

# TAYLOR WIMPEY STRATEGIC LAND

Land north of Cambridge Road, Linton

**Access Appraisal** 



# **DOCUMENT SIGNATURE AND REVIEW SHEET**

## **Project Details**

Project Title:	Land north of Cambridge Road, Linton		
Project No.:	1902-05 <b>Report No.</b> : 1902-05/TN/01		
Client:	Taylor Wimpey Strategic Land		

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Date	24/02/20	24/02/20	24/02/20

# **Document Review**

Revision	Date	Description	Checked By

Issued by:

Bristol
Cambridge
London
Manchester
Oxford
Welwyn Garden City

Transport Planning Associates

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# 1 INTRODUCTION

- 1.1 Transport Planning Associates (TPA) has been instructed by Taylor Wimpey Strategic Land in collaboration with the landowner to support the promotion of land to the north of Cambridge Road, Linton ('the Site'), for future residential development of up to 85 dwellings and assess its suitability in transport related terms.
- 1.2 The Site is an amended version of a previously submitted larger site which extended to land south of the A1307, and was originally submitted as part of the Greater Cambridge Local Plan: Call for sites 2019 consultation.
- 1.3 These submissions form part of a series of representations in response to the new Greater Cambridge Local Plan Issues and Options 2020 consultation which is seeking potential sites to be put forward and allocated for future development, in order to inform the upcoming Greater Cambridge Joint Local Plan.
- 1.4 As part of this call for sites, each site or location will be assessed on its suitability, availability and achievability for future development, with local planning constraints also considered.
- 1.5 In response to this criteria, key transport related matters will be addressed in relation to the Site. This will include the identification of achievable and appropriate access to the site for both vehicular and non-vehicular modes, followed by highlighting the accessibility of the Site to its surrounding context,
- 1.6 Overall, these submissions demonstrate that the site can be accessed by all necessary transport modes, will integrate into the local setting of Linton and is appropriately located to local amenities, facilities and services to encourage travel by sustainable modes.

### Report structure

- 1.7 The remainder of this report will be structured as follows:
  - Chapter 2: Access;
  - Chapter 3: Existing site accessibility;
  - Chapter 4: Highway capacity analysis;
  - Chapter 5: Review of Local Plan site allocations; and
  - Chapter 6: Conclusion.

# 2 ACCESS

- 2.1 Vital to the promotion of land for development is the delivery of an effective and safe form of access to ensure that the delivery of a suitable form of access that does not prejudice the safe operation of the local highway network.
- 2.2 This chapter of the report sets out the proposal for access to the site for all modes including by car and non-car modes. Where improvements to existing infrastructure are required, these are described and drawings presented where appropriate.

#### Vehicular access

- 2.3 To enable vehicular access into the site, it is proposed that a traffic signal junction with a right turn lane will be implemented, narrowing to the carriageway width to 5.5 metres wide.
- 2.4 The proposed access arrangement is shown in drawing number 190205/SK02 contained in **Appendix A**, which also includes consideration of the planned bus lane implementation being brought forward as part of the Greater Cambridgeshire Partnership, The Cambridge South East Transport Project.

### **Pedestrian access**

- As previously highlighted, there is no existing footway provision along the site frontage on the A1307. However, as part of the proposed transport and pedestrian improvements, which are shown in drawing number 1902/05/SK02 contained in **Appendix A**, a footway approximately 2 metres in width will be erected to connect into the existing Linton footway network to the west of the site. The carriageway width will be expanded accordingly and the existing footway will be upgraded to accommodate a 2-metre-wide width.
- 2.6 A 3-metre-wide pedestrian access will be delivered to connect into the existing public right of way extending up the western boundary of the site.
- 2.7 It was also highlighted that there is no pedestrian infrastructure to facilitate pedestrian crossings across the Grip / A1307 junction; therefore, an uncontrolled pedestrian crossing point will be implemented immediately before the Grip junction with the A1307, benefitting from tactile paving and dropped kerbs. This will also facilitate access to the industrial/employment area situated to the southwest of the site.
- 2.8 To the eastern extent of the site, immediately east of the filling station, it is proposed for a 2-metre-wide pedestrian access to be implemented on the north side of the A1307 carriageway. The access would also connect into the public right of way extending up the eastern site boundary.

- 2.9 Continuing north along the site eastern boundary, a pedestrian access will be installed to the immediate south of the ford crossing located on Mill Lane.
- 2.10 Furthermore, in correspondence with the public right of way extending across the northern boundary of the site, two pedestrian access points are proposed to be implemented to connect into the existing footbridges across the River Granta and will link into the public rights of way.
- 2.11 These access points will be to the northwest and northeast of the site respectively, and which as aforementioned are demonstrated in drawing number 1902/05/SK02.

## 3 EXISTING SITE ACCESSIBILITY

- 3.1 The proximity to local facilities, amenities and services is an important consideration in determining the location for development. These submissions include an examination of available walking routes, which will highlight the scope for sustainable modes of transport to be taken up, and support the Site's accessibility and thus sustainability in transport related terms.
- 3.2 This chapter of the report, in accordance to the criteria for highlighting sites' suitability, availability and achievability for future development, considers the existing travel opportunities within the vicinity of the site for vehicular and non-vehicular transport modes.

### **Promotion site**

- 3.3 The Site is currently an agricultural field which is crossed by a number of existing public rights of way. A treeline hedge extends along the Site frontage which is situated immediately to the north of Cambridge Road, the A1307, the principal transport route between Haverhill and Cambridge.
- 3.4 The Site location is presented in **Figure 3.1**.
- 3.5 The Site is situated to the immediate south of Linton, a village located to the southeast of Cambridge in South Cambridgeshire. The Site lies immediately adjacent to the existing residential areas of Linton, with residential dwellings and gardens forming the eastern boundary of the Site. Greenspace, the River Granta and further residential areas form the northern boundary of the Site, with further residential areas, including Linton Primary School further north.
- 3.6 Mill Lane and Pocket Park extend to the west of the Site, and to the south the Site is bounded by the A1307 and agricultural fields, with an industrial estate and further residential dwellings to the southwest.
- 3.7 The site is an obvious extension of Linton, being adjacent to the exiting residential areas to the north and east, forming a natural extension to the existing built form of the village.

### Pedestrian and cyclist

3.8 Ensuring that availability for journey to be undertaken by foot or by cycle provide realistic opportunities to replace short distance journeys. Therefore, to demonstrate the Site accessibility and therefore suitability for prospective residential development, a review of surrounding pedestrian and cyclist access has been undertaken. This will demonstrate the achievability of the Site in aiding journeys to be undertaken easily and directly to nearby facilities and amenities via active modes of travel through the integration with existing walking and cyclist infrastructure.

- 3.9 Currently within the Site there are existing public rights of the way which are illustrated in Figure 3.2. Extending to the northern boundary of the Site, these provide shorter more direct routes to key facilities located to the north of the Site in Linton, such as Linton Primary School.
- 3.10 Currently, there is a footway provision along the site frontage on Cambridge Road, the A1307 connecting the Public Right of Way (Footpath 146/14) from the west. Improved footway provision would be delivered as part of the prospective development and is highlighted later.
- 3.11 A footway exists along the A1307 approximately 70 metres west of the site, and will be widened. The footway is currently approximately 1 metre in width, extending in a north western direction. The footway continue northwest along the A1307.
- In addition to the footway on the northern side of the road, to the west of the A1307 junction with The Grip, the footway on the southern side of the carriageway is present and continues to the west. Approximately 50 metres to the west of the junction, the footway widens to approximately 2 metres wide and is separated from the road carriageway via a metal railing.
- 3.13 To the northwest of the site in the vicinity of the High Street, a traffic signal controlled pelican crossing provides a controlled crossing point for pedestrian movements between the southern and northern side of the A1307. The crossing also facilitates movements to eastbound bus services, situated approximately 400 metres from the site.
- 3.14 To the west of the pelican crossing, footway provision continues on both sides of the road with the northern side of the A1307 catering for journeys westward to Linton Village College.
- 3.15 The footway on the northern side of the A1307 temporarily stops at the junction with High Street. There is no pedestrian crossing point provided at the junction, but as part of the Greater Cambridgeshire Partnership 'A1307 Cambridge South East Transport Project', the junction is to be signal controlled with a combined pedestrian cycle track delivered along the northern side of the A1307.
- 3.16 Mill Lane, which extends along the eastern boundary of the site, provides an alternative route into Linton. Mill Lane is a country lane with a reduced width and no footways provided.
- 3.17 The ford crossing with segregated pedestrian facilities are present on Mill Lane to allow movements across the River Granta to the north of the Site.
- 3.18 High Street extends north and has a mixed residential / commercial character, characterised with direct frontage to residential dwellings and shops, benefitting from street lighting, as well as providing access to a number of residential streets via priority junctions.
- 3.19 The footways further along High Street vary in width with specific localised sections of narrowing, but act as a main thoroughfare route throughout Linton. This continuous

pedestrian infrastructure helps to provide access to a number of facilities, including Linton Primary School.

3.20 Overall, the existing pedestrian infrastructure in proximity of the Site is deemed to be good, and highly appropriate by enabling direct access to key facilities located within Linton, including the nearby schools and local shops, therefore, reinforcing the accessibility of the Site.

### Cycling

3.21 Whilst, there are no formal cycling facilities or cycle routes provided within Linton, given the residential character of the village with low speed limits, it is deemed that journeys by bike if pursued would be achievable and suitable, for example accessing the village amenities.

## **Public transport**

Bus

3.22 The nearest bus stops to the site are located approximately 400 metres west of the site, accessible via a 5-minute walk or 1-minute cycle, located on the A1307. These benefit from a bus flag pole and a timetable information board with on carriageway bus laybys. Table 3.1 summarises the local bus services that serve these stops.

Table 3.1 Local bus services

Service	Route	Frequency		
No.	Route	Monday - Friday	Saturday	Sunday
13 <sup>1</sup>	Cambridge – The Abingtons – Linton - Haverhill	Hourly service	Hourly service	Hourly service
13A <sup>1</sup>	Haverhill – Linton – The Abingtons - Cambridge	Hourly service	Hourly service	No service
X13 <sup>2</sup>	Cambridge - Linton - Haverhill	8 daily services	Single service daily	
19 <sup>2</sup>	Haverhill - Linton - Burrough Green	5 daily services	No service	No service
46 <sup>2</sup>	Streetly End - Dullingham - Newmarket	Single service daily	No service	No service
F29 <sup>2</sup>	Saffron Walden - Linton - Bartlow (Circular)	3 daily services (Tuesday only)	No service	No service

- 3.23 The information presented in Table 3.1 indicates that highly frequent bus services to a variety of key destinations can be accessed from the nearby bus stop, including to Addenbrooke's Hospital, Cambridge Bus Station, Hills Road and Haverhill.
- 3.24 Currently, there is a direct footway provision from the Site to the nearby bus stops, however it is limited in width. As part of the development, footway improvements would be provided and connect into the existing footway along the northern side of the A1307 to ensure direct access to the bus stops.

Greater Cambridgeshire Partnership: The Cambridge South East Transport Project

- 3.25 Made up of two phases, Phase 1 looks at road safety, walking, cycling and bus priority measures along the A1307 between Haverhill and Cambridge. **Appendix B** contains a route map of the locations of these schemes.
- 3.26 Of relevance to Linton, and therefore the prospective development site, is the proposed measures to install:
  - Linton Village College signal upgrade;
    - Upgrading the existing traffic signals to reduce delays by implementing an upgraded control system. This would more effectively balance demand and queueing and also increase capacity
  - Signalised junction with Linton High Street;
    - Modifying the existing traffic signals at the A1307/High Street junction to help get buses from the High Street onto the A1307. The existing pedestrian crossing close to the High Street junction would be incorporated into the new signalised layout, with a pedestrian phase.
    - A right-turn ban (except for buses) from the High Street to minimise queue lengths at the junction.
  - Measures to ease bus movements in Linton; and
  - Westbound bus lanes on the approach to B1052 junction.
    - A new westbound bus lane on the A1307 on the approach to B1052 Hadstock Road junction to bypass queueing traffic.
    - The carriageway would need to be widened on both sides within the public highway boundary and would require some removal of verges and trees.
    - Bus priority signals would give priority to buses at the B1052 junction
- 3.27 To ease bus movements through Linton, the proposed improvements identify the implementation of westbound bus lanes, which will be situated directly adjacent to the site frontage. Therefore, not only aiding the reliability and thus accessibility of the site, but the proposed access from the site will accommodate these proposed changes.

Rail

3.28 The nearest railway stations from the site are Great Chesterford and Whittlesford Parkway.

- 3.29 Great Chesterford Station, is located approximately 9km south from the site via an approximate 30-minute cycle ride travelling southbound down Linton Road to the northern boundary of Hadstock and continuing into Cow Lane which connects into Great Chesterford.
- 3.30 The character of the road is a minor country lane which would be more attractive for cycle journeys. According to the Cycle Infrastructure Design Local Transport Note 2/08 issued in October 2008, bike to rail journeys have strong potential to replace car centred commuting for longer journeys. It is highlighted that a large proportion of the population live within 5 miles of a railway station.
- 3.31 Whilst the station is approximately 5.6 miles from the prospective development site, as highlighted in the Cycle Infrastructure Design, for commuter journeys a trip distance of over five miles is not uncommon, which given the route character from the site to the station would be conducive to usage by cyclists.
- 3.32 Great Chesterford is operated by Greater Anglia and runs services to Cambridge North, Cambridge, Ely with half hourly services to London Liverpool Street, and benefits from cycle parking facilities.
- 3.33 Additionally, Whittlesford Parkway Station is located approximately 9.4km west of the site and is run by Greater Anglia, equipped with cycle parking facilities. The station operates services to Cambridge North, Stansted Airport, Norwich, Ely, with 4 hourly peak services to London Liverpool Street, which is accessible via an approximate 60-80-minute journey, and to Cambridge, reachable by a 10 15-minute journey.
- 3.34 Therefore, in regards to the Site location, it is regarded that journeys to work commuting by train would be a viable option, thereby highlighting the Site accessibility to nearby public transport facilities and achievability in support travel to work patterns for prospective residential development on the Site.

### Vehicular Highway Network

- 3.35 Immediately adjacent to the Site's Southern boundary is the A1307 Cambridge Road, a single carriageway, two-way road with a 50mph speed limit. The A1307 bypasses the southern boundary of Linton and provides one of the principal radial corridors into Cambridge..
- 3.36 To the east, the A1307 provides alternative vehicular access points into Linton via priority-t junctions with Bartlow Road and Horseheath Road. Continuing eastwards, the A1307 becomes a dual carriageway, subject to the national speed limit, and provides access into Horseheath before connecting into Haverhill.
- 3.37 To the west of the Site, The A1307 is subject to a 40mph speed limit and forms a junction with High Street, providing access into the eastern part of Linton.

- 3.38 The A1307 further provides access onto the B1052 via a priority T-junction with the Grip, which continues south, and is a single carriageway, two-way road initially subject to a 30mph speed limit before increasing to the national speed limit, after Linton Zoo. This enables access to Great Chesterford and to Saffron Walden situated further south.
- 3.39 Continuing northwest on the A1307, this provides access into the Linton residential network via various priority t junctions. Approximately, 5.6 kilometres from the site, the A1307 meets into an on slip at grade roundabout which provides access onto the northbound and southbound movements on the A11.
- 3.40 The A11 is part of the strategic highway network and is a dual carriageway, subject to the national speed limit. To the northeast, the A11 connects into the A14, whilst to the immediate south of the on slip at grade roundabout, the A11 provides access into the A505, and further south provides access onto the M11 which provides a direct route to Cambridge.

#### Local facilities

- 3.41 In the context of promoting sustainable development, it is important that promotion sites be well situated in the vicinity of local amenities, facilities and services that do not require journeys to be undertaken by car and can be realistically achieved by foot or by cycle. Furthermore, it is important to identify that sites are well located and provide access to local employment to further reduce reliance on car based journeys.
- The site is located in an accessible location and benefits from a variety of amenities within walking and cycling distance of the site. A summary of these facilities is presented in Table 3.2 and in **Figure 3.3**. The distance towards these facilities along with approximate walking and cycling times based on speeds of 4.8kph (3mph) and 19kph (12mph) respectively is also included.
- 3.43 The distance from the site to the key local facilities has been derived from the proposed site access.

Table 3.2 Summary of local services and facilities

Local facilities	Distance (m)	Time taken on foot (min)	Time taken on bike (min)
The Crown Inn Public House	400	5	1
Nearest bus stop	400	5	1
The Grip Industrial Estate	500	6	2
Linton Church of England Infant School	500	6	2
Linton Post Office	550	7	2
Village Pharmacy	600	8	2
Granta Medical Practice – Linton Health Centre	650	8	4
Linton Zoo	650	8	2
Со-ор	700	9	4
Linton Community Sports Centre	800	10	2
Linton Village College	1100	14	4
Linton Heights Junior School	1500	19	7

- 3.44 Table 3.2 indicates that a number of key amenities are accessible within walking and cycling distance of the site. It should be noted that the summary presented in Table 3.2 is not exhaustive and other facilities exist in the area, including a veterinary surgery, further eateries and a Linton Police Station and Linton Community Fire & Rescue Station.
- 3.45 To enable an assessment of the viability of walking between the site and key destinations in the local area, it is appropriate to establish the maximum distance that people are generally prepared to walk and the amenities within these distances.
- 3.46 The Institute of Highways and Transportation (now known as the Chartered Institute of Highways and Transportation) has produced guidance and guidelines setting out for providing journeys on foot (2000). In this guidance document, it states in paragraph 3.32 and Table 3.2 that the preferred maximum walking distance to facilities is circa two kilometres. The distances for various land uses are summarised in Table 3.3 below.

Table 3.3 Acceptable walking distances (metres)

Definition	Commuting/School	Elsewhere
Desirable	500m	400m
Acceptable	1,000m	800m
Preferred maximum	2,000m	1,200m

Source: Providing for Journeys on Foot, IHT, 2000

- 3.47 The information presented in Table 3.3 indicate that the distance from the proposed site access that the nearest bus stops, the Grip Industrial Estate Linton Infant School is within the 500 metre desirable radius, and the with the exception of Linton Village College, the outlined amenities are within an acceptable radius from the site access.
- 3.48 Therefore, this confirms the site's accessibility and sustainability to nearby key facilities, including schools, shops and doctors.

## **Summary**

- 3.49 These submissions demonstrate firstly the suitability of the Site given that it is surrounded by residential development with the promotion site forming a natural extension to the existing built form of Linton. Linton has a range of existing facilities, amenities and services with the Site benefitting from strong access by non-car modes ensuring sustainable access to a variety of nearby everyday amenities. Secondly, there is good surrounding pedestrian infrastructure and walking routes with nearby connections to public transport facilities.
- 3.50 Therefore, the Site's ability to support future residential development is robust, by being situated in a sustainable location, which would support the relevant transport needs of future residents.

## 4 HIGHWAY CAPACITY ANALYSIS

- 4.1 To demonstrate that the proposed site access arrangements connect with the A1307 and operate acceptably in addition to ensuring that the proposed traffic signal junction integrates with the Greater Cambridgeshire Partnership proposals along the A1307 in the vicinity of the site, highway capacity analysis has been undertaken. This analysis also shows the likely change in traffic flows along the A1307 as a result of the introduction of a traffic signal controlled junction at this location.
- 4.2 The forecast vehicular generation associated with the proposed residential development of 85 units for the Site has also been identified and assessed.

Forecast trip generation

- 4.3 As part of this report, the feasibility in accommodating a capacity of up to 85 dwellings on the prospective development site will be determined.
- 4.4 To determine a likely vehicle forecast generation, the TRICS database was interrogated under land use code 03 *Residential*, sub-category, C *Houses privately owned*, to derive trip rates for a sample of sites considered representative of the proposed development.
- 4.5 The following selection criteria was applied:
  - London, Scotland, Wales and Ireland sites omitted;
  - Sites with dwelling numbers between 35 135 dwellings; and
  - Weekdays surveys only.
- 4.6 A copy of the TRICS output report is contained in **Appendix C**.
- 4.7 Table 4.1 summarises the total vehicular trip rates derived from TRICS during the morning and evening peak hour periods that would be generated for up to the maximum capacity of 85 units.

25

36

12

rates

**Total trips** 

**Total** 

	Morning peak (08:00 – 09:00)		- 09:00) Evening peak (17:00 - 1	
	Arrivals	Departures	Arrivals	Departures
Total vehicular trip	0.119	0.323	0.289	0.137

27

Table 4.1 Forecast vehicular trip generation

4.8 The vehicular trip rates presented in Table 4.1 indicate that in the morning peak hour period a total of 38 two way trips can be anticipated and a total of 36 two way trips forecast for the evening peak hour period. This approximately equates to a vehicle generation every 2 minutes, which is considered a minimal increase on the local highway network.

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- The JCT software package LinSig Version 3 has been used to test the performance of the traffic signal controlled junctions within the study area, which requires traffic flow information to be entered as Passenger Car Units (PCU) values. The critical outputs from the model are the Practical Reserve Capacity (PRC) for the junction as a whole, the Degree of Saturation (DoS) for each individual link or lane and the corresponding Mean Maximum Queue (MMQ). The MMQ represents the length of the queue after which the approach to the junction would operate under free-flow conditions and accounts for vehicles queueing during the red phase and those that join the back of the queue whilst the front is discharging on a green signal.
- 4.10 Typically for the purposes of capacity analysis, an arm, link or lane of a junction is identified to be operating within capacity when the model forecasts a DoS of less than 100%. A junction is considered to be operating within normal free flow conditions / theoretical capacity when the arm, link or lanes of a junction are operating with a DoS of less than 90%.
- 4.11 Table 4.2 presents the summary of the output modelling results of the operation of the junction under the loading of projected traffic along the A1307 and the proposed development traffic flows for a future year of 2025.

Table 4.2 Proposed Site Access Highway Capacity analysis

	Morning Peak		Evenin	g Peak
	DoS (%)	MMQ	DoS (%)	MMQ
A1037 Cambridge Road (West) left and ahead	47.0	6.2	85.7	24.3
Proposed Site Access	17.6	0.7	7.9	0.3
A1037 Cambridge Road (East) ahead and right	77.8	17.5	50.4	6.6
Westbound Bus Gate	4.0	0.2	3.0	0.2
Westbound A1307 Cambridge Road at bus gate	77.3	3.4	49.3	1.4
Practical Reserve Capacity	15.6%		5.0	)%
Total Delay over all arms	6.75 pcuHr		7.12	ocuHr
Cycle Time	90 seconds		90 seconds	

4.12 The results presented within Table 4.2 identify that the junction would continue to operate within capacity on all approached to the junction, with no approach operating with a DoS greater that 90%.

# 5 REVIEW OF LOCAL PLAN SITE ALLOCATIONS

- 5.1 Adopted in September 2018, the South Cambridgeshire Local Plan covers the period up to 2031 and contains a number of policies and land allocations that will be used to guide planning applications for future development.
- 5.2 Under Policy H/6: South of A1307, Linton residential development will not be permitted other than improvements to existing properties due to the role of the A1307 as a major transport route, and the partition of the southern part of Linton from the rest of the settlement.
- 5.3 As the proposed development site is to the north of the A1307, and would connect into the Linton residential network and its amenities via existing public rights of way to the north of the site, and therefore without utilising the A1307. This reinforces the sustainable location of the site as an extension of Linton and its suitability for future prospective residential development.
- 5.4 The South Cambridgeshire adopted policies for Linton have been extracted, along with the key for the site allocations, and are contained in **Appendix D**.
- Of relevance to the site, land to the immediate north of the site and the River Granta, Policy NH/12-046, has been classified under as green space. Another area of the land to the north of the site, where the nearby church is situated has also been designated as protected village amenity area, but is not applicable within the site boundary.
- 5.6 Therefore, the existing public rights of way which extend through the site and to the north will be safeguarded, therefore aiding journeys via walking, to nearby facilitates situated to the north of the Site, like Linton Primary School. This supports the accessibility of the site.
- 5.7 The site is also in close proximity to the area of Linton which is designated under as a conservation area. However, the site is not situated within this boundary.
- 5.8 What this demonstrates is that the promotion of future residential development at the Site is policy compliant, with no current allocations or restrictions. Therefore, the Site is achievable for development in accordance with the call for sites criteria.

## 6 CONCLUSION

- 6.1 Transport Planning Associates has been instructed by Taylor Wimpey Strategic Land to provide transport planning consultancy services in supporting the promotion of prospective residential development site for 85 dwellings at land north of Cambridge Road, Linton.
- 6.2 This forms part of the site identification for the Greater Cambridge Local Plan Issues and Options 2020 consultation, with sites to be assessed and allocated on their suitability, availability and achievability for future development.

Access

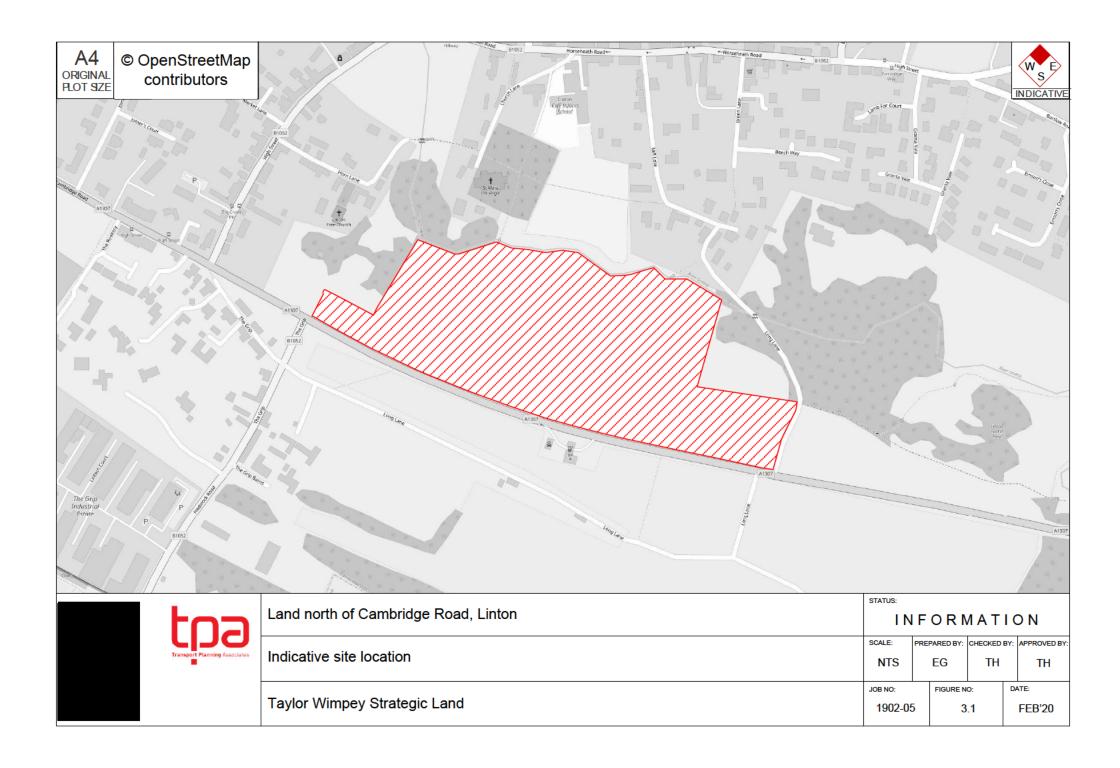
- 6.3 Vital to the promotion of land for development is the delivery of an effective and safe form of access to ensure that the delivery of a suitable form of access that does not prejudice the safe operation of the local highway network.
- 6.4 Vehicular access is proposed to be taken from the site frontage along the A1307 via a priority T-junction, which will be situated more to the western extent of the site and has been demonstrated to operate within capacity and be deliverable without prejudice to the delivery of the proposed Greater Cambridgeshire Partnership scheme for the A1307.
- 6.5 In regards to pedestrian access, the existing public rights of way will be formalised and permit not only internal site movements but movements to the north of the site into Linton, and therefore direct access to key facilities, such as the nearby primary school.
- As highlighted, in conjunction with the proposed pedestrian improvements, the site would connect into the existing pedestrian infrastructure into Linton further encouraging pedestrian and cyclist movements. It is not considered that the forecast vehicular trip generation would not result in a severe residual impact on the surrounding highway network and would be accommodated by the proposed access.

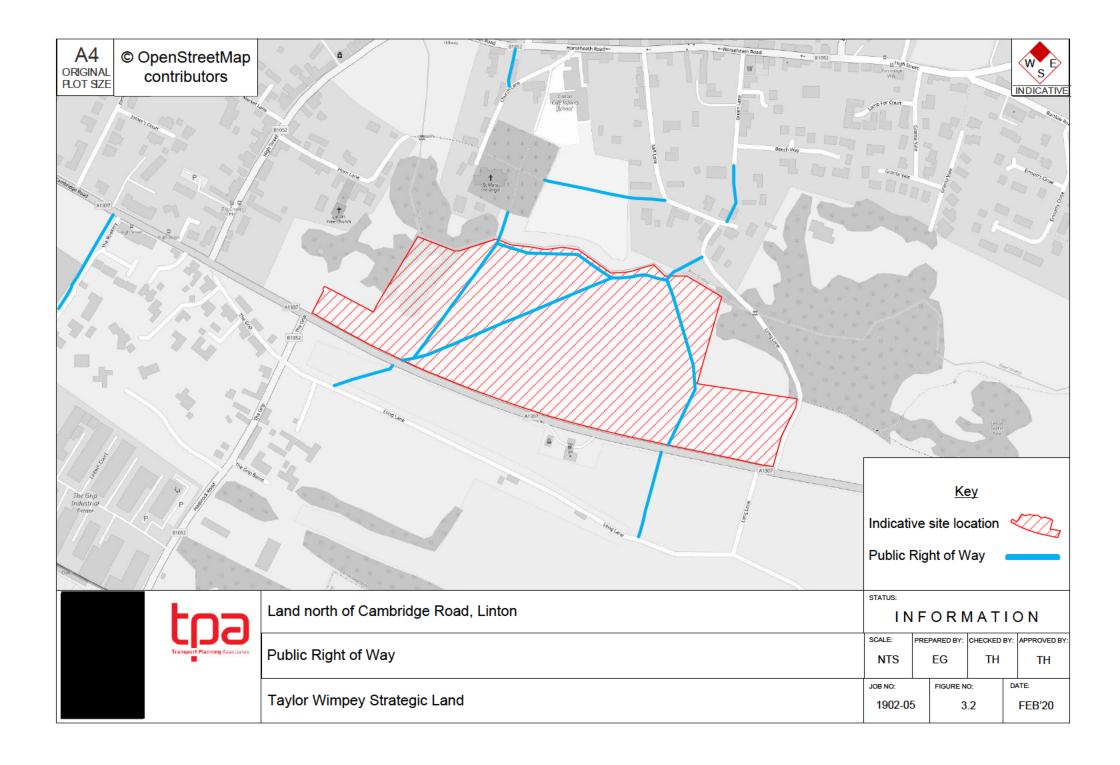
Accessibility

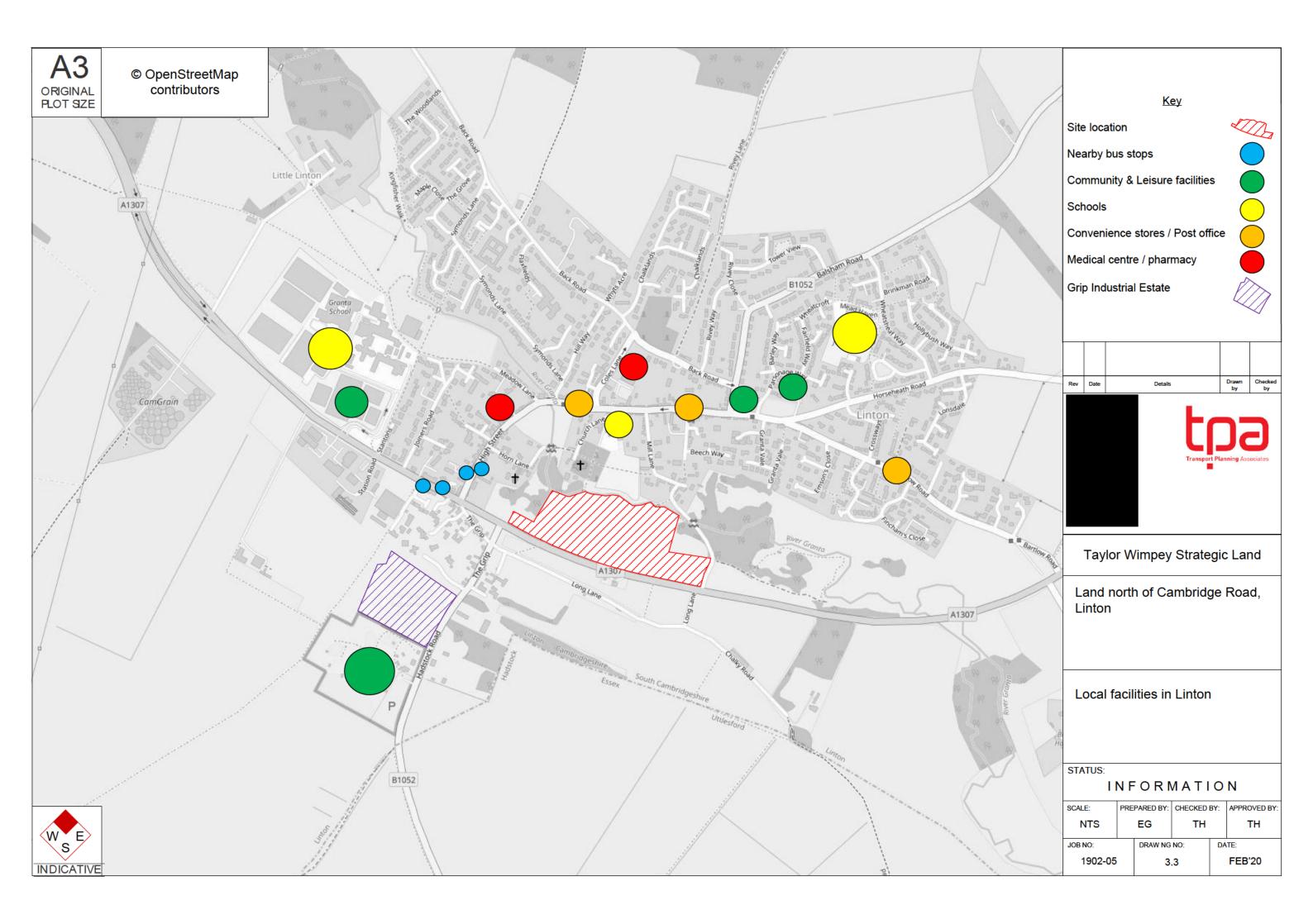
- 6.7 This report has identified that the site is highly suitable for future residential allocation, given its accessibility to nearby facilities via active modes of travel, and suitability in regards to its contextual location as an existing part of Linton and the site being an obvious extension of existing residential areas within Linton.
- 6.8 The proposed development site is located in an accessible location with a number of key facilities situated nearby, conducive for journeys via walking and cycling. As part of the development, a number of pedestrian improvements will be delivered, including pedestrian access and footway provision to help enable journeys via active modes of travel.

6.9 In conclusion, the compliance to the outlined assessment criteria for future site allocation Greater Cambridge Local Plan Issues and Options 2020 consultation has been discussed and demonstrated. The Site has been deemed appropriate in addressing the call for site requirements, and is in a highly sustainable location for matters relevant to transport.

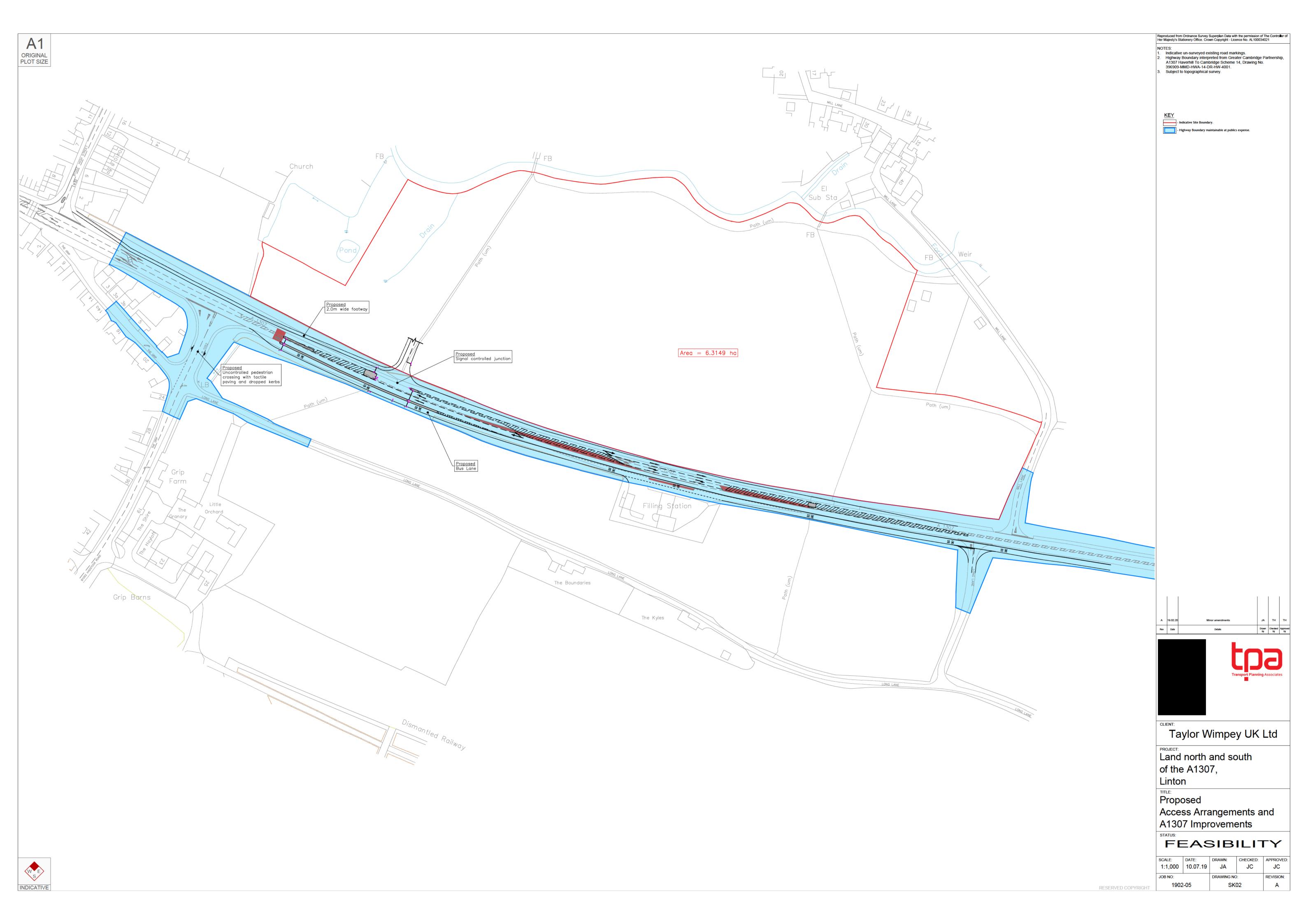
# **FIGURES**



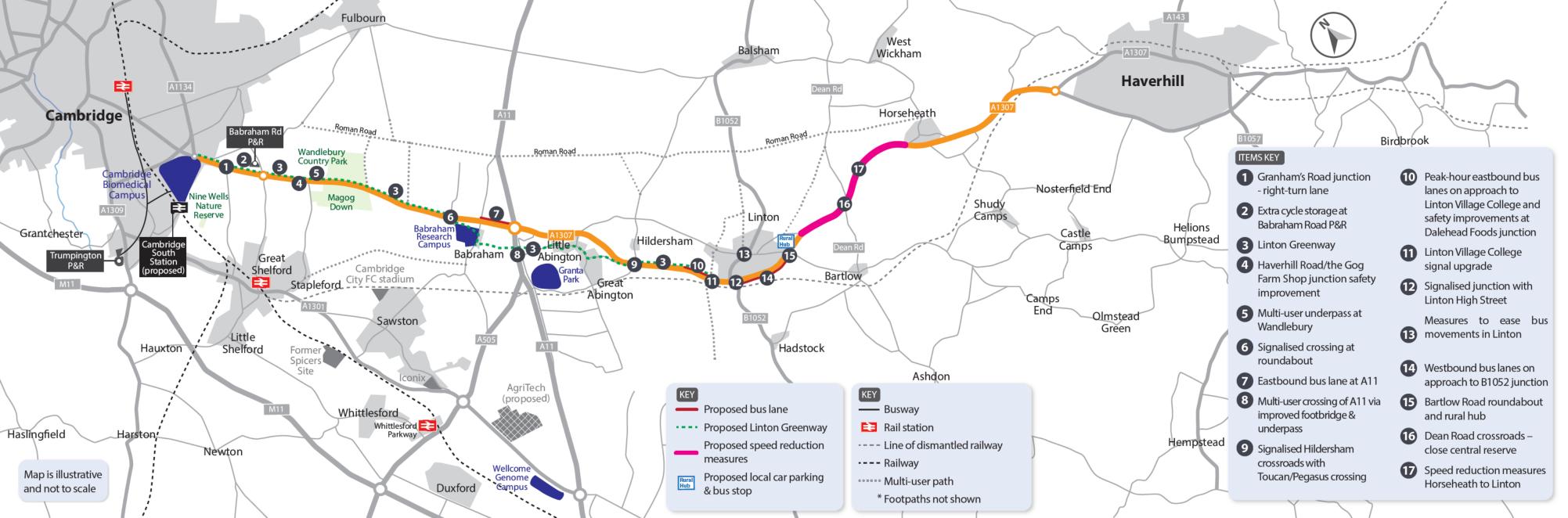




# **APPENDIX A**



# **APPENDIX B**



# **APPENDIX C**

Calculation Reference: AUDIT-219603-200217-0233

Franch's Road Cambridge

Licence No: 219603

#### TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL

Category : A - HOUSES PRIVATELY OWNED

VEHICLES

Selected regions and areas:

02		TH EAST	
	ES	EAST SUSSEX	3 days
	EX	ESSEX	1 days
	HC	HAMPSHIRE	3 days
	IW	ISLE OF WIGHT	1 days
	KC	KENT	2 days
	SC	SURREY	1 days
	WS	WEST SUSSEX	3 days
03	SOU	TH WEST	
	DV	DEVON	3 days
	SM	SOMERSET	2 days
04	EAST	Γ ANGLI A	
	NF	NORFOLK	3 days
	SF	SUFFOLK	2 days
05		Γ MI DLANDS	
	LE	LEICESTERSHIRE	1 days
06		T MI DLANDS	
	SH	SHROPSHIRE	1 days
	WM		2 days
07		KSHIRE & NORTH LINCOLNSHIRE	
	NY	NORTH YORKSHIRE	4 days
	SY		1 days
	WY	WEST YORKSHIRE	1 days
80		TH WEST	
	CH	CHESHIRE	1 days
	GM	GREATER MANCHESTER	1 days
09	NOR.		4 1
	CB	CUMBRIA	1 days
	DH	DURHAM	3 days

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

## Secondary 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: Number of dwellings Actual Range: 37 to 134 (units: ) Range Selected by User: 35 to 135 (units: )

Parking Spaces 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: 01/01/11 to 19/09/19

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 8 days Tuesday 10 days Wednesday 8 days Thursday 7 days Friday 7 days

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

Selected survey types:

Manual count 40 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:

Transport Planning Associates Ltd Franch's Road

Cambridge

Licence No: 219603

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	33
Village	5
Out of Town	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.

Secondary Filtering selection:

## Use Class:

C3 40 days

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

### Population within 1 mile:

1,000 or Less	2 days
1,001 to 5,000	8 days
5,001 to 10,000	8 days
10,001 to 15,000	8 days
15,001 to 20,000	7 days
20,001 to 25,000	1 days
25,001 to 50,000	5 days
50,001 to 100,000	1 days

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

#### Population within 5 miles:

5,001 to 25,000	8 days
25,001 to 50,000	5 days
50,001 to 75,000	3 days
75,001 to 100,000	8 days
100,001 to 125,000	1 days
125,001 to 250,000	10 days
250,001 to 500,000	4 days
500,001 or More	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	8 days
1.1 to 1.5	31 days
1.6 to 2.0	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:

Yes	10 days
No	30 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:

39 days No PTAL Present 1 days 2 Poor

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

Transport Planning Associates Ltd Franch's Road Cambridge

Licence No: 219603

### LIST OF SITES relevant to selection parameters

1 CB-03-A-05 DETACHED/TERRACED HOUSING CUMBRIA

MACADAM WAY PENRITH

Edge of Town Centre Residential Zone

Total Number of dwellings: 50

Survey date: TUESDAY 21/06/16 Survey Type: MANUAL

2 CH-03-A-10 SEMI-DETACHED & TERRACED CHESHIŘE

MEADOW DRIVE NORTHWICH BARNTON Edge of Town

Residential Zone Total Number of dwellings: 40

Survey date: TUESDAY 04/06/19 Survey Type: MANUAL

3 DH-03-A-01 SEMI DETACHED DURHAM

GREENFIELDS ROAD BISHOP AUCKLAND

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 50

Survey date: TUESDAY 28/03/17 Survey Type: MANUAL

4 DH-03-A-02 MI XED HOUSES DURHAM

LEAZES LANE BISHOP AUCK

BISHOP AUCKLAND ST HELEN AUCKLAND

Neighbourhood Centre (PPS6 Local Centre)

Residential Zone

Total Number of dwellings: 125

Survey date: MONDAY 27/03/17 Survey Type: MANUAL

5 DH-03-A-03 SEMI-DETACHED & TERRACED DURHAM

PILGRIMS WAY DURHAM

Edge of Town Residential Zone

Total Number of dwellings: 57

Survey date: FRIDAY 19/10/18 Survey Type: MANUAL

5 DV-03-A-01 TERRACED HOUSES DEVON

BRONSHILL ROAD

**TORQUAY** 

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 37

Survey date: WEDNESDAY 30/09/15 Survey Type: MANUAL

7 DV-03-A-02 HOUSES & BUNGALOWS DEVON

MILLHEAD ROAD

**HONITON** 

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 116

Survey date: FRIDAY 25/09/15 Survey Type: MANUAL

8 DV-03-A-03 TERRACED & SEMI DETACHED DEVON

LOWER BRAND LANE

HONITON

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 70

Survey date: MONDAY 28/09/15 Survey Type: MANUAL

Cambridge

Transport Planning Associates Ltd Franch's Road Licence No: 219603

LIST OF SITES relevant to selection parameters (Cont.)

PRIVATE HOUSING **EAST SUSSEX** ES-03-A-02

SOUTH COAST ROAD

**PEACEHAVEN** 

Edge of Town Residential Zone

Total Number of dwellings: 37

Survey date: FRIDAY 18/11/11 Survey Type: MANUAL

ES-03-A-04 MIXED HOUSES & FLATS EAST SUSSEX

NEW LYDD ROAD

**CAMBER** 

Edge of Town Residential Zone

Total Number of dwellings: 134

Survey date: FRIDAY 15/07/16 Survey Type: MANUAL

ES-03-A-05 MIXED HOUSES & FLATS EAST SUSSEX 11

RATTLE ROAD **NEAR EASTBOURNE** STONE CROSS Edge of Town Residential Zone

Total Number of dwellings: 99

Survey date: WEDNESDAY 05/06/19 Survey Type: MANUAL

EX-03-A-02 12 DETACHED & SEMI-DETACHED **ESSEX** 

MANOR ROAD **CHIGWELL** GRANGE HILL Edge of Town Residential Zone

Total Number of dwellings: 97

Survey date: MONDAY 27/11/17 Survey Type: MANUAL GREATER MANCHESTER

13 GM-03-A-11 TERRACED & SEMI-DETACHED **RUSHFORD STREET** 

MANCHESTER LEVENSHULME

Neighbourhood Centre (PPS6 Local Centre)

Residential Zone

Total Number of dwellings: 37

Survey date: MONDAY 26/09/16 Survey Type: MANUAL

HC-03-A-20 **HOUSES & FLATS HAMPSHIRE** 14

CANADA WAY LIPHOOK

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 62

Survey date: TUESDAY 20/11/18 Survey Type: MANUAL

TERRACED & SEMI-DETACHED HC-03-A-21 15 **HAMPSHIRE** 

PRIESTLEY ROAD **BASINGSTOKE** HOUNDMILLS Edge of Town Residential Zone

Total Number of dwellings: 39

Survey date: TUESDAY 13/11/18 Survey Type: MANUAL

HC-03-A-22 HAMPSHI RE 16 MIXED HOUSES

**BOW LAKE GARDENS** NEAR EASTLEIGH BISHOPSTOKE Edge of Town Residential Zone

Total Number of dwellings: 40

Survey date: WEDNESDAY 31/10/18 Survey Type: MANUAL Cambridge

Licence No: 219603

## LIST OF SITES relevant to selection parameters (Cont.)

**DETACHED HOUSES** ISLE OF WIGHT IW-03-A-01

MEDHAM FARM LANE **NEAR COWES** 

MEDHAM

Free Standing (PPS6 Out of Town)

Out of Town

Total Number of dwellings: 72

Survey date: TÜESDAY 25/06/19 Survey Type: MANUAL

18 KC-03-A-03 MIXED HOUSES & FLATS **KENT** 

HYTHE ROAD **ASHFORD** 

WILLESBOROUGH

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 51

Survey date: THURSDAY 14/07/16

Survey Type: MANUAL KC-03-A-04 SEMI-DETACHED & TERRACED **KENT** 

KILN BARN ROAD **AYLESFORD** DITTON Edge of Town Residential Zone

Total Number of dwellings: 110

Survey date: FRIDAY 22/09/17 Survey Type: MANUAL

LE-03-A-02 **DETACHED & OTHERS LEI CESTERSHIRE** 20

MELBOURNE ROAD

**IBSTOCK** 

Neighbourhood Centre (PPS6 Local Centre)

Village

Total Number of dwellings: 85

Survey date: THURSDAY 28/06/18 Survey Type: MANUAL

NF-03-A-02 **HOUSES & FLATS** NORFOLK

DEREHAM ROAD **NORWICH** 

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 98

Survey date: MONDAY 22/10/12 Survey Type: MANUAL

NF-03-A-04 MIXED HOUSES **NORFOLK** 22

NORTH WALSHAM ROAD NORTH WALSHAM

Edge of Town Residential Zone

Total Number of dwellings: 70

Survey date: WEDNESDAY 18/09/19 Survey Type: MANUAL

NF-03-A-05 23 MIXED HOUSES NORFOLK

HEATH DRIVE

HOLT

Edge of Town Residential Zone

Total Number of dwellings: 40

Survey date: THURSDAY 19/09/19 Survey Type: MANUAL

NY-03-A-06 BUNGALOWS & SEMI DET. NORTH YORKSHIRE 24

**HORSEFAIR** BOROUGHBRIDGE

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 115

Survey date: FRIDAY 14/10/11 Survey Type: MANUAL NORTH YORKSHIRE

NY-03-A-09 25 MIXED HOUSING

GRAMMAR SCHOOL LANE

NORTHALLERTON

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 52

Survey date: MONDAY 16/09/13 Survey Type: MANUAL Transport Planning Associates Ltd Franch's Road Cambridge Licence No: 219603

## LIST OF SITES relevant to selection parameters (Cont.)

HOUSES AND FLATS NORTH YORKSHIRE 26 NY-03-A-10

BOROUGHBRIDGE ROAD

**RIPON** 

Edge of Town No Sub Category

Total Number of dwellings:

17/09/13 Survey date: TUESDAY Survey Type: MANUAL NORTH YORKSHIRE

NY-03-A-12 **TOWN HOUSES** 

RACECOURSE LANE NORTHALLERTON

Edge of Town Centre Residential Zone

Total Number of dwellings: 47

Survey date: TUESDAY 27/09/16 Survey Type: MANUAL

**DETACHED & TERRACED** 28 SC-03-A-04 **SURREY** 

HIGH ROAD

**BYFLEET** 

Edge of Town Residential Zone

Total Number of dwellings: 71

Survey date: THURSDAY 23/01/14 Survey Type: MANUAL

SF-03-A-06 29 DETACHED & SEMI-DETACHED SUFFOLK

**BURY ROAD KENTFORD** 

Neighbourhood Centre (PPS6 Local Centre)

Village

Total Number of dwellings: 38

Survey date: FRIDAY 22/09/17 Survey Type: MANUAL

30 SF-03-A-07 MIXED HOUSES SUFFOLK

FOXHALL ROAD **IPSWICH** 

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 73

Survey date: THURSDAY 09/05/19 Survey Type: MANUAL

SH-03-A-05 SEMI-DETACHED/TERRACED SHROPSHI RE 31

SANDCROFT **TELFORD** SUTTON HILL Edge of Town Residential Zone

Total Number of dwellings: 54

Survey date: THURSDAY 24/10/13 Survey Type: MANUAL

SM-03-A-02 MIXED HOUSES 32 SOMERSET

HYDE LANE **NEAR TAUNTON** 

CREECH SAINT MICHAEL

Neighbourhood Centre (PPS6 Local Centre)

Village

Total Number of dwellings: 42

Survey date: TUESDAY 25/09/18 Survey Type: MANUAL

MIXED HOUSES SM-03-A-03 33 **SOMERSET** 

**HYDE LANE NEAR TAUNTON** CREECH ST MICHAEL

Neighbourhood Centre (PPS6 Local Centre)

Village

Total Number of dwellings: 41

Survey date: TUESDAY 25/09/18 Survey Type: MANUAL

SOUTH YORKSHIRE

Franch's Road Transport Planning Associates Ltd Cambridge Licence No: 219603

LIST OF SITES relevant to selection parameters (Cont.)

SEMI DETACHED HOUSES SY-03-A-01

A19 BENTLEY ROAD **DONCASTER** 

Suburban Area (PPS6 Out of Centre)

Residential Zone

BENTLEY RISE

Total Number of dwellings: 54

Survey date: WEDNESDAY 18/09/13

Survey Type: MANUAL WM-03-A-04 **TERRACED HOUSES** WEST MIDLANDS

**OSBORNE ROAD COVENTRY EARLSDON** 

Neighbourhood Centre (PPS6 Local Centre)

Residential Zone

Total Number of dwellings: 39

Survey date: MONDAY 21/11/16 Survey Type: MANUAL WEST MÍ DLÁNDS

TERRACED & DETACHED 36 WM-03-A-05

COUNDON ROAD **COVENTRY** 

Edge of Town Centre Residential Zone

89 Total Number of dwellings:

Survey date: MONDAY 21/11/16 Survey Type: MANUAL

37 WS-03-A-05 **TERRACED & FLATS** WEST SUSSEX

UPPER SHOREHAM ROAD SHOREHAM BY SEA

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 48

Survey date: WEDNESDAY 18/04/12 Survey Type: MANUAL

BUNGALOWS 38 WS-03-A-07 WEST SUSSEX

**EMMS LANE NEAR HORSHAM BROOKS GREEN** 

Neighbourhood Centre (PPS6 Local Centre)

Village

Total Number of dwellings: 57

Survey date: THURSDAY 19/10/17 Survey Type: MANUAL WEST SUSSEX

WS-03-A-10 39 MIXED HOUSES

**TODDINGTON LANE** 

LITTLEHAMPTON

WICK

Edge of Town Residential Zone

Total Number of dwellings: 79

Survey date: WEDNESDAY 07/11/18 Survey Type: MANUAL WEST YÖRKSHIRE

WY-03-A-01 40 MIXED HOUSING

SPRING VALLEY CRESCENT

**LEEDS BRAMLEY** 

Neighbourhood Centre (PPS6 Local Centre)

Residential Zone

Total Number of dwellings: 46

Survey date: WEDNESDAY 21/09/16 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.

Transport Planning Associates Ltd Franch's Road Cambridge Licence No: 219603

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

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

	ARRIVALS		DEPARTURES		TOTALS				
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	40	66	0.068	40	66	0.258	40	66	0.326
08:00 - 09:00	40	66	0.119	40	66	0.323	40	66	0.442
09:00 - 10:00	40	66	0.144	40	66	0.157	40	66	0.301
10:00 - 11:00	40	66	0.121	40	66	0.155	40	66	0.276
11:00 - 12:00	40	66	0.130	40	66	0.148	40	66	0.278
12:00 - 13:00	40	66	0.139	40	66	0.139	40	66	0.278
13:00 - 14:00	40	66	0.161	40	66	0.155	40	66	0.316
14:00 - 15:00	40	66	0.141	40	66	0.160	40	66	0.301
15:00 - 16:00	40	66	0.219	40	66	0.143	40	66	0.362
16:00 - 17:00	40	66	0.242	40	66	0.147	40	66	0.389
17:00 - 18:00	40	66	0.289	40	66	0.137	40	66	0.426
18:00 - 19:00	40	66	0.211	40	66	0.123	40	66	0.334
19:00 - 20:00	1	97	0.062	1	97	0.052	1	97	0.114
20:00 - 21:00	1	97	0.031	1	97	0.021	1	97	0.052
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.077			2.118			4.195

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: 37 - 134 (units: ) Survey date date range: 01/01/11 - 19/09/19

Number of weekdays (Monday-Friday): 40 Number of Saturdays: 0 Number of Sundays: 0 Surveys automatically removed from selection: 3 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.

# **APPENDIX D**

