

Transport Statement

Development at: Warwick Nursery

Eastergate

West Sussex

PO20 3RT



Index

1	Introduction	4
	Policy Context	4
2	Policy and Guidance	5
	National Planning Policy Framework (NPPF)	5
	National Planning Practice Guide (NPPG)	6
	Manual for Streets (MfS)	7
	West Sussex County Council Local Transport Plan	8
	Arun District Council Local Plan 2011 – 2031	9
	Arun District Council Parking Standards SPD (2020)	11
3	Existing Site Details	15
	Site Location	15
4	Local Highway Network	16
	Accident Data	16
5	Modal Choice & Travel Data	18
	Bus Services	18
	Rail	18
	Walking and Cycling	19
6	Proposed Development	22
	Proposed Access	22
	Stage 1 Road Safety Audit	23
	Proposed Cycle Parking	24
	Proposed Car Parking	24
	Servicing & Emergency Access	25
7	Trip Generation	26
	Existing Site Trip Generation	26
	Proposed Site Trip Generation	26
	Impact of Trip Rates	27
8	Impact of Development	28
	Church Lane / B2233 Traffic Flow Data	29
9	Travel Plan Framework	31
	Context	31
	Travel Plan Components	32
	Action Plan	33
	Monitoring and Review	34
10	Conclusion	35

Schedule of Appendices

- A Proposed Development Layout Plan
- B ATC Survey
- C Access Drawing / Traffic Calming Measures / Visibility Splays
- D Stage 1 Road Safety Audit
- E Vehicle Tracking
- F TRICS Assessment
- G A29 Realignment Modelling Flow Data
- H Church Lane / B2233 Junction Flows

Issue	Issue date	Compiled	Checked	Authorised
1	December 2020	EM	RW	LS

Executive Summary

The site is located on Barnham Road (B2233), in Eastergate, West Sussex.

The proposed development is for 44 residential units with associated parking and landscaping.

This Transport Statement summarizes the existing situation, local and national transport policy, the local highway network and modal choices available to future residents and considers the likely transport impact of the proposed development through a trip forecasting exercise.

The proposals are in accordance with current policies and guidance provided by Arun District Council and West Sussex County Council and are compliant with national guidance documents such as Manual for Streets and the National Planning Policy Framework 2019 (NPPF).

A trip forecasting exercise was undertaken using the TRICS database for C3 residential units. This forecast approximately 21 two-way vehicle trips in the morning peak hour and 17 two-way vehicle trips in the evening peak hour. Accordingly, this can be easily accommodated for by the local transport network.

The site can be accessed by sustainable forms of transport such as train and have a high frequency of services during peak hours. The site is well connected by footways and has low speeds on its surrounding roads (30mph), this will encourage and facilitate walking / cycling journeys to and from the site by increasing pedestrian / cyclist safety and through decreased local congestion / pollutant emissions.

Vehicles will access the site via the improved vehicular access on the Warwick Nursery / B2233 junction.

In order to fully comply the proposed development provides:

- 88 cycle storage spaces (2 spaces per dwelling, located in garden sheds for houses and communal bike stores for flats);
- 93 car parking spaces as required by the current WSCC car parking standards with all dwellings fitted with electric vehicle charging.;
- 14 visitor car parking spaces;
- 3,102sqm of public open space (excluding surface water attenuation features);
- refuse/recycling stores that will not require residents to carry waste more than 30metres and will allow collection vehicles to reach within 25metres;
- footpath links to all adjoining parcels of land, including the Boweries and Fleurie Nursery sites;

Overall, there are no material highway or transport impacts as a result of the proposed development.

1 Introduction

- 1.1 This Transport Statement (TS) report has been prepared for Landacre (Eastergate) Ltd in conjunction with the above development and no responsibility is accepted to any third party for all or part of this study in connection with this or any other development.
- 1.2 GTA Civils and Transport has been commissioned by Landacre (Eastergate) Ltd to prepare a Transport Statement in connection with the proposed development of 44 residential units at Warwick Nursery in Eastergate.
- 1.3 Specifically, the report has been prepared to investigate and advise on the impacts of the proposed residential development on the local transport network.

Policy Context

- 1.4 This Transport Statement has been written in accordance with the following frameworks:
 - 2019 National Planning Policy Framework (NPPF);
 - 2014 National Planning Policy Guidance (NPPG);
 - Manual for Streets (MfS 1 & 2);
 - West Sussex County Council Local Transport Plan;
 - Arun District Council Local Plan 2011 – 2031;
 - West Sussex Guidance on Parking at New Developments (2019).

2 Policy and Guidance

National Planning Policy Framework (NPPF)

- 2.1 The National Planning Policy Framework, first published in February 2012 and revised in June 2019, sets out the Governments planning policies for England and how these are expected to be applied. The NPPF provides a framework within which locally prepared plans for housing and other development can be produced.
- 2.2 NPPF supports sustainable development, with a 'presumption in favour of sustainable development', as set out in paragraph 10 and 11:

*"At the heart of the National Planning Policy Framework is a **presumption in favour of sustainable development**:*

*For **plan-making** this means that:*

- a) plans should positively seek opportunities to meet the development needs of their area, and be sufficiently flexible to adapt to rapid change;*
- b) strategic policies should as a minimum, provide for objectively assessed needs for housing and other uses, as well as any needs that cannot be met within neighbouring areas, unless:

 - i. the application of policies in this Framework that protect areas or assets of particular importance produces a strong reason for restricting the overall scale, type or distribution of development in the plan area; or*
 - ii. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole;**

*For **decision-taking** this means:*

- c) approving development proposals that accord with an up-to-date development plan without delay; or*
- d) where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless:*
- e) the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or*
- f) any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole."*

- 2.3 In the context of sustainable transport and in considering development proposals the NPPF states in paragraphs 108-111:

Paragraph 108, "In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

- appropriate opportunities to promote sustainable transport modes can be - or have been - taken up, given the type of the development and its location;
- safe and suitable access to the site can be achieved for all users; and
- any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.

Paragraph 109, "Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe."

Paragraph 110, "Within this context, applications for development should:

- a) *give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;*
- b) *address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*
- c) *create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;*
- d) *allow for the efficient delivery of goods, and access by service and emergency vehicles; and*
- e) *be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations."*

Paragraph 111, "All developments that will generate significant movement should be required to provide a travel plan and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed."

National Planning Practice Guide (NPPG)

2.4 National Planning Practice Guidance (NPPG) is supplementary advice intended to expand on and support the principles and practices of the National Planning Policy Framework (NPPF). It is managed and maintained by the Department of Communities & Local Government. Amongst other things, NPPG provides advice on the need for, and the preparation of, Travel Plans, Transport Statements and Transport Assessments.

2.5 NPPG states that Travel Plans, Transport Assessments and Transport Assessments can positively contribute to:

- encouraging sustainable travel;
- lessening traffic generation and its detrimental impacts;
- reducing carbon emissions and climate impacts;
- creating accessible, connected, inclusive communities;
- improving health outcomes and quality of life;
- improving road safety; and
- reducing the need for new development to increase existing road capacity or provide new roads.

- 2.6 NPPG advises that the key transport issues to be considered in a transport evidence base should:
- assess the existing situation and likely generation of trips over time by all modes and the impact on the locality in economic, social and environmental terms; and
 - consider the cumulative impacts of existing and proposed development on transport networks.

Manual for Streets (MfS)

- 2.7 MfS and MfS2 was published in 2007 and 2010 and are referred to throughout the report.
- 2.8 The purpose of MfS was to help rebalance the function of residential streets which had on many occasions resulted in places that were dominated by motor vehicles, which failed to make a positive contribution to the quality of life. MfS demonstrates the benefits that flow from good design and assigns a higher priority to pedestrians and cyclists, setting out an approach to residential streets that recognises their role in creating places that work for all members of the community. MfS refocuses on the place function of residential streets, giving clear guidance on how to achieve well-designed streets and spaces that serve the community in a range of ways.
- 2.9 The 'Department for Transport' and 'Department for Communities and Local Government' support the guidance provided in the manuals, though importantly, they do not outline any new policies or legal requirements.
- 2.10 Some of the key aims for streets in the introduction, are as follows:
- help build and strengthen the communities they serve;
 - meet the needs of all;
 - form part of a well-connected network;
- It also discourages designs that:
- primarily meet motor traffic needs;
 - are difficult to serve by public transport.

- 2.11 MfS 2 applies the same principles to a wider variety of situations including both rural and urban. Both aim to deliver contextually sensitive designs, which involves understanding the unique landscape and role of individual modes of transport in the area.

West Sussex County Council Local Transport Plan

- 2.12 The Local Transport Plan (LTP3) for West Sussex covers the period 2011 to 2026 and was adopted by the County Council on March 2011.

The 4 main objectives of LTP3 are:

- Promoting Economic Growth;
- Tackling a Changing Climate;
- Providing Access to Services, Employment and Housing;
- Improving Safety, Security and Health.

Under each of these main objectives are the LTP3 strategies as shown below in **Table 2.1**:

Table 2.1. - LTP3 Themes and Objectives

LTP3 Objectives	LTP3 Strategies
Promoting Economic Growth	• Maintain or improve the reliability of journey times on key routes; • Improve connectivity and access to local labour markets and key centres; • Deliver transport improvements to support and facilitate sustainable growth; • Ensure local transport networks are resistant and adaptable to shocks and impacts including climate change.
Tackling a Changing Climate	• Adapt transport infrastructure to increase its resilience to the effects of climate change; • Support new low emission fuels, infrastructure and technologies; • Reduce unnecessary trips by motorised vehicles and encourage the use of more sustainable modes of transport; • Reduce the need to travel at all by encouraging provision of local services; • Reduce the carbon footprint of the County Council's own operations; • Maximise reuse and recycling of materials in construction and maintenance.
Providing Access to Services, Employment and Housing	• Identify problem areas by using survey approaches and accessibility mapping techniques where appropriate; • Work in partnership with service providers and stakeholders to set priorities; • Ensure that accessibility is a central consideration when planning local services;

	• Seek to ensure that places of work, education, leisure and food retail opportunities are located close together in new development; • Enable disadvantage people to access employment opportunities, key services, social networks and goods; • Encourage local delivery of services so that people have to travel less.
Improving Safety, Security and Health	• Reduce the risk of death or injury due to transport incidents through engineering, training and publicity particularly targeted at vulnerable road users; • Reduce crime, fear of crime and anti-social behaviour on the transport network; • Reduce the negative impacts of transport on public health; • To encourage and to enable physically active travel such as walking and cycling through behaviour change initiatives and provision of information and education; • Invest in new infrastructure which improves the County and creates safer conditions for all, and particularly vulnerable road users.

Arun District Council Local Plan 2011 – 2031

2.13 The Arun Local Plan covers 2011 to 2031 for the Arun District and was adopted on the 18th of July 2018.

2.14 Arun's Local Plan strategic objectives for transport are:

- *"Reduce the need to travel and promote sustainable forms of transport;*
- *Plan for climate change and work in harmony with the environment to conserve natural resources and increase biodiversity;*
- *Create vibrant, attractive, safe and accessible towns and villages that build upon their unique characters to provide a wide range of uses and which are a focus for quality shopping, entertainment, leisure, tourism and cultural activities;*
- *Promote strong, well integrated and cohesive communities, through the promotion of healthy lifestyles, provision of good quality accessible community facilities and a safe environment, which delivers an enhanced quality of life to all. This includes meeting the needs of a growing elderly population;*
- *Strengthen Arun's economic base and provide local job opportunities by increasing, diversifying and improving the quality of employment within the District through the provision of appropriate employment sites, better infrastructure, including road and rail access, quality affordable accommodation and the development of business support and partnerships."*

2.15 Key policies relevant to the proposed development are:

Policy T SP1 - Transport and Development

To ensure that growth in the District strengthens Arun's economic base, reduces congestion, works to tackle climate change and promotes healthy lifestyles; the Council will ensure that development: provides safe access on to the highway network; contributes to highway improvements and promotes sustainable transport, including the use of low emission fuels, public transport improvements and the cycle, pedestrian and bridleway network. The Council will support transport and development which:

- a. Is designed to reduce the need to travel by car by identifying opportunities to improve access to public transport services and passenger transport services whilst making provision for safe access to the highway network through improvements to the existing road network and the promotion of vehicles which use low-carbon energy;*
- b. Is incorporated into the District's green infrastructure network and gives priority to pedestrian and cycle movements;*
- c. Protects committed and indicative lines of major road schemes from development and, where applicable, contributes towards new road schemes which improve north-south links between Bognor Regis and Littlehampton and the A27, to ensure that they are delivered in line with strategic growth in the District;*
- d. Incorporates appropriate levels of parking in line with West Sussex County Council guidance on parking provision and the forthcoming Arun Design Guide taking into consideration the impact of development upon on-street parking and;*
- e. Is supported by an effective and deliverable Transport Assessment which demonstrates that the transport effects of development on the local and strategic road network can be satisfactorily mitigated and a Travel Plan, which is effective and deliverable, and;*
- f. Explains how the development has been designed to:

 - i. accommodate the efficient delivery of goods and supplies;*
 - ii. give priority to pedestrian and cycle movements and have access to high quality public transport facilities;*
 - iii. create safe and secure layouts for traffic, cyclists and pedestrians whilst avoiding street clutter; iv. incorporate facilities for charging electric and plug-in hybrid vehicles (where charging facilities are to be omitted from the development, evidence of market demand and viability must be provided); and*
 - iv. consider the needs of people with disabilities by all modes of transport.**
- g. Provides improved crossing points over the railway line to improve transport links between the coast and the A27, in particular at Ford.*

Policy T DM1 - Sustainable Travel and Public Rights of Way

New development must ensure ease of movement, prioritising safe pedestrian and cycle access to the green infrastructure network and access to public transport and community transport services where a need has been identified. Access to alternative modes of transport including public transport services, the public right of way and cycle networks, must be available and accessible to all members of the community.

Policy T DM2 - Public Parking

Proposals which involve the loss of existing town centre car parks or town centre parking spaces, including provision for motorcycle and bicycle parking, must demonstrate either that:

- a. The loss of parking provision is acceptable or
- b. Provides sufficient parking spaces to meet anticipated demand, which must be:
 - i. Conveniently located to access town centre and tourist facilities attractions;
 - ii. Sufficiently safe and secure in line with the Safer Parking Scheme guidelines; and
 - iii. Accessible for cars, motorcycles and bicycles.

Arun District Council Parking Standards SPD (2020)

- 2.16 The Arun District Council Parking Standards Supplementary Planning Document (SPD) was adopted in January 2020. The Arun District Council SPD has been established on the guidance and standards of the WSCC Guidance on Parking at New Developments (May 2019), with the exception of:
- *standards for Electric Vehicle provision takes a hybrid approach using both the Arun Electric Vehicle Infrastructure Study (2017) requirements alongside the WSCC GPND approach;*
 - *rounded figures are given in table 3.1 'Expected level of provision for new residential developments';*
 - *lower stepped percentage Electrical Vehicle Charging Points requirements are required from 2018 to 2030 but include 100% provision of active EV charging facilities target by 2033;*
 - *cycle provision rounded from 0.5 to 1 space for Flats with up to 3 rooms (1 & 2 bed).*
- 2.17 Relevant policies to EV charging point in the SPD are:

Section 2.5

The WSCC GPND approach to Electric Vehicle Space Allocations differs to that set out in the ADC Vehicle Infrastructure Study. In particular, the WSCC GPND requires that a % of parking spaces on a new development must provide active Electric Vehicle (EV) charging facilities. This percentage increases annually until 2030 when 70% of spaces on a site should have EV charging facilities.

Section 2.6

However, the ADC Electric Vehicle Infrastructure Study (November 2017) requires that all houses with a garage and a driveway must have a charging point but that for new flatted and all other types of development, provision should be made for dedicated EV charging bays in 2% of the parking spaces provided.

Section 2.8

The proposed standards will mean that all new houses with a driveway and garage will be required to provide active EV charging points (in accordance with current ADC Vehicle Infrastructure Study (2017). All other development will need to provide EV charging points in 20% of parking spaces from the date of adoption of this SPD. This % figure will increase every 5 years until 2033 when 100% of

all parking spaces on a new development will be required to have active EV charging points. This approach reflects that taken by the WSCC GPND and responds to the Government's declaration of a 'Climate Emergency' and future regulations on decarbonising the transport sector.

- 2.18 Arun DC elaborate on EV charging point standards in Table 2.2 of the SPD. This table can be seen below in **Table 2.2**.

Table 2.2 – ADC Electric Vehicle Charging Points Minimum Requirements

Year	% of Parking Spaces with Active EV Charging Points	% of Parking Spaces with Active EV Charging Points
	Houses with a driveway and garage	All other developments
2018	100	20
2023	100	30
2028	100	50
2033	100	100

- 2.19 ADC set out their standards to ensure functionality and efficiency of developments, stating that consideration should be given to the following:

- a) *Providing garages of sufficient size - If garages are provided, they must be at least 6m x 3m internally. If garages meet this requirement, they will be regarded as an allocated parking space of 0.5 but a car port or parking space of this dimension would count as 1 parking space and calculations of parking demand will take account of this. Where garages do not meet this minimum size, they will not be counted towards meeting parking demand;*
- b) *Providing adequate visitor parking - Adequate visitor parking is required and this will be influenced by the level of unallocated parking;*
- c) *Likely cycle ownership and storage - Good cycle storage facilities are important, but requirements should take account of dwelling size and type. The minimum standard of cycle provision is set out in Table 2.3;*
- d) *Where accessible or wheelchair friendly accommodation is proposed or required, parking spacing and garaging should be provided in accordance with the requirements for increased parking space proportions;*
- e) *Impact on "total demand" where electric vehicle charging points are provided. e) Spaces for disabled people – Provision should be consistent with guidance in "Manual for Streets";*
- f) *Motorcycle parking - Provision should be consistent with guidance in "Manual for Streets";*

- g) *Space for storage bins – Part H of the Building Regulations suggests storage areas dimensions which are suitable for refuse and recycling bin storage. Development may be required to demonstrate suitable storage to ensure parking provision is available at all times.*

2.20 Table 2.3 in the SPD sets out the recommended levels of cycle provision. This can be seen below in **Table 2.3.**

Table 2.3 – ADC Recommended Levels of Cycling Provision

Type	Dwelling Size	Cycle Provision (per unit)
Houses	Up to 4 rooms (1 & 2 bed)	1 space
Houses	5+ rooms (3+ bed)	2 spaces
Flats	Up to 3 rooms (1 & 2 bed)	1 space (if communal storage otherwise same as 1 & 2 bed house)
Flats	4+ rooms (3+ bed)	1 space

2.21 ARC residential parking guidance states:

Section 3.1

The values of parking demand presented in Table 3.1 will be used as expected levels of demand for the design and master planning of new residential developments. These include provision of EV spaces as set out in Principle 3. As part of the Design & Access Statement applicants will be expected to schedule the parking provision, detailing the number of allocated and unallocated spaces including garages and electric vehicle charging spaces (active and passive). The Design & Access Statement should explain how the provision of parking will meet the needs of the development including how these needs are expected to change in the future.

Section 3.2

To satisfy the promotion of sustainable travel modes and choices it is considered that a 10% variation below the target parking demand value be allowed where appropriate travel option provision is provided including travel plans, public transport contributions (e.g. through section 106 contributions involving Strategic Allocations and Community Infrastructure Levy once adopted, for other non-strategic sized developments for offsite infrastructure of a strategic nature) and other sustainable travel initiatives. This is also as a result of increasing affordability issues resulting in young people staying with parents for longer.

Section 3.3

In addition to the above, visitor parking will be required to be provided at a ratio of 20% of the total number of residential units. For example, if there were 100 dwellings proposed, in addition to the allocated residents parking, 20 visitor spaces should be provided. A more flexible approach will be taken with schemes that incorporate flats and on sites close to urban centres.

2.22 Table 3.1 of the SPD sets out the expected levels of parking provision in new residential developments. This can be seen in **Table 2.4** below.

2.23 The following Parking Behaviour Zones are relevant to ADC Parking Standards:

- Zone 1 - Rural (village locations, e.g. Walberton);
- Zone 2 - Peri-rural (large villages or small settlements close to towns e.g. Angmering, Barnham); and
- Zone 4 - Urban (within towns but not in a central location).

Table 2.4 – ADC Parking Provision for New Residential Developments

Number of bedrooms	Number of habitable rooms	Parking Behaviour Zone		
		1	2	4
1	1 to 3	2	2	1
2	4	2	2	1
3	5 to 6	2	2	2
4+	7 or more	3	3	2

3 Existing Site Details

Site Location

- 3.1 The existing site is a greenfield land, adjacent to Barnham Road (B2233) and Church Lane, in Eastergate, West Sussex.
- 3.2 The existing site can be accessed via the Warwick Nursery drive (off Barnham Road) for pedestrians and vehicles. The dwelling 'Little Warwick' has right of way along this access.
- 3.3 An aerial view of the existing site can be seen in **Figure 3.1**, indicated by the red boundary line.

Figure 3.1 - Aerial View of the Existing Site



4 Local Highway Network

- 4.1 The site is adjacent to Barnham Road (B2233). The B2233 connects Climping in the south to Crockerhill in the north, via Burndell, Barnham and Eastergate. The section of the B2233 adjacent to the site is subject to a 30mph speed limit.
- 4.2 A footway on the adjacent side of the B2233 connects the site to Eastergate village centre, approximately 650m north-west of the site.
- 4.3 The B2233 / Church Lane T-junction lies directly adjacent to site to the west. Church Lane is a residential road through Eastergate village.
- 4.4 The B2233 connects to the A259 at Climping. The A259 coastal road connects Climping to Worthing, Brighton & Hove, Eastbourne, Hastings and Folkestone in the East, and to Chichester and Portsmouth in the West.
- 4.5 The B2233 connects to the A27 at Crockerhill. The A27 forms part of the strategic highway network with the South Coast, connecting Crockerhill to local towns and villages in Sussex. The A27 connects the regional hubs of: Brighton and Hove, Chichester, Eastbourne, Lewes, Portsmouth and Worthing to Falmer.

Accident Data

- 4.6 Local vehicle incident records in a 250m vicinity of the site were reviewed for the years 2015-2019 using www.crashmap.co.uk. CrashMap uses data collected by the police about road traffic accidents occurring on British roads where someone is injured which is then compiled into an easy to use format showcasing each incident on a map. This data is approved by the National Statistics Authority and reported on by the Department for Transport each year.
- 4.7 There have been 4 incidents over the last 5 years (2015-2019) in a 250m radius of the site, as illustrated by the exclamation marks in **Figure 4.1** below. The details of these incidents can be seen in **Table 4.1** below.

Figure 4.1 - Recorded Accident Crash Map



Table 4.1 - Accident Details

Date	Category	Location	No. Vehicles Involved	No. Casualties Involved
09/10/2015	Serious	Barnham Road	1	1
10/10/2015	Slight	Barnham Road	2	1
05/03/2018	Slight	Church Lane / Barnham Road junction	2	1
05/10/2018	Slight	Barnham Road	2	1

- 4.8 The low level of accidents does not suggest that the proposed development would have an impact to the risk of highway incidents. Importantly, the junction in close proximity the site access / egress (Church Lane / Barnham Road junction) has demonstrated a low level of existing accidents (1 slight).

5 Modal Choice & Travel Data

Bus Services

- 5.1 The nearest bus stop to the site is Church Lane, located approximately 100m (1-minute walk) north west of the site access. This bus stop is operated by Compass Travel and Stagecoach. Services during peak hours can be seen below in **Table 5.1**.

Table 5.1 - Local Bus Services to the Site

Service	Destination	Frequency in 0800 – 0900 AM peak hour	Frequency in 1700 – 1800 PM peak hour
66A / 66C	Bognor Regis – Yapton – Eastergate – Westergate	1	1
665	Littlehampton – Yapton – Eastergate – Westergate	0	0

Rail

- 5.2 The nearest railway station is Barnham Railway Station, located approximately 1.3km (15-minute walk or 4-minute cycle) south of the site. PRoW 321 connects the site to Barnham Road approximately 790m south of the site (9-minute walk). From Barnham Road, Barnham Railway Station is located approximately 500m south (6-minute walk).
- 5.3 Barnham Railway Station facilities and services include:
- 62 cycle parking spaces with storage CCTV;
 - 190 standard car parking spaces (£5.40 per day);
 - disabled car parking spaces;
 - electric vehicle charging points;
 - ticket office and ticket machines;
 - Wi-Fi;
 - pay phones;
 - toilets;
 - waiting rooms;
 - step free access; and
 - ramp for train disabled access.
- 5.4 Services from this Station are operated by Southern Railway. Details of the typical weekday frequency and destinations of trains from Barnham Railway Station are outlined in **Table 5.2** below.

Table 5.2 - Typical Weekday Frequencies in Peak Hours from Barnham Railway Station

Destination	Frequency in 0800 – 0900 AM peak hour	Frequency in 1700 – 1800 PM peak hour	Adult Single	Adult Return
Bognor Regis	2	2	£2.90	£4.80
Brighton	2	2	£11.40	£17.90
Portsmouth Harbour	2	2	£11.40	£12.70

- 5.5 As **Table 5.2** demonstrates, there is a high frequency of rail services to key destinations during peak hours. The reasonable walking / cycling distance between Barnham Railway Station and the site means that travel by rail is a sustainable modal choice for residents and visitors of the proposed development.

Walking and Cycling

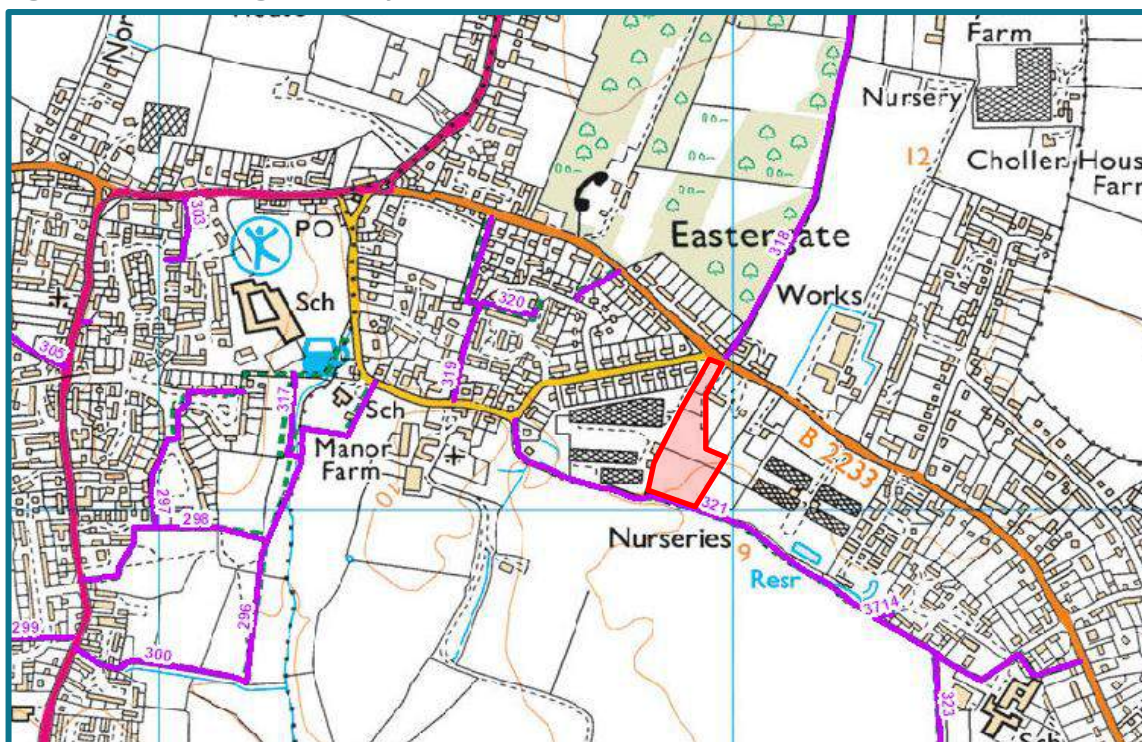
- 5.6 Manual for Streets suggests 800m as being the maximum target distance to amenities for new developments. NPPF states that walking can be the most attractive alternative for short distance car trips up to 2km and cycling for distances up to 5km.
- 5.7 Residents and visitors of the site can access the development by the footway on the northern side of Barnham Road. This footway is street lit and connects the site to Eastergate village centre, approximately 650m (8-minute walk or 2-minute cycle) north-west of the site, and to Barnham Railway Station, approximately 1.3km (15-minute walk or 4-minute cycle) south of the site.
- 5.8 The low-speed limit in the surrounding residential neighbourhood (30mph) encourages walking and cycling journeys to and from the site through increased walking / cycling safety and decreased congestion / air pollutant emissions.
- 5.9 Key destinations and their proximity to the site are listed below in **Table 5.3**. Walking times are based on a walk speed of 1.4m/s as referenced in IHT (2000) Guidelines for Providing for Journeys on Foot. The site is within a reasonable proximity to a variety of amenities, facilities and services.

Table 5.3 - Accessibility of the Proposed Development Site to Key Services

Destination	Distance from Site	Walk Time	Cycle Time
Eastergate Parish Hall	280m	3-minutes	1-minute
The Croft Surgery	400m	5-minutes	1-minute
Eastergate Cricket Club	550m	7-minutes	2-minute
Saint Georges Church	600m	7-minutes	2-minutes
The Wilkes Head	700m	8-minutes	2-minutes
Eastergate C of E Primary School	700m	8-minutes	2-minutes
Eastergate Post Office	750m	9-minutes	3-minutes
M R H Service Station	1000m	13-minutes	3-minutes
Five Villages Pharmacy	1100m	14-minutes	3-minutes
Ormiston Six Villages Academy	1200m	15-minutes	4-minutes
Tesco Express	1250m	15-minutes	4-minutes
Barnham Railway Station	1300m	15-minutes	4-minutes

- 5.10 There are not cycle paths or routes located within a close proximity to the site.
- 5.11 There are several public rights of way (PRoW) located within a close proximity to the site. **Figure 5.1** below illustrates the locations of these rights of way and the site in red.
- 5.12 Public Footpath 321 runs along the southern boundary of the proposed development. This provides pedestrian access from the southern section of the site. This footpath has been identified in WSCC's walking and cycling strategy for the A29 realignment scheme.
- 5.13 Based on local highway characteristics, cycle routes and the distance from the site to key destinations, walking and cycling journeys are a viable option of travel for residents of the proposed development.

Figure 5.1 – Public Rights of Way (WSCC PRoW)



6 Proposed Development

- 6.1 The proposed development is for 44 dwellings (C3 Residential units) at Warwick Nursery, in Eastergate.
- 6.2 The proposed development mix is:
- 6 Flats**
- 2no. 1-bedroom flats
 - 4no. 2-bedroom flats
- 38 Houses**
- 9no. 2-bedroom houses
 - 19no. 3-bedroom houses
 - 10no. 4-bedroom houses
- 6.3 The proposed development of 44 residential units will provide:
- 88 Cycle storage spaces (2 spaces per dwelling, located in garden sheds for houses and communal bike stores for flats);
 - 93 Allocated car parking spaces (2 spaces per 1, 2 & 3-bedroom dwelling and 2.5 spaces per 4-bedroom house);
 - 14 Visitor car parking spaces;
 - 3,102sqm of public open space (excluding surface water attenuation features);
 - refuse/recycling stores that will not require residents to carry waste more than 30metres and will allow collection vehicles to reach within 25metres;
 - footpath links to all adjoining parcels of land, including the Boweries and Fleurie Nursery sites.
- 6.4 The proposed development layout plan can be seen in **Appendix A**.

Proposed Access

- 6.5 Access to the site is proposed to be in the form of an improved simple priority junction off Barnham Road. An ATC survey was conducted on 23rd April 2019 (see **Appendix B**). This demonstrated that 85thile vehicle speeds for east and westbound directions were 36.8mph (37mph). Visibility splays have been shown on the layout drawing of 2.4metres x 91metres, to comply with the Manual for Streets requirement for streets with a 37mph speed limit. The visibility splays are shown in **Appendix C**.
- 6.6 The existing Warwick Nursery access will be widened to 4.8metres wide to accommodate two-way flows of traffic. The existing dwelling 'Little Warwick' will have an uninterrupted right of way along the Warwick Nursery access road.

- 6.7 A 2 metre footway is proposed on the western flank of the access road leading into the site. This will also link with a proposed footway on Barnham Road and connect with the existing footway to the west of Church Lane. Additionally, a 1meter wide footway with tactile paving will be constructed outside of the existing dwelling 'Little Warwick' to enable residents of the dwelling to cross the road to the footway on the western flank of the site access road. These proposals are demonstrated in **Appendix C**.
- 6.8 The interior roads for the proposed development have been designed in accordance with the 'Barnham Road Proposals Master Plan' (see **Appendix A**), to provide all adjoining parcels with modal connectivity as and when these adjoining parcels are brought forward.

Stage 1 Road Safety Audit

- 6.9 A Stage 1 Road Safety Audit was carried out on the Warwick Nursery and Church Lane junctions. The audit identified three issues (see **Table 6.1**). The full details of the Road Safety Audit can be seen in **Appendix D**.

Table 6.1 – Stage 1 RSA

Location	Issue	Recommendation
Proposed Development Access	Proposed development access proximity to the Church Lane junction with Barnham Road could lead to rear end shunt type collisions.	Traffic calming measures, road markings and/or signs should be introduced to ensure that vehicle speeds are significantly slowed to allow for additional driver reaction time to manoeuvres by other motorists.
Church Lane junction with Barnham Road	Pedestrians crossing away from crossing point could result in vehicle and pedestrian collisions.	Provide crossing facilities which meet the pedestrian desire line in order to reduce the risk of injury that will occur, should pedestrians cross away from the currently proposed informal crossing on Church Lane.
Footway adjoining Church Lane and the site access	Existing vegetation / foliage / sign and lack of dedicated footway could result in pedestrian injury.	Cut back overhanging vegetation / foliage, relocate existing sign and provide footway to site access.

- 6.10 To address the issue raised with the Warwick Nursery access proximity to the Church Lane / B2233 junction, traffic calming measures will be implemented. These include 'slow' road markings and the relocation of the Eastergate village gate sign, with a 30mph repeater sign, approximately 105meters south east of the existing village gate sign (see **Appendix C**).

- 6.11 To address the issue raised with the pedestrian crossing, the central pedestrian island will be removed and an improved island will be developed closer to the pedestrian desire line (see **Appendix C**). This upgraded pedestrian island will feature dropped kerbs and tactile paving and each side of the informal crossing points will also feature dropped kerbs and tactile paving.
- 6.12 To address the issue raised with the existing vegetation / foliage / sign and lack of dedicated footway, the overhanging vegetation / foliage will be cut back, the existing sign relocated and a footway will be provided to the site access.

Proposed Cycle Parking

- 6.13 In accordance with ADC cycle parking standards (see **Table 2.3**), the proposed development of 6 no. 1-2-bedroom flats requires 1 cycle parking space per unit, mounting to a demand of 6 cycle parking spaces. The proposed development therefore conforms with WSCC minimum cycle parking standards by providing 12 cycle parking spaces in a communal storage (2 spaces per flat).
- 6.14 The development of 38no. 2-3-4-bedroom houses requires 1 to 2 cycle parking spaces per house (1 space per 2-bedroom house, 2 spaces per 3-4-bedroom house). The proposed development therefore conforms with ADC cycle parking standards by providing 76 cycle parking spaces (2 spaces per house).

Proposed Car Parking

- 6.15 In accordance with ADC car parking standards, the measurements of car parking spaces will be 2.5m x 5m.
- 6.16 **Table 2.3** provides the parking standards for new residential developments in Arun District Council. The site is located in Parking Behavioural Zone 1 (rural villages). Accordingly, 1 to 3 bedroom dwellings require 2 parking spaces, and 4+ bedroom dwellings require 3 parking spaces. The proposed development has a parking demand for 103 allocated car parking spaces. The proposed development will provide 93 allocated parking spaces (including garages). The additional parking demand of 8 allocated spaces can be accommodated by the 14 visitor / unallocated parking spaces, which provides 5 parking spaces over the parking demand (see section 6.18).
- 6.17 The garages associated with the proposed 4-bedroom houses have 3m x 6m internal dimensions. These garages have been included in the total allocated spaces, amounting to 0.5 car parking spaces per garage.
- 6.18 Additionally, visitor parking is to be provided at a ratio of 20% of the total number of residential units. The parking demand set out by ADC therefore requires a total of 9 visitor parking spaces. The

proposed development will provide 14 visitor / unallocated car parking spaces and therefore conforms to ADC parking standards.

- 6.19 Electric Vehicle Charging points will be provided in accordance with ADC parking standards (see **Table 2.2**).

Servicing & Emergency Access

- 6.20 The proposed layout is set out to comply with the provisions in paragraph 6.8.9 of Manual for Streets 1 that requires refuse vehicles to be able to reach within 25metres of the storage point for collection, and that residents are not required to carry waste for more than 30metres. Refuse collection vehicles should not be required to reverse more than 12metres. The layout complies with these requirements.
- 6.21 **Appendix E** demonstrates the vehicle tracking for a service vehicle of 11.2 metres in length around the proposed development and exemplifies that the site is in accordance with the above MfS standards.
- 6.22 In accordance with Manual for Streets, a fire appliance will be able to access the development and reach within 45metres of all dwelling entrances.

7 Trip Generation

Existing Site Trip Generation

- 7.1 The existing site is currently greenfield land with no history of previous land use. Therefore, no previous trip generations are associated with the use of the site.

Proposed Site Trip Generation

- 7.2 The proposed development is for 44 residential units (C3 Residential).
- 7.3 The TRICS database has been interrogated for C3 Privately Owned Houses with the following relevant parameters being applied.
- Post 2010 surveys;
 - All regions in England, with the exception of London, Scotland, Wales, Northern Ireland and the Republic of Ireland;
 - Weekdays only;
 - Suburban and Neighbourhood Centre location types;
 - Land use – C3 privately owned houses;
 - Populations of 25,000 to 75,000 within a 5 miles radius;
 - Car ownership from 1.1 to 1.5.
- 7.4 **Appendix F** provides the full details of the TRICS assessment.
- 7.5 **Table 7.1** and **Table 7.2** below provide the trip rate data for the proposed C3 flats and houses, based on the site selection criteria. It should be noted that similar trip rates were used for a Transport Statement at Eastergate Fruit Farm, in 2013.

Table 7.1 - C3 Residential Houses (1 Unit) – Weekday Trip Rates

Mode	AM Peak (8:00 - 9:00)			PM Peak (17:00 - 18:00)			Daily (7:00 - 19:00)		
	In	Out	2-Way	In	Out	2-Way	In	Out	2-Way
Vehicles	0.111	0.356	0.467	0.252	0.126	0.378	1.866	1.957	3.823
Walk	0.059	0.178	0.237	0.074	0.052	0.126	0.835	0.779	1.614
Train/Bus	0	0.022	0.022	0.007	0.022	0.029	0.08	0.102	0.182
Cycle	0.007	0.037	0.044	0.007	0.022	0.029	0.132	0.132	0.264
Total People	0.185	0.719	0.904	0.459	0.267	0.726	3.52	3.682	7.202

Table 7.2 – C3 Residential Houses (44 Units) – Weekday Trips

Mode	AM Peak (8:00 - 9:00)			PM Peak (17:00 - 18:00)			Daily (7:00 - 19:00)		
	In	Out	2-Way	In	Out	2-Way	In	Out	2-Way
Vehicles	5	16	21	11	6	17	82	86	168
Walk	3	8	10	3	2	6	37	34	71
Train/Bus	0	1	1	0	1	1	4	4	8
Cycle	0	2	2	0	1	1	6	6	12
Total People	8	32	40	20	12	32	155	162	317

Impact of Trip Rates

- 7.6 Using the information from the TRICS database, the proposed development is likely to lead to:
- Approximately 21 two-way vehicle trips in the morning peak hour (0800-0900);
 - Approximately 17 two-way vehicle trips in the evening peak hour (1700-1800); and
 - Approximately 168 two-way daily vehicle trips.
- 7.7 The forecasted vehicle trips associated with the development are therefore unlikely to represent a severe impact on the local highway network.

8 Impact of Development

- 8.1 The impact of the forecasted TRICS trip rates associated with the proposed development upon the section of the B2233 (east and west bound) adjacent to the development has been calculated, based on the existing modelling flow data from the A259 realignment forecast models (see **Appendix G**).
- 8.2 This calculation is based on the 2023 Forecast Year, Do Minimum (DM), peak AM (0800-0900) and peak PM (1700-1800) modelling flow data (see **Appendix G**).
- 8.3 The calculations for this are demonstrated below in **Table 8.1**.

Table 8.1 – Proposed Development Flows & Distribution

Direction	AM Peak (0800 - 0900)			PM Peak (1700 - 1800)		
	In	Out	Total PCU %	In	Out	Total PCU %
	5	16		11	6	
Eastbound	2	6	37.5%	5	3	47.5%
Westbound	3	10	62.5%	6	3	52.5%

- 8.4 The additional PCU growth along the B2233 as a result of the proposed development can be seen below in **Table 8.2**.

Table 8.2 – 2023 Forecast + Development

Direction	AM Peak (0800 - 0900)		PM Peak (1700 - 1800)	
	2023 PCU	2023 PCU + Development	2023 PCU	2023 PCU + Development
Eastbound	424	432 (+1.4%)	423	431 (+1.8%)
Westbound	708	721 (+1.8%)	479	488 (+1.8%)

- 8.5 As **Table 8.1** and **Table 8.2** demonstrate, the proposed development and will have little impact upon the existing peak AM and peak PM vehicle movement forecast along the B2233 for both eastbound and westbound directions.

Church Lane / B2233 Traffic Flow Data

- 8.6 A discussion was held with Stephen Gee from WSCC Highways on the 13/07/2020 to review the Church Lane / B2233 junction. Subsequently, he deemed the following analysis as acceptable.
- 8.7 The Church Lane / Barnham Road (B2233) junction serves a circa of 135 dwellings. The location of Church Lane and dwellings likely served by the junction can be seen below in **Figure 8.1**.

Figure 8.1 – Dwellings (Circa 135) Served by Church Lane / B2233 Junction



- 8.8 Using the same TRICS forecast parameters to the Warwick Nursery TS, the trip rate of these 135 houses has been reviewed. This can be seen below in **Table 8.3**.

Table 8.3 – Church Lane C3 Trip Rates (135 Units)

Mode	AM Peak (8:00 - 9:00)			PM Peak (17:00 - 18:00)			Daily (7:00 - 19:00)		
	In	Out	2-Way	In	Out	2-Way	In	Out	2-Way
Vehicles	15	48	63	34	17	51	252	264	516
Walk	8	24	32	10	7	17	113	105	218
Train/Bus	0	3	3	1	3	4	11	14	25
Cycle	1	5	6	1	3	4	18	18	36
Total People	25	97	122	62	36	98	475	497	972

- 8.9 The same existing modelling flow data from the A259 realignment forecast models have been used to demonstrate the directional flows from the Church Lane housing estate, based on the above TRICS forecast. These flows can be seen below in **Table 8.4** and in **Appendix H**.

Table 8.4 – Church Lane / B2233 Junction Flows & Distribution

Direction	AM Peak (0800 - 0900)			PM Peak (1700 - 1800)		
	In	Out	Total PCU %	In	Out	Total PCU %
	5	16		11	6	
Eastbound	6	18	37.5%	16	8	47.5%
Westbound	9	30	62.5%	18	9	52.5%

- 8.10 As **Table 8.4** demonstrates, vehicle movements on Church Lane during the AM and PM peak periods are relatively low. Accordingly, these low levels of vehicle movement, combined with the proposed developments low levels of vehicle movement, will not cause a severe impact to traffic generation or highway safety.

9 Travel Plan Framework

Context

- 9.1 A development of this size is unlikely to require a full Travel Plan and a Travel Plan Statement would be appropriate which provides information to new occupants of travel facilities in the area. Travel Plans are usually secured by a Condition of Planning Permission. This section of the Transport Statement briefly sets out the draft form and content of a Travel Plan for this proposed development, which will be in the following general format:

Introduction

- Background (reason for report, relevant site history etc.);
- Policy Framework.

Site Audit

(Transport Assessment summary)

- Site Location;
- Existing Site Use (Use Class, size, parking, access etc.);
- Proposed Site Use (Use Class, size, parking, access etc.);
- Site Transport Accessibility;
- Site Access to Key and Local Amenities.

Site Travel Characteristics

(Transport Assessment summary)

- Site Proposals Trip Generations and mode choice;
- Movement Impacts and Mitigation (public transport, walk, cycle, highways);
- Parking Provision (vehicle spaces, disabled spaces, PTW spaces, cycle spaces);
- Servicing / Emergency vehicle access.

Travel Plan Components

(Considered in more detail overleaf)

- Objectives;
- Targets;
- Responsibilities;
- Mechanisms and Measures;
- Action Plan;
- Monitoring and Review.

Travel Plan Components

Objectives

- 9.2 The Transport Statement has demonstrated that there are no transport impacts as a result of this proposed development that cannot be mitigated to make the proposed development acceptable. Nonetheless, the applicant supports the principles of travel planning and its wider benefits.
- 9.3 The broad overall objectives of the Travel Plan will be to reduce car dependency and to promote and support the use of non-car modes where and when possible. This will manage transport impacts and also improve the health and quality of life of residents

Targets

- 9.4 DfT and WSCC guidance states that targets should be SMART:
- **Specific:** saying precisely what is to be achieved
 - **Measurable:** over the duration of the target. It must allow for regular evaluation of the effectiveness of the target. Thus, the target must use data which is easily collected and updated over the duration of the target.
 - **Appropriate:** and linked to overall objectives and aims
 - **Realistic:** in terms of their potential for being achieved over the duration of the target
 - **Timed:** The target must define a date or series of dates by which it is expected to be achieved”.
- 9.5 Appropriate SMART targets will be set within the Final Travel Plan for the site based upon the initial resident travel surveys. The targets will be monitored and reviewed following the monitoring survey. Targets need to be realistic and respect the nature of the site, and the existing transport and other characteristics of Eastergate, including existing modal use for the journey to work.

Responsibilities

- 9.6 The developer or management company (as appropriate) will appoint a Travel Plan Co-ordinator to implement and administer the Travel Plan. The Travel Plan Co-ordinator will be responsible for the administration of the Plan, including overseeing arrangements for the implementation of the Plan mechanisms and measures, the initial resident travel surveys, and for organising and managing on-going monitoring and review of the Plan. The Co-ordinator will be the main point of contact and will liaise with key stakeholders such as the County Council.
- 9.7 The Travel Plan Co-ordinator will report to a Travel Plan Steering Group made up of representatives of the developer and management company.
- 9.8 Landacre (Eastergate) Ltd will be responsible for ensuring funding for Travel Plan mechanisms and measures included in the Action Plan.

Mechanisms and Measures

- 9.9 Mechanisms and measures potentially suited to this site and the objectives of the Travel Plan include:

Walking

There is great potential for promoting walking as a means of accessing local facilities. To encourage this measures could include:

- Displaying information and advice concerning safe pedestrian routes to and from the site at a location accessible to residents;
- Displaying information on a new bespoke website;
- Distributing information to all new residents as part of the standard residential travel 'Welcome' packs.

Cycling

The following measures to promote cycling as a means of accessing local facilities could also be promoted by measures including:

- Displaying information and advice concerning safe cycle routes in a location accessible to residents;
- Displaying information on a new bespoke website;
- Distributing information to all new residents as part of the standard travel 'Welcome' packs.

Public Transport

Promotion of the use of public transport for accessing facilities further from the site could be encouraged through measures such as:

- Displaying up-to-date details of bus services, including bus stop locations, route information and service frequencies, in a location accessible to residents;
- Displaying route disruption notices and alternative routes when essential maintenance is in place;
- Providing details of ticketing options to residents;
- Provision of up to date bus timetables and rail maps;
- Displaying information on a new bespoke website;
- Distributing information to all new residents as part of the standard travel 'Welcome' packs.

- 9.10 The Travel Packs would include a welcome pack showing local footways, cycle routes and bus stops and bus services, together with information on the site Travel Plan contact details for the Travel Plan Co-ordinator, and links to the bespoke website.

Action Plan

- 9.11 The Travel Plan would contain an Action Plan, setting out timetables, responsibilities and monitoring of agreed Travel Plan elements linked to the respective Travel Plan objectives.

Monitoring and Review

- 9.12 A programme of monitoring and review will be agreed with the local authorities. Monitoring, review, and update of the Travel Plan will be carried out to a timetable agreed with the local authorities. All monitoring surveys will be TRICS SAM compliant.
- 9.13 The Travel Plan Co-ordinator will be responsible for the preparation and dissemination of the Monitoring Report.

10 Conclusion

- 10.1 This Transport Statement has summarised the existing situation and has provided an overview of the proposed development from a transport perspective.
- 10.2 Key transport-relevant elements of the development, including parking, access, trip generation and the impacts upon the surrounding transport networks, have been considered from a policy context.
- 10.3 The development of 44 residential units will provide:
- 88 Cycle storage spaces (2 spaces per dwelling, located in garden sheds for houses and communal bike stores for flats);
 - 93 Allocated car parking spaces (2 spaces per 1, 2 & 3-bedroom dwelling and 2.5 spaces per 4-bedroom house);
 - 14 Visitor car parking spaces;
 - 3,102sqm of public open space (excluding surface water attenuation features);
 - refuse/recycling stores that will not require residents to carry waste more than 30metres and will allow collection vehicles to reach within 25metres;
 - footpath links to all adjoining parcels of land, including the Boweries and Fleurie Nursery sites.
- 10.4 The site can be accessed by sustainable forms of transport such as train and have a high frequency of services during peak hours to key destinations. The site is well connected by footways and has low speeds on its surrounding roads (30mph), this will encourage and facilitate walking / cycling journeys to the site by increasing pedestrian / cyclist safety and through decreased local congestion / pollutant emissions.
- 10.5 The sites provision of car / cycle parking complies with WSCC parking standards.
- 10.6 The Stage 1 Road Safety Audit identified three issues with the Warwick Nursery access point. To address these issues, the proposed development will:
- Implement traffic calming measures;
 - Upgrade and relocate the existing central pedestrian island closer to the pedestrian desire line; and
 - Cut back the existing overhanging vegetation / foliage and provide a footway to the site access.
- 10.7 The Junction Capacity Assessment set out in section 8 has demonstrated that the Warwick Nursery / B2233 access road has the capacity to accommodate the vehicle movements associated with the proposed development and that its proximity to Church Lane will not cause a severe impact to

traffic generation or highway safety.

- 10.8 Using the detailed TRICS database, the development is likely to result in approximately 21 two-way trips in the peak AM period (0800-0900) and 17 two-way trips in the peak PM period (1700-1800). The estimated level of trips generated by the development will not have a detrimental impact on the surrounding highway, public transport, cycle and pedestrian networks, and would not result in a highway impact that could be considered as severe.
- 10.9 In conclusion, there are no unacceptable highway or transport impacts as a result of the proposed development.

- End of Report -

Appendix A

Proposed Site Layout Plan



ACCOMMODATION SCHEDULE

<u>Affordable Provision</u>		13 Dwellings
Affordable Rent ●		
2no.	1-Bed Flats	
2no.	2-Bed Flats	
2no.	2-Bed Flats Part M4(3)	
1no.	3-Bed Houses	
<u>Shared Ownership</u> ●		
3no.	2-Bed Houses	80sqm
3no.	3-Bed Houses	92sqm
<u>Open Market Provision</u>		31 Dwellings
6no.	2-Bed Houses	
13no.	3-Bed Houses	
2no.	3-Bed Townhouses	
10no.	4-Bed Houses	
Total:	44 Dwellings	[1.72 Ha - 25.6 Dw/Ha]
Car Parking:	2 spaces per 1, 2 & 3-Bed dwellings 2/3 spaces per 4 bed dwelling 14 visitor spaces within lay-bys (0.31 per dwelling)	
Cycle Parking:	2 spaces per dwelling within garden sheds	
Refuse Storage:	Within rear gardens to be brought to property fronts on collection days only	
<u>Public Open Space</u>		
Arun Requirement	44 dwellings =	3630sqm
<u>Provision</u>		
Frontage Open Space	315sqm	
Central / Incidental Open Spaces	1328sqm	
Southern Open Space	2235sqm	
Total	3878sqm Open Space	
(includes existing ditches, hedges, trees, attenuation basin and swale)		

C	11.12.20	POS figures updated	PB	SL
B	03.11.20	Drainage basin and swale updated	PB	KE
A	10.09.20	Amended To Comments	JW	SLG

Rev	Date	Revision Details	Dr	Ch
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London: 76 Great Suffolk Street
London, SE1 0BL
T 0207 928 2773 E london@ecearchitecture.com

Sussex: Brooklyn Chambers, 11 Goring Road
Worthing, West Sussex, BN12 4AP
T 01903 248777 E sussex@ecearchitecture.com

Bristol: Westworks, St. Nicholas House
31-34 High Street, Bristol, BS1 2AW
T 0117 315 8557 E bristol@ecearchitecture.com

ECE Architecture
www.ecearchitecture.com

Client's Name
Landacre (Eastergate) Ltd.

Job Title
**Warwick Nursery, Barnham Road,
Eastergate, PO20 3RT**

Drawing Title
Proposed Site Layout

Scale
1:500 @ A1 / 1:1000 @ A3

metres 10 20 30 40 50

Drawn	Checked	Date
AK	KE	28.08.20

Job No	Drawing No	Rev
6710	PL-005	C

Status
APPROVAL



- Key
- Development Site at 'The Boweries'
 - Development Site at 'Bexstone House'
 - Other Development Sites Under Different Ownership
 - * Area reserved to accommodate A29 drainage basin. Size and volume to be determined by WSCC.

Land at Barnham
Barnham Road Proposals Masterplan
for Church Commissioners

Drawing No. 00605B_SK_035
Scale @ A3 1:2000 Rev -
0 20 40 60m



Appendix B

ATC Survey

AUTOMATIC TRAFFIC COUNT REPORT

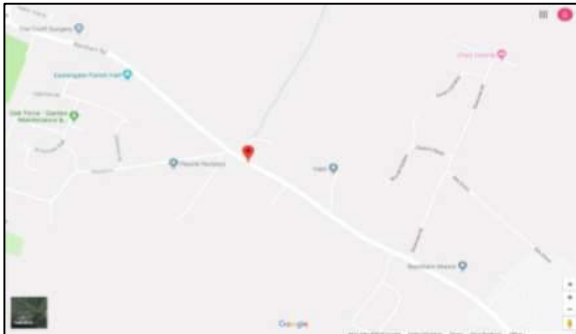
REF: Site Name - CustomList-21

SITE LOCATION: Barnham Road, Chichester

Client: GTA Civils

DATE: Tuesday 23rd April - Monday 29th April 2019

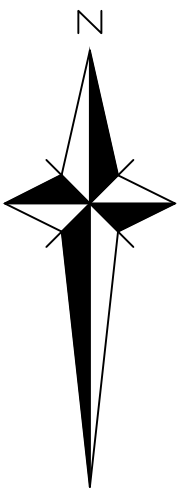
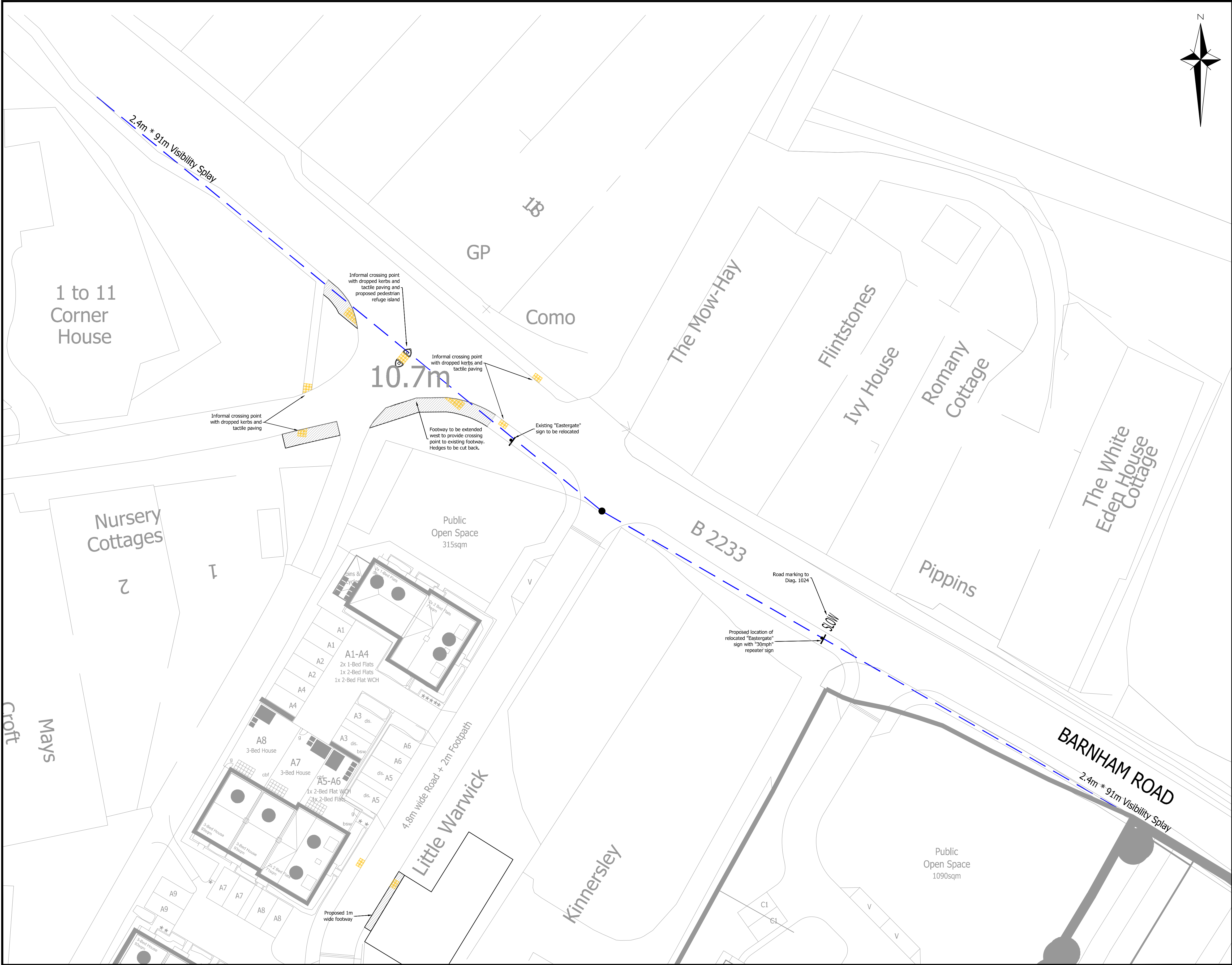
Requester: Richard Wells



		Summary	SEB	SEB	NWB	NWB
			Total Vehicles	85% Speed	Total Vehicles	85% Speed
Tuesday	23/04/2019		6561	36.1	6883	36.6
Wednesday	24/04/2019		6292	36.4	6635	36.5
Thursday	25/04/2019		6442	36.2	6922	36.9
Friday	26/04/2019		6339	36.2	6781	36.9
Saturday	27/04/2019		4785	37.4	5163	38
Sunday	28/04/2019		4468	37.2	4643	37.4
Monday	29/04/2019		6138	36.3	6655	37

Appendix C

Access Drawing / Traffic Calming Measures / Visibility Splays



- GENERAL NOTES**
1. The location, size, depth and identification of existing services that may be shown or referred to on this drawing have been assessed from non intrusive observations, record drawings or the file. The contractor shall safely carry out intrusive investigations, trial holes or soundings prior to commencing work to satisfy himself that it is safe to proceed and that the assessments are accurate. any discrepancies shall be notified to gta prior to works commencing.
 2. Tender or billing drawings shall not be used for construction or the ordering of materials.
 3. Do not scale. All dimensions and levels to be site confirmed.
 4. This drawing shall be read in conjunction with all relevant architects, consultants drawings and specifications, together with H&S plan requirements.
 5. Copyright : This drawing must not be copied, amended nor reproduced without the prior written agreement of gta.
 6. All drawings specifications and recommendations made by gta are subject to Local Authority and other relevant Statutory Authorities approval. Any works or services made abortive due to the client proceeding prior to these approvals is considered wholly at the Clients risk. gta hold no responsibility for resulting abortive works or costs.

P4	Updated to comments	09.12.2020	JMW	RW
P2	Updated to RSA comments	04.06.2020	JMW	RW
P2	Minor amendments to footway	15.07.2020	JMW	RW
P1	INITIAL ISSUE	25.06.2020	AT	RW
Rev	Amendments	Date	Dsn	Chk

Status	PRELIMINARY		
Client	LANDACRE (EASTERGATE) LTD.		
Architect			
Project	WARWICK NURSERY EASTERGATE		
Title	VISIBILITY SPLAY AND FOOTWAY WARWICK NURSERY BARNHAM ROAD		
Date	2020-06-18	Scale @ A1	1:250
Clients Ref.		Project Ref.	10635
 Civils & Transport Gloucester House, 66a Church Walk, Burgess Hill, West Sussex, RH15 9AS Tel.01444 871444 Web: www.gtacivils.co.uk			
Drawing Number	10635_100		Rev. P4

Appendix D

Stage 1 RSA

**Warwick Nursery
Eastergate
West Sussex
PO20 3RT**

Proposed Development Access

STAGE 1 ROAD SAFETY AUDIT

Report No. EC/2020/07/GTA3

July 2020



Prepared by:

EC ROAD SAFETY LIMITED

1 Draven Close
Hayes, Bromley, Kent
BR2 7PN
United Kingdom

Tel: 07508 76 76 96

Email: audits@ecroadsafety.co.uk

Web: www.ecroadsafety.co.uk

AUTHORISATION SHEET

Client: GTA Civils Limited

Project Sponsor: Edward Mullins

Project: Proposed Development Access

Address: Warwick Nursery
Eastergate
West Sussex
PO20 3RT

PREPARED BY

Name: Vinny Rey
Position: Traffic Engineer / Road Safety Auditor
Date: 15 July 2020

AGREED BY

Name: Paul Nevard
Position: Director – EC Road Safety Limited
Date: 16 July 2020

AUTHORISED FOR ISSUE

Name: Paul Nevard
Position: Director – EC Road Safety Limited
Date: 17 July 2020

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CONTENTS

	Page
1. INTRODUCTION	4 - 5
1.1 General	4
1.2 Purpose of Scheme	5
2. PROBLEMS IDENTIFIED IN PREVIOUS ROAD SAFETY AUDITS	6
3. PROBLEMS IDENTIFIED AT THIS STAGE 1 ROAD SAFETY AUDIT	7 - 12
3.1 General	7
3.2 Local Alignment	8
3.3 Junctions	9
3.4 Non-Motorised User Provision	10
3.5 Road Signs, Carriageway Markings & Street Lighting	11 - 12
4. AUDIT TEAM STATEMENT	13

APPENDICES

A.	List of documents and plans considered during this Stage 1 Road Safety Audit	14
B.	Problems identified from this Stage 1 Road Safety Audit	15

1. INTRODUCTION

1.1 General

- 1.1.1 EC Road Safety Limited has been commissioned by GTA Civils Ltd to undertake a Stage 1 Road Safety Audit on proposed development access for the redevelopment of the existing Warwick Nursery site on Barnham Road, Eastergate, West Sussex. It is proposed to redevelop the site to form a residential development consisting of 45 units with associated car parking and landscaping. The existing site is a greenfield land adjacent to Barnham Road (B2233) and Church Lane. Access to the site currently exists via the Little Warwick Drive (off Barnham Road) and provides access for pedestrians and vehicles. It is proposed to retain the existing site access making improvements as part of the site redevelopment. In addition, it is proposed to make minor pedestrian improvements at the Church Lane / Barnham Road junction.
- 1.1.2 The scope of the audit relates to the site access and highway improvements forming part of the proposed site redevelopment.
- 1.1.3 Barnham Road forms part of the B2233 which connects to Climping in the south and Crockerhill in the north via Burndell, Barnham and Eastergate. The stretch of Barnham Road adjacent to the development site is subject to a 30mph speed limit. There is currently a footway present on the opposite side of the carriageway to the development site and an informal (worn grassed verge) footway which currently links the existing nursery site to Church Lane and the local bus stops in the vicinity. Street lighting is present, and the route serves as a local bus route. The existing Church Lane junction is in close proximity to the site access. Church Lane is a residential road through Eastergate village.
- 1.1.4 Existing collision data provided details four collisions within 250m of the development site of which one was serious and the remaining three were slight. Only one collision was recorded at the Church Lane / Barnham Road junction involving two vehicles resulting in slight injury.
- 1.1.5 The Road Safety Audit Team (approved by Edward Mullins - GTA Civils Limited) consisted of:
- | | |
|--|--|
| Vinny Rey
BEng (Hons) MCIHT, MSoRSA
RSA, Cert. Comp | Traffic Engineer
Road Safety Audit Team Leader |
| Paul Nevard
MSc, BA (Hons) CMILT, MCIHT, MSoRSA
RSA, Cert. Comp | Director – EC Road Safety Ltd
Principal Traffic Engineer
Road Safety Audit Team Member |
- 1.1.6 The Road Safety Audit Brief issued to the Audit Team by Edward Mullins and subsequently accepted consisted of the following:
- 10635_100 Visibility Splay and Footway.pdf
 - 10635 Warwick Nursery – Transport Statement.pdf
 - 6710-SK-04B – Prelim200612.pdf
- 1.1.7 The Audit Team examined the Audit Brief and plans at the EC Road Safety office on Monday 13th July 2020 and the site was subsequently examined by Paul Nevard and Vinny Rey together on Tuesday 14th July 2020 between 12.00 and 12.30 hours. Due to the current Covid-19 situation the journey to the site was taken separately and social distancing

rules and guidelines were observed throughout the site visit. The weather during the daytime site visit was dry but slightly overcast. Traffic flows were moderate and vehicle speeds were observed as also being low to moderate.

- 1.1.8 The Road Safety Audit also comprised of an examination of the documents forming the Audit Brief supplied to the Road Safety Audit Team and are referenced in Appendix A of this report. The location of any problems raised can be found within the report, photographed for reference or referenced in Appendix B of this report. If no problems are identified, only a location plan will be provided for reference in Appendix B.
- 1.1.9 The terms of reference of the Road Safety Audit are as described in the Highways England General Principles and Scheme Governance General information GG119 Road Safety Audit (formerly HD19/15). The Road Safety Audit Team has examined and reported only on the road safety implications of the scheme as presented and has not examined or verified the compliance of the designs to any other criteria. This Road Safety Audit has not considered structural safety or checked for compliance to standards. This safety audit does not perform any "Technical Check" function on these proposals. It is assumed that the Project Sponsor is satisfied that such a "Technical Check" has been successfully completed prior to requesting this safety audit.
- 1.1.10 This Road Safety Audit has been undertaken based on the Road Safety Audit Team's previous experience and knowledge in undertaking Accident Investigation, Road Safety Engineering and Road Safety Audits. No member of the Road Safety Audit Team has had any previous input to the design of the scheme. The audit has been carried out with the sole purpose of identifying any features of the design that could be removed or modified in order to improve the safety of the scheme. The problems identified have been noted in this report together with suggestions for safety improvements, which we recommend should be studied for implementation.

1.2 Purpose of Scheme

The purpose of the scheme is to provide an access road with pedestrian improvements forming part of the proposed site redevelopment at Warwick Nursery, Barnham Road, Eastergate.

2. PROBLEMS IDENTIFIED IN PREVIOUS ROAD SAFETY AUDITS

No previous audits have been supplied to the Audit Team and the Audit Team believe that none have been produced.

3. PROBLEMS IDENTIFIED AT THIS STAGE 1 ROAD SAFETY AUDIT

3.1 General

3.1.1 PROBLEM

Location: Proposed Development Access

Summary: Proposed development access proximity to the Church Lane junction with Barnham Road could lead to rear end shunt type collisions.

Detail: The proposed access and intensification of the site is going to result in a significant increase in turning movements both into and out of the site. The concern is that its close proximity to the Church Lane junction could result in confusion for motorists who may be led to believe that vehicles are indicating to turn into Church Lane when in fact they are indicating to turn into the development site and vice versa. Similarly, there is the issue of vehicles signalling to exit Church Lane and then requiring to enter the development site immediately adjacent, where it would be very difficult to easily signal this to motorists. Both issues could lead to confusion and result in rear end shunt type collisions.

RECOMMENDATION

Traffic calming measures, road markings and/or signs should be introduced to ensure that vehicle speeds are significantly slowed to allow for additional driver reaction time to manoeuvres by other motorists.

3.2

Local Alignment

No problems identified in this category at this stage.

3.3

Junctions

No problems identified in this category at this stage.

3.4

Non-Motorised User Provision

No problems identified in this category at this stage.

3.5 Road Signs, Carriageway Markings & Street Lighting

3.5.1 PROBLEM

Location: Church Lane junction with Barnham Road

Summary: Pedestrians crossing away from crossing point could result in vehicle and pedestrian collisions.

Detail: Whilst it is proposed to make pedestrian improvements to the westbound footway when exiting the development site, including an informal crossing arrangement for pedestrians to cross Church Lane, the proposed crossing location is away from the pedestrian desire line. As such, it is likely that pedestrians wishing to access / egress the development site will cross Church Lane at the junction away from the proposed informal crossing arrangement that is proposed. Pedestrian crossing movements which occur away from crossing facilities increase the risk and likelihood of pedestrian injury. The existing refuge island at the junction is already in a poor condition and not suitable for pedestrians to use, with no dropped kerbs or tactile paving.



RECOMMENDATION

Provide crossing facilities which meet the pedestrian desire line in order to reduce the risk of injury that will occur, should pedestrians cross away from the currently proposed informal crossing on Church Lane.

3.5.2 PROBLEM

Location: Footway adjoining Church Lane and the site access

Summary: Existing vegetation / foliage / sign and lack of dedicated footway could result in pedestrian injury.

Detail: Site observations revealed that there is currently existing vegetation / foliage and a sign plate which would be required to be removed / relocated to provide the proposed footway. The plans also indicate a section of footway to be provided but it is not clear that this will be installed to connect the new development site access to the footway on Church Lane. Failure to do so could result in an obstruction for pedestrians, resulting in pedestrians walking into the live carriageway. Furthermore, the lack of footway would prove particularly difficult for vulnerable road users and those partially sighted - which could lead to pedestrian injury.



RECOMMENDATION

Cut back overhanging vegetation / foliage, relocate existing sign and provide footway to site access.

[End of list of Problems identified and Recommendations offered in this Stage 1 Audit](#)

4. AUDIT TEAM STATEMENT

We certify that this audit has been carried out in accordance with GG119.

AUDIT TEAM LEADER

Vinny Rey

Signed:



Date: 15/07/2020

AUDIT TEAM MEMBER

Paul Nevard

Signed:



EC Road Safety Ltd
1 Draven Close
Hayes
Bromley
Kent
BR2 7PN
United Kingdom

Date: 16/07/2020

Tel: 07508 76 76 96

Email: audits@ecroadsafety.co.uk

APPENDIX A

List of documents and plans considered during this Stage 1 Road Safety Audit:

- 10635_100 Visibility Splay and Footway.pdf
- 10635 Warwick Nursery – Transport Statement.pdf
- 6710-SK-04B – Prelim200612.pdf

Problems identified from this Stage 1 Road Safety Audit:

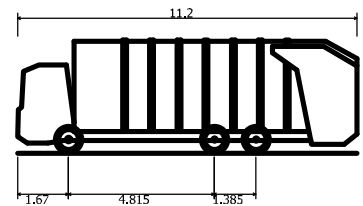


Appendix E

Vehicle Tracking



- GENERAL NOTES
1. The location, size, depth and identification of existing services that may be shown or referred to on this drawing have been assessed from non intrusive observations, record drawings or the file. The contractor shall safely carry out intrusive investigations, trial holes or soundings prior to commencing work to satisfy himself that it is safe to proceed and that the assessments are accurate. any discrepancies shall be notified to gta prior to works commencing.
 2. Tender or billing drawings shall not be used for construction or the ordering of materials.
 3. Do not scale. All dimensions and levels to be site confirmed.
 4. This drawing shall be read in conjunction with all relevant architects, consultants drawings and specifications, together with H&S plan requirements.
 5. Copyright : This drawing must not be copied, amended nor reproduced without the prior written agreement of gta.
 6. All drawings specifications and recommendations made by gta are subject to Local Authority and other relevant Statutory Authorities approval. Any works or services made abortive due to the client proceeding prior to these approvals is considered wholly at the Clients risk. gta hold no responsibility for resulting abortive works or costs.



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

Overall Length	11.200m
Overall Width	2.530m
Overall Body Height	3.751m
Min Body Ground Clearance	1.052m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	9.500m

- Vehicle wheels outline
- Vehicle Body envelope

Rev	Amendments	Date	Dsn	Chk
P5	Updated to Latest Layout	09.12.2020	JMW	RW
P4	Updated to Latest Layout	08.09.2020	ART	RW
P3	Updated to Latest Layout	24.08.2020	ART	RW
P2	Minor amendments to footway	15.07.2020	JMW	RW
P1	INITIAL ISSUE	25.06.2020	AT	RW

Status PRELIMINARY

Client LANDACRE (EASTERGATE) LTD.

Architect

Project WARWICK NURSERY
EASTERGATE

Title REFUSE VEHICLE TRACKING

Date JUNE 2020 Scale @ A1 1:500

Clients Ref Project Ref. 10635

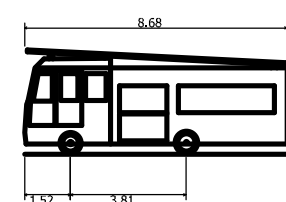


Gloucester House, 66a Church Walk,
Burgess Hill, West Sussex, RH15 9AS
Tel.01444 871444 Web: www.gtacivils.co.uk

Drawing Number 10635_102 Rev. P5



- GENERAL NOTES
1. The location, size, depth and identification of existing services that may be shown or referred to on this drawing have been assessed from non intrusive observations, record drawings or the file. The contractor shall safely carry out intrusive investigations, trial holes or soundings prior to commencing work to satisfy himself that it is safe to proceed and that the assessments are accurate. any discrepancies shall be notified to gta prior to works commencing.
 2. Tender or billing drawings shall not be used for construction or the ordering of materials.
 3. Do not scale. All dimensions and levels to be site confirmed.
 4. This drawing shall be read in conjunction with all relevant architects, consultants drawings and specifications, together with H&S plan requirements.
 5. Copyright : This drawing must not be copied, amended nor reproduced without the prior written agreement of gta.
 6. All drawings specifications and recommendations made by gta are subject to Local Authority and other relevant Statutory Authorities approval. Any works or services made abortive due to the client proceeding prior to these approvals is considered wholly at the Clients risk. gta hold no responsibility for resulting abortive works or costs.



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	6.006
Kerb to Kerb Turning Radius	7.910m

- Vehicle wheels outline
- Vehicle Body envelope

Rev	Amendments	Date	Dsn	Chk
P5	Updated to Latest Layout	09.12.2020	JMW	RW
P4	Updated to Latest Layout	08.09.2020	ART	RW
P3	Updated to Latest Layout	24.08.2020	ART	RW
P2	Minor amendments to footway	15.07.2020	JMW	RW
P1	INITIAL ISSUE	25.06.2020	AT	RW

Status	PRELIMINARY	
Client	LANDACRE (EASTERGATE) LTD.	
Architect		
Project	WARWICK NURSERY EASTERGATE	
Title	FIRE TENDER TRACKING	
Date	JUNE 2020	Scale @ A1 1:500
Clients Ref	Project Ref.	10635
 Gloucester House, 66a Church Walk, Burgess Hill, West Sussex, RH15 9AS Tel.01444 871444 Web: www.gtacivils.co.uk		
Drawing Number	10635_101	Rev. P5

Appendix F

TRICS Assessment

Calculation Reference: AUDIT-349901-200610-0633

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST	
	HC HAMPSHIRE	1 days
04	EAST ANGLIA	
	NF NORFOLK	1 days
	SF SUFFOLK	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	1 days
08	NORTH WEST	
	CH CHESHIRE	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: 10 to 38 (units:)
Range Selected by User: 6 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: 01/01/12 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:

Tuesday	1 days
Wednesday	1 days
Thursday	2 days
Friday	1 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 undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	4
Neighbourhood Centre (PPS6 Local Centre)	1

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

Selected Location Sub Categories:

Residential Zone	4
Village	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	5 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	1 days
5,001 to 10,000	3 days
15,001 to 20,000	1 days

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

Population within 5 miles:

25,001 to 50,000	2 days
50,001 to 75,000	3 days

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

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	3 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	2 days
No	3 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	CH-03-A-11	TOWN HOUSES	CHESHIRE
	LONDON ROAD		
	NORTHWICH		
	LEFTWICH		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	24	
	Survey date: THURSDAY	06/06/19	Survey Type: MANUAL
2	HC-03-A-17	HOUSES & FLATS	HAMPSHIRE
	CANADA WAY		
	LIPHOOK		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	36	
	Survey date: THURSDAY	12/11/15	Survey Type: MANUAL
3	NF-03-A-01	SEMI DET. & BUNGALOWS	NORFOLK
	YARMOUTH ROAD		
	CAISTER-ON-SEA		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	27	
	Survey date: TUESDAY	16/10/12	Survey Type: MANUAL
4	NY-03-A-13	TERRACED HOUSES	NORTH YORKSHIRE
	CATTERICK ROAD		
	CATTERICK GARRISON		
	OLD HOSPITAL COMPOUND		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	10	
	Survey date: WEDNESDAY	10/05/17	Survey Type: MANUAL
5	SF-03-A-06	DETACHED & SEMI-DETACHED	SUFFOLK
	BURY ROAD		
	KENTFORD		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	38	
	Survey date: FRIDAY	22/09/17	Survey Type: MANUAL

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

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

Calculation factor: 1 DWELLS

Estimated TRIP rate value per 1 DWELLS shown in shaded columns

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated 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	27	0.089	0.000	5	27	0.304	0.000	5	27	0.393	0.000
08:00 - 09:00	5	27	0.111	0.000	5	27	0.356	0.000	5	27	0.467	0.000
09:00 - 10:00	5	27	0.133	0.000	5	27	0.104	0.000	5	27	0.237	0.000
10:00 - 11:00	5	27	0.126	0.000	5	27	0.111	0.000	5	27	0.237	0.000
11:00 - 12:00	5	27	0.133	0.000	5	27	0.111	0.000	5	27	0.244	0.000
12:00 - 13:00	5	27	0.126	0.000	5	27	0.141	0.000	5	27	0.267	0.000
13:00 - 14:00	5	27	0.074	0.000	5	27	0.126	0.000	5	27	0.200	0.000
14:00 - 15:00	5	27	0.215	0.000	5	27	0.193	0.000	5	27	0.408	0.000
15:00 - 16:00	5	27	0.207	0.000	5	27	0.119	0.000	5	27	0.326	0.000
16:00 - 17:00	5	27	0.200	0.000	5	27	0.170	0.000	5	27	0.370	0.000
17:00 - 18:00	5	27	0.252	0.000	5	27	0.126	0.000	5	27	0.378	0.000
18:00 - 19:00	5	27	0.200	0.000	5	27	0.096	0.000	5	27	0.296	0.000
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			1.866	0.000			1.957	0.000			3.823	0.000

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: 10 - 38 (units:)
 Survey date range: 01/01/12 - 19/09/19
 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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

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

Calculation factor: 1 DWELLS

Estimated TRIP rate value per 1 DWELLS shown in shaded columns

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated 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	27	0.000	0.000	5	27	0.022	0.000	5	27	0.022	0.000
08:00 - 09:00	5	27	0.007	0.000	5	27	0.037	0.000	5	27	0.044	0.000
09:00 - 10:00	5	27	0.000	0.000	5	27	0.022	0.000	5	27	0.022	0.000
10:00 - 11:00	5	27	0.022	0.000	5	27	0.007	0.000	5	27	0.029	0.000
11:00 - 12:00	5	27	0.000	0.000	5	27	0.015	0.000	5	27	0.015	0.000
12:00 - 13:00	5	27	0.007	0.000	5	27	0.000	0.000	5	27	0.007	0.000
13:00 - 14:00	5	27	0.000	0.000	5	27	0.000	0.000	5	27	0.000	0.000
14:00 - 15:00	5	27	0.015	0.000	5	27	0.000	0.000	5	27	0.015	0.000
15:00 - 16:00	5	27	0.030	0.000	5	27	0.007	0.000	5	27	0.037	0.000
16:00 - 17:00	5	27	0.037	0.000	5	27	0.000	0.000	5	27	0.037	0.000
17:00 - 18:00	5	27	0.007	0.000	5	27	0.022	0.000	5	27	0.029	0.000
18:00 - 19:00	5	27	0.007	0.000	5	27	0.000	0.000	5	27	0.007	0.000
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.132	0.000			0.132	0.000			0.264	0.000

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

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

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

Calculation factor: 1 DWELLS

Estimated TRIP rate value per 1 DWELLS shown in shaded columns

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated 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	27	0.007	0.000	5	27	0.067	0.000	5	27	0.074	0.000
08:00 - 09:00	5	27	0.059	0.000	5	27	0.178	0.000	5	27	0.237	0.000
09:00 - 10:00	5	27	0.074	0.000	5	27	0.044	0.000	5	27	0.118	0.000
10:00 - 11:00	5	27	0.052	0.000	5	27	0.089	0.000	5	27	0.141	0.000
11:00 - 12:00	5	27	0.081	0.000	5	27	0.044	0.000	5	27	0.125	0.000
12:00 - 13:00	5	27	0.052	0.000	5	27	0.052	0.000	5	27	0.104	0.000
13:00 - 14:00	5	27	0.052	0.000	5	27	0.067	0.000	5	27	0.119	0.000
14:00 - 15:00	5	27	0.081	0.000	5	27	0.015	0.000	5	27	0.096	0.000
15:00 - 16:00	5	27	0.170	0.000	5	27	0.067	0.000	5	27	0.237	0.000
16:00 - 17:00	5	27	0.059	0.000	5	27	0.037	0.000	5	27	0.096	0.000
17:00 - 18:00	5	27	0.074	0.000	5	27	0.052	0.000	5	27	0.126	0.000
18:00 - 19:00	5	27	0.074	0.000	5	27	0.067	0.000	5	27	0.141	0.000
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.835	0.000			0.779	0.000			1.614	0.000

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 1 DWELLS

Estimated TRIP rate value per 1 DWELLS shown in shaded columns

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated 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	27	0.022	0.000	5	27	0.037	0.000	5	27	0.059	0.000
08:00 - 09:00	5	27	0.000	0.000	5	27	0.022	0.000	5	27	0.022	0.000
09:00 - 10:00	5	27	0.000	0.000	5	27	0.000	0.000	5	27	0.000	0.000
10:00 - 11:00	5	27	0.000	0.000	5	27	0.007	0.000	5	27	0.007	0.000
11:00 - 12:00	5	27	0.007	0.000	5	27	0.000	0.000	5	27	0.007	0.000
12:00 - 13:00	5	27	0.000	0.000	5	27	0.000	0.000	5	27	0.000	0.000
13:00 - 14:00	5	27	0.007	0.000	5	27	0.000	0.000	5	27	0.007	0.000
14:00 - 15:00	5	27	0.007	0.000	5	27	0.000	0.000	5	27	0.007	0.000
15:00 - 16:00	5	27	0.000	0.000	5	27	0.007	0.000	5	27	0.007	0.000
16:00 - 17:00	5	27	0.015	0.000	5	27	0.007	0.000	5	27	0.022	0.000
17:00 - 18:00	5	27	0.007	0.000	5	27	0.022	0.000	5	27	0.029	0.000
18:00 - 19:00	5	27	0.015	0.000	5	27	0.000	0.000	5	27	0.015	0.000
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.080	0.000			0.102	0.000			0.182	0.000

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL PEOPLE

Calculation factor: 1 DWELLS

Estimated TRIP rate value per 1 DWELLS shown in shaded columns

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated 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	27	0.148	0.000	5	27	0.511	0.000	5	27	0.659	0.000
08:00 - 09:00	5	27	0.185	0.000	5	27	0.719	0.000	5	27	0.904	0.000
09:00 - 10:00	5	27	0.230	0.000	5	27	0.200	0.000	5	27	0.430	0.000
10:00 - 11:00	5	27	0.215	0.000	5	27	0.296	0.000	5	27	0.511	0.000
11:00 - 12:00	5	27	0.267	0.000	5	27	0.185	0.000	5	27	0.452	0.000
12:00 - 13:00	5	27	0.237	0.000	5	27	0.252	0.000	5	27	0.489	0.000
13:00 - 14:00	5	27	0.141	0.000	5	27	0.230	0.000	5	27	0.371	0.000
14:00 - 15:00	5	27	0.385	0.000	5	27	0.281	0.000	5	27	0.666	0.000
15:00 - 16:00	5	27	0.504	0.000	5	27	0.230	0.000	5	27	0.734	0.000
16:00 - 17:00	5	27	0.393	0.000	5	27	0.326	0.000	5	27	0.719	0.000
17:00 - 18:00	5	27	0.459	0.000	5	27	0.267	0.000	5	27	0.726	0.000
18:00 - 19:00	5	27	0.356	0.000	5	27	0.185	0.000	5	27	0.541	0.000
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			3.520	0.000			3.682	0.000			7.202	0.000

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

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

Appendix G

A29 Realignment Modelling Flow Data

The below table contains modelled flow data that has been extracted from the A29 Realignment forecast models for the Do Minimum and Phase 1 & 2 scenarios

Link Description	Direction	AM (0800-0900)				PM (1700-1800)			
		2023 Forecast Year		2038 Forecast Year		2023 Forecast Year		2038 Forecast Year	
		DM	Phase 1 & 2	DM	Phase 1 & 2	DM	Phase 1 & 2	DM	Phase 1 & 2
B2233, east of Fontwell Avenue (War Memorial roundabout)	Eastbound	424	151	505	159	432	160	525	173
	Westbound	708	488	772	591	479	212	631	290

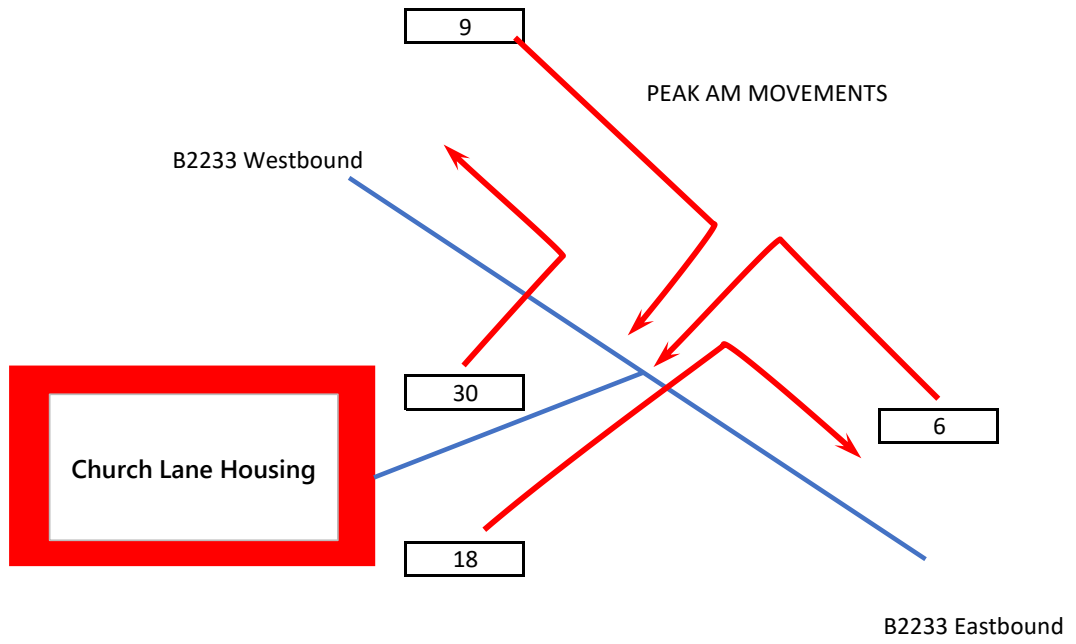
Note: All flows are in vehicles

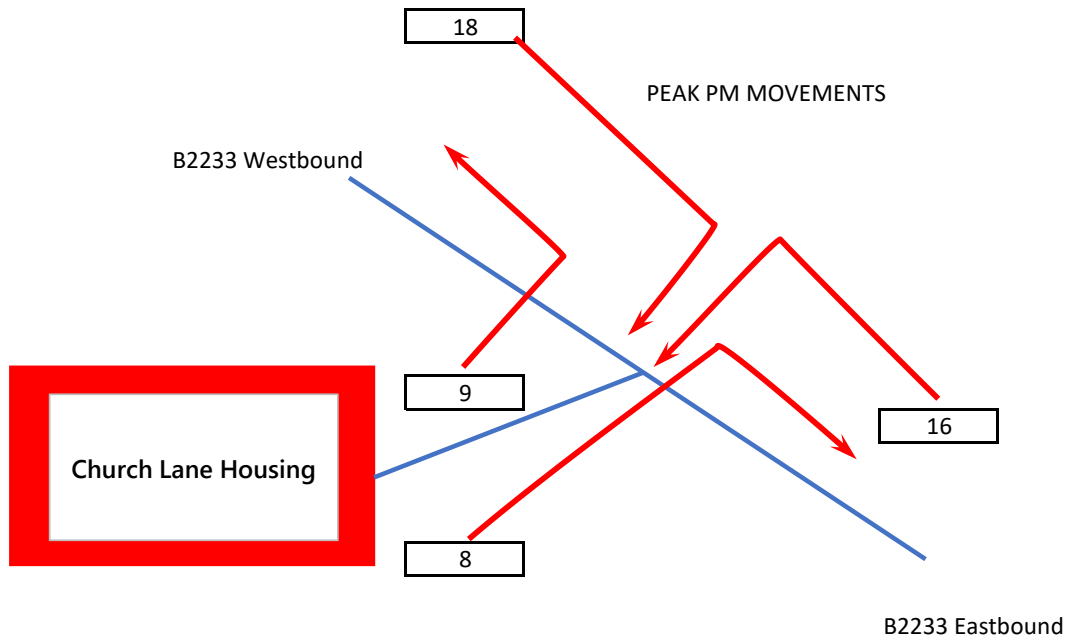
Link location Plan



Appendix H

Church Lane / B2233 Junction Flows







Civil Engineering - Transport Planning - Flood Risk

GTA Civils & Transport, Gloucester House, 66a Church Walk, Burgess Hill, West Sussex, RH15 9AS
T: 01444 871444 E: enquiries@gtacivils.co.uk www: gtacivils.co.uk

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