Callidus Transport and Engineering

Lydcott, Lodge Lane, Nailsea, BS48 1BH

Transport Statement

on behalf of Gould Group Ltd

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1 INTRODUCTION

1.1 About this Report

1.1.1 Callidus Transport and Engineering Ltd (the consultant) has been commissioned by Gould Group Ltd (the client) to provide transport and highways advice in support of an outline planning application to develop 9 new residential units on land known as Lydcott, Lodge Lane, Nailsea.

1.1.2 The site is currently occupied by a single dwelling within a large garden plot in the town of of Nailsea. The location of the development is shown in Appendix A, Drawing No SK0000.

1.1.3 The Local Planning and Highway Authority is North Somerset Council (NSC). Therefore, the site has been prepared in conformity with the requirements of the Council planning policies. A Transport Technical Note was submitted to the Local Planning Authority (LPA) as part of a pre-application consultation. The Technical Note is included in Appendix B.

1.1.4 This report forms the Transport Statement (TS) in support of the outline planning application for the proposed development. The TS has been prepared in line with the recommendations set out in the National Planning Policy Framework, Planning Practice Guidance on *'Travel Plans, Transport Assessments and Statements in decision taking'* (DCLG 2014).

1.2 Report Structure

1.2.1 After the introductory chapter, the report contains the following chapters:

- Chapter 2 describes the development proposals, access arrangements and parking strategy;
- Chapter 3 examines the site's accessibility and sustainability in transport terms by reviewing the availability of local services and opportunities to use sustainable transport;
- Chapter 4 forecasts the trip generation, trip distribution and mode share from the development;
- Chapter 5 reports on the traffic appraisal and the impacts on the local highway network;
- Chapter 6 identifies further transport matters for consideration, including construction traffic, refuse vehicles and emergency service access; and

  Chapter 7 provides a summary and conclusions.

2 PROPOSED DEVELOPMENT

2.1 Site Context

2.1.1 This Chapter provides details of the development proposals including the development schedule, vehicle access and other access arrangements, and parking provision for the site.

2.1.2 The location of the development is shown in Appendix A, Drawing No. SK0001. It is located north east of the centre of Nailsea (taken to be the junction of High Street with Link Road), a distance of approximately 750m as-the-crow-flies. The site is approximately 6.4km from junction 20 and 5km from junction 19 of the M5 to the north.

2.1.3 The site is currently in vacant residential use. A single dwelling sits on the large plot measuring approximately 0.26ha. The site is accessed off the Lodge Lane, which is part of a residential distributor route around the east side of Nailsea. The access lies between two roundabouts that are 120m apart. Lodge Lane is within a 30 mph speed limit.

2.2 Development Proposals

2.2.1 Appendix A, Drawing No. A102 by Dexter Design provides details of the indicative site masterplan. The layout for the proposed development consists of 9 residential properties, landscaping and associated infrastructure, including the private internal road layout, footways and proposed on-site car parking. Table 2-1 details the development schedule for the site.

Type	No. of dwellings
2 bed	0
3 bed	7
4 bed	0
5 bed	2
Total	9

Table 2-1: Development schedule

2.2.2 The proposed car parking allocation will comply with NSC's car parking standards (see Section 2.4).

2.3 Access Strategy

2.3.1 The proposed development will be accessed off the Lodge Lane for development traffic IN only at the same point of access as the current property on the site. However, the access will be improved by widening it to 3.75m to enable larger vehicles e.g. vans, to access and to improve its conspicuity. The access will be formed of a simple crossover style junction which ensures prominence is given to the existing pedestrian footway along Lodge Lane.

2.3.2 The proposed development will also be accessed off Blackthorn Way for development traffic OUT only. This access will also be 3.75m wide and be formed of a simple crossover style junction.

2.3.3 The accesses will form a one-way circulation within the site which will be clearly marked with appropriate lining and signing for residents.

2.3.4 Appendix A, Drawing No. SK0001 shows the designs for the simple crossover style priority junctions, positioned where there is currently the existing site access on Lodge Lane (IN) and on Blackthorn Way (OUT). The access is within the extent of the highway boundary (see Appendix C). The width of the Lodge Lane carriageway is approximately 7.5m and Blackthorn Way 6.8m at the points of ingress and egress respectively. The accesses are sensitively designed and are in keeping with the other junctions in the locality including that of the recent development opposite.

2.3.5 Visibility splays are shown in Appendix A, Drawing No. SK0001. Only sightline visibility on egress is required from the junction. For Blackthorn Way to the west, a visibility splay in accordance with Manual for Street (MfS) for a 30 mph speed, where the distance from the kerbline is 2.4m (the 'x' distance) and the visibility splay extends for 43m (the 'y' distance) along the nearest side kerb to the west and to the tangent.

2.3.6 A visibility splay of 2.4m by 43m is shown extending to Trendlewood Way.

2.3.7 A visibility splay of 2.4m by 43m is shown extending Lodge Lane in a northly direction. This is taken as a distance around the roundabout which has a solid central island and splitter island on the southbound approach. Vehicles are not able to pass the roundabout on the wrong side of the road and therefore the visibility splay as measured is appropriate.

2.4 Parking Strategy

2.4.1 The parking policies of NSC parking supplementary planning document have been reviewed[1]. The provision of car parking spaces has been provided to be compliant with the NSC Parking Standards. The NSC parking standards are set as 'minimums' and require that the provision reflects local circumstances. In some circumstances, the SPD explains that parking below the minimum levels may be acceptable.

2.4.2 Table 2-2 details the parking standards and proposed parking provision for the development

[1] Parking Standards Supplementary Planning Document (NSC - Adopted November 2021)

site.

Type	NSC Parking Standards	'Minimum' Parking based on standards	Proposed Spaces	Comment
Standard spaces	1.5 space per 1 Bed (5+ units) 2 spaces per 2&3 Bed 3 spaces per 4+ Bed	Space x Unit 1.5 x 0 = 0 2 x 7 = 14 3 x 2 = 6 Total = 20 spaces	21spaces	No garages
Disabled spaces	17% capable of widening to 3.3m		1 (inc. in above)	At least 1 space could be widened
Cycle parking	1 / bed	Space x Bed x Unit 1 x 3 x 7 = 21 1 x 5 x 2 = 10 Total spaces = 31	31	Sheds
Visitors	No requirement	N/A	N/A	N/A

Table 2-2: Parking standards and parking provision

2.4.3 As shown above, the site's proposed parking numbers fully accord with policy standards.

2.4.4 The parking provision figures include parking on allocated plots. Therefore, all spaces will have passive EV charging. Parking space dimensions will follow NSC's design standards. For parking spaces, the dimensions are 5m x 2.5m for each space which is slightly deeper than the requirement.

3 BASELINE CONDITIONS

3.1 Local Services

3.1.1 The town of Nailsea has a traditional layout with a commercial centre that provides a focal point to the town. Around this extends residential areas that have extended in recent times to give a population of over 15,000 people. This level of population is sufficient to support a wide range of services which the town benefits from enabling it to be to a large extent, self-sufficient.

3.1.2 The site itself is located only about 750m from the centre of Nailsea making it a walkable distance to access shops, cafes, banking services etc. The site is about 500m from a large foodstore, 450m from a primary school, and 800m from a secondary school. There are employment opportunities in the town including a business park at Southfield Road Trading Estate located about 450m to the north of the site. The nearest medical centre is located just off the town centre about 650m from the site.

3.1.3 For services further afield, access to the M5 motorway from Nailsea is good and the town is also served by a railway station at Nailsea and Backwell.

3.2 Sustainable Travel

3.2.1 The following section considers the options for sustainable travel from the development site:

Walking

3.2.2 The roads around the site all have footways on both sides of a good width. Immediately outside of the site, the footway is set back from the road by a wide verge margin.

3.2.3 The most likely desire route for pedestrians is towards the town centre. The route taken will be along Blackthorn Way which has footways either side. Near to the town centre, Millenium Park provides a useful 'cut-through' making the walk distance shorter than following the public roads.

3.2.4 Access to the primary school is also along Blackthorn Way as far as a public right of way (PRoW), which provides a route away from the public roads.

3.2.5 Access to the business park at Southfield Road Trading Estate would be either along Lodge Lane, which has footways either side, or through the neighbouring housing area which would be a low trafficked route.

3.2.6 For leisure routes, Nailsea is surrounding by a network of ProWs, including The Nailsea Round which circumnavigates the whole town.

Cycling

3.2.7 The local roads around the site are suitable for cycling as vehicle speeds are low. Similar routes as indicated for walking could be taken and the desire lines are likely to be similar.

3.2.8 The site is located about 300m from Festival Way, which provide a strategic cycle route running east-west (see Figure 3-1). This is part of the national strategic cycle network known as Route 33. This provides a link from Nailsea to Backwell and beyond. Conveniently, it also provides a low trafficked route to Nailsea and Backwell station.

Figure 3-1: Nailsea strategic cycle map (source: SUSTRANS)

3.2.9 Secure and accessible cycle storage will be included in the design for the residential properties on the site.

Public Transport

3.2.10 Public transport is provided for by both good access to a bus service and train services. The bus service is shown in Table 3-1 and is available locally. The table shows that the site is connected to key destinations, including Nailsea town centre, Backwell and Bristol.

3.2.11 The nearest local bus stops to the site are located to the west on Blackthorn Road (known as Mayflower Gardens bus stops), a distance of about 65m away. The stops here provide for both directions. The X8 service which uses these stops provides a service from Nailsea

to Bristol (see Figure 3-2).

Bus No.	Operator	Route	First Bus*	Last Bus*	Frequency
X8	First in Bristol, Bath & the West	Bristol Bus Station – Long Ashton – Backwell – Nailsea & Backwell Station – Nailsea Link Rd	06:53 (OUT)	18:44 (IN)	1hr (each direction)
Notes: * based on times at Nailsea					

Table 3-1: Nailsea Mayflower Gardens Bus Services

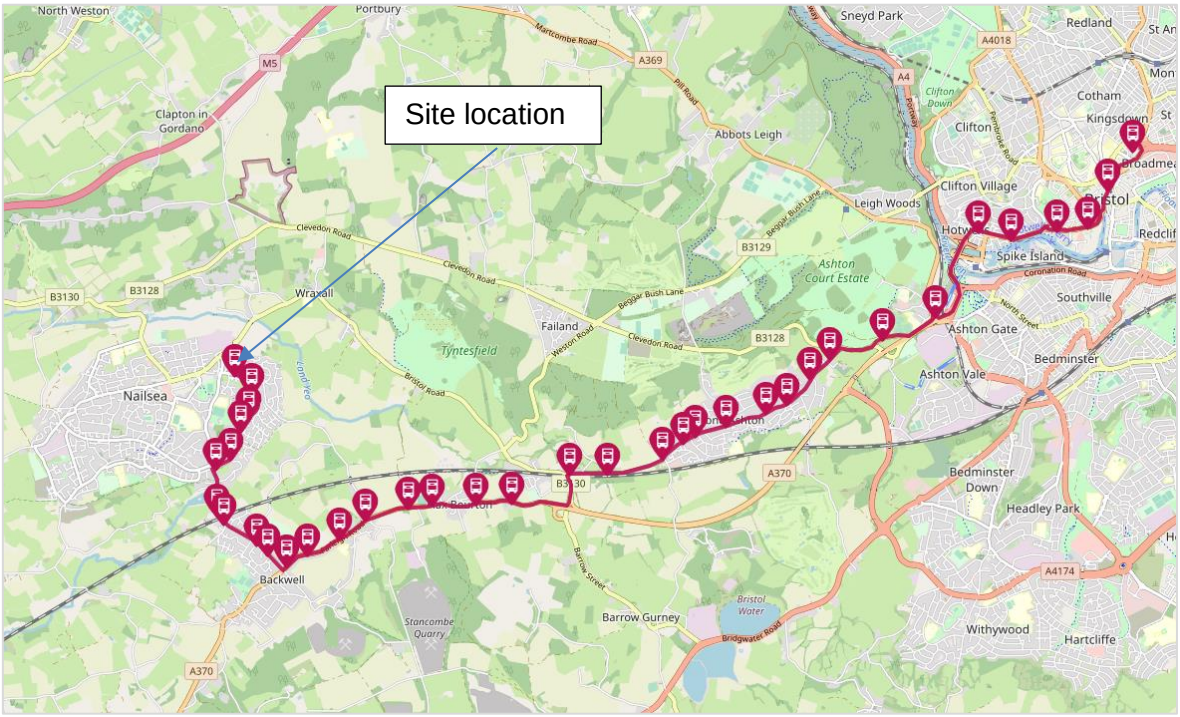


Figure 3-2: Bus Route X8 – Nailsea to Bristol

3.2.12 Nailsea & Backwell Railway Station is located about 1.5km away from the site. This is a mainline station providing services on the Great Western and Cross country Lines. Trains operate from the station at a frequency of about 3 an hour. Routes include to south Wales, the north, the south west and to the east. Direct connections can be made on some inter-city trains to London Paddington.

3.3 Baseline Traffic

3.3.1 Traffic count data has been obtained from an Automatic Traffic Count (ATC) laid outside of the site access for 7-day between Thursday 8th June and Wednesday 14th June 2023. The data was collected by-direction and by-hour. The data also includes 'speed bins' which are also reported on in this chapter.

3.3.2 Two-traffic flow by day is shown in Figure 3-3. This shows that the busiest day for general traffic is a Wednesday with over 4000 vehicle movement two-way.

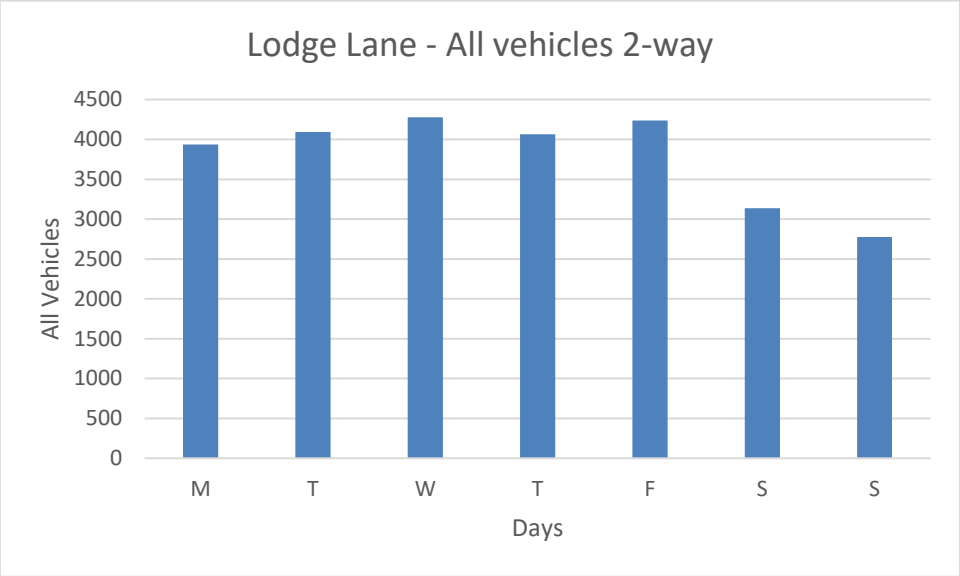


Figure 3-3: Lodge Lane – Traffic flow by day

3.3.3 The results for the Wednesday flows are shown in Figure 3-4, split by motorcycles, cars & light goods vehicles (LGVs), and buses, medium goods (MGVs) & heavy goods vehicles (HGVs). This shows that the highest traffic flows are in the morning between 0800-0900 with 435 vehicles two-way. There is a peak in traffic in the afternoon between 1700 and 1800 of approximately 387 vehicles two-way. HGVs represent less than 2% of traffic flows.

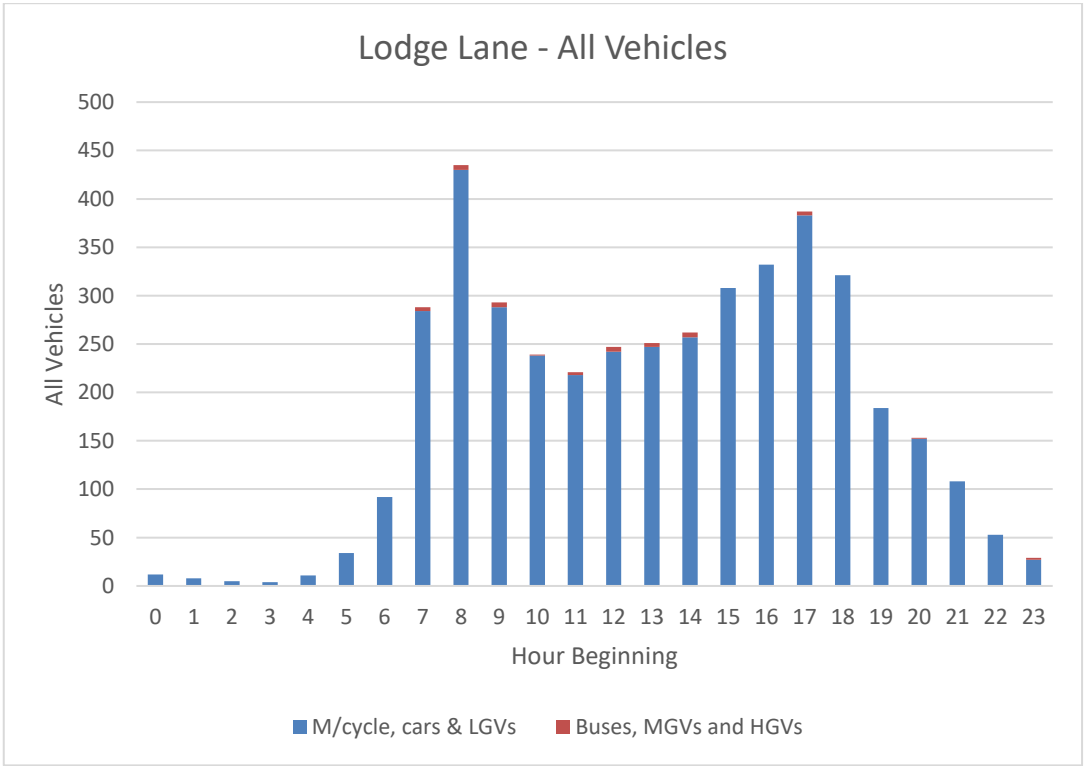


Figure 3-4: Lodge Lane – Vehicle Type Hourly

3.3.4 The traffic flow by direction is shown in Figure 3-5. This shows that there are distinct peaks in the traffic movements and a distinct tidal flow. More traffic travels northbound in the morning peak hour and more traffic travels south in the evening peak hour.

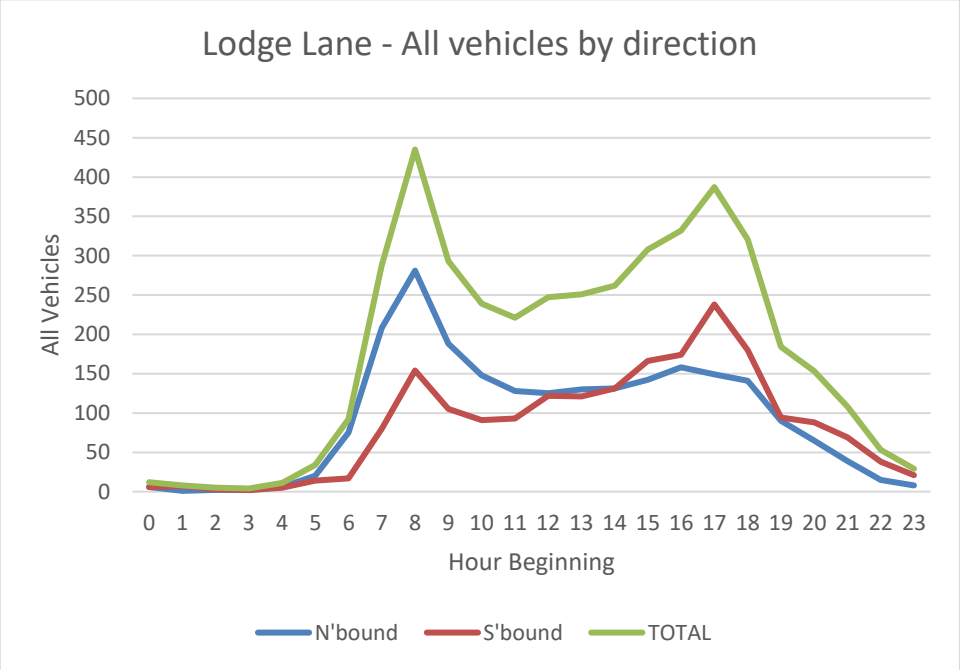


Figure 3-5: Hourly Traffic Flows on Lodge Lane

3.3.5 Overall, traffic flows on Lodge Lane are distributed approximately 50/50 north/ south.

3.4 Road Safety

3.4.1 Personal Injury Accident (PIA) data has been obtained from NSC for the most recent 5 year period between 01/01/27 and 30/12/22. This information for the search area considered is summarised in Table 3-2. The location of the accidents is shown in Figure 3-6.

3.4.2 The table shows that there have been 2 injury accidents in the five year period resulting in 3 casualties. There are too few accidents to derive any specific patterns or concentrations. However, of the two accidents, both have taken place near Nailsea park, which is some distance from the site.

3.4.3 Pedestrians, cyclists and motorcyclists can be classified as vulnerable road users. There has been 1 accident resulting in an injury to a cyclist and no accidents involving pedestrians or motorcyclists.

3.4.4 In terms of severity, the two accidents were recorded as 'slight'. There were no 'serious' or 'fatal' accidents recorded.

3.4.5 Any amount of accidents can be considered to be too many. However, given the number of traffic movements, motorised and non-motorised, which take place within the study area, these accident figures may be considered to be low. Overall, the roads in close proximity to the site can be considered to be safe for all users including pedestrians and cyclists.

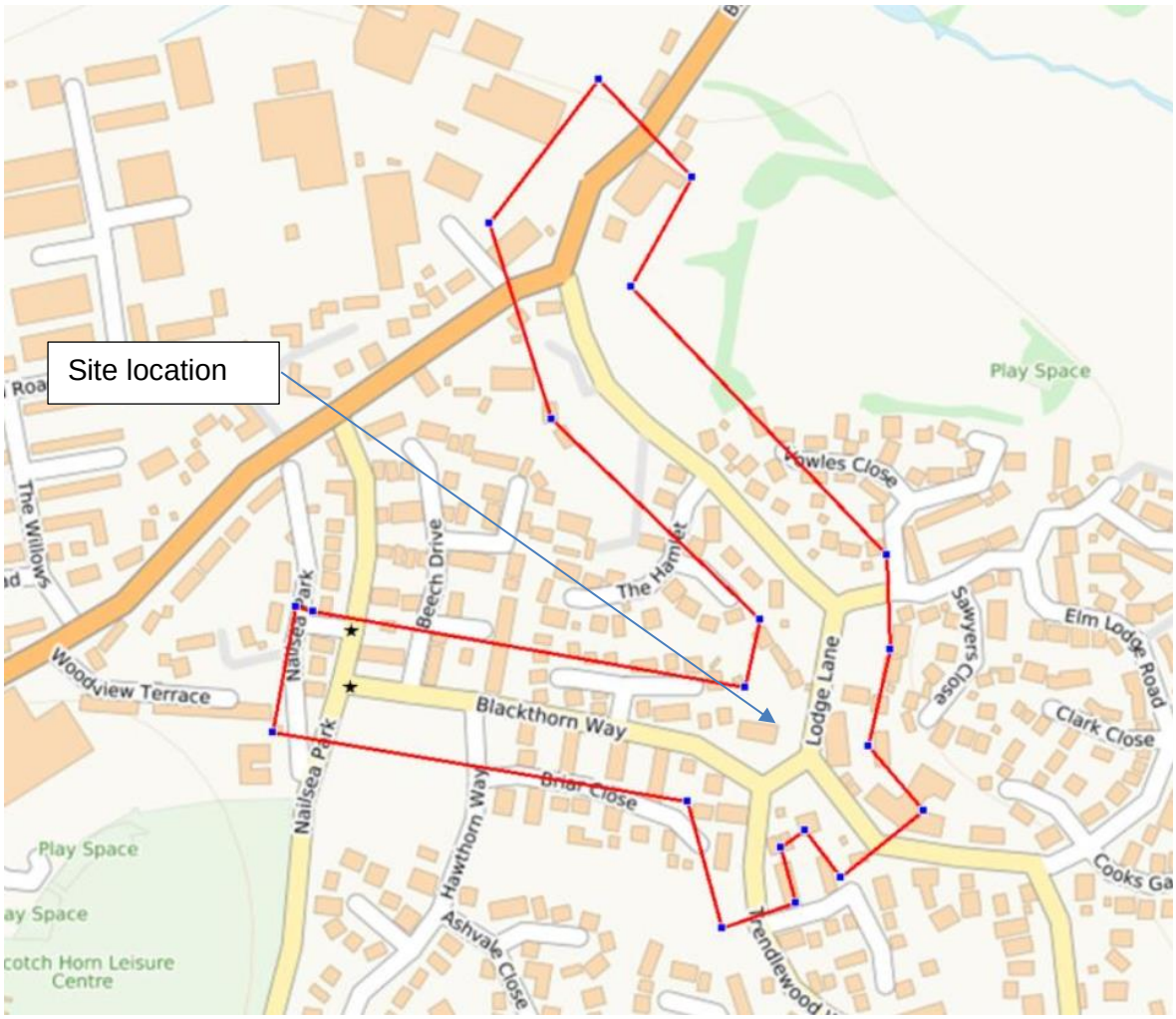


Figure 3-6: Collision results for Wotton Road (source: NSC)

PIA Ref	Date	Location	Severity	Casualties	Vehicles					
					Pedestrian	Pedal cycle	M/Cycle	Car	LGV (3.5-7.5T)	MGV (>7.5T)
191905645	21/09/19	Blackthorn Way at junction with Nailsea Park	Slight	2				2		
202003635	19/09/20	Nailsea Park	Slight	1		1				
			TOTALS	3		1		2		

Table 3-2: Road Accident Data for the most recent 5 year period (source: NSC)

3.5 Lodge Lane Traffic Speed

3.5.1 As part of the ATC, speed data has been collected. A summary of the speed data is shown in Table 3-3

	Northbound (mph)				Southbound (mph)			
	Flow	85%ile Speed	Mean Speed	Stand Dev.	Flow	85%ile Speed	Mean Speed	Stand Dev.
M	2112	27.4	23.6	3.7	1824	26	22.3	4.4
T	2198	27.3	23.6	3.7	1896	26.1	22.5	4.4
W	2258	27.4	23.6	3.8	2019	26.4	22.4	4.5
T	2178	27.1	23.6	3.6	1886	26.7	22.5	4.4
F	2281	27.5	23.8	3.6	1957	26.2	22.5	4.4
S	1644	26.9	23.5	3.7	1491	26	22.5	4.1
S	1471	26.7	23.4	3.8	1305	26	22.4	4.5

Table 3-3: Vehicle speed observations

3.5.2 In a northbound direction the mean speed is approximately 24mph and the 85th%ile is approximately 27mph. In a southbound direction the mean speed is 22-23mph and the 85th%ile approximately 26mph.

3.5.3 The visibility splays described in section 2.3 is in accordance with a 30mph speed for traffic approaching the site accesses. The table clearly shows that lowers speeds prevail in the area and therefore the visibility splays identified will be adequate for safe access to/ from the site.

4 TRIP GENERATION

4.1 Methodology

4.1.1 The TRICS database (standard industry method for forecasting trip generation from different land uses) has been used to forecast the trips generated by the proposed site. The same trip rates have also been used for the extant site as a comparison. Data for trip rates derived from the TRICS database are based on the following categorisations:

- Land use category 'RESIDENTIAL – HOUSES PRIVATELY OWNED'
- Sites located in south west England
- Sites of no more than 50 units
- Sites surveys between 2014 and present day
- Sites in 'Suburban', 'Edge of Town' and 'Neighbourhood Centres'
- Traffic survey data from Tuesday to Thursday only i.e. neutral days

4.1.2 The resulting trip rate forecasts are as follows (The TRICS outputs are contained in Appendix D).

4.1.3 The trip rates obtained from the TRICS database are as follows:

	IN	OUT	TOTAL
07:00-08:00	0.111	0.317	0.428
08:00-09:00	0.239	0.433	0.672
16:00-17:00	0.311	0.239	0.550
17:00-18:00	0.428	0.183	0.611
Daily	2.761	2.849	5.610

Table 4-1: Trip rates for proposed residential units – weekday, all vehicles (source: TRICS)

4.2 Extant Use

4.2.1 The trip generation from the existing use of the site is not observable as the property has been vacant for some time. Therefore, the trip rates above have been applied to the single units to give an indication of the trip making from the site

4.2.2 For the extant site, the following trip generation is forecast:

	IN	OUT	TOTAL
07:00-08:00	0.1	0.3	0.4
08:00-09:00	0.2	0.4	0.7
16:00-17:00	0.3	0.2	0.6
17:00-18:00	0.4	0.2	0.6
Daily	2.8	2.8	5.6

Table 4-2: Extant Residential Trip Generation (1 unit)

4.3 Proposed Use

4.3.1 The residential trip rates used for the proposed development are to be the same as for the

extant site. The forecast trip generation is shown below:

	IN	OUT	TOTAL
07:00-08:00	1	3	4
08:00-09:00	2	4	6
16:00-17:00	3	2	5
17:00-18:00	4	2	5
Daily	25	26	50

Table 4-3: Proposed Residential Forecast Trip Generation (9 units)

4.3.2 The total net trip generation for site i.e. the proposed minus the extant, will be as follows:

	IN	OUT	TOTAL
07:00-08:00	1	3	3
08:00-09:00	2	3	5
16:00-17:00	2	2	4
17:00-18:00	3	1	5
Daily	22	23	45

Table 4-4: Trip Generation - Net (9 Units)

4.4 Trip distribution

4.4.1 The traffic count data reported on in section 3.3 indicated an approximate 50/50 split between vehicles heading northbound and those heading southbound (see Table 4-5). This seems a reasonable split for the forecast development traffic whereby some vehicle trips will be attracted to the town centre and some will be attracted to the strategic road network, both of which can be reached by routeing in either direction.

	N'bound	S'bound
07:00-08:00	2	2
08:00-09:00	3	3
16:00-17:00	2	2
17:00-18:00	2	2
Daily	22	22

Table 4-5: Proposed Residential Units - Forecast trip distribution

4.5 Mode Share

4.5.1 Table 4-6 gives mode split as a percentage for journeys from the residential development based on Census 2021 data. This is based on 'journey to work' data and so excludes leisure, shopping, education etc. trip purposes, which might be made more locally. The data is for the census Output Area where the site is located i.e. E00074640. By extrapolating the forecast for 'car- driver' one-way trips from the above trip generation section, it is possible to forecast the number of one-way trips for the other modes of transport (see column 'forecast'). This is shown in the table, and the comments below are based on the 'excluding work from home' (WfH) values and those not in employment.

Method of Travel to Work	Census Observed	Census Modes	%	Forecast
Work mainly at or from home	61			
Underground, metro, light rail, tram	0			
Train	2	2	3%	1
Bus, minibus or coach	0	0	0%	0
Taxi	0	0	0%	0
Motorcycle, scooter or moped	0	0	0%	0
Driving a car or van	60	60	86%	23
Passenger in a car or van	1	1	1%	0
Bicycle	0	0	0%	0
On foot	7	7	10%	3
Other method of travel to work	0	0	0%	0
TOTAL	131	70	100%	27

Table 4-6: Travel to Work Mode Share Forecasts (data from Census 2021 for Output area E00074640)

4.5.2 It can be seen from the table that travel by car from the site is the dominant mode with a mode share of 86% (single occupancy). However, there are also a reasonable amount of trips forecast to be undertaken on foot with a mode share of 10%).

4.5.3 Public transport is due to train travel and bus use is shown to be zero. It should be noted though that these figures are for journeys to work and there is likely to be a greater number of trips undertaken by bus or cycle for non-work related travel purposes.

4.5.4 As shown in the section on sustainable travel, there are good opportunities to use non-car based travel in the local area so a mode split in favour of sustainable modes could be improved on compared to the above results.

5 TRAFFIC APPRAISAL

5.1 Development Traffic

5.1.1 This section reports on the work undertaken to assess the traffic impact of the proposed development. The method follows that which is set out in DfT's Travel Plans, transport assessments and statements in decision-taking. This compares the 'with' and 'without' development

5.1.2 Figure 5-1 shows the general (baseline) traffic on Lodge Lane along with the additional forecast development traffic (net of the extant use), which is shown in green.

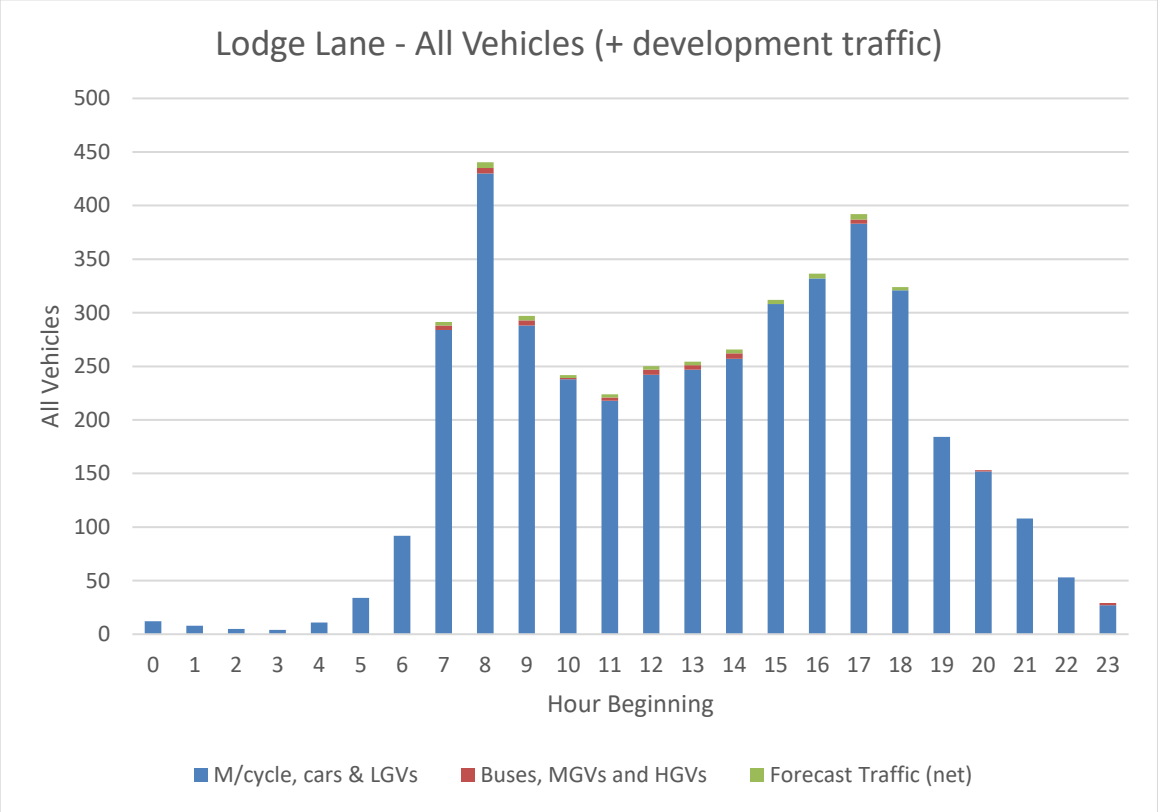


Figure 5-1: Lodge Lane – Vehicle Type Hourly + Forecast Development Traffic

5.1.3 It can be seen from the graph that the proposed traffic generated by the development is virtually imperceptible compared to the overall traffic flows. The increase in traffic represents no more than a 1.6% increase in any hourly period on Lodge Lane. In can therefore be concluded that the development will not have a detrimental impact on the surrounding road network in either the AM or PM peak hours, or as part of the daily traffic flows along Lodge Lane.

6 OTHER TRANSPORT MATTERS

6.1 Construction traffic

6.1.1 A Construction Traffic Management Plan (CTMP) will be developed post-consent. This will consider the expected numbers of construction vehicle movements by time of day and phase of development. In mitigation, hours of operation to avoid peak traffic periods and vehicle routes using the strategic road network will be identified. The plan will also describe specific mitigation measures that can be taken by a construction traffic logistics operator to mitigate impacts e.g. wheel washing to reduce soiling of the carriageway, damping down loads to reduce dust, turning off engines when idle etc.

6.2 Refuse Vehicles

6.2.1 Refuse collection is to take place from the kerbside on Lodge Lane (see Appendix A, Drawing No. SK0004). A proposed shared bin store will be located on the Lodge Lane access road to the site. This is within the acceptable distance allowable for a refuse operative to wheel a bin from the bin store to the refuse truck, and for a resident to wheel a bin from their property to the bin store.

6.3 Emergency Vehicles

6.3.1 The site offers clear access to all properties from the estate road for emergency vehicle access (see Appendix A, Drawing No. SK0005). All front doors are within the required 45m of the access road from where a fire appliance would operate. A fire appliance can circulate within the site and exit the site from Blackthorn Way.

7 SUMMARY & CONCLUSIONS

7.1 Summary

7.1.1 This TS has been prepared by Callidus Transport and Engineering Ltd on behalf of Gould Group Ltd, to accompany an outline planning application for a new residential development proposed on land known as Lydcott, Lodge Lane, Nailsea. The outline planning application will be for 9 residential units of 3 and 5 bed type properties. The development will replace the current vacant property on the site which is a single dwelling.

7.1.2 The site is located within the Nailsea settlement and is approximately 750m from the town centre. The development proposals include landscaping and associated infrastructure, including the internal road layout (which will remain private), footways, and proposed on-site car parking.

7.1.3 The development will be accessed via an improved footway crossover priority junction from Lodge Lane for development traffic IN, which is an established point of access to the site. For development traffic OUT, the access will be on Blackthorn Way. The accesses will be 3.75m wide to enable larger vehicles to enter the site. Visibility splays have been assessed for a 30 mph road at the point of egress and shown to be satisfactory for the speed of the road. However, survey observations show that vehicle speeds are actually much lower due in part to the close proximity of roundabouts on Lodge Lane and Blackthorn Way. Therefore, sightline visibility splays have been measured in excess of the prevailing traffic speeds.

7.1.4 The proposed car parking allocation fully complies with NSC's car parking standards. The design for the site layout has made provision for 21 allocated car parking spaces. Cycle parking will be provided for in secure sheds on each plot.

7.1.5 An analysis has been carried out of the site's accessibility and sustainability in transport terms. This has demonstrated that the site is accessible to local services and facilities required of everyday life including employment, education, shopping and healthcare, all of which can be found in Nailsea. There are opportunities to access many of these facilities by sustainable modes of travel such as walking, cycling or by bus. The site is within a short distance of bus stops that provide an hourly frequency bus service in each direction, serving a route between Nailsea and Bristol.

7.1.6 Road safety on the streets around the village has been examined using Personal Injury Accident records for the past five years, obtained from the NSC. This has shown there

have been 2 injury accidents within the search area in this period, both of which were classified as 'slight'. None were in the vicinity of the site access. It has been concluded that the streets surrounding the site are safe for general traffic and walking & cycling.

7.1.7 An analysis of the trip generation from the site has been undertaken. This have been derived from the TRICS database and is the net increase taking into account the extant use of the site. It is forecast that the site will generate 5 two-way vehicle trips in the AM 0800-0900 peak hour and 5 two-way vehicle trips in the PM 1700-1800 peak hour. A total of 45 vehicle two-way vehicle trips is forecast daily. It has been found that the development traffic will represent an almost imperceptible increase in traffic along Lodge Lane and will distribute beyond this such that it will have no detrimental impacts on peak hour traffic flows elsewhere on the road network.

7.1.8 Swept path analysis has been undertaken to show that the site is readily accessible by a fire appliance should it be required. The site can also be adequately serviced by a typical Council refuse truck with the refuse collection taking place from Lodge Lane. The TS has highlighted that the development will be supported by a construction traffic management plan to minimise construction traffic impacts.

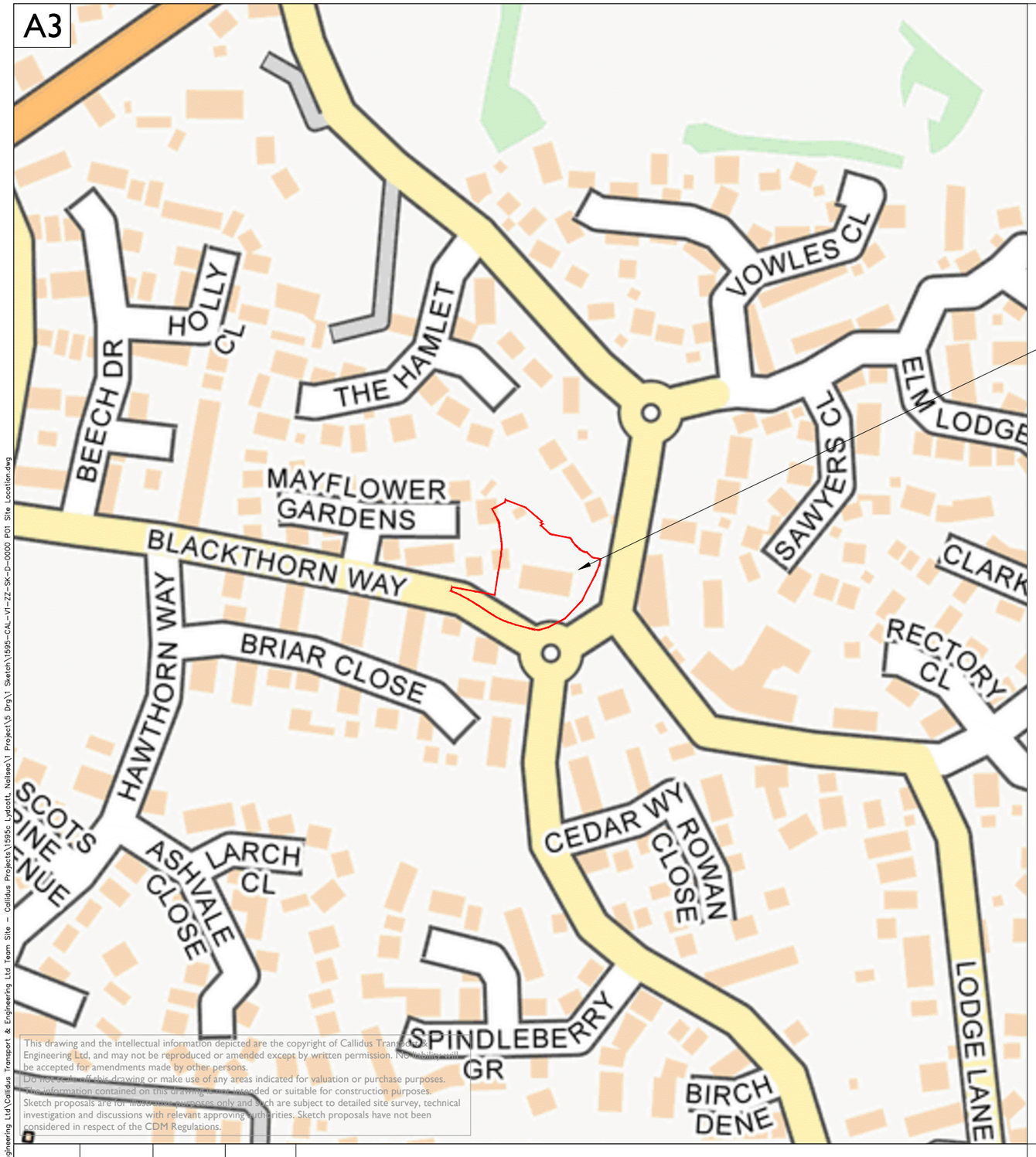
7.2 Conclusion

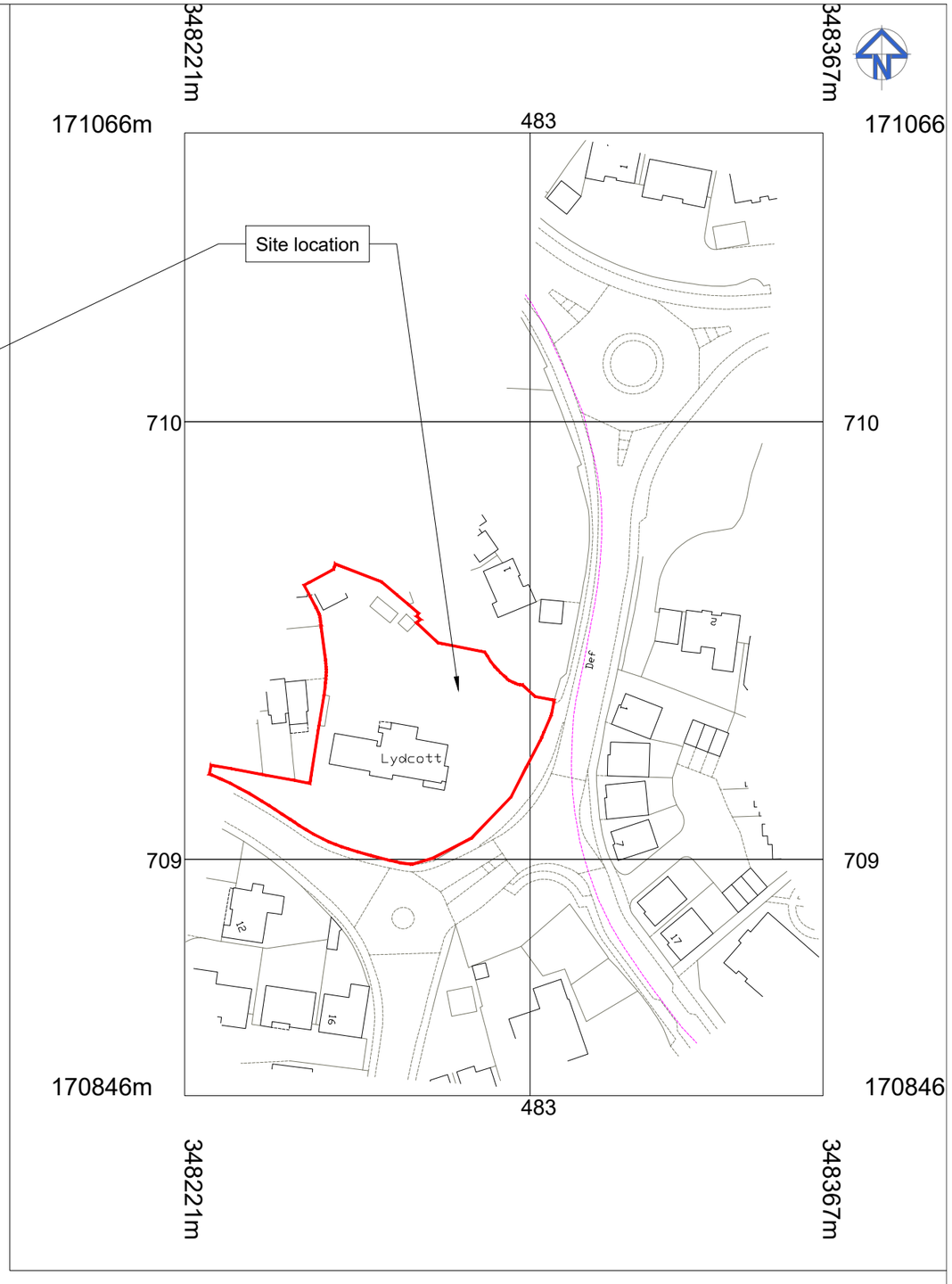
7.2.1 For the reasons given in this TS, the proposed development represents a sustainable location in which to construct new housing and will have minimal detrimental impacts on the local highway network. Therefore, there should be no reasons on transport and highways grounds why this proposal should not be acceptable to the determining Authority.

APPENDIX A

FIGURES & DRAWINGS

A3





REV	NAME	CHECK	DATE	NATURE OF REVISION
P01	RS	RS	12/06/23	Drawing Created

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STATUS:	PRELIMINARY
SCALE:	1:2500 & 1:1250
PAPER SIZE:	@ A3

Callidus Transport & Engineering

Callidus Project No:	TE1595		
Dwg. No:	1595-CAL-V1-ZZ-SK-D-0000	Rev:	P01
Project Title:	Lydcott, Lodge Lane, Nailsea, BS48 1BH		
Drawing Title:	Site Location		
Client:	Gould Group		

File Path: C:\Users\robe\Callidus Transport & Engineering Ltd\Callidus Transport & Engineering Ltd Team Site - Callidus Projects\1595c Lydcott, Nailsea\1 Project\5 Drg\1 Sketch\1595-CAL-V1-ZZ-SK-D-0000 P01 Site Location.dwg

A3

Notes: Visibility shown in accordance with DfT's Manual for Street for a 30mph road speed (or less where shown)

REV	NAME	CHECK	DATE	NATURE OF REVISION
P05	RS	RS	28/06/23	Updated masterplan
P04	RS	RS	20/06/23	Updated masterplan
P03	RS	RS	18/01/23	Vehicle crossover of footway added
P02	RS	RS	18/01/23	Indicative masterplan added
P01	RS	RS	14/12/22	Drawing Created
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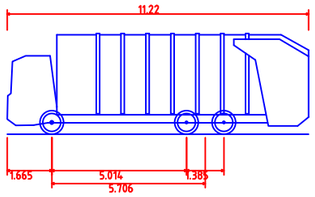
PAPER SIZE:	@ A3

Callidus Transport & Engineering

Callidus Project No:	TE1595		
Dwg. No:	1595-CAL-V1-ZZ-SK-D-0001	Rev:	P05
Project Title:	Lydcott, Lodge Lane, Nailsea, BS48 1BH		
Drawing Title:	Access Feasibility		
Client:	Gould Group		

File Path: C:\Users\rober\Callidus Transport & Engineering Ltd\Callidus Transport & Engineering Ltd Team Site - Callidus Projects\1595c Lydcott, Nailsea\1 Project\5 Drg\1 Sketch\1595-CAL-V1-ZZ-SK-D-0001 P05 Access Feasibility.dwg

A3



Phoenix 2 Duo Recycler (P2-15W with Elite 6x4 chassis)

Overall Length	11.220m
Overall Width	2.530m
Overall Body Height	3.756m
Min Body Ground Clearance	0.309m
Track Width	2.530m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	11.550m

REV	NAME	CHECK	DATE	REVISIONS
P02	RS	RS	28/06/23	Updated Masterplan
P01	RS	RS	20/06/23	Drawing Created

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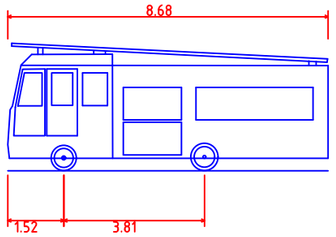
STATUS:	S8 - FOR PLANNING
SCALE:	1:500
PAPER SIZE:	@ A3

Callidus Project No:	TE1595		
Dwg. No:	1595-CAL-V1-ZZ-SK-D-0004	Rev:	P02
Project Title:	Lydcott, Lodge Lane, Nailsea, BS48 1BH		
Drawing Title:	Refuse Collection		
Client:	Gould Group		

File Path: c:\Users\Sam Parsons\Callidus Transport & Engineering Ltd\Callidus Transport & Engineering Ltd Team Site - Callidus Projects\1595c Lydcott, Nailsea\1 Project\5 Drg\1 Sketch\1595-CAL-V1-ZZ-SK-D-0004 P02 Refuse Collection.dwg

A3



DB32 Fire Appliance	
Overall Length	8.680m
Overall Width	2.180m
Overall Body Height	3.452m
Min Body Ground Clearance	0.337m
Max Track Width	2.121m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	7.910m

REV	NAME	CHECK	DATE	NATURE OF REVISION
P02	RS	RS	28/06/23	Updated Masterplan
P01	RS	RS	20/06/23	Drawing Created

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SCALE:	1:500
PAPER SIZE:	@ A3

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Callidus Project No:	TE1595		
Dwg. No:	1595-CAL-V1-ZZ-SK-D-0005	Rev:	P02
Project Title:	Lydcott, Lodge Lane, Nailsea, BS48 1BH		
Drawing Title:	Fire Access		
Client:	Gould Group		

File Path: C:\Users\Sam Parsons\Callidus Transport & Engineering Ltd\Callidus Transport & Engineering Ltd Team Site - Callidus Projects\1595c Lydcott, Nailsea\1 Project\5 Dwg\1 Sketch\1595-CAL-V1-ZZ-SK-D-0005 P02 Fire Access.dwg

APPENDIX B

SCOPING TECHNICAL NOTE

TECHNICAL NOTE

Project:	TE1595 - Lydcott, Lodge Lane, Nailsea, BS48 1BH
Date:	January 2023
Author:	Robert Spriggs (tel: 01225 303523)
Title:	Transport Technical Note

Introduction

1. Gould Group (the developer) wishes to submit a planning application for a residential development at Lydcott, Lodge Lane, Nailsea. The site currently has a single residential dwelling that is unoccupied. The developer wishes to redevelop the site with 6 new family homes with associated gardens, parking and access.

2. The purpose of this report is to consider the transport and access implications of the site. Callidus Transport & Engineering Ltd (the consultant) has been appointed to carry out the associated transport work.

3. The proposals are indicative at this stage but include the following:

    - 6 dwellings of 3+5 bedroom units
    - Parking for 17 cars, including in garages and potential car port
    - Access driveway connection to the public highway
    - Frontage to the public highway
    - Replacement planting
    - Central courtyard

4. The location of the development and preliminary layout of the site is shown in Appendix A. The site is located to the west side of Lodge Lane on a section of road between two roundabouts. The area is predominately residential in character. The speed limit on Lodge Lane is 30mph but vehicle speeds were observed to be lower due to the junctions and on street parking.

5. The site access is proposed via an existing established private driveway to the site. This will be improved as part of the development of the site.

6. The site is well located to benefit from local services and facilities and is less than 1km from Nailsea town centre.

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Trip Generation

7. A preliminary forecast of trip generation for the site has been undertaken. This has used the TRICS database (industry standard database for forecasting trips for different land uses) for the proposed use of the site

Proposed Use

8. The trip rates in Table 1 are derived from a TRICS analysis are for 'residential'. Only sites within the south west have been selected and the weekday period Monday to Thursday considered. The trip rates are for a weekday.

	IN	OUT	TOTAL
07:00-08:00	0.111	0.317	0.428
08:00-09:00	0.239	0.433	0.672
16:00-17:00	0.311	0.239	0.550
17:00-18:00	0.428	0.183	0.611
Daily	2.761	2.849	5.610

Table 1: Trip rates for proposed residential units - weekday (derived from TRICS analysis)

9. For 6 residential units, this would give the following trip generation for a weekday:

	IN	OUT	TOTAL
07:00-08:00	1	2	3
08:00-09:00	1	3	4
16:00-17:00	2	1	3
17:00-18:00	3	1	4
Daily	17	17	34

Table 2: Forecast trip generation for proposed residential units - weekday (based on 6 units)

Extant Use

10. For the extant use of the site, the same TRICS trip rates have been used. The TRICS trip generation for the extant use is shown in Table 3.

	IN	OUT	TOTAL
07:00-08:00	0.1	0.3	0.4
08:00-09:00	0.2	0.4	0.7
16:00-17:00	0.3	0.2	0.6
17:00-18:00	0.4	0.2	0.6
Daily	2.8	2.8	5.6

Table 3: Trip generation for extant use - weekday (derived from TRICS analysis – correct to 1 dec.pl.)

11. Comparing the results for the proposed and the extant use gives the following forecast trips for the site:

	IN	OUT	TOTAL
07:00-08:00	1	2	2
08:00-09:00	1	2	3
16:00-17:00	2	1	3
17:00-18:00	2	1	3
Daily	14	14	28

Table 4: Forecast trip generation (proposed – extant)

Access

12. The site is to be accessed via a private driveway at the same location as the existing established site access. However, the access will be improved as shown in Appendix A, drawing no. 1595-CAL-V1-ZZ-SK-D-001. This consists of widening the existing site access to enable a 5.5m wide driveway to the central court area. The access in the public highway will be of a vehicular footway crossover design. This allows the footway to be continuous across the access junction mouth.

13. The drawing shows the sightline visibility splays from the access in both directions, and also across to the junction on the opposite side of the road (also called Lodge Lane). The splays have been considered in the context of Manual for Street (DfT) which is appropriate for residential roads with a 30mph speed limit, and the x-distance measured is 2.4m.

14. The visibility splay to the north achieves a y-distance of 43m. Some vegetation clearance across the footway will aide this visibility splay. It would be excess of this to the opposite side of the carriageway which would seem reasonable as cars are unlikely to be travelling on the wrong side of the road on exit from the roundabout. To the junction on the opposite side of the road, the visibility is also in excess of 43m. Cars will be travelling slower here as they approach the giveway line to the junction.

15. The visibility splay to the south west is restricted by the curtilage of the site to 33.6m, which is appropriate for vehicle speeds of 25mph. Due to the position of the access between two roundabouts, speeds in practice are likely to be lower than 30mph and observations from site would suggest this to be the case.

Figure 1: Site access (looking north from Lodge Lane exit from mini-roundabout

16. In the context of the site location and given the intended use of the access, the access as proposed would in our opinion be appropriate to serve the proposed development.

Car parking

17. Car parking on the site will be provided for in compliance with North Somerset Council's Parking Standards Supplementary Planning Document (SPD November 2021). The provision and comparison with standards, which are set as 'minimums', is as shown below.

Type	NSC Standard	No. of units	Requirement	Provision
2 & 3 bed	2 spaces / unit	2	4	4
4+ beds	3 spaces / unit	4	12	13
TOTAL		6	16	17

Notes: NSC residential parking standards are minimums

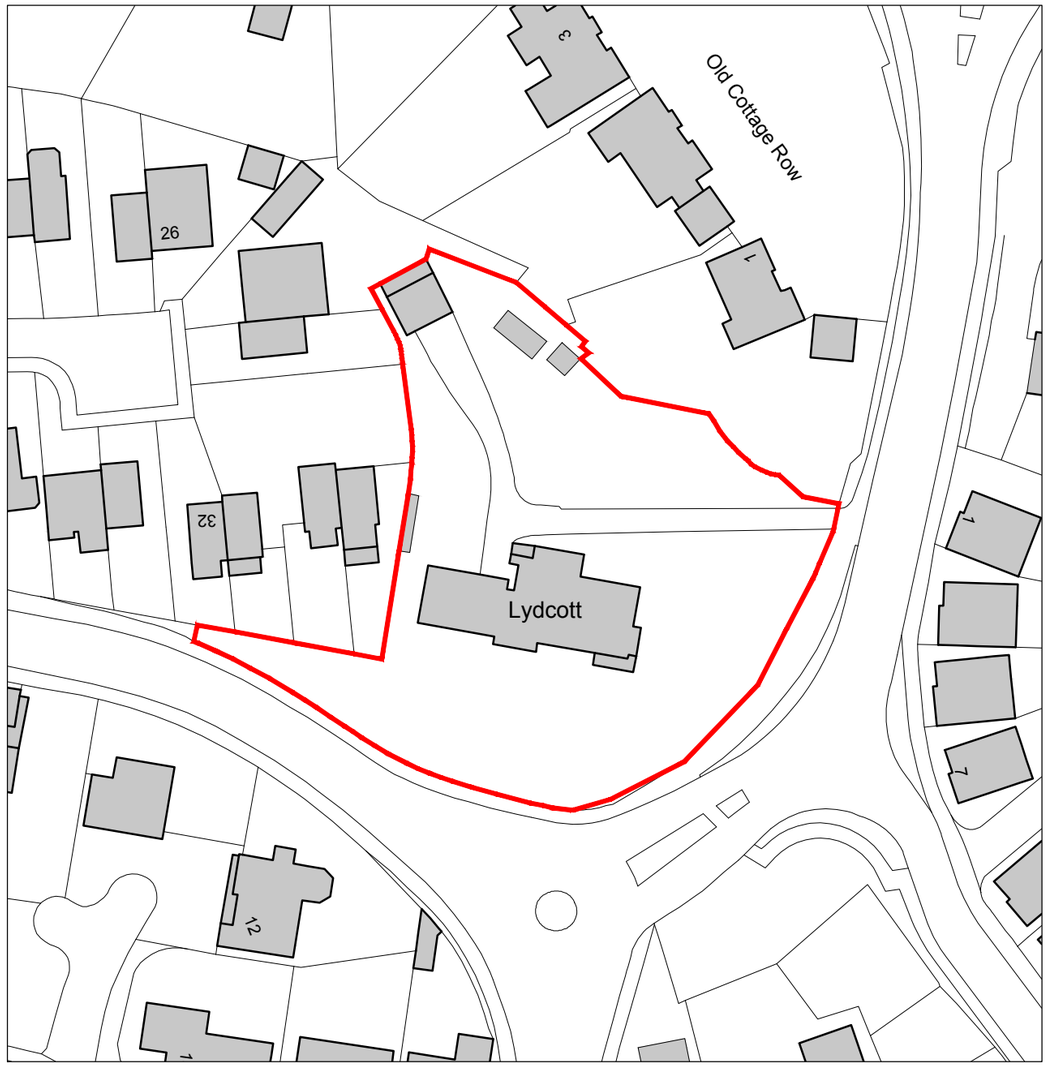
Table 5: Car parking provision (ref: NSC Parking Standards SPD November 2021)

Reporting

18. A Transport Statement will be prepared to accompany a planning application for the site. This will broadly consist of the following:

- Introduction
- Policy Review
- Baseline conditions (including accident data and sustainable travel)
- Trip generation
- Impacts & mitigation as required
- Conclusions
- Appendices

APPENDIX A – Figures



Existing Site Plan

Scale: 1:750

Sketch Proposals - Option 1

Scale: 1:750

Key Points

- Single-storey dwelling with gross internal area circa 226m²
- Double garage and several small outbuildings
- Plot of around 2,620m²
- Private driveway with poor access visibility

Key Points

- 6 dwellings
- Parking for 17 cars
- 3+5 bedroom units
- Dual with driveway connection to highway
- Orientation to highway
- Replacement planting
- Central courtyard
- Potential for car ports to H2 and H3

0m 15m 30m 45m 60m 75m

Scale

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Unit 5, Victoria Grove
Bedminster
Bristol, BS3 4AN
Tel: 01172 448 465
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www.Dexterdesigns.co.uk

Residential Development
Lydcott, Lodge Lane,
Nailsea, Bristol. BS48 1BH

PRELIMINARY DRAWING NOT FOR CONSTRUCTION

Revision no.

Project No.	1589
Cad File	1589_V0.1.dwg
Drawn	MD
Checked	JD
Date	18/07/2022
Scale	As shown @ A3

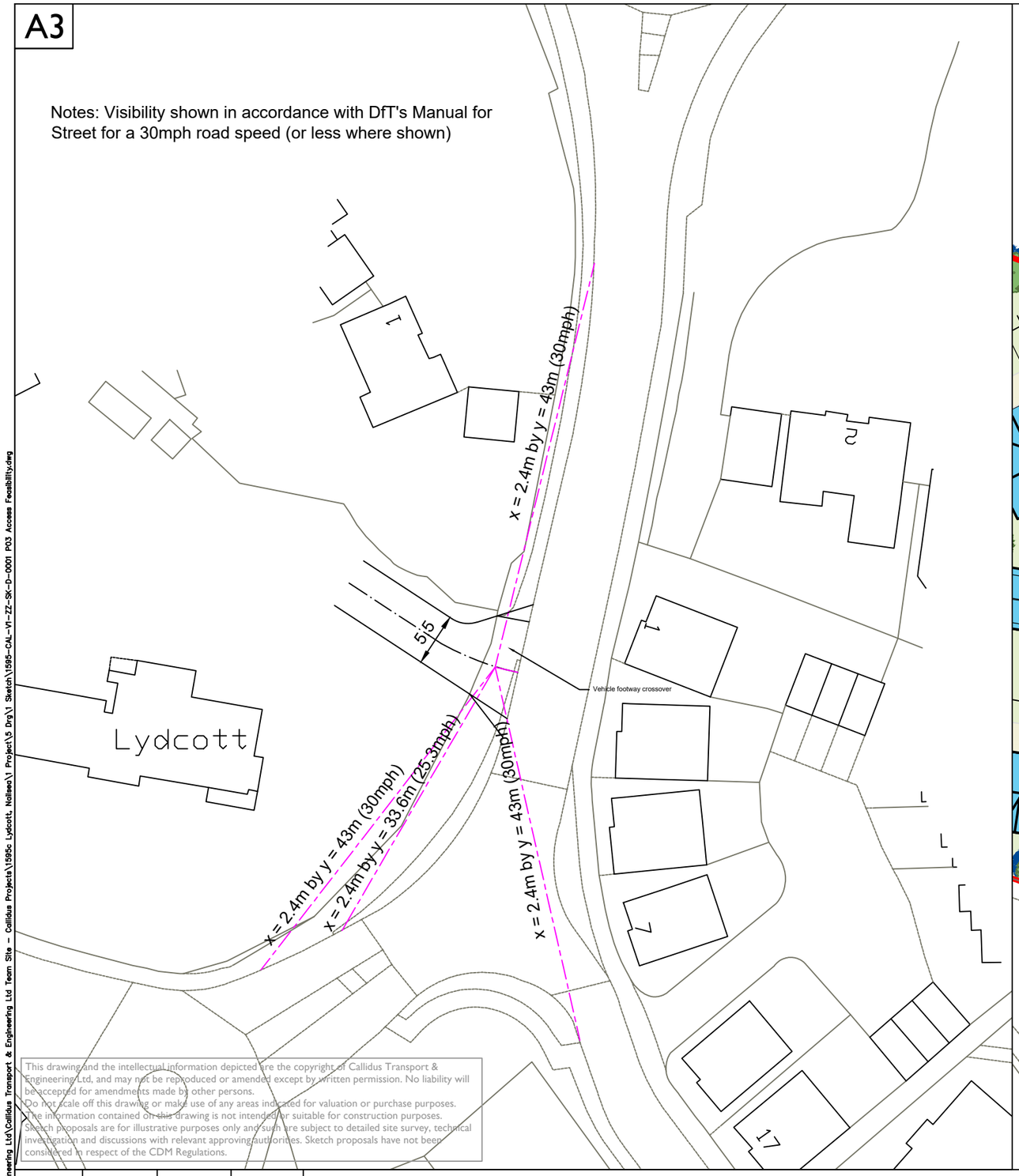
Title/No.

Sketch Proposals
Existing layout &
6 House Option

A001

A3

Notes: Visibility shown in accordance with DfT's Manual for Street for a 30mph road speed (or less where shown)



REV	NAME	CHECK	DATE	NATURE OF REVISION
P03	RS	RS	18/01/23	Vehicle crossover of footway added
P02	RS	RS	18/01/23	Indicative masterplan added
P01	RS	RS	14/12/22	Drawing Created

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Callidus Project No:	TE1595		
Dwg. No:	1595-CAL-V1-ZZ-SK-D-0001	Rev:	P03
Project Title:	Lydcott, Lodge Lane, Nailsea, BS48 1BH		
Drawing Title:	Access Feasibility		
Client:	Gould Group		

File Path: C:\Users\rober\Callidus Transport & Engineering Ltd\Callidus Transport & Engineering Ltd Team Site - Callidus Projects\1595c Lydcott, Nailsea\1 Project\5 Drg\1 Sketch\1595-CAL-V1-ZZ-SK-D-0001 P03 Access Feasibility.dwg

APPENDIX C

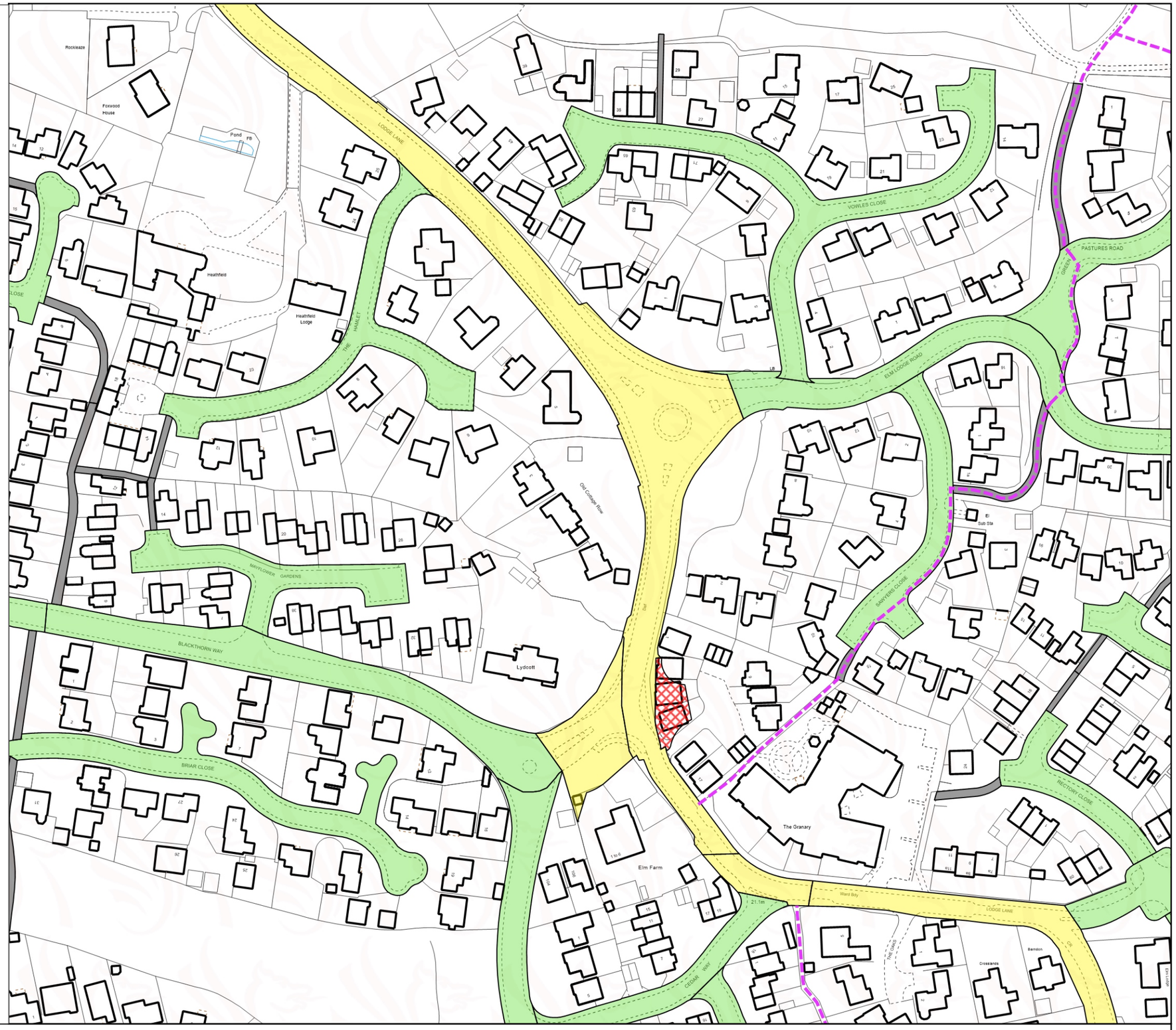
HIGHWAY BOUNDARY

Public Rights of Way

- BOAT
- Bridleway
- Footpath
- Restricted Byway

Highways adoption

- A Class Highway
- Adopted footpath/cyclepath
- B Class Highway
- C Class Highway
- Class 4 (Unclassified Road)
- Highways stopped up (closed)
- Pedestrianised Roads
- Prospectively Maintained Road (private road)
- Not-adopted with Section 38 Agreement
- Not-adopted with Section 106 Agreement
- Unclassified Road



LYDCOTT, LODGE LANE, NAILSEA, BS48 1BH

PB SEARCH 315964

Scale: 1:1500
Drawn by: Paine Bell
Date: 13 June 2023
Time: 13:59:54

N

APPENDIX D

TRICS DATA

Calculation Reference: AUDIT-718001-230118-0143

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

03	SOUTH WEST		
	SD	SWINDON	1 days
	SM	SOMERSET	3 days
	TB	TORBAY	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: 27 to 42 (units:)
Range Selected by User: 13 to 50 (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:

Tuesday	2 days
Wednesday	1 days
Thursday	2 days

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

Selected survey types:

Manual count	5 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:

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

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	3
Village	2

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	2 days - Selected
Servicing vehicles Excluded	3 days - Selected

Secondary Filtering selection:

Use Class:

C3	5 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®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	2 days
20,001 to 25,000	1 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:

50,001 to 75,000	1 days
75,001 to 100,000	2 days
125,001 to 250,000	2 days

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

Car ownership within 5 miles:

1.1 to 1.5	5 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	5 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	5 days

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

LIST OF SITES relevant to selection parameters

1 SD-03-A-01 SEMI DETACHED SWINDON
HEADLANDS GROVE
SWINDON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 27
Survey date: THURSDAY *22/09/16* *Survey Type: MANUAL*

2 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*

3 SM-03-A-02 MIXED HOUSES SOMERSET
HYDE LANE
NEAR TAUNTON
CREECH SAINT MICHAEL
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 42
Survey date: TUESDAY *25/09/18* *Survey Type: MANUAL*

4 SM-03-A-03 MIXED HOUSES SOMERSET
HYDE LANE
NEAR TAUNTON
CREECH ST MICHAEL
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 41
Survey date: TUESDAY *25/09/18* *Survey Type: MANUAL*

5 TB-03-A-01 TERRACED HOUSES TORBAY
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*

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
TOTAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	5	36	0.111	5	36	0.317	5	36	0.428
08:00 - 09:00	5	36	0.239	5	36	0.433	5	36	0.672
09:00 - 10:00	5	36	0.206	5	36	0.283	5	36	0.489
10:00 - 11:00	5	36	0.200	5	36	0.144	5	36	0.344
11:00 - 12:00	5	36	0.183	5	36	0.178	5	36	0.361
12:00 - 13:00	5	36	0.161	5	36	0.233	5	36	0.394
13:00 - 14:00	5	36	0.200	5	36	0.228	5	36	0.428
14:00 - 15:00	5	36	0.228	5	36	0.244	5	36	0.472
15:00 - 16:00	5	36	0.283	5	36	0.228	5	36	0.511
16:00 - 17:00	5	36	0.311	5	36	0.239	5	36	0.550
17:00 - 18:00	5	36	0.428	5	36	0.183	5	36	0.611
18:00 - 19:00	5	36	0.211	5	36	0.139	5	36	0.350
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.761			2.849			5.610

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.*

Parameter summary

Trip rate parameter range selected:	27 - 42 (units:)
Survey date date range:	01/01/14 - 19/11/21
Number of weekdays (Monday-Friday):	5
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.

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PLANNING SUPPORT SERVICES

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