provided from the same location as the proposed vehicular access, although an additional pedestrian connection is provided onto Wrexham Road to the north and south of the site access. Furthermore, a pedestrian connection is provided to the west of the site, connecting to recreational open space, and there is the potential for an additional pedestrian connection to the play area to the south-west of the site.



- 3.8 It should be noted that a 3m footway / cycleway was initially requested by FCC's highway department along the site frontage during the LDP allocation process. However, an Ecology Report stated that the hedgerow fronting Wrexham Road is considered to be one of the habitats of greatest value and recommends that the hedgerow habitats should be retained and enhanced by the development. It should be noted that the summary guidance for the allocation site in the Council's LDP 2015-2030 Deposit Plan highlights the importance of the retention of hedgerows / creation of attractive development frontage.
- 3.9 Having regard to the above, a 3m footway / cycleway is not considered to be a viable option and previous discussions with the Highway Officer at FCC confirmed they were willing to compromise on their request for a 3m footway / cycleway, either by providing a 2m footway along the frontage or providing an alternative route through the internal site layout.
- 3.10 As shown on the site layout plan, presented in **Appendix A**, a 2m footway has been proposed along the site's full frontage.

#### **Internal Layout and Servicing Arrangements**

- 3.11 Swept path analysis of the internal site layout has been undertaken of a refuse vehicle and fire tender, as shown on drawing number SCP/220529/ATR02 Rev A and SCP/220529/ATR03 Rev A respectively. The swept path analysis is presented in **Appendix D** and **Appendix E** respectively and demonstrates that such vehicles can turn at the proposed turning heads and exit the site in a forward gear.

#### **Parking**

- 3.12 Local parking standards are set out in FCC's Supplementary Planning Guidance No. 11, titled *Parking Standards*. This specifies the following maximum parking standards:
- 1-bed dwellings – 1.5 spaces per unit;
  - 2-bed dwellings - 2 spaces per unit;
  - 3-bed dwellings - 2 spaces per unit; and,
  - 4-bed + dwellings - 3 spaces per unit
- 3.13 As shown on the site layout plan, contained in **Appendix A**, the proposed development provides a level of parking broadly in accordance with FCC's parking standards.

## **4.0 ACCESSIBILITY**

### **General**

- 4.1 As detailed earlier, the application site is allocated for housing in FCC's LDP 2015-2030 Deposit Plan and the acceptability of residential development on this site has therefore already been deemed acceptable to FCC. Notwithstanding this, this Chapter provides an appraisal of how accessible the site is by the three main non-car modes of transport; namely walking, cycling and public transport.
- 4.2 The accessibility of the site by non-car modes has been assessed by comparison with the following threshold distances, as set out by Alan Davies AM in his foreword to the 2003 *"Walking and Cycling Strategy for Wales"* document:-

**Table 4.1 – Walk / Cycle Distance Thresholds**

<b>Threshold Distance</b>	<b>Significance</b>	<b>Reference</b>
1 mile	Walking can offer viable and attractive alternatives [to car trips]	Walking and Cycling Strategy for Wales
5 miles	Cycling can offer viable and attractive alternatives [to car trips]	Walking and Cycling Strategy for Wales

### **Pedestrian Accessibility**

- 4.3 As detailed earlier, pedestrian / cycle access to the site will be provided from the same location as the proposed vehicular access, off Wrexham Road, although an additional pedestrian connection is provided onto Wrexham Road to the north and south of the site access. Furthermore, a pedestrian connection is provided to the west of the site, connecting to recreational open space, and there is the potential for an additional pedestrian connection to the play area to the south-west of the site.

- 4.4 It should also be noted that a 2m footway is proposed along the site's full frontage as part of the development proposals. The footways on Wrexham Road are lit and benefit from natural surveillance from the properties that abut them. To the north of the site, the footways continue along only the western side of the carriageway. Directly opposite the site, there is a pedestrian footpath that connects Wrexham Road with The Crossways in the east. To the south of the site there is a signalised junction that allows prospective residents to safely cross Wrexham Road, Cymau Lane and the A550.
- 4.5 The good level of existing pedestrian infrastructure allows easy access to the Caergwrle Local Centre, located 0.4m to the north of the site along Wrexham Road. Located here are a number of public houses, a newsagent, a post office, a pharmacy and fast food outlets. In the other direction on the same side of the carriageway, heading 0.3m south on Wrexham Road, there is Abermorddu County Primary School.
- 4.6 TRACC software has been used to assess the accessibility of the development by foot for a 1 mile walk distance from the site, as shown on Figure 1 in **Appendix F**. The plan shows the local areas and transport links that are within 1 mile of the site and demonstrates that the site is in a favourable location for journeys made on foot.
- 4.7 A summary of facilities and amenities within the recommended one mile walking distance is presented in **Table 4.2** below:-

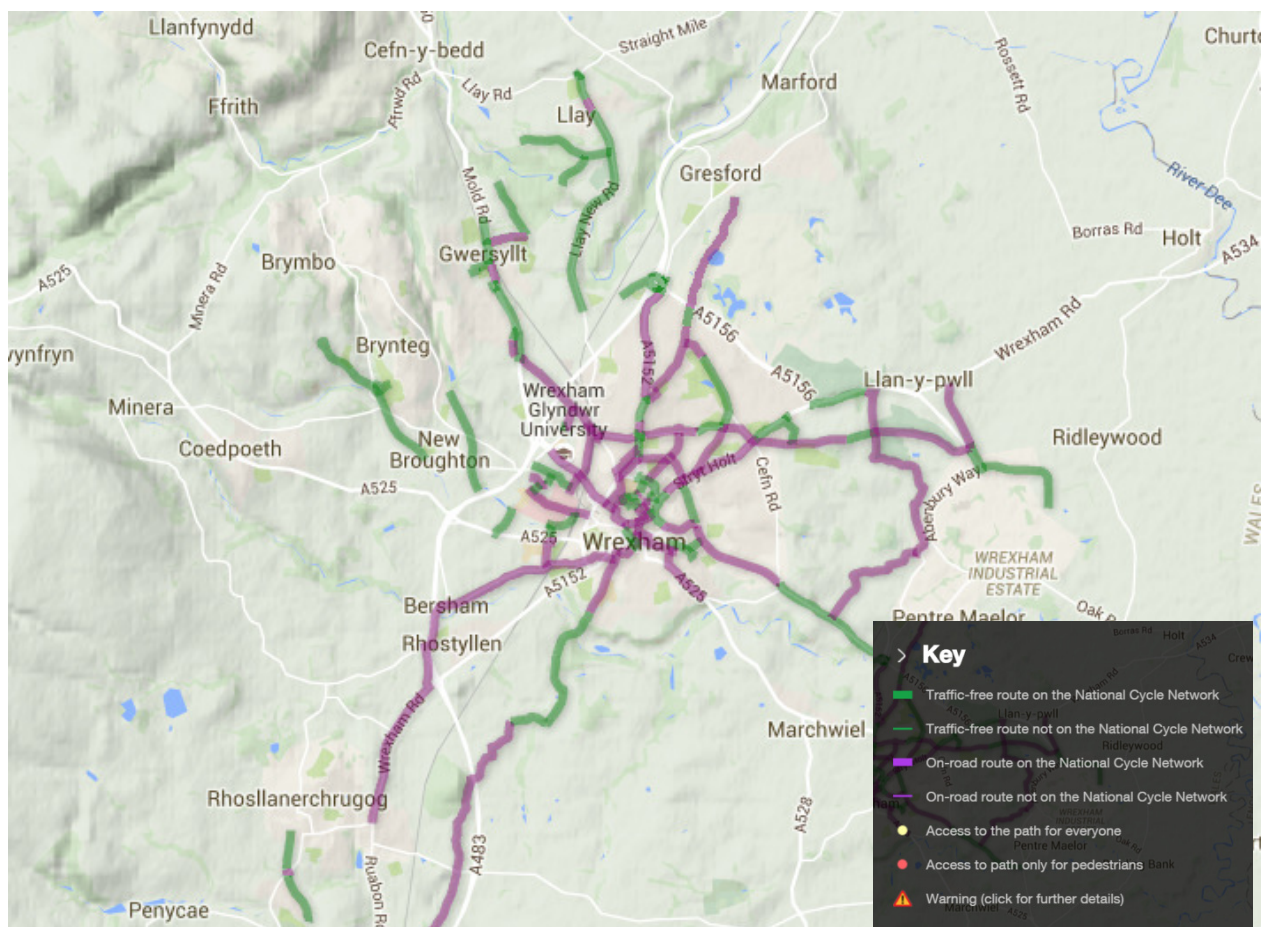
<b>Facility</b>	<b>Name</b>	<b>Distance from Site</b>
School/Nursery	Abermorddu County Primary School	0.25 mile
Food Retail	SPAR – Caergwrle High Street	0.4 mile
Transport	Numerous Bus Stops	<0.24 mile
	Caergwrle Rail Station	0.6 mile
	Cefn – y - Bedd Rail Station	0.4 mile
Post Office	Post Office - Caergwrle	0.5 mile
Health	Hope Valley Medical Centre	0.86 mile
	Castle Pharmacy	0.5 mile

- 4.8 With consideration to the above, it is therefore considered that walking provides an efficient and safe option for journeys under 1 mile.

## Cycle Accessibility

- 4.9 PPW identifies that “Cycling should also be encouraged for short trips and as a substitute for shorter car journeys or, as part of a longer journey when combined with public transport.”
- 4.10 TRACC software has been used to assess the accessibility of the development by bicycle from the site, as shown on Figure 2 in **Appendix F**. The plan illustrates the 5 mile cycle catchment area around the site and demonstrates that Penymynydd, Hope, Gwersyllt and Wrexham are all within the 5 mile catchment area.
- 4.11 Within the recommended 5 mile cycling distance of the site, beginning from the centre of Gwersyllt, there are cycle routes that follow Mold Road and Stansty Chain Road into the centre of Wrexham. These are made up of both on-road and traffic free cycle routes and form a cycle route network in Wrexham. An extract from the Sustrans cycle route network map of Wrexham is shown in **Figure 4.1** below:-

**Figure 4.1 – Wrexham Cycle Routes**



## Public Transport

- 4.12 The development is well placed to encourage travel by bus. Guidance published by the CIHT entitled “*Planning for Public Transport in Developments*” (1999), recommends that the recommended walk distance to a bus stop should be 300m, or a maximum of 400 metres, equating approximately to a five minute walk.
- 4.13 The nearest bus stop is for southbound services along the site frontage on Wrexham Road. There are stops serving both directions along the A550 that are accessed on foot via the pedestrian footpath that connects with the A550 via The Crossways. A summary of the services at these stops is given in **Table 4.3** below:-

**Table 4.3 – Summary of Bus Services within 400m walking distance of the site**

Service Number	Bus Stop Locations			Route	Operator	Average Weekday Service Headway (mins)
	Wrexham Road	A550	Cymau Lane			
LT7		✓	✓	Leeswood – Treuddyn – Nercwys – Hope – Caergwrie – Abermorddu – Cymau – Pontybodkin Mold	P & O Lloyd	7 services per day
LT8	✓	✓		Broughton – Higher Kinnerton – Penymynydd – Penyffordd – Hope - Caergwrie	R Williams	5 services per day
27		✓		Mold – Leeswood – Caergwrie – Sydallt - Wrexham	Arriva Wales	60 mins
29		✓		Wrexham – Bryn Offa – Caergwrie – Hope – Penymynydd – Dirty Mile – Buckley - Mold	M & H Coaches	5 services per day

- 4.14 As can be seen from **Table 4.3** above, there is a good level of frequency of bus services stopping close to the site which provide convenient access to locations including Wrexham, Synallt, Leeswood and Mold as well as other local destinations.

- 4.15 As part of the above local bus provision, there are 3 services towards Wrexham and 3 services towards Mold over the AM peak hours. This provides an ample amount of opportunity to reach nearby areas of employment, retail and leisure via public transport during the peak hours.
- 4.16 The development site is also conveniently placed to benefit from local train services. Caergwrle and Cefn-y-Bedd Railway Stations are located within a mile of the site to the north and south respectively. Both stations operate on the same line as one another and are served by trains run by Arriva Trains Wales towards Wrexham in the south and Bidston in the north. Both services operate at a frequency of every 60 minutes and stop at local destinations such as Hope, Penyffordd, Buckely and Shotton amongst others.
- 4.17 TRACC software has been used to assess the accessibility of the development by public transport from the site, as shown on Figure 3 in **Appendix F**. The plan illustrates the achievable journeys within 60 minutes via public transport and includes the time spent walking to bus stops and railway stations.

#### **Accessibility Summary**

- 4.18 Overall, this Chapter demonstrates that the site is reasonably well accessible by the main non-car modes of transport. The existing pedestrian infrastructure connects the site with the local facilities and there are bus stops close to the site along the A550 as well as railway services also within the recommended walking distance.

## 5.0 TRIP GENERATION

### Overview

5.1 This Chapter provides an estimate of the number of trips generated by the proposed development in the weekday peak hours.

### Trip Generation

5.2 In order to estimate the trip generating potential of the proposed development, average trip rates from the industry-standard TRICS Database have been obtained. The selection criteria for the TRICS based trip rates is as follows:-

- i) Residential;
- ii) Privately Owned Houses;
- iii) Multi Modal Trip Rates;
- iv) Sites in Greater London and Ireland excluded;
- v) Selection by Number of Dwellings (35-140);
- vi) Weekday surveys only; and
- vii) Only sites in 'suburban area' and 'edge of town' locations selected.

5.3 The TRICS outputs are presented in **Appendix G** with the trip rates summarised in **Table 5.1** below:-

**Table 5.1 – Residential Use Trip Rates (Trip Rates per Dwelling)**

Mode	Weekday AM Peak Hour		Weekday PM Peak Hour	
	Arrivals	Departures	Arrivals	Departures
Vehicles	0.126	0.357	0.342	0.148
Cyclists	0.008	0.012	0.007	0.005
Pedestrians	0.056	0.154	0.071	0.042
Public Transport	0.002	0.075	0.035	0.003

5.4 The above trip rates have been applied to the proposed 70 dwellings to determine the multi-modal trip generation forecasts for the development, as summarised in **Table 5.2** below.

**Table 5.2 – Proposed Residential Use Trip Generation (70 Dwellings)**

Mode	Weekday AM Peak Hour		Weekday PM Peak Hour	
	Arrivals	Departures	Arrivals	Departures
Vehicles	9	25	24	10
Cyclists	1	1	0	0
Pedestrians	4	11	5	3
Public Transport	0	5	2	0

5.5 As detailed above, it is estimated that the scheme will generate a total of 34 two-way vehicle movements in both the AM and PM peak hours. Volumetrically, this equates to around 1 additional two-way vehicle movement every 2 minutes or so in both the AM and PM peak hours. The effect of this additional traffic on the local highway network will be barely perceptible during the peak hours and less so outside of the peak periods.

5.6 Having regard to the above, it is therefore considered that no further detailed assessment of the local highway network is required and that the traffic impact of the scheme is acceptable in planning terms.

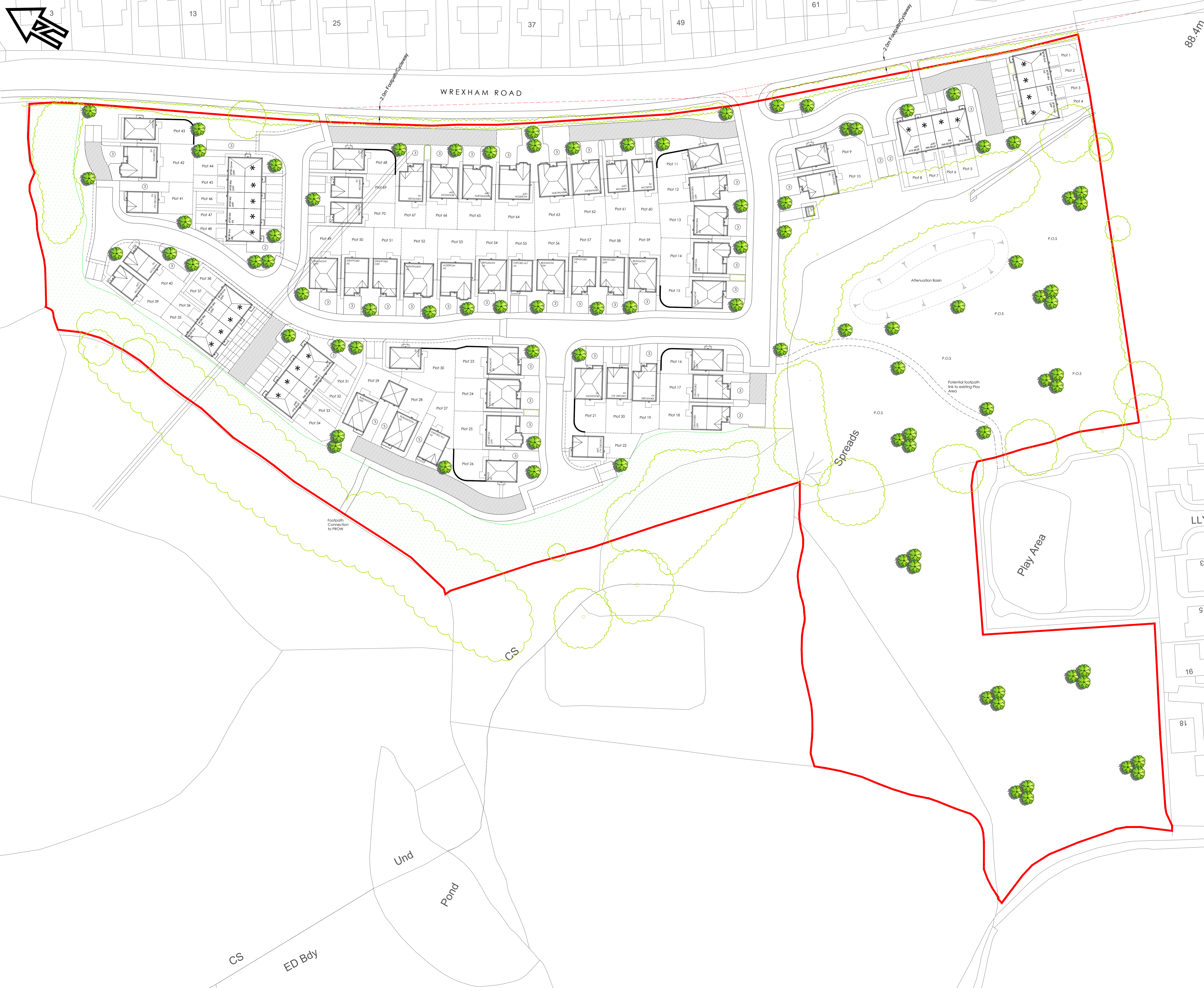


## **6.0 SUMMARY & CONCLUSIONS**

- 6.1 SCP have been instructed by Castle Green Homes Ltd to provide highways and transportation advice for the proposed construction of 70 dwellings on a parcel of land off Wrexham Road, Abermorddu.
- 6.2 Vehicular access to the development will be provided through the introduction of a priority controlled junction off Wrexham Road which has been designed to provide a 5.5m wide carriageway with 6m corner radii and 2m footways on both sides. Pedestrian / cycle access to the site will be provided from the same location as the proposed vehicular access, although an additional pedestrian connection is provided onto Wrexham Road to the north and south of the site access. Furthermore, a pedestrian connection is provided to the west of the site, connecting to recreational open space, and there is the potential for an additional pedestrian connection to the play area to the south-west of the site.
- 6.3 The personal injury accident data for the most recently available five-year period has been reviewed and does not represent a material concern in the context of the proposed development.
- 6.4 It has been demonstrated that the development is sustainable with good accessibility to the site provided to those travelling by foot, bicycle and public transport. These findings demonstrate that future residents will not be wholly reliant on the private car. Furthermore, given that the site is allocated for housing in FCC's LDP 2015-2030 Deposit Plan, the principle of residential development on the application site has already been deemed acceptable to FCC.
- 6.5 The volume of traffic generated by the proposed development will not have a material impact on the operation of the local highway network and the effect of the additional traffic will be barely perceptible during the highway peak hours.
- 6.6 Having regard to the analysis presented in this TS, it is considered that there should be no highway related reason to withhold planning permission and the scheme is therefore commended to FCC for approval.

**S|C|P**

**APPENDIX A**



SCHEDULE OF ACCOMMODATION				
HOUSETYPE	DESCRIPTION	SQFT	NUMBER	PERCENTAGE
AP2B (affordable)	2 Bed, 2 Storey, Mid-End-Terrace	895 SQFT	14	20.00
AP2B (affordable)	3 Bed, 2 Storey, End-Terrace	1015 SQFT	6	8.57
SP2B Corner (affordable)	3 Bed, 2 Storey, End-Terrace	1015 SQFT	1	1.43
Marlow Semi	3 Bed, 2 Storey	987 SQFT	6	8.57
Oxford	3 Bed, 2 Storey	1040 SQFT	5	7.14
Henley	3 Bed, 2 Storey	1040 SQFT	7	10.00
Stratford	3 Bed, 2 Storey	1055 SQFT	10	14.29
Beaumont	3 Bed, 2 Storey	1234 SQFT	9	12.86
Burlington	4 Bed, 2 Storey	1255 SQFT	2	2.86
Wentworth	4 Bed, 2 Storey	1344 SQFT	5	7.14
Alderton	4 Bed, 2 Storey	1501 SQFT	5	7.14
<b>TOTAL</b>		<b>76428 SQFT</b>	<b>70</b>	
Gross Site Area	10.54 Acres		4.27 Hectares	
POS	4.11 Acres		1.66 Hectares	
Existing Landscaping & Buffer zone	1.15 Acres		0.47 Hectares	
Site Entrance & Single-Sided Road & Sub Station	0.18 Acres		0.07 Hectares	
<b>NETT SITE AREA:</b>	<b>6.1 ACRES</b>		<b>2.06 HECTARES</b>	
Gross Density:	6.64 Units/Acre		16.41 Units/Hectare	
<b>NETT DENSITY:</b>	<b>13.73 UNITS/ACRE</b>		<b>33.92 UNITS/HECTARE</b>	
Gross Footage:	7251.23 SQFT/Acre		1664.64 SQM/Hectare	
<b>NETT FOOTAGE:</b>	<b>14855.88 SQFT/ACRE</b>		<b>3440.25 SQM/HECTARE</b>	

**Key:**

- Site Boundary
- 1.8m high boundary fence
- 1.8m high screen wall / fence
- Private Drive
- Visibility Splays - 2.4x120m to Site Entrance
- Indicative Landscaping
- Number of parking spaces proposed to Semi-Detached and Detached Dwellings in accordance with Flintshire's Parking Standards
- Parking space allocation to Frontage Parking Dwellings
- Knee rails to parking bays to terraced Housetypes
- \* Affordable Housing
- Existing retained hedges/landscaping
- Existing overhead lines
- Existing Landscaping & Wildlife buffer zone

Rev:	Description:	Date:
A	Mix amended & Sub Station added	04/03/20
B	Amended in line with Pre App Response	07/10/20



**Castle Green**

Castle Green,  
Unit 20,  
St. Asaph Business Park,  
Denbighshire, LL17 0LJ.  
Tel. 01745 536677

Site: **Wrexham Road, Abermorddu**

Title: **Site Layout**

Scale: **1:500 at A1**      Date: **19/02/2020**

Ref: **ABMRD-SP.01**      Rev: **B**

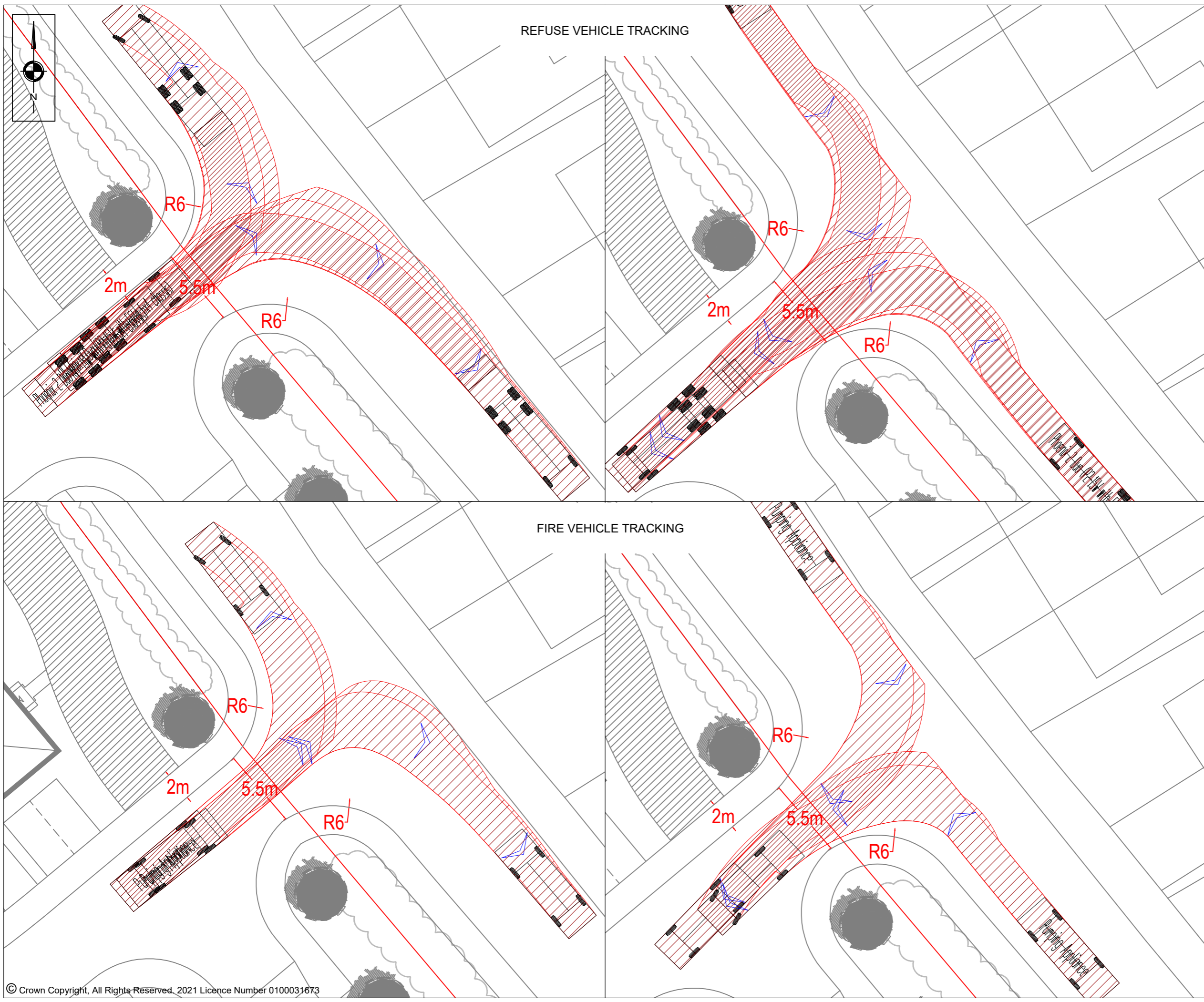
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**APPENDIX B**

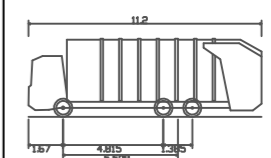


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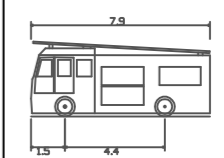
**APPENDIX C**



NOTES



Phoenix 2 Duo (P2-15W with Elite 6x4 chassis)  
 Overall Length 11.200m  
 Overall Width 4.815m  
 Overall Body Height 3.350m  
 Min Body Ground Clearance 0.304m  
 Track Width 2.500m  
 Lock to lock time 4.00s  
 Kerb to Kerb Turning Radius 9.500m



Pumping Appliance  
 Overall Length 7.900m  
 Overall Width 4.400m  
 Overall Body Height 3.300m  
 Min Body Ground Clearance 0.140m  
 Track Width 2.500m  
 Lock to lock time 4.00s  
 Kerb to Kerb Turning Radius 7.750m

REVISIONS

REV	DESCRIPTION	DATE	BY
A	UPDATED SITE PLAN	25.08.22	AM



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 Colwyn Chambers, 19 York Street, Manchester, M2 3BA, Tel 0161 832 4400,  
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Client Name:  
**CASTLE GREEN HOMES LTD'**

Project Title:  
**WREXHAM ROAD,  
 ABERMORDDU**

Drawing Title:  
**SITE ACCESS TRACKING**

Drawn By:	RC	Date:	12.08.2022
Checked:	PT	Scale:	1:250 @ A3
Status:	PLANNING	Approved/Unapproved:	-

Drawing No.	SCP/220529/ATR01	Rev.	A
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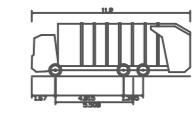
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**APPENDIX D**





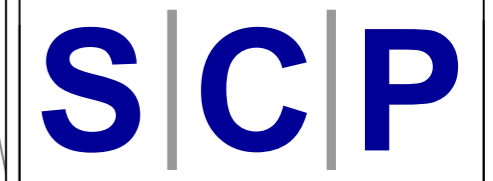
NOTES



Phoenix 2 Bug (P2-15V with Elite 6x4 chassis)  
 Overall Length 10.5m  
 Overall Width 2.5m  
 Overall Body Height 2.5m  
 Min Body Ground Clearance 0.1m  
 Track Width 2.0m  
 Lock to lock time 10s  
 Kerb to Kerb Turning Radius 10.5m

REVISIONS

REV	DESCRIPTION	DATE	BY
A	UPDATED SITE PLAN	25.08.22	AM



Transportation Planning : Infrastructure Design

Colwyn Chambers, 19 York Street, Manchester, M2 3BA, Tel 0161 832 4400, www.scptransport.co.uk, Email info@scptransport.co.uk

Client Name:

CASTLE GREEN HOMES LTD'

Project Title:

WREXHAM ROAD, ABERMORDDU

Drawing Title:

SWEPT PATH ANALYSIS REFUSE VEHICLE

Drawn By: RC Date: 12.08.2022

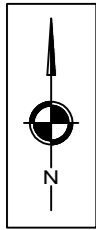
Checked: PT Scale: 1:1000 @ A3

Status: PLANNING Approved/Unapproved: -

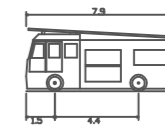
Drawing No. SCP/220529/ATR02 Rev. A

**S|C|P**

**APPENDIX E**



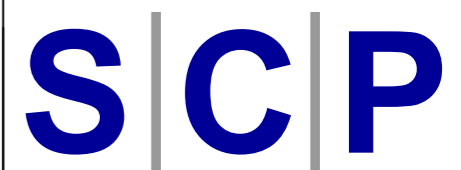
NOTES



Pumping Appliance	7.900m
Overall Length	2.500m
Overall Width	3.300m
Overall Body Height	0.140m
Min Body Ground Clearance	2.500m
Track Width	4.300s
Lock to lock time	7.750m
Kerb to Kerb Turning Radius	

REVISIONS

REV	DESCRIPTION	DATE	BY
A	UPDATED SITE PLAN	25.08.22	AM



Transportation Planning : Infrastructure Design

Colwyn Chambers, 19 York Street, Manchester, M2 3BA, Tel 0161 832 4400, www.scptransport.co.uk, Email info@scptransport.co.uk

Client Name:

CASTLE GREEN HOMES LTD'

Project Title:

WREXHAM ROAD, ABERMORDDU

Drawing Title:

SWEPT PATH ANALYSIS  
FIRE VEHICLE

Drawn By:	RC	Date:	12.08.2022
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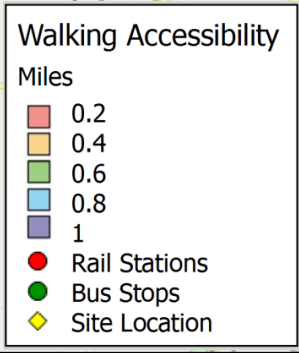
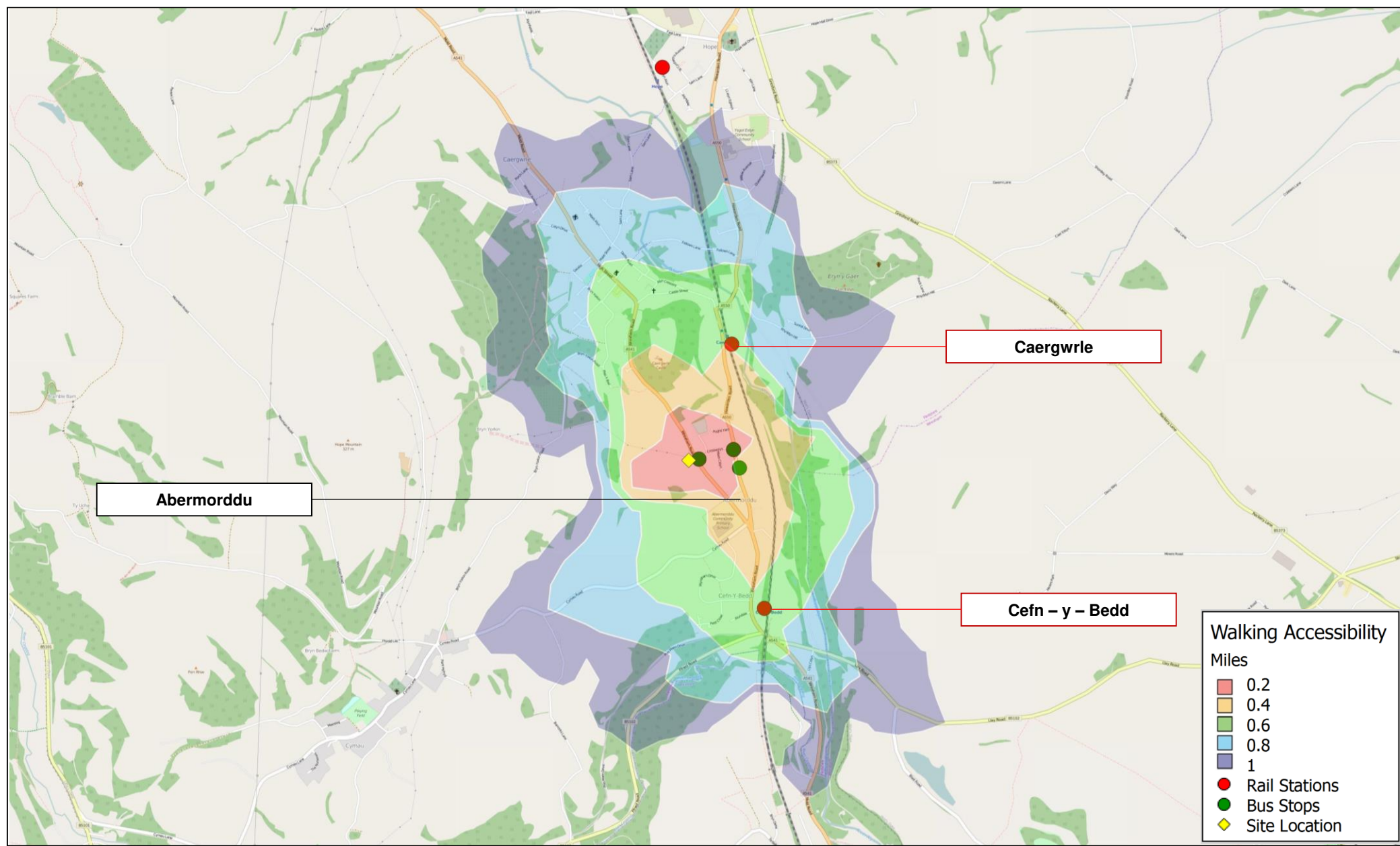
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Status:	PLANNING	Approved/Unapproved:	-
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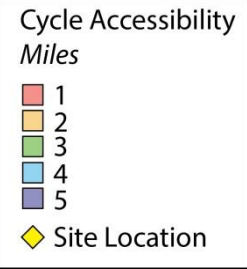
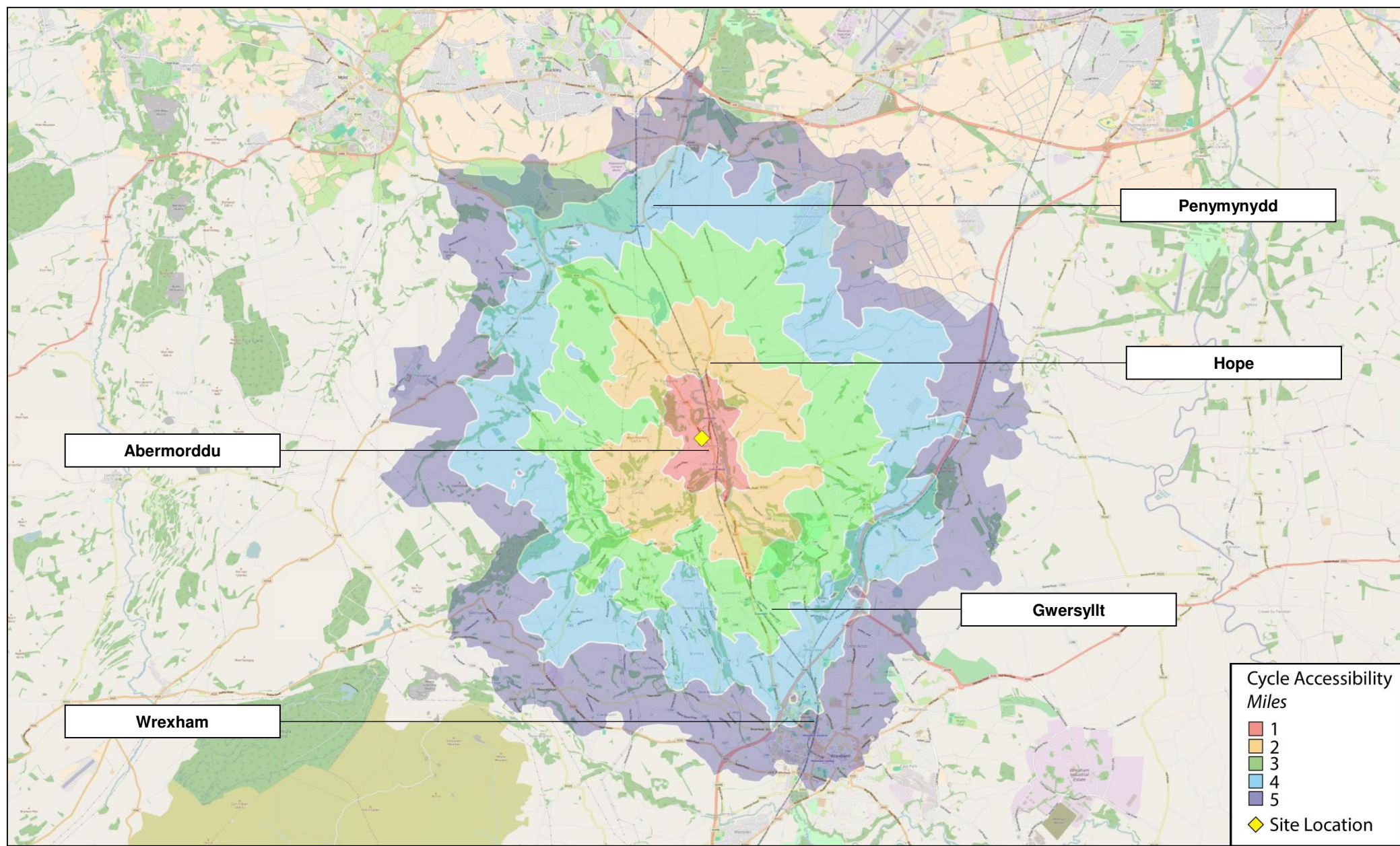
Drawing No.	SCP/220529/ATR03	Rev.	A
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**S|C|P**

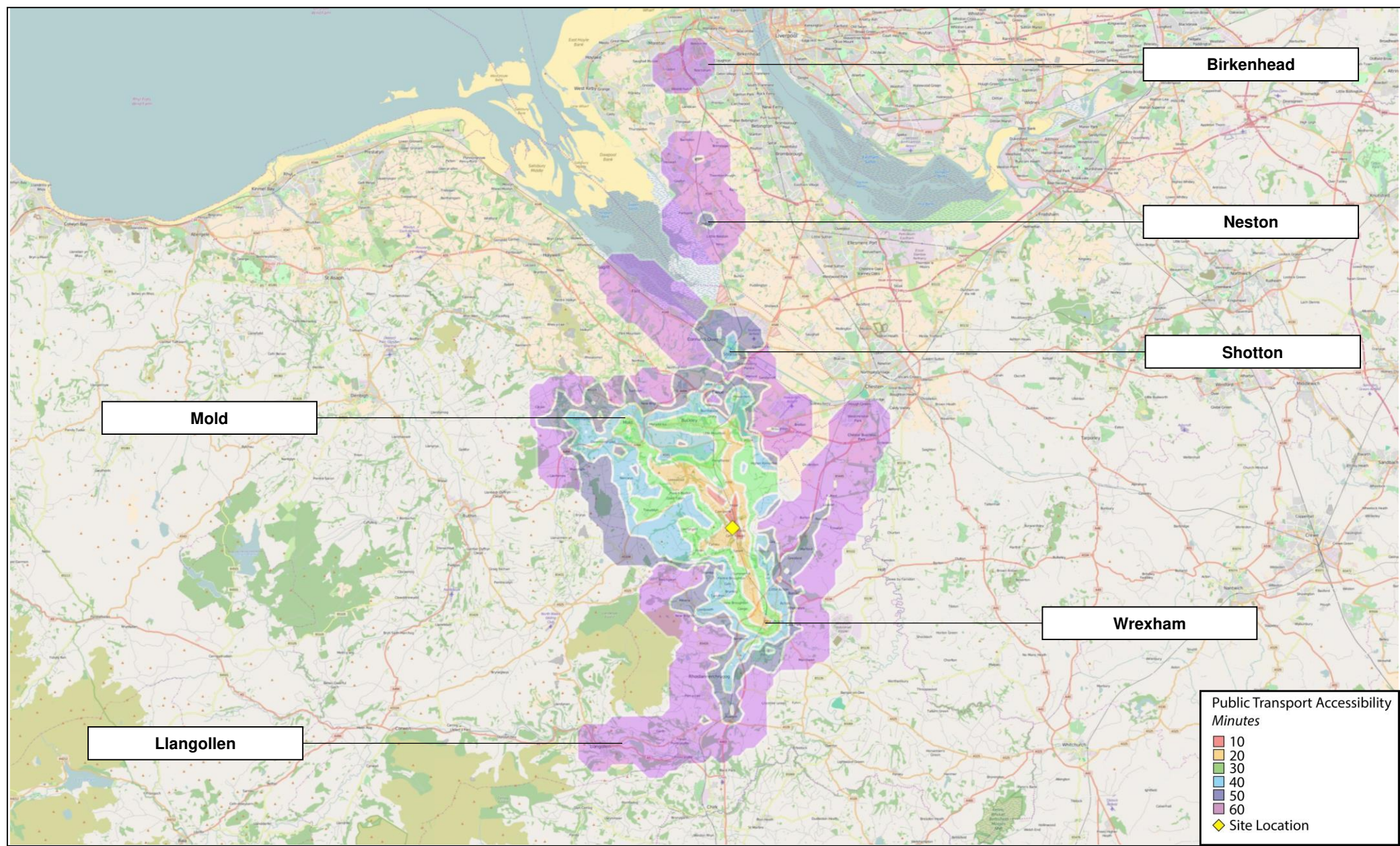
**APPENDIX F**



 <b>SCP</b> Transportation Planning : Infrastructure Design <a href="http://www.scptransport.co.uk">www.scptransport.co.uk</a>	Project Title	Drawing Title	Scale	By	Rev	Description	Date	By	<b>Appendix F</b>  <b>Figure 1</b>
	Wrexham Road, Abermorddu	Walking Accessibility: 1 Mile Isochrones	NTS	SB	-	-	-	-	
			18.07.2016	Checked	WB	-	-	-	
			Approved/Unapproved APPROVED	Status	PLANNING	-	-	-	



 <b>SCP</b> Transportation Planning : Infrastructure Design www.scptransport.co.uk	Project Title	Drawing Title	Scale	By	Rev	Description	Date	By	Appendix F  Figure 2
	Wrexham Road, Abermorddu	Cycling Accessibility: 5 Mile Isochrones	NTS	SB	-	-	-	-	
			18.07.2016	Checked	WB	-	-	-	
			Approved/Unapproved	Status	-	-	-	-	
			APPROVED	PLANNING	-	-	-	-	



**S|C|P**

**APPENDIX G**



**TRIP RATE CALCULATION SELECTION PARAMETERS:**

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

**MULTI-MODAL TOTAL VEHICLES**Selected regions and areas:

<b>02 SOUTH EAST</b>		
ES	EAST SUSSEX	3 days
EX	ESSEX	1 days
HC	HAMPSHIRE	5 days
KC	KENT	2 days
SC	SURREY	1 days
WS	WEST SUSSEX	1 days
<b>03 SOUTH WEST</b>		
DC	DORSET	1 days
DV	DEVON	3 days
<b>04 EAST ANGLIA</b>		
NF	NORFOLK	3 days
SF	SUFFOLK	1 days
<b>05 EAST MIDLANDS</b>		
NT	NOTTINGHAMSHIRE	1 days
<b>06 WEST MIDLANDS</b>		
WK	WARWICKSHIRE	1 days
<b>08 NORTH WEST</b>		
CH	CHESHIRE	1 days
<b>09 NORTH</b>		
DH	DURHAM	2 days
<b>11 SCOTLAND</b>		
HI	HIGHLAND	1 days

*This section displays the number of survey days per TRICS® sub-region in the selected set*

**Primary Filtering selection:**

*This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.*

Parameter: No of Dwellings  
 Actual Range: 36 to 134 (units: )  
 Range Selected by User: 35 to 140 (units: )

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 19/11/21

*This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.*

Selected survey days:

Monday	4 days
Tuesday	6 days
Wednesday	6 days
Thursday	5 days
Friday	6 days

*This data displays the number of selected surveys by day of the week.*

Selected survey types:

Manual count	27 days
Directional ATC Count	0 days

*This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.*

*This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.*

Selected Location Sub Categories:

Residential Zone	26
No Sub Category	1

*This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.*

**Secondary Filtering selection:**

Use Class:

C3	27 days
----	---------

*This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.*

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	1 days
5,001 to 10,000	8 days
10,001 to 15,000	5 days
15,001 to 20,000	7 days
20,001 to 25,000	3 days
25,001 to 50,000	2 days

*This data displays the number of selected surveys within stated 1-mile radii of population.*

Population within 5 miles:

5,001 to 25,000	4 days
25,001 to 50,000	3 days
50,001 to 75,000	4 days
75,001 to 100,000	4 days
100,001 to 125,000	1 days
125,001 to 250,000	9 days
250,001 to 500,000	2 days

*This data displays the number of selected surveys within stated 5-mile radii of population.*

Car ownership within 5 miles:

0.6 to 1.0	5 days
1.1 to 1.5	22 days

*This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.*

Travel Plan:

Yes	12 days
No	15 days

*This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.*

PTAL Rating:

No PTAL Present	27 days
-----------------	---------

*This data displays the number of selected surveys with PTAL Ratings.*

LIST OF SITES relevant to selection parameters

<b>1</b>	<b>CH-03-A-10</b>	<b>SEMI-DETACHED &amp; TERRACED</b>	<b>CHESHIRE</b>
	MEADOW DRIVE		
	NORTHWICH		
	BARNTON		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	40	
	Survey date: TUESDAY	04/06/19	Survey Type: MANUAL
<b>2</b>	<b>DC-03-A-09</b>	<b>MIXED HOUSES</b>	<b>DORSET</b>
	A350		
	SHAFTESBURY		
	Edge of Town		
	No Sub Category		
	Total No of Dwellings:	50	
	Survey date: FRIDAY	19/11/21	Survey Type: MANUAL
<b>3</b>	<b>DH-03-A-01</b>	<b>SEMI DETACHED</b>	<b>DURHAM</b>
	GREENFIELDS ROAD		
	BISHOP AUCKLAND		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	50	
	Survey date: TUESDAY	28/03/17	Survey Type: MANUAL
<b>4</b>	<b>DH-03-A-03</b>	<b>SEMI-DETACHED &amp; TERRACED</b>	<b>DURHAM</b>
	PILGRIMS WAY		
	DURHAM		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	57	
	Survey date: FRIDAY	19/10/18	Survey Type: MANUAL
<b>5</b>	<b>DV-03-A-01</b>	<b>TERRACED HOUSES</b>	<b>DEVON</b>
	BRONSHILL ROAD		
	TORQUAY		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	37	
	Survey date: WEDNESDAY	30/09/15	Survey Type: MANUAL
<b>6</b>	<b>DV-03-A-02</b>	<b>HOUSES &amp; BUNGALOWS</b>	<b>DEVON</b>
	MILLHEAD ROAD		
	HONITON		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	116	
	Survey date: FRIDAY	25/09/15	Survey Type: MANUAL
<b>7</b>	<b>DV-03-A-03</b>	<b>TERRACED &amp; SEMI DETACHED</b>	<b>DEVON</b>
	LOWER BRAND LANE		
	HONITON		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	70	
	Survey date: MONDAY	28/09/15	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

<b>8</b>	<b>ES-03-A-04</b>	<b>MIXED HOUSES &amp; FLATS</b>	<b>EAST SUSSEX</b>
	NEW LYDD ROAD CAMBER		
	Edge of Town Residential Zone		
	Total No of Dwellings:	134	
	Survey date: FRIDAY	15/07/16	Survey Type: MANUAL
<b>9</b>	<b>ES-03-A-05</b>	<b>MIXED HOUSES &amp; FLATS</b>	<b>EAST SUSSEX</b>
	RATTLE ROAD NEAR EASTBOURNE STONE CROSS		
	Edge of Town Residential Zone		
	Total No of Dwellings:	99	
	Survey date: WEDNESDAY	05/06/19	Survey Type: MANUAL
<b>10</b>	<b>ES-03-A-07</b>	<b>MIXED HOUSES &amp; FLATS</b>	<b>EAST SUSSEX</b>
	NEW ROAD HAILSHAM HELLINGLY		
	Edge of Town Residential Zone		
	Total No of Dwellings:	91	
	Survey date: THURSDAY	07/11/19	Survey Type: MANUAL
<b>11</b>	<b>EX-03-A-03</b>	<b>MIXED HOUSES</b>	<b>ESSEX</b>
	KESTREL GROVE RAYLEIGH		
	Edge of Town Residential Zone		
	Total No of Dwellings:	123	
	Survey date: MONDAY	27/09/21	Survey Type: MANUAL
<b>12</b>	<b>HC-03-A-21</b>	<b>TERRACED &amp; SEMI-DETACHED</b>	<b>HAMPSHIRE</b>
	PRIESTLEY ROAD BASINGSTOKE HOUNDMILLS		
	Edge of Town Residential Zone		
	Total No of Dwellings:	39	
	Survey date: TUESDAY	13/11/18	Survey Type: MANUAL
<b>13</b>	<b>HC-03-A-22</b>	<b>MIXED HOUSES</b>	<b>HAMPSHIRE</b>
	BOW LAKE GARDENS NEAR EASTLEIGH BISHOPSTOKE		
	Edge of Town Residential Zone		
	Total No of Dwellings:	40	
	Survey date: WEDNESDAY	31/10/18	Survey Type: MANUAL
<b>14</b>	<b>HC-03-A-23</b>	<b>HOUSES &amp; FLATS</b>	<b>HAMPSHIRE</b>
	CANADA WAY LIPHOOK		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total No of Dwellings:	62	
	Survey date: TUESDAY	19/11/19	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

<b>15</b>	<b>HC-03-A-27</b> DAIRY ROAD ANDOVER	<b>MIXED HOUSES</b>	<b>HAMPSHIRE</b>
	Edge of Town Residential Zone Total No of Dwellings: 73 Survey date: <i>TUESDAY</i> 16/11/21		Survey Type: <i>MANUAL</i>
<b>16</b>	<b>HC-03-A-28</b> EAGLE AVENUE WATERLOOVILLE LOVEDEAN	<b>MIXED HOUSES &amp; FLATS</b>	<b>HAMPSHIRE</b>
	Edge of Town Residential Zone Total No of Dwellings: 125 Survey date: <i>MONDAY</i> 08/11/21		Survey Type: <i>MANUAL</i>
<b>17</b>	<b>HI-03-A-14</b> KING BRUDE ROAD INVERNESS SCORGUIE	<b>SEMI-DETACHED &amp; TERRACED</b>	<b>HIGHLAND</b>
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 40 Survey date: <i>WEDNESDAY</i> 23/03/16		Survey Type: <i>MANUAL</i>
<b>18</b>	<b>KC-03-A-03</b> HYTHE ROAD ASHFORD WILLESBOROUGH	<b>MIXED HOUSES &amp; FLATS</b>	<b>KENT</b>
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 51 Survey date: <i>THURSDAY</i> 14/07/16		Survey Type: <i>MANUAL</i>
<b>19</b>	<b>KC-03-A-04</b> KILN BARN ROAD AYLESFORD DITTON	<b>SEMI-DETACHED &amp; TERRACED</b>	<b>KENT</b>
	Edge of Town Residential Zone Total No of Dwellings: 110 Survey date: <i>FRIDAY</i> 22/09/17		Survey Type: <i>MANUAL</i>
<b>20</b>	<b>NF-03-A-04</b> NORTH WALSHAM ROAD NORTH WALSHAM	<b>MIXED HOUSES</b>	<b>NORFOLK</b>
	Edge of Town Residential Zone Total No of Dwellings: 70 Survey date: <i>WEDNESDAY</i> 18/09/19		Survey Type: <i>MANUAL</i>
<b>21</b>	<b>NF-03-A-05</b> HEATH DRIVE HOLT	<b>MIXED HOUSES</b>	<b>NORFOLK</b>
	Edge of Town Residential Zone Total No of Dwellings: 40 Survey date: <i>THURSDAY</i> 19/09/19		Survey Type: <i>MANUAL</i>
<b>22</b>	<b>NF-03-A-25</b> WOODFARM LANE GORLESTON-ON-SEA	<b>MIXED HOUSES &amp; FLATS</b>	<b>NORFOLK</b>
	Edge of Town Residential Zone Total No of Dwellings: 55 Survey date: <i>TUESDAY</i> 21/09/21		Survey Type: <i>MANUAL</i>

LIST OF SITES relevant to selection parameters (Cont.)

<b>23</b>	<b>NT-03-A-08</b> WIGHAY ROAD HUCKNALL	<b>DETACHED HOUSES</b>		<b>NOTTINGHAMSHIRE</b>
	Edge of Town Residential Zone Total No of Dwellings: 36 Survey date: MONDAY 18/10/21			Survey Type: MANUAL
<b>24</b>	<b>SC-03-A-04</b> HIGH ROAD BYFLEET	<b>DETACHED &amp; TERRACED</b>		<b>SURREY</b>
	Edge of Town Residential Zone Total No of Dwellings: 71 Survey date: THURSDAY 23/01/14			Survey Type: MANUAL
<b>25</b>	<b>SF-03-A-07</b> FOXHALL ROAD IPSWICH	<b>MIXED HOUSES</b>		<b>SUFFOLK</b>
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 73 Survey date: THURSDAY 09/05/19			Survey Type: MANUAL
<b>26</b>	<b>WK-03-A-04</b> DALEHOUSE LANE KENILWORTH	<b>DETACHED HOUSES</b>		<b>WARWICKSHIRE</b>
	Edge of Town Residential Zone Total No of Dwellings: 49 Survey date: FRIDAY 27/09/19			Survey Type: MANUAL
<b>27</b>	<b>WS-03-A-14</b> TODDINGTON LANE LITTLEHAMPTON WICK	<b>MIXED HOUSES</b>		<b>WEST SUSSEX</b>
	Edge of Town Residential Zone Total No of Dwellings: 117 Survey date: WEDNESDAY 20/10/21			Survey Type: MANUAL

*This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.*

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

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

Total People to Total Vehicles ratio (all time periods and directions): 1.80

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									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	27	71	0.064	27	71	0.298	27	71	0.362
08:00 - 09:00	27	71	0.126	<b>27</b>	<b>71</b>	<b>0.357</b>	27	71	0.483
09:00 - 10:00	27	71	0.144	27	71	0.180	27	71	0.324
10:00 - 11:00	27	71	0.135	27	71	0.178	27	71	0.313
11:00 - 12:00	27	71	0.129	27	71	0.155	27	71	0.284
12:00 - 13:00	27	71	0.154	27	71	0.154	27	71	0.308
13:00 - 14:00	27	71	0.172	27	71	0.165	27	71	0.337
14:00 - 15:00	27	71	0.160	27	71	0.184	27	71	0.344
15:00 - 16:00	27	71	0.260	27	71	0.167	27	71	0.427
16:00 - 17:00	27	71	0.272	27	71	0.156	27	71	0.428
17:00 - 18:00	<b>27</b>	<b>71</b>	<b>0.342</b>	27	71	0.148	<b>27</b>	<b>71</b>	<b>0.490</b>
18:00 - 19:00	27	71	0.255	27	71	0.137	27	71	0.392
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
<b>Total Rates:</b>			2.213			2.279			4.492

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP\*FACT. Trip rates are then rounded to 3 decimal places.

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**Parameter summary**

Trip rate parameter range selected: 36 - 134 (units: )  
Survey date date range: 01/01/14 - 19/11/21  
Number of weekdays (Monday-Friday): 27  
Number of Saturdays: 0  
Number of Sundays: 0  
Surveys automatically removed from selection: 5  
Surveys manually removed from selection: 0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

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									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	27	71	0.007	<b>27</b>	<b>71</b>	<b>0.014</b>	27	71	0.021
08:00 - 09:00	27	71	0.008	27	71	0.012	27	71	0.020
09:00 - 10:00	27	71	0.003	27	71	0.006	27	71	0.009
10:00 - 11:00	27	71	0.004	27	71	0.004	27	71	0.008
11:00 - 12:00	27	71	0.004	27	71	0.003	27	71	0.007
12:00 - 13:00	27	71	0.004	27	71	0.004	27	71	0.008
13:00 - 14:00	27	71	0.004	27	71	0.003	27	71	0.007
14:00 - 15:00	27	71	0.004	27	71	0.001	27	71	0.005
15:00 - 16:00	<b>27</b>	<b>71</b>	<b>0.013</b>	27	71	0.009	<b>27</b>	<b>71</b>	<b>0.022</b>
16:00 - 17:00	27	71	0.007	27	71	0.005	27	71	0.012
17:00 - 18:00	27	71	0.007	27	71	0.005	27	71	0.012
18:00 - 19:00	27	71	0.006	27	71	0.004	27	71	0.010
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.071			0.070			0.141

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is:  $COUNT/TRP*FACT$ . Trip rates are then rounded to 3 decimal places.



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									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	27	71	0.024	27	71	0.054	27	71	0.078
08:00 - 09:00	27	71	0.056	<b>27</b>	<b>71</b>	<b>0.154</b>	<b>27</b>	<b>71</b>	<b>0.210</b>
09:00 - 10:00	27	71	0.073	27	71	0.066	27	71	0.139
10:00 - 11:00	27	71	0.044	27	71	0.068	27	71	0.112
11:00 - 12:00	27	71	0.046	27	71	0.046	27	71	0.092
12:00 - 13:00	27	71	0.046	27	71	0.042	27	71	0.088
13:00 - 14:00	27	71	0.038	27	71	0.028	27	71	0.066
14:00 - 15:00	27	71	0.036	27	71	0.041	27	71	0.077
15:00 - 16:00	<b>27</b>	<b>71</b>	<b>0.127</b>	27	71	0.069	27	71	0.196
16:00 - 17:00	27	71	0.073	27	71	0.050	27	71	0.123
17:00 - 18:00	27	71	0.071	27	71	0.042	27	71	0.113
18:00 - 19:00	27	71	0.051	27	71	0.036	27	71	0.087
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.685			0.696			1.381

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is:  $COUNT/TRP*FACT$ . Trip rates are then rounded to 3 decimal places.

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									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	27	71	0.000	27	71	0.043	27	71	0.043
08:00 - 09:00	27	71	0.002	<b>27</b>	<b>71</b>	<b>0.075</b>	<b>27</b>	<b>71</b>	<b>0.077</b>
09:00 - 10:00	27	71	0.005	27	71	0.019	27	71	0.024
10:00 - 11:00	27	71	0.010	27	71	0.011	27	71	0.021
11:00 - 12:00	27	71	0.008	27	71	0.010	27	71	0.018
12:00 - 13:00	27	71	0.010	27	71	0.012	27	71	0.022
13:00 - 14:00	27	71	0.006	27	71	0.005	27	71	0.011
14:00 - 15:00	27	71	0.011	27	71	0.010	27	71	0.021
15:00 - 16:00	27	71	0.037	27	71	0.010	27	71	0.047
16:00 - 17:00	27	71	0.031	27	71	0.005	27	71	0.036
17:00 - 18:00	27	71	0.035	27	71	0.003	27	71	0.038
18:00 - 19:00	<b>27</b>	<b>71</b>	<b>0.043</b>	27	71	0.004	27	71	0.047
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.198			0.207			0.405

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is:  $COUNT/TRP*FACT$ . Trip rates are then rounded to 3 decimal places.