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**Replacement Commercial Building to be used for B8 / Class E(g)(i)(ii)(iii)
Cheneys Farm Barns, Thong Lane, Shore, Gravesend DA12 4AD**

Introduction

This Transport Statement has been commissioned by BB Contracts Ltd in support of a planning application submission to Gravesham Borough Council for the replacement of an existing building currently in B8 use to provide a building to be used for B8 and Class E use falling within (g)(i)(ii)(iii) at Cheneys Farm Barns, Thong Lane Gravesend. The location of the site is shown below.



The site is located on the western side of Thong Lane, an unclassified public highway which is semi-rural in character, and which serves a mixture of residential and commercial development. The road does not benefit from pedestrian footways or street lighting but is subject to a 30mph speed limit.

To the south Thong Lane becomes Darnley Lodge Lane which forms a roundabout junction with Halfpence Lane and Brewers Lane. The roundabout also has slip roads off of and onto the westbound carriageway of the A2. Brewers Lane passes over the A2, where it then has slips onto and off of the eastbound section of the A2.

To the north, Thong Lane forms a priority junction with the A226, Rochester Road. The site is therefore well related to the Strategic Route Network.

The site benefits from an existing access onto Thong Lane in the form of a simple crossover which is set back from the edge of the carriageway, and is indicated below. The existing access has a gate set back 10.0m from the edge of the carriageway which allows for a vehicle to stand clear of the road, whilst the gate is being opened or closed.



The site currently accommodates a linked pair of buildings with a lawful B8 together with a large, surfaced hardstanding area which accommodates an informal parking and turning space.

A public footpath runs along the southern boundary of the site, although this is outside of the application red line and is not affected by this current planning application.

Planning History

The site has been the subject of a recent planning application and pre-application submission, and this is outlined below.

20181280 - Change of use of an agricultural building and land to a B8 (Storage and Distribution) use and continuance of a further agricultural building and land for B8 (Storage and Distribution) use.

This application was affectively a change of use for both buildings, one as a new change of use, and the second building and land as a further continuance from Agricultural to Class B8 (Storage and Distribution) use to allow the applicant to continue operating an existing business.

At that time, Kent County Council as Local Highway Authority (LHA) were consulted. In considering the highway implications of the proposal, the LHA said:

It is noted that the application is for the continued use of one of the buildings for B8 and the change of use of the second building to B8 (storage & distribution). A personal permission Gravesham Borough Council would be required to ensure the use of the second unit does not incur excessive intensification of use.

The proposed use is an intensification of use, whereby access arrangements must be considered to ensure that no vehicles entering and existing the site obstruct the highway. It is considered appropriate that the gates are repositioned 10 metres from the highway, to allow for a lorry to manoeuvre clear of the highway whilst the gates are opened/closed.

Visibility splays measuring 2m x 43m are required from the access to the nearside carriageway edge. In line with the above, provided the following requirements are secured by condition, then I would raise no objection on behalf of the local highway authority:-

- *Provision and maintenance of 2 metres x 43 metres visibility splays at the access with no obstructions over 0.9 metres above carriageway level within the splays, prior to use of the site commencing.*

- *Gates to open away from the highway and to be set back a minimum of 10 metres from the edge of the carriageway.*

The application was subsequently approved without a personal consent restriction, but it did require the access gate to be set back 10m from the edge of the carriageway and for the required visibility to be provided and maintained in perpetuity.

More recently, the site was the subject of a pre-application submission for a commercial development submitted under reference PRE20230348. This sought advice on the use of the buildings as the main office and operational site for BB Contracts Ltd who currently store a large number of construction items in the barn, whilst their head office is at Dartford. It is BB Contracts intention to move their offices to the barns with the installation of a mezzanine floor within the southern bounding, and to update the buildings exteriors.

The Gravesham Highway Officer was consulted who said:

Any commercial use would require a Transport Statement and a demonstration that there is adequate car, van, and lorry parking on site. In terms of vehicle movements, the commercial vehicles are already using the site, so the TS should include a comparison of existing and proposed uses.

This Transport Statement therefore addresses the highway implications of the proposal and concludes that the development is acceptable from a highway point of view.

Proposed Development

The application seeks to provide a mixed B8 use together with a use falling within Class E(g)(i)(ii)(iii). The existing access is to be utilised and there is provision for 16 parking spaces.

Access and Visibility

The site is to utilise the existing access onto Thong Lane which takes the form of a simple crossing, with a gate set back 10m from the edge of the carriageway. The use of the access has previously been considered to be acceptable by the LHA, however drawing numbered NJC-001 is included as [Appendix 1](#) to this Statement this shows the access together with visibility splays of 2.4m by 43.0m. This is commensurate with the posted 30mph speed limit and is in accordance with advice contained within the documents Manual for Street 1 & 2.

Traffic Impact

The site has a lawful unencumbered B8 use across both buildings, granted under application numbered 20181280. At that time, the application form quoted the buildings as having a floor area of 334.4sqm.

In order to ascertain the traffic impact that the existing lawful B8 use could have on the surrounding highway network, The TRICS database v 7.10.4 has been interrogated. Given its relatively small scale, and urban location, limited TRICS data is available, however in selecting suitable comparison sites the following criteria has been utilised.

- Land Use – Employment – Warehouse (Commercial)
- Gross Floor Area – 190sqm to 1507sqm
- Date Range 01/09/15 – 29/03/19

- Location – Edge of Town Centre – Edge of Town

Using the criteria above, the table below shows the TRICS trip rates per 100sqm.

Commercial Warehouse Trips per 100sqm									
	AM (0800 – 0900)			PM (1700-1800)			Two-way Total		
	Arrival	Depart	Two Way	Arrival	Depart	Two Way	Arrival	Depart	Two Way
All Vehicles	1.237	0.118	1.355	0.059	0.147	0.153	5.954	5.954	11.908
OGV's	0.000	0.000	0.100	0.000	0.000	0.000	0.295	0.295	0.590

Using the above trip rates, the table below shows the likely traffic impact from the existing lawful B8 use.

Trips Based on 334.4sqm									
	AM (0800 – 0900)			PM (1700-1800)			Two-way Total		
	Arrival	Depart	Two Way	Arrival	Depart	Two Way	Arrival	Depart	Two Way
All Vehicles	4.13	0.39	4	0.19	0.49	0	19.9	19.9	40
OGV's	0	0	0	0	0	0	0.98	0.98	2

From the above, it can be seen that the existing B8 use could likely generate around 4 vehicle movements in the AM peak, none in the PM peak and some 40 combined vehicle movements across a 12-hour day.

The table also shows the likely number of goods vehicles that the development could create which in this case is none in the AM and PM Peaks and a total of 2 across the entire day. The TRICS data for the B8 use is included as [Appendix 2](#) to this Statement.

This application is for 503sqm of B8 use together with 204sqm of Class E use, therefore, in order to determine the likely traffic generation from this development, the same Trip Rates were used for the B8 element of the development, and this is shown below.

Trips Based on 503 sqm									
	AM (0800 – 0900)			PM (1700-1800)			Two-way Total		
	Arrival	Depart	Two Way	Arrival	Depart	Two Way	Arrival	Depart	Two Way
All Vehicles	6.22	0.59	7	0.29	0.77	1	34.9	34.9	70
OGV's	0	0	0	0	0	0	1.48	1.48	3

Again, the TRICS database was interrogated to ascertain the likely traffic generation from the Class E element of the development. In selecting suitable comparison sites, the following criteria has been utilised.

- Land Use – Employment – Office
- Gross Floor Area – 178sqm to 594sqm
- Date Range 01/01/15 – 14/11/22
- Location – Edge of Town – Edge of Town Centre - Suburban Area

Using the criteria above, the table below shows the TRICS trip rates per 100sqm.

Class E Unit Trips per 100sqm									
	AM (0800 – 0900)			PM (1700-1800)			Two-way Total		
	Arrival	Depart	Two Way	Arrival	Depart	Two Way	Arrival	Depart	Two Way
All Vehicles	2.300	0.167	2.467	0.418	2.341	2.759	10.051	10.340	20.391
OGV's	0.000	0.000	0.000	0.000	0.000	0.000	0.168	0.168	0.336

Using the above trip rates, the table below shows the likely traffic impact from the proposed Class E use.

Trips Based on 204 sqm									
	AM (0800 – 0900)			PM (1700-1800)			Two-way Total		
	Arrival	Depart	Two Way	Arrival	Depart	Two Way	Arrival	Depart	Two Way
All Vehicles	4.70	0.34	5	0.85	4.78	6	20.5	21.0	42
OGV's	0	0	0	0	0	0	0.34	0.34	1

From the above, it can be seen that the proposed Class E use would be likely to generate around 5 vehicle movements in the AM peak, 6 in the PM peak and some 42 combined vehicle movements across a 12-hour day.

The table also shows that the development could create a total of just 1 goods vehicle across the entire day. The TRICS data for the Class E use is included as [Appendix 3](#) to this Statement.

The table below gives a summary of the traffic generated by the existing permitted use together with the likely increase from the proposed use.

Existing And Proposed Traffic Impact									
	AM (0800 – 0900)			PM (1700-1800)			Two-way Total		
	Arrival	Depart	Two Way	Arrival	Depart	Two Way	Arrival	Depart	Two Way
Existing	4	0	4	0	0	0	20	20	40
Proposed	11	1	12	1	6	7	56	56	112
Difference	+7	+1	+8	+1	+6	+7	+36	+36	+72

From the above, it can be seen that the development would result in an additional 8 two-way movements in the AM peak, 7 trips in the PM peak and a total of 72 two-way trips across a 12-hour day. Such an increase is not deemed to be significant in this instance and will not result in any detriment to highway safety.

Car and Cycle Parking

Requirements for car and cycle parking for development in Gravesham is provided within Kent County Councils Parking Standards document dated July 2006.

The standards require 1 car parking space per 20sqm for the Class E element together with 1 parking space per 110sqm for the B8 use. In this case the development would require a total of 10 spaces for the Offices and 5 for the Warehouse. The proposed development includes a total of 16 spaces, including three spaces for Transit sized vehicles and a dedicated space for disabled drivers. Secure and undercover cycle parking can be accommodated within the buildings themselves.

Drawing numbered NJC-002 is included as [Appendix 4](#) which shows typical swept path tracking of a large car entering the spaces, turning and leaving in forward gear.

Servicing

The largest vehicle likely to be generated by the development would be a large, rigid chassis lorry, therefore drawing numbered NJC-003 is included as [Appendix 5](#) to this Statement which demonstrates the ability of such a vehicle to enter the site, turn and leave in forward gear.

Summary and Conclusion

This Transport Statement has been produced in support of a planning application submission for a B8 Warehouse building with an element of Class E Offices at Cheneys Farm Barns, Thong Lane.

The existing access is to be utilised where visibility is being provided commensurate with the posted speed limit on Thong Lane.

Using TRICS data it has been shown that the development will result in a modest increase in traffic, which will not have any detrimental impact to the safe operation of the surrounding highway network.

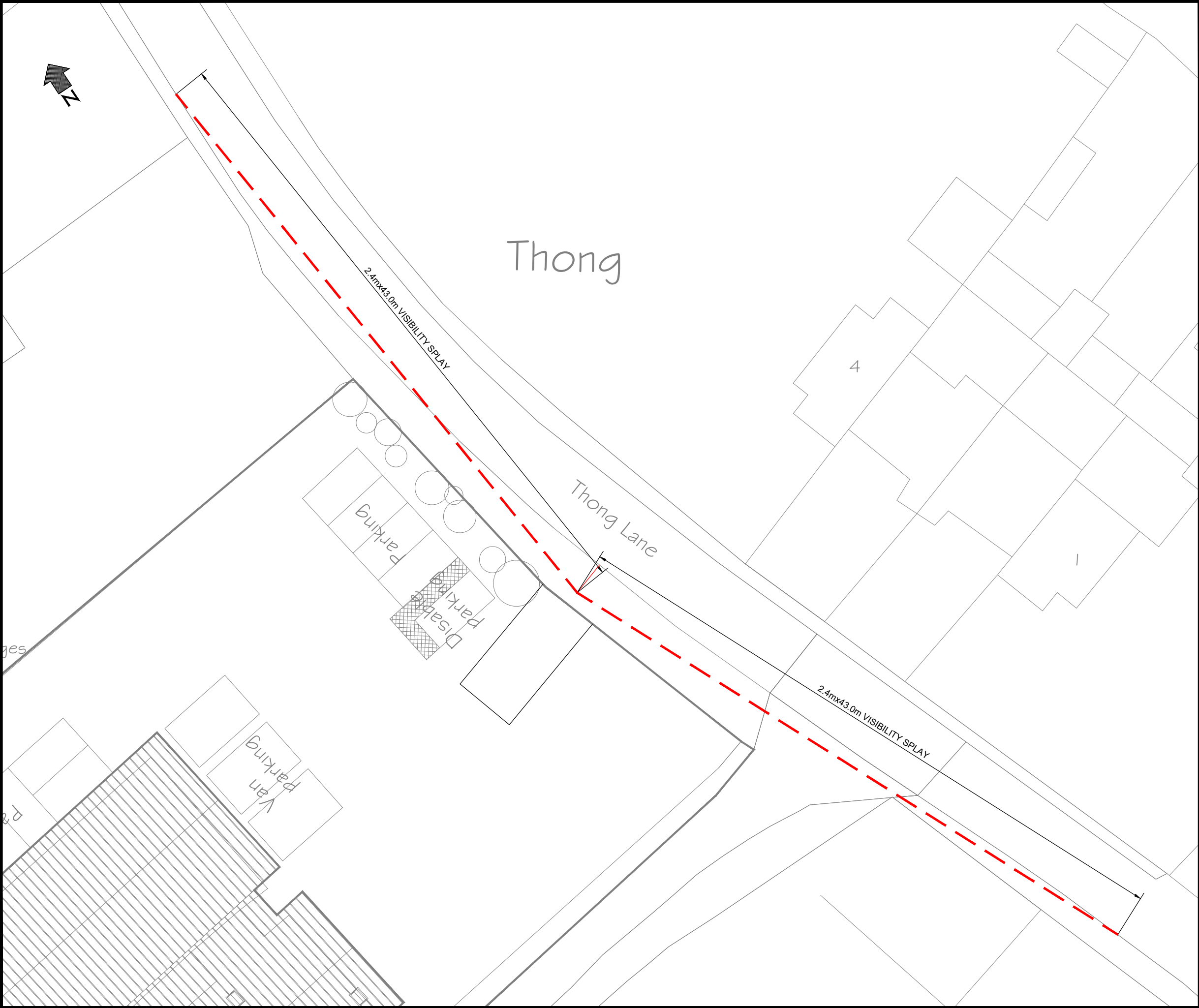
The site makes provision for car parking in accordance with Kent County Council's standards together with adequate provision for the on-site turning requirements of a rigid chassis lorry, which is considered to be the largest service vehicle that the proposed use would now generate.

The development is therefore considered to be acceptable from a highway point of view.

Nick Culhane March 2024

Appendix 1

Access and Visibility



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Project
COMMERCIAL DEVELOPMENT AT CHENEYS
FARM BARNS, THONG LANE, GRAVESEND

Drawing Title
ACCESS AND VISIBILITY

Drawing Status
FOR INFORMATION

Drawn PN	Designed NC	Date MAR 2024	Scale 1:250	Size A3
Drawing No. NJC-001				Rev -

Appendix 2

TRICS Data B8 – Warehouse Use

Calculation Reference: AUDIT-405201-240307-0308

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : F - WAREHOUSING (COMMERCIAL)
TOTAL VEHICLES

Selected regions and areas:

03	SOUTH WEST	
	TB TORBAY	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	KS KIRKLEES	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: Gross floor area
Actual Range: 190 to 1507 (units: sqm)
Range Selected by User: 190 to 1507 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/15 to 29/03/19

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 1 days
Friday 1 days

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

Selected survey types:
Manual count 2 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 undertaking using machines.

Selected Locations:
Edge of Town Centre 1
Edge of Town 1

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:
Industrial Zone 1
Built-Up Zone 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.

Inclusion of Servicing Vehicles Counts:
Servicing vehicles Included X days - Selected
Servicing vehicles Excluded 2 days - Selected

Secondary Filtering selection:

Use Class:
n/a 1 days
B8 1 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Filter by Site Operations Breakdown:
All Surveys Included

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:
5,001 to 10,000 2 days

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

Population within 5 miles:
25,001 to 50,000 1 days
125,001 to 250,000 1 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 1 days
1.1 to 1.5 1 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:
No 2 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 2 days

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

LIST OF SITES relevant to selection parameters

The 'browse and select' feature in TRICS was used to choose the sites to be included in this selected set. The TRICS user browsed the full list of sites for this land use category and selected directly from this list.

1	KS-02-F-01	ELECTRONICS DISTRIBUTION	KIRKLEES
	MORTIMER STREET		
	CLECKHEATON		
	Edge of Town Centre		
	Built-Up Zone		
	Total Gross floor area:	1507 sqm	
	Survey date: MONDAY	19/09/16	Survey Type: MANUAL
2	TB-02-F-01	OPTICS WAREHOUSE	TORBAY
	ALDERS WAY		
	PAIGNTON		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	190 sqm	
	Survey date: FRIDAY	29/03/19	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 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
TOTAL VEHICLES
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	190	0.000	1	190	0.000	1	190	0.000
05:30 - 06:00	1	190	0.000	1	190	0.000	1	190	0.000
06:00 - 06:30	1	190	0.000	1	190	0.000	1	190	0.000
06:30 - 07:00	1	190	0.000	1	190	0.000	1	190	0.000
07:00 - 07:30	2	849	0.177	2	849	0.118	2	849	0.295
07:30 - 08:00	2	849	0.177	2	849	0.000	2	849	0.177
08:00 - 08:30	2	849	0.530	2	849	0.000	2	849	0.530
08:30 - 09:00	2	849	0.707	2	849	0.118	2	849	0.825
09:00 - 09:30	2	849	0.295	2	849	0.000	2	849	0.295
09:30 - 10:00	2	849	0.354	2	849	0.118	2	849	0.472
10:00 - 10:30	2	849	0.236	2	849	0.177	2	849	0.413
10:30 - 11:00	2	849	0.295	2	849	0.354	2	849	0.649
11:00 - 11:30	2	849	0.412	2	849	0.177	2	849	0.589
11:30 - 12:00	2	849	0.354	2	849	0.530	2	849	0.884
12:00 - 12:30	2	849	0.177	2	849	0.354	2	849	0.531
12:30 - 13:00	2	849	0.412	2	849	0.530	2	849	0.942
13:00 - 13:30	2	849	0.530	2	849	0.295	2	849	0.825
13:30 - 14:00	2	849	0.118	2	849	0.236	2	849	0.354
14:00 - 14:30	2	849	0.177	2	849	0.412	2	849	0.589
14:30 - 15:00	2	849	0.354	2	849	0.354	2	849	0.708
15:00 - 15:30	2	849	0.059	2	849	0.236	2	849	0.295
15:30 - 16:00	2	849	0.236	2	849	0.118	2	849	0.354
16:00 - 16:30	2	849	0.177	2	849	0.236	2	849	0.413
16:30 - 17:00	2	849	0.118	2	849	0.118	2	849	0.236
17:00 - 17:30	2	849	0.059	2	849	0.943	2	849	1.002
17:30 - 18:00	2	849	0.000	2	849	0.530	2	849	0.530
18:00 - 18:30	1	190	0.000	1	190	0.000	1	190	0.000
18:30 - 19:00	1	190	0.000	1	190	0.000	1	190	0.000
19:00 - 19:30	1	190	0.000	1	190	0.000	1	190	0.000
19:30 - 20:00	1	190	0.000	1	190	0.000	1	190	0.000
20:00 - 20:30	1	190	0.000	1	190	0.000	1	190	0.000
20:30 - 21:00	1	190	0.000	1	190	0.000	1	190	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			5.954			5.954			11.908

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:	190 - 1507 (units: sqm)
Survey date date range:	01/01/15 - 29/03/19
Number of weekdays (Monday-Friday):	2
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 show. 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 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	190	0.000	1	190	0.000	1	190	0.000
05:30 - 06:00	1	190	0.000	1	190	0.000	1	190	0.000
06:00 - 06:30	1	190	0.000	1	190	0.000	1	190	0.000
06:30 - 07:00	1	190	0.000	1	190	0.000	1	190	0.000
07:00 - 07:30	2	849	0.000	2	849	0.000	2	849	0.000
07:30 - 08:00	2	849	0.000	2	849	0.000	2	849	0.000
08:00 - 08:30	2	849	0.000	2	849	0.000	2	849	0.000
08:30 - 09:00	2	849	0.000	2	849	0.000	2	849	0.000
09:00 - 09:30	2	849	0.000	2	849	0.000	2	849	0.000
09:30 - 10:00	2	849	0.059	2	849	0.000	2	849	0.059
10:00 - 10:30	2	849	0.000	2	849	0.059	2	849	0.059
10:30 - 11:00	2	849	0.059	2	849	0.000	2	849	0.059
11:00 - 11:30	2	849	0.059	2	849	0.059	2	849	0.118
11:30 - 12:00	2	849	0.000	2	849	0.000	2	849	0.000
12:00 - 12:30	2	849	0.000	2	849	0.059	2	849	0.059
12:30 - 13:00	2	849	0.000	2	849	0.000	2	849	0.000
13:00 - 13:30	2	849	0.059	2	849	0.000	2	849	0.059
13:30 - 14:00	2	849	0.000	2	849	0.000	2	849	0.000
14:00 - 14:30	2	849	0.000	2	849	0.059	2	849	0.059
14:30 - 15:00	2	849	0.000	2	849	0.000	2	849	0.000
15:00 - 15:30	2	849	0.000	2	849	0.000	2	849	0.000
15:30 - 16:00	2	849	0.000	2	849	0.000	2	849	0.000
16:00 - 16:30	2	849	0.059	2	849	0.059	2	849	0.118
16:30 - 17:00	2	849	0.000	2	849	0.000	2	849	0.000
17:00 - 17:30	2	849	0.000	2	849	0.000	2	849	0.000
17:30 - 18:00	2	849	0.000	2	849	0.000	2	849	0.000
18:00 - 18:30	1	190	0.000	1	190	0.000	1	190	0.000
18:30 - 19:00	1	190	0.000	1	190	0.000	1	190	0.000
19:00 - 19:30	1	190	0.000	1	190	0.000	1	190	0.000
19:30 - 20:00	1	190	0.000	1	190	0.000	1	190	0.000
20:00 - 20:30	1	190	0.000	1	190	0.000	1	190	0.000
20:30 - 21:00	1	190	0.000	1	190	0.000	1	190	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.295			0.295			0.590

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.

Appendix 3

TRICS Data Class E Use

Calculation Reference: AUDIT-405201-240307-0338

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : A - OFFICE
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	BH BRIGHTON & HOVE	1 days
04	EAST ANGLIA	
	NF NORFOLK	1 days
05	EAST MIDLANDS	
	DY DERBY	1 days
06	WEST MIDLANDS	
	WK WARWICKSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	1 days
10	WALES	
	BG BRIDGEND	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: Gross floor area
Actual Range: 178 to 594 (units: sqm)
Range Selected by User: 178 to 594 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/15 to 14/11/22

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 1 days
Wednesday 2 days
Thursday 3 days

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

Selected survey types:
Manual count 6 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 undertaking using machines.

Selected Locations:
Edge of Town Centre 4
Suburban Area (PPS6 Out of Centre) 1
Edge of Town 1

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:
Industrial Zone 1
Commercial Zone 1
Residential Zone 2
Built-Up Zone 1
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.

Inclusion of Servicing Vehicles Counts:
Servicing vehicles Included 5 days - Selected
Servicing vehicles Excluded 1 days - Selected

Secondary Filtering selection:

Use Class:
Not Known 6 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Filter by Site Operations Breakdown:
All Surveys Included

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

15,001 to 20,000	2 days
20,001 to 25,000	2 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:

75,001 to 100,000	1 days
100,001 to 125,000	2 days
125,001 to 250,000	1 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	4 days
1.1 to 1.5	2 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:

No	6 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	6 days
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This data displays the number of selected surveys with PTAL Ratings.

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions
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LIST OF SITES relevant to selection parameters

The 'browse and select' feature in TRICS was used to choose the sites to be included in this selected set. The TRICS user browsed the full list of sites for this land use category and selected directly from this list.

1	BG-02-A-01 KENT ROAD BRIDGEND	HAULAGE COMPANY	BRIDGEND
	Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 300 sqm Survey date: THURSDAY 06/05/21		Survey Type: MANUAL
2	BH-02-A-05 ROMAN ROAD HOVE	OFFICES	BRIGHTON & HOVE
	Edge of Town Centre Residential Zone Total Gross floor area: 280 sqm Survey date: WEDNESDAY 04/07/18		Survey Type: MANUAL
3	DY-02-A-02 PRIME PARKWAY DERBY	REAL ESTATE DEVELOPERS	DERBY
	Edge of Town Centre No Sub Category Total Gross floor area: 594 sqm Survey date: THURSDAY 21/10/21		Survey Type: MANUAL
4	NF-02-A-04 WHITING ROAD NORWICH	BUILDING CONSULTANT	NORFOLK
	Edge of Town Commercial Zone Total Gross floor area: 500 sqm Survey date: WEDNESDAY 13/11/19		Survey Type: MANUAL
5	NY-02-A-01 NORTH PARK ROAD HARROGATE	SOLICITORS	NORTH YORKSHIRE
	Edge of Town Centre Built-Up Zone Total Gross floor area: 178 sqm Survey date: THURSDAY 04/10/18		Survey Type: MANUAL
6	WK-02-A-02 WHITEHALL ROAD RUGBY	OFFICES	WARWICKSHIRE
	Edge of Town Centre Residential Zone Total Gross floor area: 540 sqm Survey date: MONDAY 14/11/22		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 02 - EMPLOYMENT/A - OFFICE
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	5	443	0.226	5	443	0.090	5	443	0.316
07:30 - 08:00	5	443	0.723	5	443	0.045	5	443	0.768
08:00 - 08:30	6	399	1.129	6	399	0.000	6	399	1.129
08:30 - 09:00	6	399	1.171	6	399	0.167	6	399	1.338
09:00 - 09:30	6	399	1.129	6	399	0.669	6	399	1.798
09:30 - 10:00	6	399	0.418	6	399	0.502	6	399	0.920
10:00 - 10:30	6	399	0.502	6	399	0.376	6	399	0.878
10:30 - 11:00	6	399	0.376	6	399	0.293	6	399	0.669
11:00 - 11:30	6	399	0.293	6	399	0.418	6	399	0.711
11:30 - 12:00	6	399	0.543	6	399	0.460	6	399	1.003
12:00 - 12:30	6	399	0.293	6	399	0.627	6	399	0.920
12:30 - 13:00	6	399	0.334	6	399	0.543	6	399	0.877
13:00 - 13:30	6	399	0.293	6	399	0.418	6	399	0.711
13:30 - 14:00	6	399	0.502	6	399	0.209	6	399	0.711
14:00 - 14:30	6	399	0.293	6	399	0.418	6	399	0.711
14:30 - 15:00	6	399	0.293	6	399	0.418	6	399	0.711
15:00 - 15:30	6	399	0.251	6	399	0.209	6	399	0.460
15:30 - 16:00	6	399	0.084	6	399	0.293	6	399	0.377
16:00 - 16:30	6	399	0.209	6	399	0.418	6	399	0.627
16:30 - 17:00	6	399	0.209	6	399	0.794	6	399	1.003
17:00 - 17:30	6	399	0.125	6	399	1.129	6	399	1.254
17:30 - 18:00	6	399	0.293	6	399	1.212	6	399	1.505
18:00 - 18:30	5	443	0.136	5	443	0.361	5	443	0.497
18:30 - 19:00	5	443	0.226	5	443	0.271	5	443	0.497
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			10.051			10.340			20.391

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:	178 - 594 (units: sqm)
Survey date range:	01/01/15 - 14/11/22
Number of weekdays (Monday-Friday):	6
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 02 - EMPLOYMENT/A - OFFICE
 OGVS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

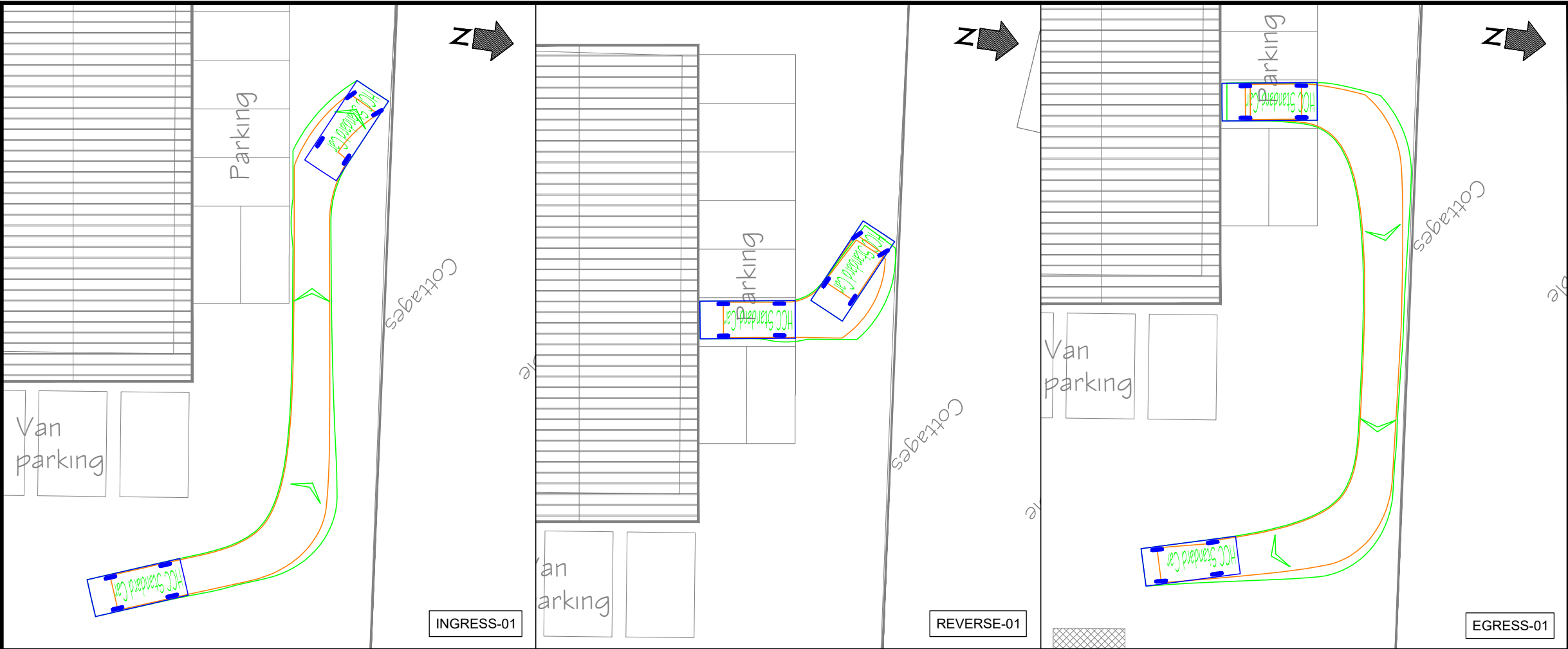
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	5	443	0.000	5	443	0.000	5	443	0.000
07:30 - 08:00	5	443	0.000	5	443	0.000	5	443	0.000
08:00 - 08:30	6	399	0.000	6	399	0.000	6	399	0.000
08:30 - 09:00	6	399	0.000	6	399	0.000	6	399	0.000
09:00 - 09:30	6	399	0.000	6	399	0.000	6	399	0.000
09:30 - 10:00	6	399	0.000	6	399	0.000	6	399	0.000
10:00 - 10:30	6	399	0.000	6	399	0.000	6	399	0.000
10:30 - 11:00	6	399	0.000	6	399	0.000	6	399	0.000
11:00 - 11:30	6	399	0.000	6	399	0.000	6	399	0.000
11:30 - 12:00	6	399	0.042	6	399	0.042	6	399	0.084
12:00 - 12:30	6	399	0.042	6	399	0.042	6	399	0.084
12:30 - 13:00	6	399	0.042	6	399	0.042	6	399	0.084
13:00 - 13:30	6	399	0.000	6	399	0.000	6	399	0.000
13:30 - 14:00	6	399	0.000	6	399	0.000	6	399	0.000
14:00 - 14:30	6	399	0.000	6	399	0.000	6	399	0.000
14:30 - 15:00	6	399	0.042	6	399	0.042	6	399	0.084
15:00 - 15:30	6	399	0.000	6	399	0.000	6	399	0.000
15:30 - 16:00	6	399	0.000	6	399	0.000	6	399	0.000
16:00 - 16:30	6	399	0.000	6	399	0.000	6	399	0.000
16:30 - 17:00	6	399	0.000	6	399	0.000	6	399	0.000
17:00 - 17:30	6	399	0.000	6	399	0.000	6	399	0.000
17:30 - 18:00	6	399	0.000	6	399	0.000	6	399	0.000
18:00 - 18:30	5	443	0.000	5	443	0.000	5	443	0.000
18:30 - 19:00	5	443	0.000	5	443	0.000	5	443	0.000
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.168			0.168			0.336

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.

Appendix 4

Car Parking and Swept Path Tracking



VEHICLE DETAILS:

Green line shows body

Orange line shows axle/wheels

HCC Standard Car

Overall Length	4.890m
Overall Width	1.940m
Overall Body Height	1.452m
Min Body Ground Clearance	0.217m
Track Width	1.817m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	4.950m

Design speed 5kph for all Forward movements

Design speed 2.5kph for all Reverse movements

Nick Culhane
Highway Consultant

Project

COMMERCIAL DEVELOPMENT AT CHENEYS FARM BARN, THONG LANE, GRAVESEND

Drawing Title

SWEPT PATH TRACKING - LARGE CAR

Drawing Status

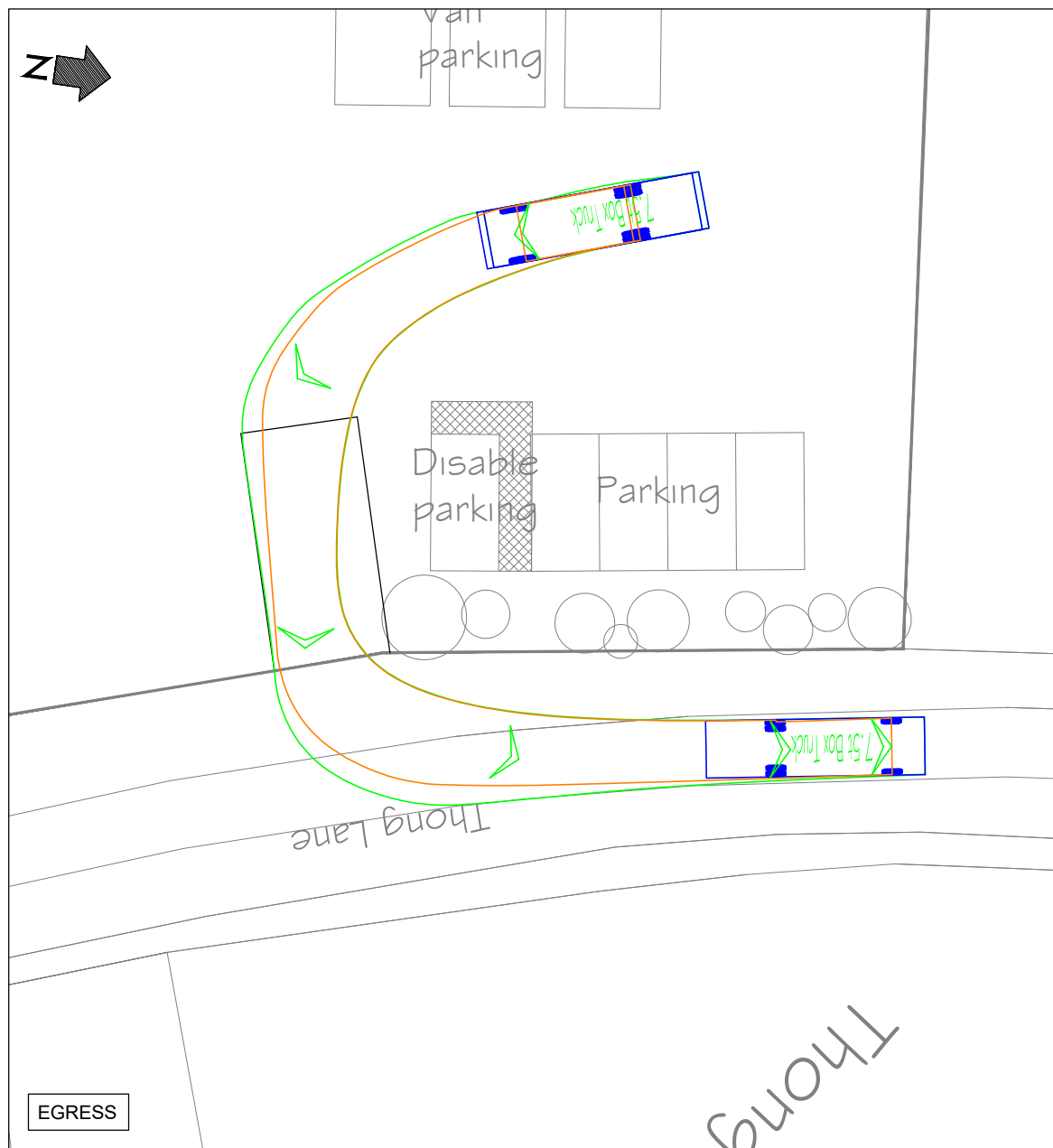
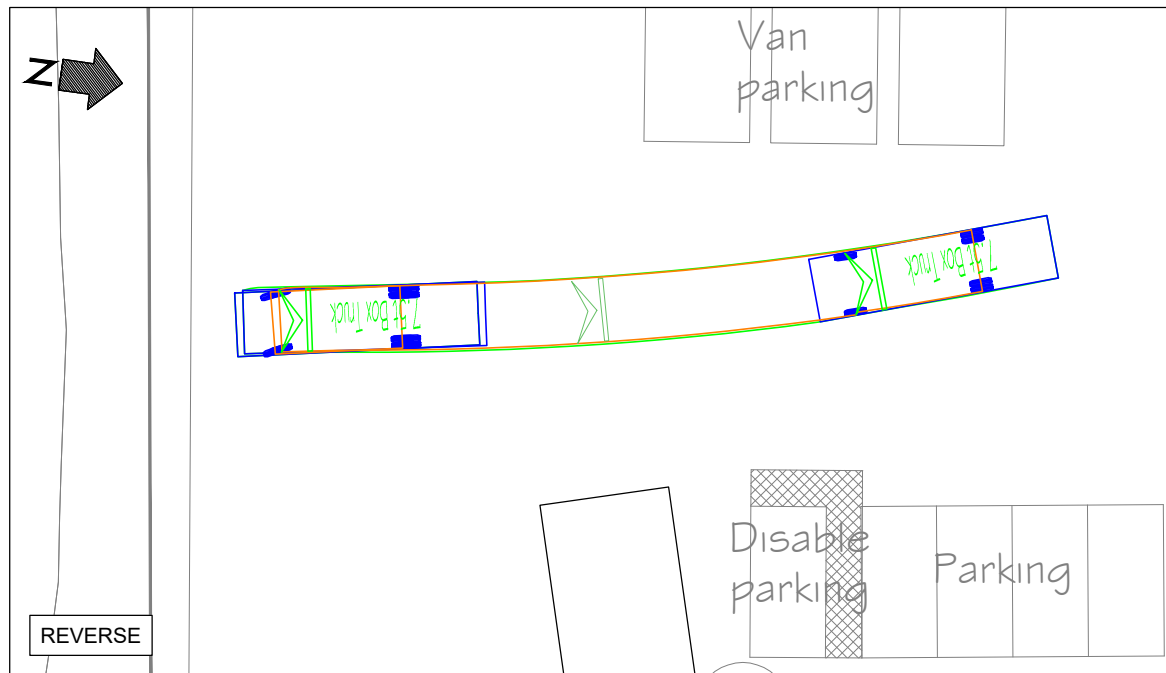
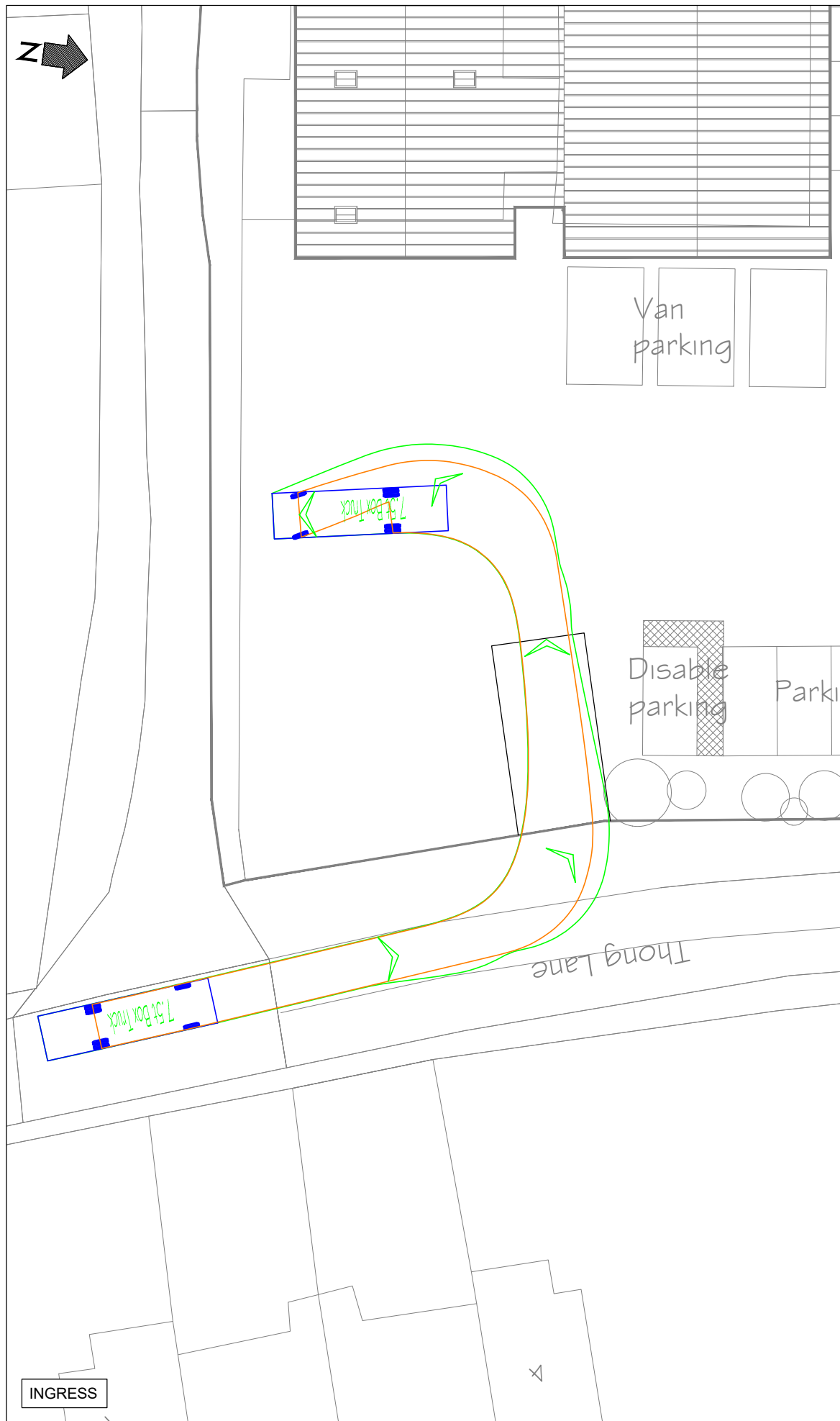
FOR INFORMATION

Drawn	Designed	Date	Scale	Size
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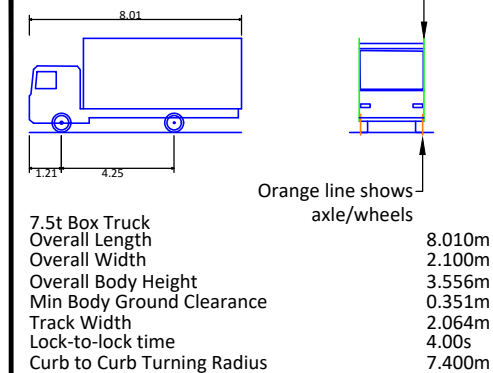
Drawing No.	Rev
NJC-002	-

Appendix 5

Service Vehicle Swept Path Tracking



VEHICLE DETAILS:



Design speed 5kph for all Forward movements
Design speed 2.5kph for all Reverse movements



Project
COMMERCIAL DEVELOPMENT AT CHENEYS
FARM BARN, THONG LANE, GRAVESEND

Drawing Title
SWEPT PATH TRACKING - LORRY

Drawing Status
FOR INFORMATION

Drawn PN	Designed NC	Date MAR 2024	Scale 1:250	Size A3
Drawing No. NJC-003				Rev -