



Transportation Planning : Infrastructure Design

Transport Statement

**Proposed Residential Development,
Midnant Farm, Prestatyn**

Castle Green Homes Ltd

November 2022

Doc Ref: CT/220361/TS/02

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Document Revision Control

Revision	Date	Status	Prepared By	Approved By
00	18.07.22	Draft	CT	MD
01	25.07.22	Issue	CT	MD
02	14.11.22	Issue	AM	PT

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1.0 INTRODUCTION

General

- 1.1 SCP have been instructed by Castle Green Homes Ltd to produce a Transport Statement (TS) in support of a planning application for a residential development, comprising 45 dwellings, at Midnant Farm, Prestatyn.

Background

- 1.2 The application site is allocated for housing in Denbighshire County Council's (DCC's) adopted Local Development Plan 2006 – 2021. The principle of residential development on this site is therefore well established and deemed acceptable to DCC.
- 1.3 This TS provides an assessment of the traffic and transport implications associated with the development proposals to inform DCC, as the local highway and planning authority, regarding the nature and magnitude of their impact.
- 1.4 This report concludes that the proposed development of this site can be accommodated without detriment to the operational capacity or safety of the local highway network.

Structure of This Report

- 1.5 The structure of this report is as follows:-
- Chapter 2 - describes in detail the site location, local transport network and existing use of the site;
 - Chapter 3 - defines the development proposals including the proposed access, servicing arrangements and parking;
 - Chapter 4 – considers the location of the site with regard to the existing local sustainable transport infrastructure;
 - Chapter 5 – presents estimates of the trip-generating potential of the site along with a summary of the impact of the development on the local highway network; and,
 - Chapter 6 – provides the summary and conclusions to the above chapters.

2.0 EXISTING CONDITIONS

General

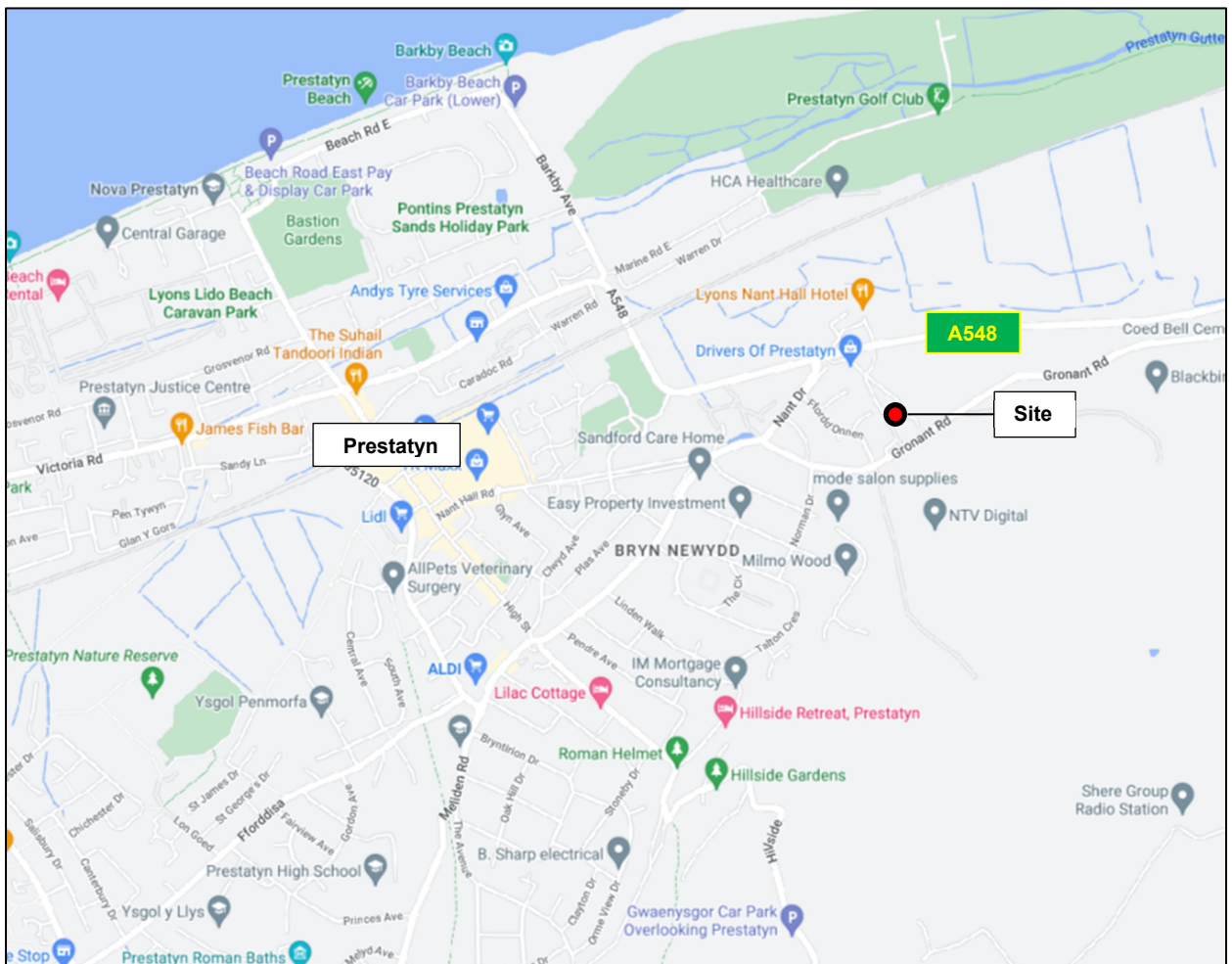
2.1 This Chapter provides a detailed description of the location of the site, the local highway network and the road safety record.

Site Location

2.2 The application site is located to the north-west of Gronant Road, approximately 1.3km east of Prestatyn town centre, and comprises Midnant Farm.

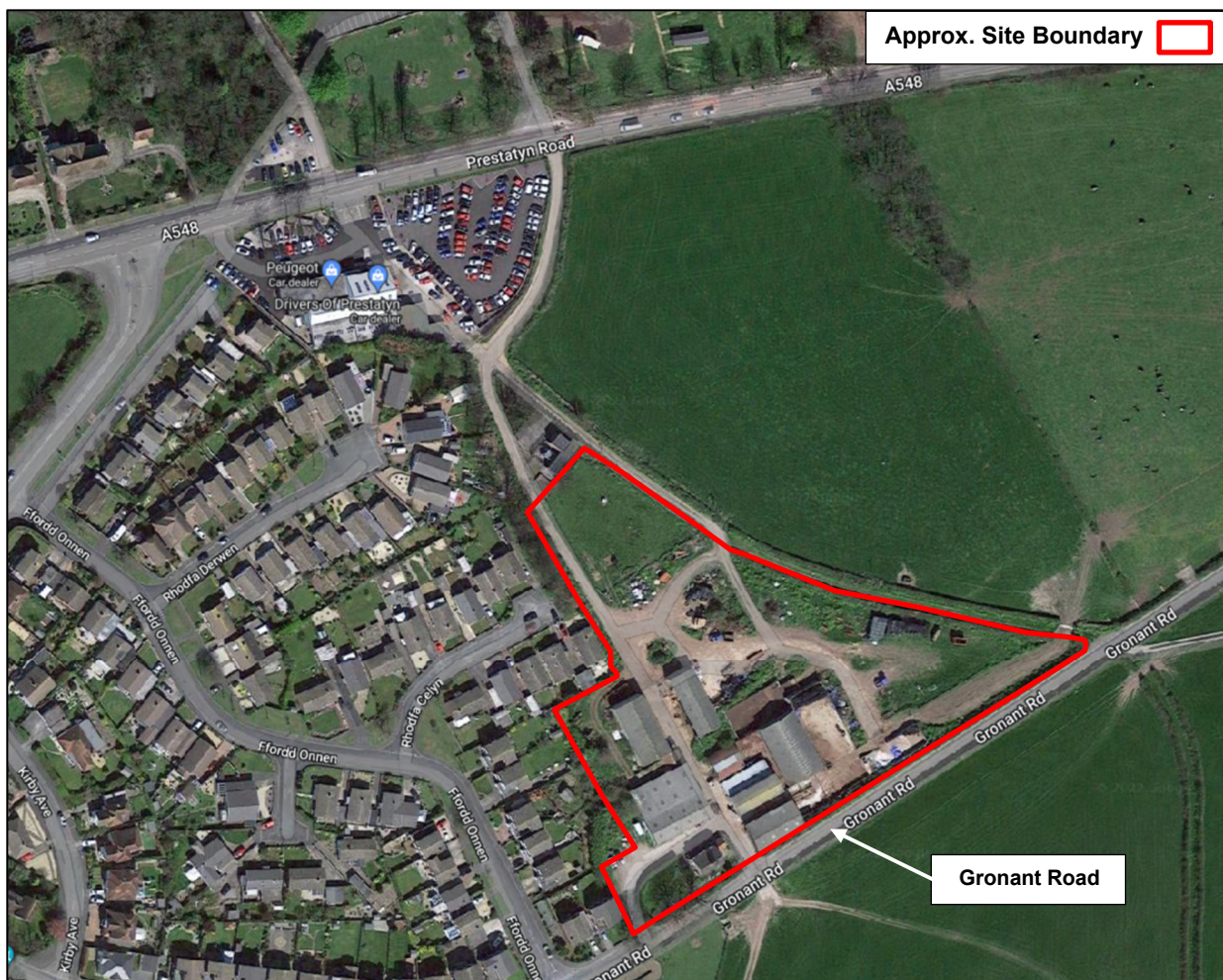
2.3 **Figure 2.1** below shows the site location in relation to the wider highway network.

Figure 2.1 – Site Location Plan – Wider View



2.4 The application site boundary is shown in relation to the local highway network in red on **Figure 2.2** below.

Figure 2.2 – Site Location Plan – Local View



2.5 Midnant Farm consists of a large residential farmhouse as well as multiple large agricultural barns and sheds and therefore, has the potential to generate large volumes of traffic including trips made by large, slow-moving agricultural vehicles.

Local Highway Network

Gronant Road

2.6 Gronant Road fronts the south-eastern site boundary and provides a link between Gronant village, to the east, and the A547 Gronant Road / A547 Nant Drive / Gronant Road junction to the west. Gronant Road is largely subject to the national speed limit, although the speed limit changes to 30mph at the south-west corner of the site, and it has a varying carriageway width of between 4.1m to 5m along the site frontage.

2.7 Gronant Road benefits from footways on both sides of the road for the majority of its length to the west of the site and the footway on the northern side of Gronant Road connects to the south-west corner of the site. However, Gronant Road does not benefit from any footways along the site frontage or to the east of the site.

Existing Road Safety Record

2.8 In order to identify critical locations on the network with a poor accident record, the personal injury accident data has been obtained from the online resource CrashMap for the most recently available 5-year period. The location and severity of any accidents within the study area during this period, are shown in **Figure 2.3** below.

Figure 2.3 – Road Safety Record



2.9 The analysis shows that no accidents have been recorded in the study area during the five-year study period.

2.10 The evidence presented above and illustrated in **Figure 2.3** 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.

3.0 PROPOSED DEVELOPMENT

General

- 3.1 The development proposals consist of the construction of a residential development, comprising 45 dwellings, at Midnant Farm, Prestatyn.
- 3.2 The proposed site layout plan is contained in **Appendix A**.

Proposed Access Arrangements

- 3.3 A total of 10 dwellings (plots 6-10 and 41-45) are proposed to take direct frontage access off Gronant Road which is proposed to be widened to 5.5m along the site frontage, as shown on drawing number SCP/220361/D01 Rev A presented in **Appendix B**, which is a typical residential road width allowing cars and commercial vehicles to pass and will provide a significant betterment to existing users of Gronant Road. An additional 5 dwellings (plots 1-5) are accessed by a private drive off Gronant Road.
- 3.4 The remainder of the development will be accessed via a simple priority-controlled junction off Gronant Road, as shown on drawing number SCP/220361/D01 Rev A, presented in **Appendix B**. The access road measures 5.5m in width, benefits from 6m corner radii and 2m footways on both sides of the road and has been designed to accommodate the movements of a refuse vehicle, as shown on drawing number SCP/220361/D01 Rev A, presented in **Appendix B**.
- 3.5 Given that the proposed development will extend the built environment along Gronant Road, it is proposed that the speed limit along the site's frontage is reduced from the national speed limit to 30mph by relocating the existing change in speed limit to the east. The proposed change in speed limit is shown on drawing number SCP/220361/D01 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. In addition, regularly spaced street lighting columns will be provided to complement the proposed 30mph speed limit.

- 3.6 Junction visibility from the site access and the private drive located off Gronant Road, has been calculated based on the visibility requirements set out in the TAN18 for a 30mph road. A visibility splay that has an 'x' (minor arm setback distance) of 2.4m and a minimum 'y' (major road visibility) distance of 90m to the east has been provided, which includes an allowance for motorists travelling at 10kph above the speed limit (Table A – TAN18) given that they will be approaching from a more rural area. Visibility splays to the west have an 'x' (minor arm setback distance) of 2.4m and a minimum 'y' (major road visibility) distance of 56m, which follows the standards set out in TAN18 for roads in built up areas for 37mph design speed (in excess of 30mph speed limit – Table B TAN 18), as shown on drawing number SCP/220361/D01 Rev A, presented in **Appendix B**.
- 3.7 Pedestrian and cycle access to the site will be provided at the same location as the vehicular access. Furthermore, a continuous footway connection will be provided along the entire site frontage, connecting to the existing pedestrian infrastructure on Gronant Road, as shown on drawing number SCP/220361/D01 Rev A, presented in **Appendix B**. This proposed footway connection will measure 2m wide for the majority of its length, reducing to circa 1.2m at a very short pinch point around a mature tree at the south-west corner of the site. This is considered acceptable given that the proposed pedestrian route is not anticipated to be heavily trafficked when considering the area it serves, the pinch point is extremely short, 1.2m is of sufficient width for an adult pedestrian and child walking alongside each other, as outlined in MfS, and is greater than the 1m identified as the absolute minimum footway width over a short distance in Inclusive Mobility.

Servicing

- 3.8 The internal road network has been designed to ensure the movements of a refuse vehicle can be accommodated without allowing their requirements to dominate the layout. Swept path analysis has been undertaken of the internal road layout, as shown on drawing number SCP/220361/ATR01 Rev A presented in **Appendix C**, which demonstrates that a refuse vehicle can turn at the proposed turning heads.

Parking

- 3.9 Local parking standards are set out in DCC's Supplementary Planning Guidance Note titled *Parking Requirements In New Developments*. This document sets out the requirement for a maximum of 1 space per bedroom, up to 3 spaces, as well as 1 visitor space per 5 units.
- 3.10 As shown on the site layout plan contained in **Appendix A**, 2-3 parking spaces are provided per dwelling which is in accordance with DCC's maximum parking standards.

4.0 ACCESSIBILITY

General

- 4.1 As detailed earlier, the application site is allocated for housing in DCC’s Local Development Plan 2006 – 2022 and the acceptability of residential development on this site has therefore already been established by DCC.
- 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 Andrew Davies AM ‘Minister for Economic Development and Transport’ in his foreword to the 2003 “*Walking and Cycling Strategy for Wales*” document:

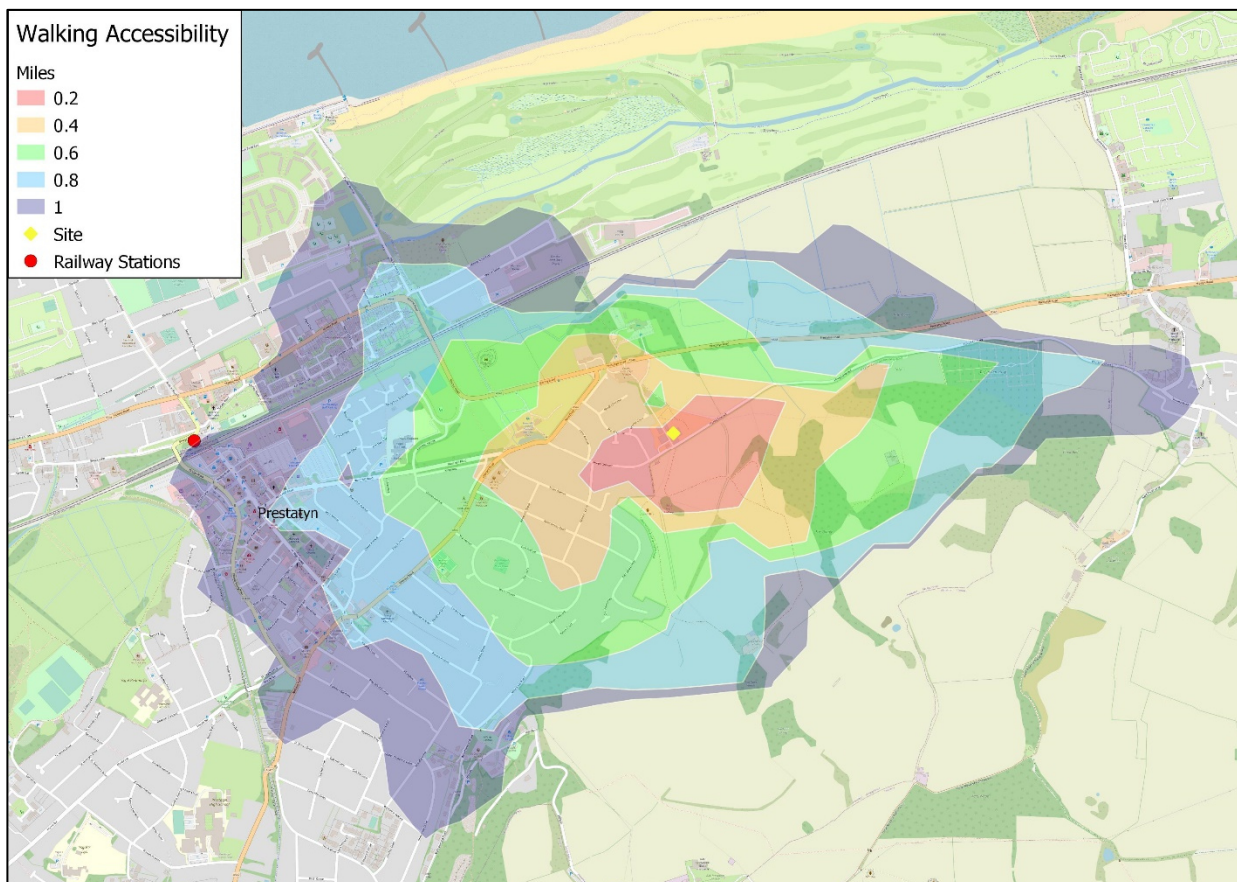
Table 4.1 – Walk / Cycle Distance Thresholds

Threshold Distance	Significance	Reference
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 Pedestrian and cycle access into the site will be provided at the same location as the vehicular access. Furthermore, a continuous footway connection will be provided along the entire site frontage, connecting to the existing pedestrian infrastructure on Gronant Road.
- 4.4 The pedestrian accessibility of the development has been modelled using the Geographical Information System (GIS) software TRACC to produce isochrone mapping figures. The purpose of the isochrones is to demonstrate the areas within an acceptable walking distance of 1 mile of the site. The areas located within 1-mile walking distance of the site are shown below on **Figure 4.1**.

Figure 4.1 – Walk Accessibility



4.5 **Figure 4.1** demonstrates that Prestatyn town centre, is within an acceptable walking distance from the site and prospective residents would therefore be easily able to walk to the array of amenities on offer in the local area including education, food, health, leisure and transport connections. A selection of the key facilities located within an acceptable walk distance of the site access are summarised in **Table 4.2** below.

Table 4.2 – Local Facilities

Facility	Description	Distance from the Site
Bus Stop	Bus Stop, A548	0.4 miles
Primary School	Bodnant Community School	0.6 miles
Leisure	Prestatyn Tennis Club	0.6 miles
Leisure	Bryn Newydd Bowling Club	0.6 miles
Supermarket	Tesco, Prestatyn Shopping Park	0.7 miles
Retail Park	Parc Prestatyn Shopping Park	0.7 miles
Doctors	Park House Surgery	0.7 miles
Post Office	Meliden Road Post Office	0.9 miles
Dentist	Prestatyn Dental	0.9 miles
High Street	Prestatyn High Street Shops, Cafes, Restaurants etc.	0.9 miles
Railway Station	Prestatyn Railway Station	1.0 mile

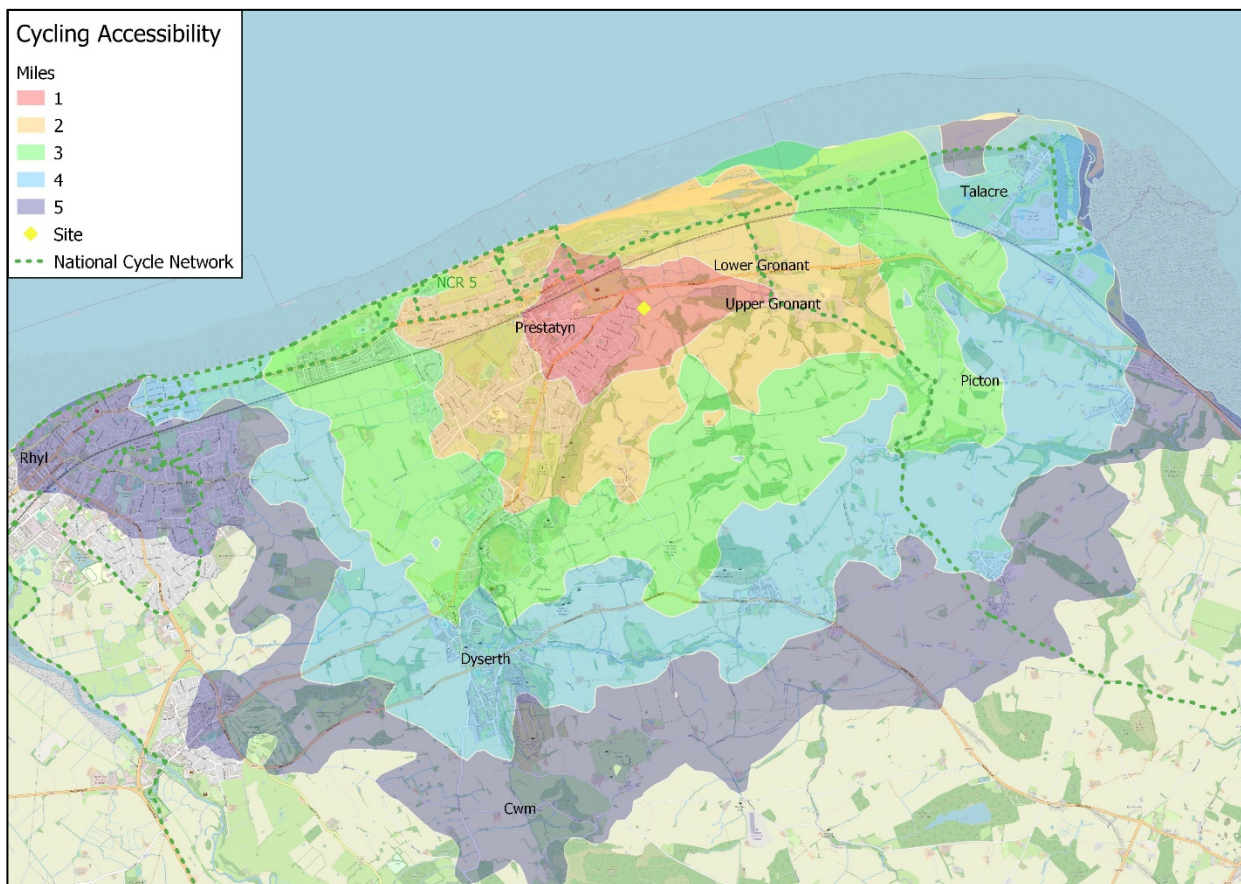
4.6 Overall, the site benefits from good levels of accessibility by foot, with Prestatyn town centre only a short walk from the site, allowing walking to be a viable alternative to private car use for prospective residents.

Cycle Accessibility

4.7 The Walking and Cycling Strategy for Wales identifies that “*Cycling can offer viable and attractive alternatives*” for short trips and as a substitute for shorter car journeys.

4.8 TRACC software has been used to assess the accessibility of the development by bicycle from the site. Isochrones illustrating the areas which lie within 5 miles of the site can be seen on the **Figure 4.2** below.

Figure 4.2 – Cycle Accessibility

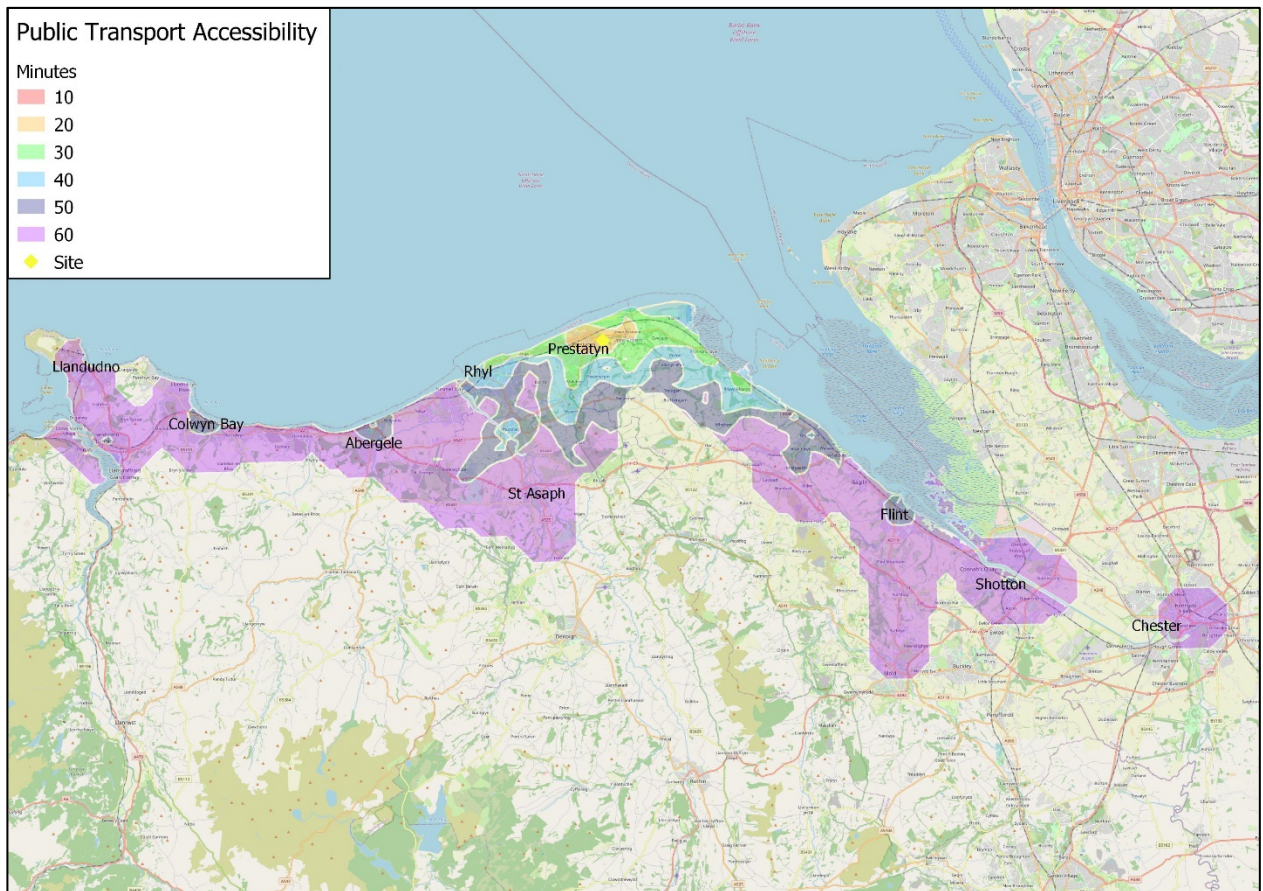


- 4.9 The plan demonstrates that Prestatyn, Rhyl and Dyserth, amongst others, are all within an acceptable 5-mile cycle distance from the site.
- 4.10 **Figure 4.2** also shows the sites proximity to National Cycle Route 5. National Cycle Route 5 runs along the coast of North Wales to the north of the site and locally connects Prestatyn to Rhyl, to the west, and Upper/Lower Gronant and Talacre to the east.
- 4.11 As the application site is within an acceptable cycle distance of a range of areas and associated facilities, cycling is considered to be a viable alternative to private car use for prospective residents of site.

Public Transport

- 4.12 There is a bus stop located on both sides of the A548 Prestatyn Road, approximately 0.4 miles north-west of the application site. These bus stops are served by the number 11C, 11D, 11M and 11S buses which provide regular services, seven days a week (in combination), to numerous locations including Rhyl, Prestatyn and Holywell, amongst others. Therefore, prospective residents of the site will have access to bus services stopping within a reasonable walk distance of the site which provide access to key destinations at a high frequency.
- 4.13 In terms of rail services, Prestatyn Railway Station is located approximately 1 mile west of the site and is therefore, within an acceptable walking and cycling distance to encourage prospective residents to travel by train. Prestatyn Railway Station offers regular direct services throughout the week to destinations including Flint, Rhyl, Bangor, Holyhead, Llandudno, Chester, Warrington, Manchester and Manchester Airport, amongst others.
- 4.14 The level of accessibility by public transport has been analysed using GIS TRACC software to assess the accessibility of the site and is shown on **Figure 4.3** below. The figure illustrates the distance that can be travelled within 60 minutes by public transport to and from the site, which includes the time taken to walk to the bus stops.

Figure 4.3 – 60 minute Public Transport Accessibility



4.15 **Figure 4.3** demonstrates that Colwyn Bay, Llandudno, Rhyl, Flint, Chester and Shotton, amongst others, are located within an acceptable 60-minute commute time.

Summary

4.16 Overall, the site is considered to be reasonably well located in terms of its accessibility by all the major non-car modes of transport. These findings demonstrate that future residents will not be wholly reliant on the private car to travel for employment, education, leisure and retail purposes. Furthermore, given that the site is accolated for housing in DCC's adopted Local Development Plan 2006 – 2021, the principle of residential development on the application site has already been deemed acceptable to DCC.

5.0 TRIP GENERATION

5.1 This Chapter provides an estimate of the trips generated by the proposed development during the weekday AM and PM peak hours.

5.2 As detailed earlier, the application site currently comprises Midnant Farm which consists of a large residential farmhouse as well as multiple large agricultural barns and sheds and therefore, has the potential to generate large volumes of traffic including trips made by large, slow-moving agricultural vehicles. However, the existing use of the site, including the large residential farmhouse, has not been taken into account in the traffic estimates within this TS in order to allow for a robust assessment.

Proposed Residential Development – Trip Generation

5.3 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:-

- Residential;
- Houses Privately Owned;
- Multi modal surveys;
- Sites in Greater London, Ireland excluded;
- Selection by number of dwellings (20-90);
- Weekday surveys only; and
- Only sites in 'Edge of Town' locations have been selected.

5.4 The multi modal TRICS outputs for the proposed residential development are presented in **Appendix D** and are summarised in **Table 5.1** below:-

Table 5.1 - Estimated Trip Rates (Per Dwelling) Associated with the Proposed Development				
Mode	Weekday AM Peak Hour		Weekday PM Peak Hour	
	Arrivals	Departures	Arrivals	Departures
Vehicles	0.165	0.338	0.339	0.170
Cycles	0.008	0.011	0.008	0.009
Pedestrians	0.041	0.084	0.037	0.042
Pub. Trans.	0.000	0.031	0.023	0.004

5.5 The estimated trip generation associated with the proposed 45 dwellings is therefore as summarised in **Table 5.2** below:-

Table 5.2 – Estimated Trip Generation – 45 Dwellings				
Mode	Weekday AM Peak Hour		Weekday PM Peak Hour	
	Arrivals	Departures	Arrivals	Departures
Vehicles	7	15	15	8
Cycles	0	0	0	0
Pedestrians	2	4	2	2
Pub. Trans.	0	1	1	0

5.6 As detailed above, it is estimated that the scheme will generate a total of 22 two-way vehicle movements in both the AM and PM peak hours. Volumetrically, this equates to around 1 additional two-way vehicle movement every 3 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.

5.7 It should be noted that the above trip generation estimates are considered robust given that travel patterns have inevitably changed due to the current COVID-19 pandemic, with many people continuing to work from home, reducing the number of people traveling to work in the peak hours. Whilst it is not possible to accurately predict future travel patterns, it is reasonable to assume that there will be a reduction in future commuters on the network, when compared to recent years (when the majority of TRICS surveys were undertaken), as a result of workplaces providing flexibility to more employees to work from home.

-
- 5.8 Furthermore, the existing farm use of the site, including the large residential farmhouse, has not been taken into account in the traffic estimates in order to allow for a robust assessment.
- 5.9 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 AND CONCLUSIONS

- 6.1 SCP have been instructed by Castle Green Homes Ltd to produce a Transport Statement (TS) in support of a planning application for a residential development, comprising 45 dwellings, at Midnant Farm, Prestatyn.
- 6.2 A total of 10 dwellings (plots 6-10 and 41-45) are proposed to take direct frontage access off Gronant Road which is proposed to be widened to 5.5m along the site frontage which is a typical residential road width and will provide a significant betterment to existing users of Gronant Road. An additional 5 dwellings (plots 1-5) are accessed by a private drive off Gronant Road. The remainder of the development will be accessed via a simple priority-controlled junction off Gronant Road. The access road measures 5.5m in width, benefits from 6m corner radii and 2m footways on both sides of the road and has been designed to accommodate the movements of a refuse vehicle. Pedestrian and cycle access to the site will be provided at the same location as the vehicular access. Furthermore, a continuous footway connection will be provided along the entire site frontage, connecting to the existing pedestrian infrastructure on Gronant Road.
- 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 The accessibility of the site has been assessed by walk, cycle, and bus and train modes. Overall, the site is considered to be reasonably well located in terms of its accessibility by all the major non-car modes of transport. These findings demonstrate that future residents will not be wholly reliant on the private car to travel for employment, education, leisure and retail purposes. Furthermore, given that the site is allocated for housing in DCC's adopted Local Development Plan 2006 – 2021, the principle of residential development on the application site has already been deemed acceptable to DCC.
- 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 DCC for approval.

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APPENDIX A



SCHEDULE OF ACCOMMODATION				
HOUSETYPE	DESCRIPTION	SQFT	NUMBER	PERCENTAGE
4P2B (Affordable)	2 Bed, 2 Storey, Semi Detached	895 SQFT	3	6.67
5P3B (Affordable)	3 Bed, 2 Storey, Semi Detached	1015 SQFT	1	2.22
Oakley	2 Bed, 2.5 Storey, Semi Detached	705 SQFT	4	8.89
Ashton	2 Bed, 2.5 Storey, Semi Detached	821 SQFT	6	13.33
Mallow Semi	3 Bed, 2 Storey, Semi Detached	987 SQFT	8	17.78
Henley	3 Bed, 2 Storey	1040 SQFT	2	4.44
Startford	3 Bed, 2 Storey	1055 SQFT	8	17.78
Chellenham	3 Bed, 2 Storey	1234 SQFT	4	8.89
Wentworth	4 Bed, 2 Storey	1345 SQFT	4	8.89
Chalworth	4 Bed, 2 Storey	1491 SQFT	1	2.22
Wishire	4 Bed, 2 Storey	1727 SQFT	4	8.89
TOTAL		48877 SQFT	45	
Gross Site Area	3.59 Acres		1.45 Hectares	
POS	0.37 Acres		0.15 Hectares	
Undevelopable: Sub Station & SSR	0.1 Acres		0.04 Hectares	
NETT SITE AREA:	3.12 ACRES		1.24 HECTARES	
Gross Density	12.53 Units/Acre		30.97 Units/Hectare	
NETT DENSITY:	14.42 UNITS/ACRE		36.64 UNITS/HECTARE	
Gross Footage	13531.20 SQFT/Acre		3106.31 SQM/Hectare	
NETT FOOTAGE:	18869.85 SQFT/ACRE		3574.24 SQM/HECTARE	

Key:

- Site Boundary
- 1.8m high boundary fence
- 1.8m high screen wall / fence
- Private Drive
- Visibility Splays - 2.4x90m to Site Entrances
- Indicative Landscaping. - refer to landscaping design for exact details
- Number of parking spaces proposed to Semi-Detached and Detached Dwellings in accordance with LPA Parking Standards
- Parking space allocation to Frontage Parking Dwellings
- Existing retained hedges/landscaping

Rev:	Description:	Date:
A:	Design Update	01/07/22
B:	Blocks updated & Gronant Road widened	20/07/22
C:	Amended in line with Tree Survey	03/11/22



Castle Green

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Tel. 01745 536677

Site: **Midnant Farm, Gronant Road, Prestatyn**

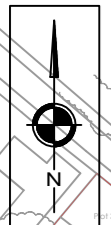
Title: **Proposed Site Plan**

Scale: **1:500@A1** Date: **30.03.22**

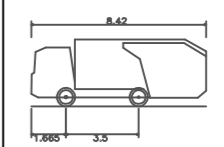
Ref: **GRON-PRS-SP01** Rev: **C**

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APPENDIX B



NOTES



Phoenix 2-12W (with Elite 2 4x2 chassis)	
Overall Length	8.420m
Overall Width	2.530m
Overall Body Height	3.211m
Min Body Ground Clearance	0.416m
Track Width	2.530m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	6.750m

REVISIONS

REV	DESCRIPTION	DATE	BY
A	UPDATED SITE LAYOUT	22.07.22	AM
B	UPDATED SITE LAYOUT	14.11.22	AM



Transportation Planning : Infrastructure Design

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Client Name:
CASTLE GREEN HOMES LTD

Project Title:
PROPOSED RESIDENTIAL DEVELOPMENT, MIDNANT FARM, PRESTATYN

Drawing Title:
PROPOSED SITE ACCESS ARRANGEMENT

Drawn By: AM Date: 11.07.2022

Checked: CT Scale: 1:500 @ A3

Status: PLANNING Approved/Unapproved: -

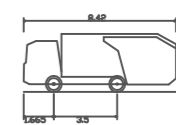
Drawing No. **SCP/220361/D01** Rev. **B**

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APPENDIX C



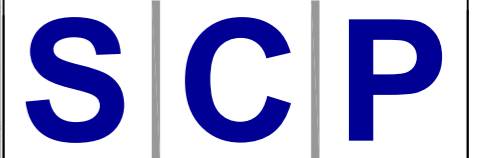
NOTES



Phoenix 2-12w (with Elite 2 4x2 chassis)
 Overall Length 8.42m
 Overall Width 2.53m
 Overall Body Height 3.21m
 Min Body Ground Clearance 0.41m
 Track Width 2.53m
 Lock to lock time 4.00s
 Kerb to Kerb Turning Radius 6.750m

REVISIONS

REV	DESCRIPTION	DATE	BY
A	SITE PLAN UPDATED	22.07.22	AM
B	SITE PLAN UPDATED (REV C)	14.11.22	AM



Transportation Planning : Infrastructure Design
 Colwyn Chambers, 19 York Street, Manchester, M2 3BA, Tel 0161 832 4400,
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Client Name:
CASTLE GREEN HOMES LTD

Project Title:
PROPOSED RESIDENTIAL DEVELOPMENT, MIDNANT FARM, PRESTATYN

Drawing Title:
SWEPT PATH ANALYSIS

Drawn By:	AM	Date:	11.07.2022
Checked:	CT	Scale:	1:500 @ A3
Status:	PLANNING	Approved/Unapproved:	-

Drawing No.	SCP/220361/ATR01	Rev.	B
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APPENDIX D

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

MULTI-MODAL TOTAL VEHICLESSelected regions and areas:

02	SOUTH EAST	
	HC HAMPSHIRE	3 days
	SC SURREY	1 days
	WS WEST SUSSEX	1 days
03	SOUTH WEST	
	DC DORSET	2 days
	SM SOMERSET	1 days
04	EAST ANGLIA	
	NF NORFOLK	3 days
05	EAST MIDLANDS	
	NT NOTTINGHAMSHIRE	1 days
06	WEST MIDLANDS	
	WK WARWICKSHIRE	1 days
08	NORTH WEST	
	CH CHESHIRE	2 days
09	NORTH	
	DH DURHAM	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: 24 to 79 (units:)
 Range Selected by User: 20 to 90 (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	3 days
Tuesday	4 days
Wednesday	3 days
Thursday	3 days
Friday	3 days

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

Selected survey types:

Manual count	16 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.

Selected Locations:

Edge of Town 16

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.

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 16 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:

1,001 to 5,000	1 days
5,001 to 10,000	5 days
10,001 to 15,000	4 days
15,001 to 20,000	3 days
20,001 to 25,000	2 days
25,001 to 50,000	1 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	1 days
25,001 to 50,000	2 days
50,001 to 75,000	3 days
75,001 to 100,000	3 days
100,001 to 125,000	1 days
125,001 to 250,000	4 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	2 days
1.1 to 1.5	14 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	8 days
No	8 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	16 days
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This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	CH-03-A-09	TERRACED HOUSES	CHESHIRE
	GREYSTOKE ROAD MACCLESFIELD HURDSFIELD Edge of Town Residential Zone Total No of Dwellings: 24 Survey date: MONDAY 24/11/14		Survey Type: MANUAL
2	CH-03-A-10	SEMI-DETACHED & TERRACED	CHESHIRE
	MEADOW DRIVE NORTHWICH BARNTON Edge of Town Residential Zone Total No of Dwellings: 40 Survey date: TUESDAY 04/06/19		Survey Type: MANUAL
3	DC-03-A-08	BUNGALOWS	DORSET
	HURSTDENE ROAD BOURNEMOUTH CASTLE LANE WEST Edge of Town Residential Zone Total No of Dwellings: 28 Survey date: MONDAY 24/03/14		Survey Type: MANUAL
4	DC-03-A-09	MIXED HOUSES	DORSET
	A350 SHAFTESBURY Edge of Town No Sub Category Total No of Dwellings: 50 Survey date: FRIDAY 19/11/21		Survey Type: MANUAL
5	DH-03-A-03	SEMI-DETACHED & TERRACED	DURHAM
	PILGRIMS WAY DURHAM Edge of Town Residential Zone Total No of Dwellings: 57 Survey date: FRIDAY 19/10/18		Survey Type: MANUAL
6	HC-03-A-21	TERRACED & SEMI-DETACHED	HAMPSHIRE
	PRIESTLEY ROAD BASINGSTOKE HOUNDMILLS Edge of Town Residential Zone Total No of Dwellings: 39 Survey date: TUESDAY 13/11/18		Survey Type: MANUAL
7	HC-03-A-22	MIXED HOUSES	HAMPSHIRE
	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

LIST OF SITES relevant to selection parameters (Cont.)

8	HC-03-A-27	MIXED HOUSES		HAMPSHIRE
	DAIRY ROAD ANDOVER			
	Edge of Town Residential Zone			
	Total No of Dwellings:	73		
	Survey date: TUESDAY	16/11/21		Survey Type: MANUAL
9	NF-03-A-04	MIXED HOUSES		NORFOLK
	NORTH WALSHAM ROAD NORTH WALSHAM			
	Edge of Town Residential Zone			
	Total No of Dwellings:	70		
	Survey date: WEDNESDAY	18/09/19		Survey Type: MANUAL
10	NF-03-A-05	MIXED HOUSES		NORFOLK
	HEATH DRIVE HOLT			
	Edge of Town Residential Zone			
	Total No of Dwellings:	40		
	Survey date: THURSDAY	19/09/19		Survey Type: MANUAL
11	NF-03-A-25	MIXED HOUSES & FLATS		NORFOLK
	WOODFARM LANE GORLESTON-ON-SEA			
	Edge of Town Residential Zone			
	Total No of Dwellings:	55		
	Survey date: TUESDAY	21/09/21		Survey Type: MANUAL
12	NT-03-A-08	DETACHED HOUSES		NOTTINGHAMSHIRE
	WIGHAY ROAD HUCKNALL			
	Edge of Town Residential Zone			
	Total No of Dwellings:	36		
	Survey date: MONDAY	18/10/21		Survey Type: MANUAL
13	SC-03-A-04	DETACHED & TERRACED		SURREY
	HIGH ROAD BYFLEET			
	Edge of Town Residential Zone			
	Total No of Dwellings:	71		
	Survey date: THURSDAY	23/01/14		Survey Type: MANUAL
14	SM-03-A-01	DETACHED & SEMI		SOMERSET
	WEMBDON ROAD BRIDGWATER NORTHFIELD			
	Edge of Town Residential Zone			
	Total No of Dwellings:	33		
	Survey date: THURSDAY	24/09/15		Survey Type: MANUAL
15	WK-03-A-04	DETACHED HOUSES		WARWICKSHIRE
	DALEHOUSE LANE KENILWORTH			
	Edge of Town Residential Zone			
	Total No of Dwellings:	49		
	Survey date: FRIDAY	27/09/19		Survey Type: MANUAL

SCP York Street Manchester

Licence No: 726001

LIST OF SITES relevant to selection parameters (Cont.)

16	WS-03-A-10	MIXED HOUSES	WEST SUSSEX
	TODDINGTON LANE		
	LITTLEHAMPTON		
	WICK		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	79	
	Survey date: WEDNESDAY	07/11/18	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): 1.54

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	16	49	0.077	16	49	0.343	16	49	0.420
08:00 - 09:00	16	49	0.165	16	49	0.338	16	49	0.503
09:00 - 10:00	16	49	0.148	16	49	0.196	16	49	0.344
10:00 - 11:00	16	49	0.166	16	49	0.200	16	49	0.366
11:00 - 12:00	16	49	0.158	16	49	0.204	16	49	0.362
12:00 - 13:00	16	49	0.182	16	49	0.202	16	49	0.384
13:00 - 14:00	16	49	0.200	16	49	0.176	16	49	0.376
14:00 - 15:00	16	49	0.186	16	49	0.204	16	49	0.390
15:00 - 16:00	16	49	0.328	16	49	0.202	16	49	0.530
16:00 - 17:00	16	49	0.302	16	49	0.190	16	49	0.492
17:00 - 18:00	16	49	0.339	16	49	0.170	16	49	0.509
18:00 - 19:00	16	49	0.255	16	49	0.140	16	49	0.395
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.506			2.565			5.071

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: 24 - 79 (units:)
Survey date range: 01/01/14 - 19/11/21
Number of weekdays (Monday-Friday): 16
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
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	16	49	0.009	16	49	0.013	16	49	0.022
08:00 - 09:00	16	49	0.008	16	49	0.011	16	49	0.019
09:00 - 10:00	16	49	0.006	16	49	0.004	16	49	0.010
10:00 - 11:00	16	49	0.001	16	49	0.005	16	49	0.006
11:00 - 12:00	16	49	0.001	16	49	0.003	16	49	0.004
12:00 - 13:00	16	49	0.005	16	49	0.004	16	49	0.009
13:00 - 14:00	16	49	0.008	16	49	0.001	16	49	0.009
14:00 - 15:00	16	49	0.005	16	49	0.003	16	49	0.008
15:00 - 16:00	16	49	0.000	16	49	0.009	16	49	0.009
16:00 - 17:00	16	49	0.006	16	49	0.001	16	49	0.007
17:00 - 18:00	16	49	0.008	16	49	0.009	16	49	0.017
18:00 - 19:00	16	49	0.008	16	49	0.001	16	49	0.009
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.065			0.064			0.129

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	16	49	0.018	16	49	0.040	16	49	0.058
08:00 - 09:00	16	49	0.041	16	49	0.084	16	49	0.125
09:00 - 10:00	16	49	0.046	16	49	0.032	16	49	0.078
10:00 - 11:00	16	49	0.028	16	49	0.043	16	49	0.071
11:00 - 12:00	16	49	0.031	16	49	0.028	16	49	0.059
12:00 - 13:00	16	49	0.032	16	49	0.024	16	49	0.056
13:00 - 14:00	16	49	0.028	16	49	0.017	16	49	0.045
14:00 - 15:00	16	49	0.032	16	49	0.031	16	49	0.063
15:00 - 16:00	16	49	0.061	16	49	0.055	16	49	0.116
16:00 - 17:00	16	49	0.040	16	49	0.028	16	49	0.068
17:00 - 18:00	16	49	0.037	16	49	0.042	16	49	0.079
18:00 - 19:00	16	49	0.045	16	49	0.034	16	49	0.079
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.439			0.458			0.897

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	16	49	0.000	16	49	0.029	16	49	0.029
08:00 - 09:00	16	49	0.000	16	49	0.031	16	49	0.031
09:00 - 10:00	16	49	0.005	16	49	0.008	16	49	0.013
10:00 - 11:00	16	49	0.006	16	49	0.014	16	49	0.020
11:00 - 12:00	16	49	0.006	16	49	0.008	16	49	0.014
12:00 - 13:00	16	49	0.005	16	49	0.004	16	49	0.009
13:00 - 14:00	16	49	0.005	16	49	0.004	16	49	0.009
14:00 - 15:00	16	49	0.004	16	49	0.004	16	49	0.008
15:00 - 16:00	16	49	0.014	16	49	0.004	16	49	0.018
16:00 - 17:00	16	49	0.031	16	49	0.001	16	49	0.032
17:00 - 18:00	16	49	0.023	16	49	0.004	16	49	0.027
18:00 - 19:00	16	49	0.023	16	49	0.006	16	49	0.029
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.122			0.117			0.239

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.