



Cala Homes South Home Counties

LAND AT WESTERGATE

Transport Assessment



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ARUN DISTRICT COUNCIL

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1 INTRODUCTION

1.1 OVERVIEW

- 1.1.1. WSP has been appointed by Cala Homes to provide Transportation and Highways advice in support of a planning application for the development of land located at Westergate, West Sussex.
- 1.1.2. The site is located on land to the east of the A29 Westergate Street, accessed via a new traffic signal junction at Meadow Way / Pine Close. The proposed development will provide a total of 400 dwellings with associated car parking. As illustrated in Figure 1-1, the site is bordered by existing residential development to the west and by agricultural land to the east and forms part of the Barnham / Eastergate / Westergate (BEW) strategic development site. Proposals for the BEW strategic development include the realignment of the A29 to the east of the Cala Homes site to bypass the existing railway level crossing at Woodgate and provide a grade separated crossing to eliminate vehicle queues associated with the level crossing. The realignment of the A29 will run from the existing A29 Fontwell Avenue/ Eastergate Lane to the north of Eastergate at the and connect to the existing alignment to the south of the railway on the A29 Lidsey Road just to the north of Sack Lane. The realigned A29 will connect with the Cala Homes site and existing A29 alignment, via an East-West Link Road.
- 1.1.3. A previous application for this Cala Homes site was submitted, for a development of 350 dwellings, under the reference AL/15/17/PL. The planning application was refused by Arun District Council on 26th March 2020 for reasons relating to mineral safeguarding, impact on ecology and trees and ensuring that the development complies with the Lifetime Homes Standard. In relation to Highway matters, the District Council stated that insufficient information had been submitted to demonstrate that kerbside collection is possible for municipal vehicles, contrary to Policy WM DM1(a) of the Arun Local Plan. It is noted however that a 'no objection' response subject to securing of relevant S106 contributions was issued by WSCC and Highways England (now National Highways) as confirmed in the Planning Committee Officers Report dated 26/03/20.
- 1.1.4. A planning application (ref. BN/11/22/OUT) for BEW Parcel SC1 (directly adjacent to the Cala Homes site that forms the study of this report) was submitted in 2022 and at the time of writing is yet to be determined. This planning application was for the following development proposals:
Outline application with all matters reserved (except for the A29 Realignment) for the demolition of existing structures and mixed use development to provide up to 1,250 residential dwellings (Use Class C3), Care Home/Senior Living Accommodation (Use Class C2/C3), flexible retail and community floorspace (Use Classes E/F2/Sui Generis), a Primary School plus open space, landscaping, drainage and all other associated ancillary works; and realignment of the A29 and early connection to existing A29 including construction of a new road carriageway, junctions and associated infrastructure.
- 1.1.5. The proposals contained within this Transport Assessment (TA) has considered scoping discussions between WSP and West Sussex County Council, as the local highway authority, and National Highways as the authority responsible for the strategic road network (A27). The Local Planning Authority is Arun District Council. The scoping reports and emails between WSP and the relevant Highway Authorities are included within **Appendix A**.



- 1.1.6. A separate Framework Travel Plan has been prepared in support of the Planning Application for the proposed development and should be read in conjunction with this Transport Assessment.

1.2 REPORT STRUCTURE

- 1.2.1. The remainder of this TA is set out with the following structure:

- ※ Section 2 sets out the national and local policy context in relation to the proposed development;
- ※ Section 3 describes the existing conditions in the vicinity of the development site, in terms of the local highway network, the existing transport facilities, historical road accident collision data, an overview of accessibility of the development site by sustainable modes and an overview of school, retail, leisure and health facilities in the vicinity of the site;
- ※ Section 4 describes the development proposals, including details of the proposed access and parking arrangements;
- ※ Section 5 provides a summary of the Framework Travel Plan that has been produced for the proposed development;
- ※ Section 6 outlines the development trip generation and distribution proposals;
- ※ Section 7 provides junction capacity modelling to illustrate the impact of the proposed development on the operation of the local highway network;
- ※ Section 8 provides an assessment of the A29 Level Crossing; and
- ※ Section 9 provides the Summary and Conclusions of the Transport Assessment.



2 POLICY CONTEXT

2.1 INTRODUCTION

- 2.1.1. This section sets out an overview of the national and local transport policy to provide context for the assessment of transport issues of the development proposals.

2.2 NATIONAL PLANNING POLICY FRAMEWORK, DCLG, MARCH 2012 (UPDATED SEPTEMBER 2023)

- 2.2.1. Published on 27th March 2012 (updated September 2023), the National Planning Policy Framework (NPPF) seeks to reduce the complexity and improve the accessibility of the planning system, whilst protecting the environment and encouraging growth in a sustainable manner.
- 2.2.2. The NPPF replaces all of the previous Planning Policy Guidance Notes and Statements, becoming the definitive national planning guidance from which local planning authorities can, in collaboration with their communities, produce local plans appropriate to the character and needs of their area.
- 2.2.3. The NPPF sets out a presumption in favour of sustainable development which should be delivered with three main dimensions: economic; social and environmental, (Paragraphs 8 and 11).
- 2.2.4. The NPPF sets aims to offer genuine choice of transport modes, and should be focused on areas which are, or can, be made sustainable. This also encourages solutions which support reductions in greenhouse gas emissions and reduce congestion, improving air quality and public health (Paragraph 105).
- 2.2.5. This TA will demonstrate how the proposed development fulfils the criteria set out in Paragraph 110 of NPPF, to account for:
- ※ The opportunities for sustainable transport modes to be used;
 - ※ Provision of safe and suitable access to the site for all users;
 - ※ Design of different elements of the transport network should reflect current national guidance, such as the National Design Guide; and
 - ※ Cost-effective improvements which can be undertaken within the transport network to limit any significant impacts arising from the development.

2.3 DFT CIRCULAR 02/2013, THE STRATEGIC ROAD NETWORK AND THE DELIVERY OF SUSTAINABLE DEVELOPMENT (UPDATED DECEMBER 2022)

- 2.3.1. The above document provides details of how National Highways will engage with communities and the development industry to deliver sustainable development and, thus, economic growth, whilst safeguarding the primary function and purpose of the strategic road network.
- 2.3.2. The document reflects the Policy stance of the NPPF of a presumption in favour of development where at paragraph 12 it states:-

“New development should be facilitating a reduction in the need to travel by private car and focused on locations that are or can be made sustainable... Developments in the right places and served by



the right sustainable infrastructure delivered alongside or ahead of occupancy must be a key consideration when planning for growth in all local authority areas”.

- 2.3.3. Paragraph 47 of the document states that, when requested, engagement with local planning authorities and developers will be undertaken at the pre-application stage to scope Transport Assessments and Travel Plans. This process should determine the inputs and methodology relevant to establishing the potential impacts on the strategic road network (SRN). As part of a Transport Assessment, it must be demonstrated that a development is located in an area of high accessibility by sustainable modes of transport and that the proposals do not create a significant constraint to the delivery of any planned improvements to the transport network or allocated sites.
- 2.3.4. The guidance requests that an opening year assessment is completed of the development proposals to establish the residual transport impacts of the proposed development. Where the Transport Assessment identifies that the development would have an unacceptable safety impact or the residual cumulative impact would be severe, it is expected that the developer will identify when, in relation to occupation of the development, transport improvements become necessary.
- 2.3.5. Cutting Growth, Cutting Carbon: Making Sustainable Transport Happen (DfT, 2011)
- 2.3.6. Creating Growth, Cutting Carbon is the DfT White Paper published in January 2011, which sets out plans for transport to become an engine to economic growth through careful investment in sustainable transport. Its key aim is to:
 - ✧ Encourage sustainable local travel and economic growth by making public transport, cycling and walking more attractive and effective, promoting lower carbon transport and tackling local road congestion.
- 2.3.7. The document aims to encourage more sustainable transport choices through returning decision making to the local level where they know what works. It realises that for some journeys, a car is the only viable mode and therefore low emission vehicles are important in addressing that demand, together with car sharing and car-pooling opportunities.
- 2.3.8. However, it is recognised that for many shorter journeys (those less than 5 miles), walking, cycling or using public transport can be a viable alternative. Giving people choices will encourage modal shift thereby improving not only the environment, but also health.

2.4 MANUAL FOR STREETS (DfT, 2007)

- 2.4.1. Manual for Streets (MfS) was published in March 2007 and brought about a fundamental change in the way in which streets should be designed and adopted. Applicable to residential areas, streets with low volumes of traffic, this document provides guidance on how to create better designed streets that contribute significantly to the quality of the built environment and play a key role in the creation of high-quality places.
- 2.4.2. MfS recognises that there is a need to transform the quality of residential streets, and this requires a new approach to their provision. MfS is aimed at any organisation or discipline with an interest in residential streets, ranging from highway engineers to the emergency services. The importance of working together among practitioners is a key feature of MfS. The main focus of the document is that streets should not be designed just to accommodate the movement of motor vehicles and that a primary consideration is also required towards the needs of pedestrians and cyclists.



2.5 WEST SUSSEX TRANSPORT PLAN (2022 – 2036)

- 2.5.1. The West Sussex County Council Local Transport Plan was formally adopted in May 2023. The WSTP sets out how the County Council, working with its strategic partners particularly in relation to funding, intends to address key challenges by improving, maintaining and managing the transport network in the period to 2036.
- 2.5.2. A number of key issues have been identified that the Plan seeks to address:
- ✧ Climate change;
 - ✧ Local environmental impacts;
 - ✧ Spatially variable economic performance;
 - ✧ Development and regeneration pressures and opportunities;
 - ✧ Growing and ageing population;
 - ✧ Public health and well-being;
 - ✧ Access to services; and
 - ✧ Transport network performance issues.
- 2.5.3. Paragraph 7.22 to 7.43 outlines the area transport strategy for Arun District. Issues raised in the area are listed below:
- ✧ Congestion on the A27 at Arundel and Fontwell during peak hours;
 - ✧ Congestion on the A29 and A259;
 - ✧ Poor connectivity between Littlehampton and Bognor Regis and the A27;
 - ✧ Level crossings at Wick, Woodgate and Ford which create congestion and poor air quality;
 - ✧ Rat running on less suitable routes causing concerns over safety;
 - ✧ Bus journey times are slow at peak times due to congestion on routes such as the A259;
 - ✧ Rail services to London, Brighton and the Solent cities can be slow, and some trains lack modern facilities;
 - ✧ No direct rail services between Bognor Regis and Chichester, or the Arun Valley and parts of the West Coastway route;
 - ✧ The current cycle network does not meet user needs and it is limited in extent and disjointed between Bognor Regis, Littlehampton, Arundel and adjoining areas such as Chichester and Worthing where there are gaps in NCN2; and
 - ✧ The A27 and railway lines cause community severance, particularly for active travel modes.

2.6 ARUN DISTRICT LOCAL PLAN

- 2.6.1. Arun District Council adopted the Arun District Local Plan 2011-2031 in July 2018.
- 2.6.2. Section 15 states Arun's Local Plan strategic objectives for transport including reducing the need to travel and promote sustainable forms of transport, and contains the policies established to achieve these goals.
- 2.6.3. Policy H SP2c Barnham / Eastergate / Westergate has been established to ensure certain specifics are addressed in any planning proposal. The development must provide at least 2,300 dwellings, provide a new community hub, high quality imaginative design layout for pedestrians, cyclists, equestrians and vehicles, access to local community, recreational and shopping facilities, jobs and accessible transport. A number of transport measures will be delivered as part of the allocation these include:



- ※ Efficient and well-connected permeable road and Public Right of Way layouts that provides a choice of safe and convenient routes for car users and non-motorised mode users.
- ※ Provision of a new A29 route through the Barnham/ Eastergate/ Westergate site allocation, which includes a bridge over the railway to the east of the current Woodgate crossing.
- ※ Development proposals must facilitate the needs of pedestrians, cyclists and vehicles users in the overall design concept.
- ※ Provision of an east-west route that will join the existing A29 route to the new A29 route and continue eastwards to Barnham Railway Station. This route will provide access to Barnham village centre and railway station for pedestrians and cyclists.
- ※ Mitigation measures for the western Fontwell roundabout, to address the impact of traffic arising from the overall development of Barnham/ Eastergate/ Westergate.

- 2.6.4. Policy T SP1 Transport and Development is established to ensure a reduction in congestion, provide safe access to the highway network and promote sustainable transport. This policy indicates that the Council will support development that reduces the need to travel by car, incorporates into the District's green infrastructure, contributes towards new road schemes and provides appropriate levels of car parking.
- 2.6.5. Policy T DM1 Sustainable Travel and Public Rights of Way is established to ensure developments have access to sustainable modes of transport. This policy indicates that development must be located within easy access of established public transport services, pedestrian and cycle networks, make provision for cycling and pedestrian facilities, and contribute towards the provision of a joined-up cycle network and Public Rights of Way network.
- 2.6.6. Policy T SP3 Safeguarding the Main Road Network is established to ensure identified improvements to the strategic road network within the district can be carried out. Of specific reference is the safeguarding of the A29 realignment and access route through the Barnham / Eastergate / Westergate site allocation.

2.7 WEST SUSSEX COUNTY COUNCIL GUIDANCE ON PARKING AT NEW DEVELOPMENTS (SEPTEMBER 2020)

- 2.7.1. The guidance replaces the previous guidance: 'Standards and Transport Contributions Methodology' (2003) and 'Guidance for Parking in New Residential Developments' (2010) and was produced in consultation with Local Planning Authorities in West Sussex, following a review of the County Council's previous guidance.
- 2.7.2. The guidance should be used to help determine the level of parking at new developments to ensure the parking meets the demand of the development whilst maintaining highway network operations, protecting surrounding communities and pursuing opportunities to encourage use of sustainable modes of travel. The guidance notes that expected parking demand in residential developments should be determined taking account of location, dwelling size, parking provision (allocated or unallocated), arrangements for control / enforcement and taking account of forecast changes in demand over the local plan period.
- 2.7.3. To assist with such calculations the guidance has used growth factors from the Department for Transport national Trip End dataset, applying these to Census 2011 data to calculate expected parking demand for different sizes of dwelling across the County. To take account of the location of the development and accessibility to other modes of transport, each District has been divided into



Parking Behaviour Zones (PBZ), with Westergate located in PBZ2. The anticipated parking demand for PBZ2 is shown in **Table 2-1** below.

Table 2-1 – WSCC Car Parking Standards.

Number of Bedrooms	Parking Behaviour Zone 2 – No. of Spaces to be Provided
1	1.4
2	1.7
3	2.1
4+	2.7

- 2.7.4. The guidance also states that developers should be consistent with national research in relation to visitor parking, which suggests, 'that no special provision should be made for visitors where at least half of the parking provision associated with the development is unallocated. In other circumstances it may be appropriate to allow for additional demand for visitor parking for 0.2 spaces per dwelling.' A minimum of 5% of the total number of spaces should be provided for disabled users and motorcycle parking standards will be consistent with the guidance in Manual for Streets.
- 2.7.5. It is noted that there is currently no specified electric vehicle car parking demand for West Sussex County Council, however, Appendix B of the document provides a growth index of electric vehicle sales and a percentage allocation of spaces that should be provided for developments. A 2023 growth index provides an estimated figure of 41% of all spaces providing electric vehicle charging points. For electric vehicles the guidance states that 'active' charging points for electric vehicles should be provided at a minimum of 20% of all parking spaces with 'passive' provision (ducting) provided at all remaining spaces where appropriate for upgrade of these spaces in the future.
- 2.7.6. The document also includes guidance on minimum cycle parking requirements as outlined in **Table 2-2**.

Table 2-2 - West Sussex Cycle Parking Standards

Type	Size	Cycle Provision
Houses	Up to 4 rooms (1 & 2 bed)	1 space
Houses	5+ rooms (3+ bed)	2 spaces
Houses	Multiple Occupation	1 space
Flats	Up to 3 rooms (1 & 2 bed)	0.5 space (if communal storage otherwise same as 1 & 2 bed house)
Flats	4+ rooms (3+ bed)	1 space

2.8 ARUN DISTRICT COUNCIL PARKING STANDARDS SPD

2.8.1. The Arun District Council Parking Standards Supplementary Parking Standards Document was published in January 2020. This SPD takes the WSCC Guidance on Parking at New Developments (GPND) guidance approach to parking standards with the exception that:

- ※ Standards for Electric Vehicle provision takes a hybrid approach using both the Arun Electric Vehicle Infrastructure Study (2017) requirements alongside the WSCC GPND approach. This means that 100% of houses and garages with a driveway or garage must be provided with EV charging points;
- ※ Rounded figures are given in Table 3.1 for Expected level of provision for new residential developments. This revised car parking requirement is shown in **Table 2-3**;
- ※ 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; and
- ※ Cycle provision rounded from 0.5 to 1 space for Flats with up to 3 rooms (1 & 2 bed).

Table 2-3 – Arun District Council Car Parking Standards.

Number of Bedrooms	Parking Behaviour Zone 2 -- No. of Spaces to be Provided
1	2
2	2
3	2
4+	3

2.9 BEW FRAMEWORK MASTERPLAN (REV P3) 2020

2.9.1. In November 2020 Arun District Council approved a Framework Masterplan for BEW strategic allocation. This Masterplan was produced to guide future planning applications on the site and demonstrates how the requirements in Policy H SP2c can be delivered. These requirements are stated to include the building of up to 4,300 new homes (2,300 within the Local Plan period), two primary schools and two local centres. The illustrative masterplan for the BEW site is shown in



2.9.2. Figure 2-1.

2.9.3. In relation to highways and transport the masterplan includes commitments to the following:

- ⌘ Delivering the realigned A29 including a new bridge across the railway line;
- ⌘ Integrating with the existing pedestrian and cycle links to the surrounding villages;
- ⌘ Delivering an East-West link between the existing A29 and the A29; and
- ⌘ Establishing a sustainable link to Barnham railway station.

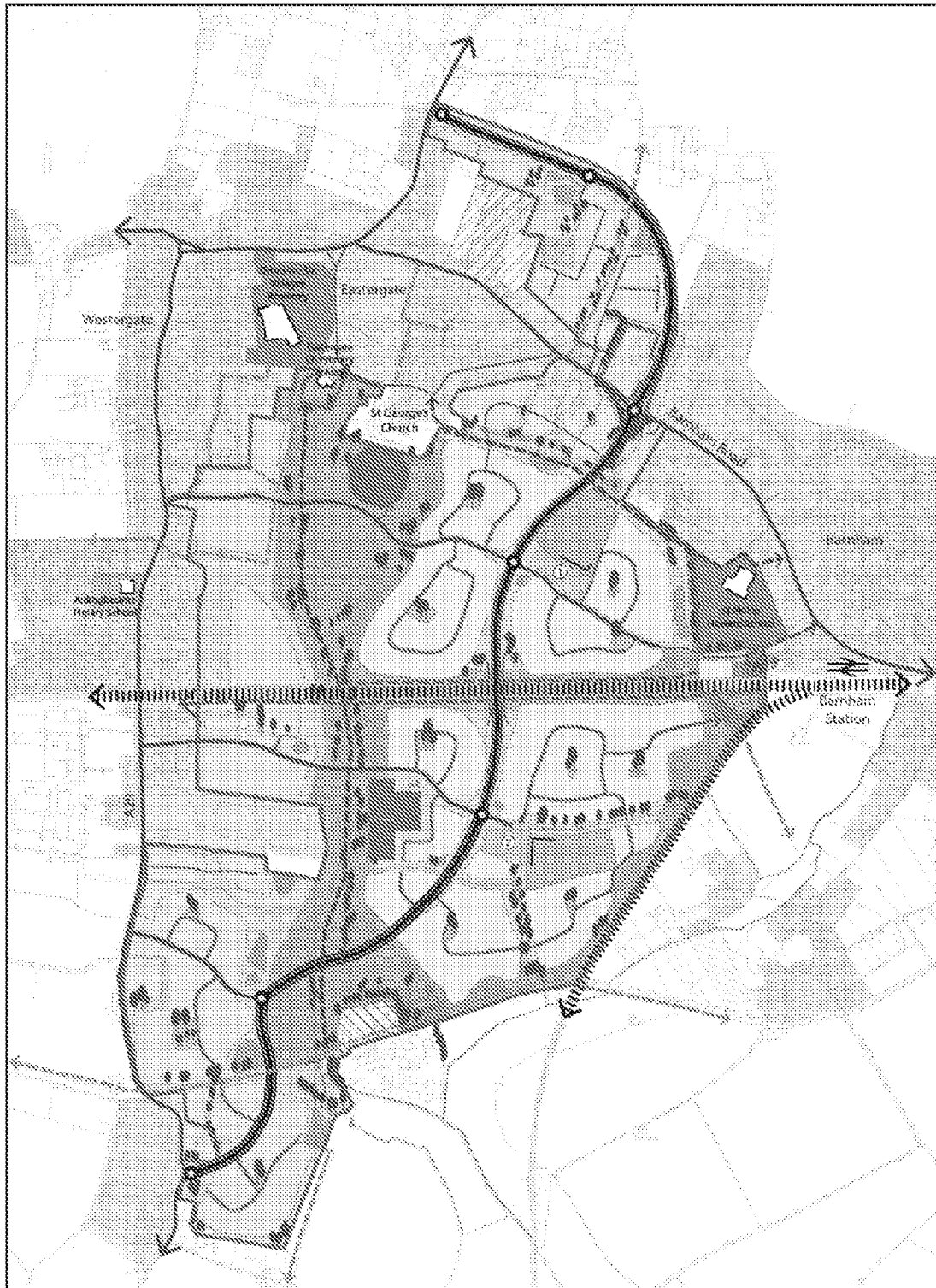
2.9.4. The Woodgate level crossing will remain open and provide a north-south link across the existing A29 for the existing communities in Westergate and Woodgate.

2.9.5. In relation to pedestrian and cycle connectivity the masterplan notes that routes will comprise a mix of on and off-street infrastructure, with segregated paths being provided north-south alongside the realigned A29 and between the existing A29 at Westergate and Barham station via an east-west link.

2.9.6. The masterplan document also states that delivery and phasing of the development has been approached based upon the following principles:

- ⌘ Infrastructure should be provided in a timely manner to mitigate the impact of the development; and
- ⌘ Each part of the site that comes forward for development will be as self-sufficient as possible, in terms of access, drainage, etc whilst delivery strategic elements of infrastructure in a timely manner and not prejudicing the ability of the following phases to do the same.

Figure 2-1 - BEW Illustrative Masterplan





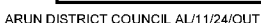
3 EXISTING CONDITIONS

3.1 INTRODUCTION

- 3.1.1. This section sets out the existing conditions in the vicinity of the site, including the existing road network, traffic conditions, public transport services, the existing mode shares, and personal injury accident data.

3.2 SITE LOCATION

- 3.2.1. As shown in Figure 3-1 the development is located to the southern part of Westergate, on the eastern side of A29 Westergate Street. The site is bounded by A29 Westergate Street, residential housing to the north and agricultural land to the east. The site location is near the junction of A29 Westergate Street and Meadow Way.



- 3.2.2. The existing site access location is shown in Photograph 1 and 2, which are looking northbound from the southern corner of the A29 Westergate Street / Meadow Way priority junction.



Photograph 1. Existing Site Access and Meadow Way



Photograph 2. A29 Northbound and Meadow Way

3.3 LOCAL HIGHWAY NETWORK

- 3.3.1. A29 Westergate Street is a classified A road and provides a link from Fontwell onto Bognor Regis to the south. The road has junctions evenly spaced along its length providing access to mainly residential developments and is single-carriageway until just north of Bognor Regis. There are generally no parking restrictions along the road and there are some instances of parking occurring in front of residential properties. In the vicinity of the site the A29 has a posted speed limit of 30mph and street lighting, although 75 metres to the south of the site access there is a 20mph school zone for Aldingbourne Primary School.



- 3.3.2. A29 Westergate Street has a level railway crossing to the south of Hook Lane approximately 550 metres from the site entrance. The level crossing provides a signal controlled crossing for the West Coastway Railway line for services between Barnham and Chichester stations. The level crossing is a barrier protected crossing that contains manned controlled barriers operated via CCTV. In advance of a train approaching the level crossing, amber warning lights are displayed to vehicles followed by a red light reinforced with the lowering of barriers to halt vehicles at the crossing point. Vehicles are held on the red light / barrier until the train has cleared the level crossing, when the barriers are raised and the lights extinguished. Barrier closure times are variable and are based on predetermined safety clearance times. Further information on closure times is provided in **Table 3.1**.
- 3.3.3. Meadow Way is a local residential street providing access to 79 dwellings. Meadow Way has no through route and has a narrow carriageway width. There are no parking restrictions along the road.
- 3.3.4. Pine Close is a residential cul-de-sac providing access to approximately 10 dwellings. Pine Close is a no through road but does provide access to the Footpath 297. There are no parking restrictions in place.
- 3.3.5. A29 Westergate Street / Meadow Way junction is a priority-controlled T-junction with line-marking. There are junction approach warning signs south along A29 Westergate Street. There are no parking restrictions at the junction. Pine Close is located immediately to the north of the proposed site access which serves access to a number of dwellings. Pine Close forms a priority controlled junction with A29 Westergate Street with tactile paving to facilitate pedestrian movement.

A29 WOODGATE LEVEL CROSSING

- 3.3.6. The level crossing of the A29 at Westergate Street approximately 550m south of the site entrance has been assessed in the future year scenarios. An assumption has been made that train times remain the same and as such occurrences of the closure of the road will be the same in future years as the observed base year.
- 3.3.7. The Office of Rail Regulation's "Level Crossings: A guide for managers, designers and operators Railway Safety Publication 7" (December 2011) provides guidance on the operation of level railway crossings and assessing the suitability of level crossing types. The guide specifies criteria on the design and level of protection that should be provided at a level crossing, which is based on traffic volumes, number of train lines and train speeds. The guide does not require / recommend any upgrade of the existing level crossing facility (barrier crossings operated by railway staff) based on the estimated increase in vehicle traffic or pedestrian numbers at this location. As such, it is considered that the existing level crossing is suitable for the estimated increase in traffic associated with the development. No changes are proposed to the operation of the level railway crossing or the closure time / sequences that occur.

A29 TRAFFIC VOLUME

- 3.3.8. The development will result in an increase in the arrival rate of vehicles that approach the level railway crossing per hour but the service rate of the level railway crossing (that is, the amount of traffic that can pass through the level railway crossing in any given hour) will remain the same given the assumption above. As such, vehicle queues associated with closure times at the level railway crossing are expected to increase as traffic volumes increase on A29 Westergate Street.
- 3.3.9. A survey was completed at the A29 level crossing on the 1st March 2022 which recorded the barrier closure time and associated queue length between 07:00-10:00 and 16:00-19:00. The operation of



the barrier is a manual process and such the amount of time the barrier down is variable. Additionally, the barrier can be closed for longer periods when there are trains approaching from each direction, as the time taken to initiate the raising and lowering sequence between trains may not meet the minimum requirements for safe operation. A summary of the observed closing times is shown in **Table 3-1** below along with a comparison of how this data compares to a survey completed in 2016.

Table 3-1 – Level Crossing Closures

Time Period	Average Closure Time	Maximum Closure Time	Total Time Closed During Time Period	Comparison of Total Closure Time to 2016 Survey
07:00-10:00	00:02:31	00:06:27	1:10:23	+0:17:29
08:00-09:00	00:02:53	00:06:27	0:28:54	+0:16:36
16:00-19:00	00:02:09	00:03:48	0:53:47	+0:12:31
17:00-18:00	00:02:24	00:03:48	0:19:08	+0:02:45

- 3.3.10. **Table 3-1** shows that on average the level crossing is closed for between 2-3 minutes during peak periods but with a maximum closure time of six and half minutes in the morning and nearly four minutes in the evening. The surveys recorded a longer closure time than recorded in 2017 although this was a result of there being four additional barrier closures across each of the AM and PM peak periods. These barrier closures resulted in the A29 southbound queue lengths shown on **Figure 3-2** and **Figure 3-3** below.



Figure 3-2 - A29 Level Crossing AM Peak Queue Lengths

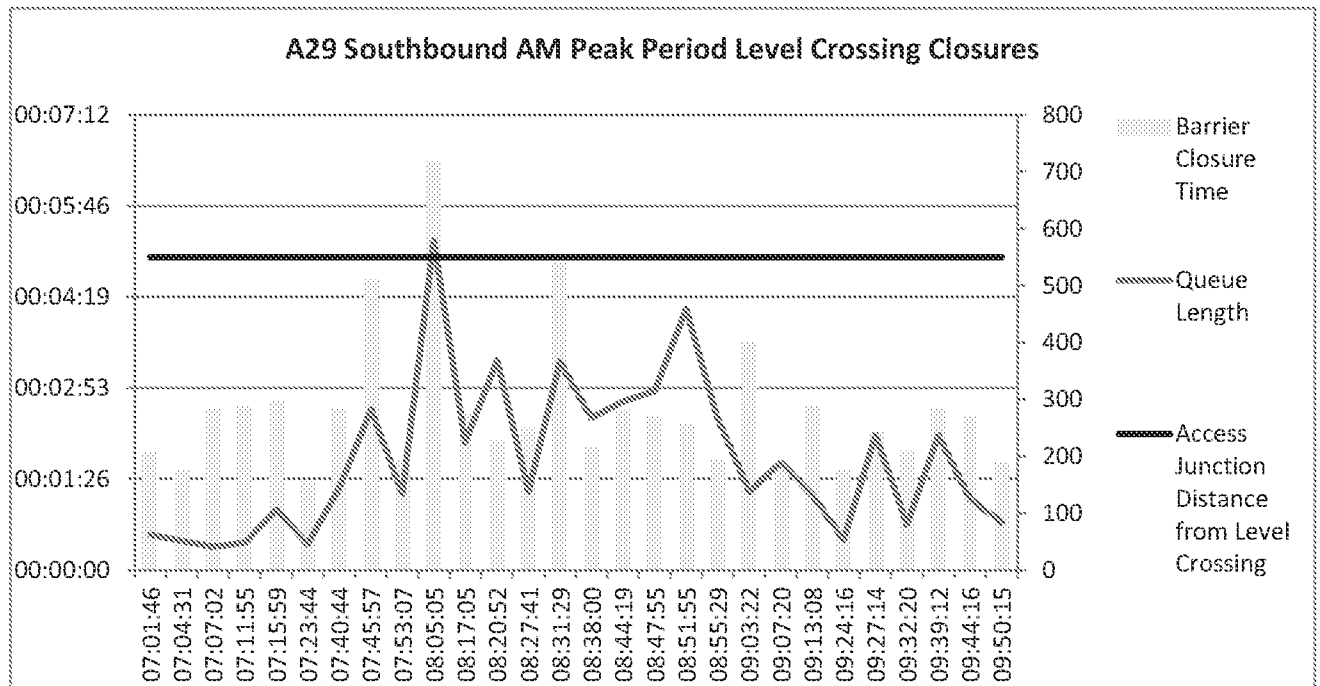
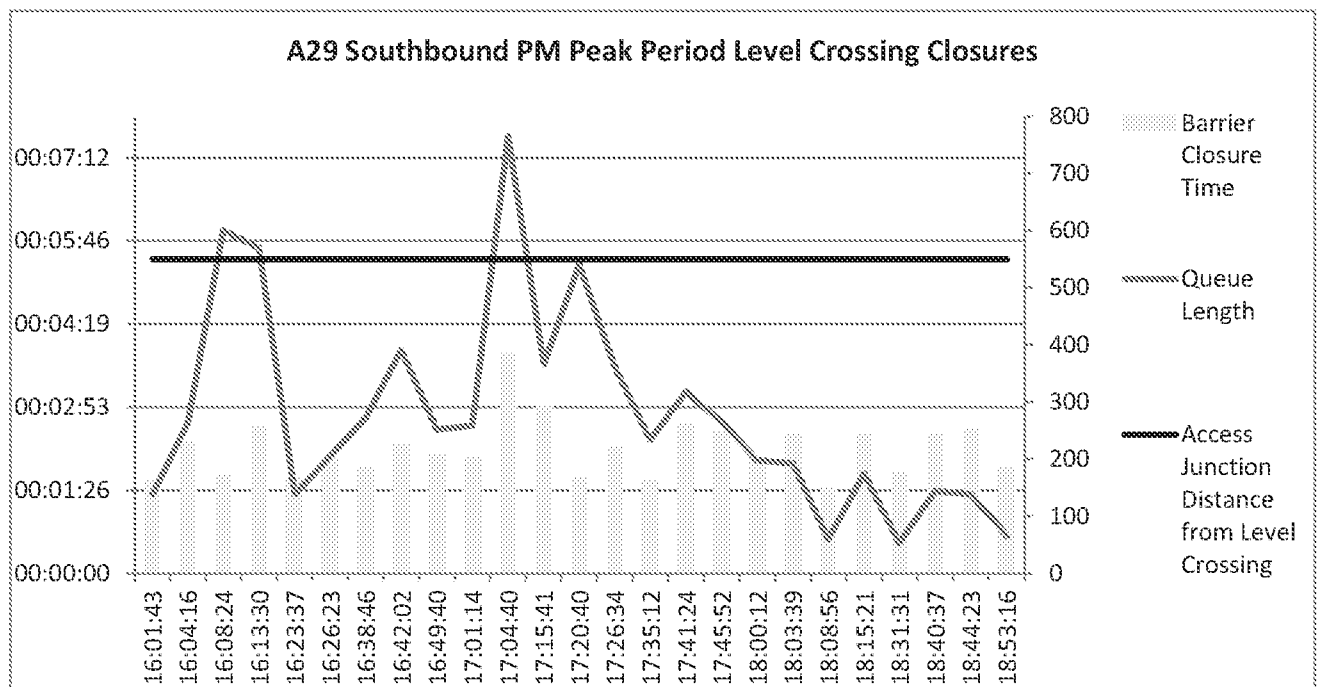


Figure 3-3 - A29 Level Crossing PM Peak Queue Lengths



3.3.11. **Figure 3-2** and **Figure 3-3** show that recorded queue lengths vary across each peak period but generally correlate with the length of the time the level crossing barrier is closed, with longer closures resulting in longer queue lengths. In the AM peak period, the queue length reaches the location of the proposed site access once, albeit this is a result of a six and a half minute barrier closure. This is one and half minutes longer than any other closure time recorded and nearly four minutes longer than the average for the AM peak period. In the PM peak the recorded queue length



extends beyond the proposed access junction location on two occasions as a result of multiple barrier closures over a short space of time (three times in seven minutes at worst).

3.3.12. Overall closures of the level crossing result in average of queue lengths as follows:

- ※ 07:00-10:00 – 200m;
- ※ 08:00-09:00 – 328m;
- ※ 16:00-19:00 – 287m; and
- ※ 17:00-18:00 – 388m.

3.3.13. An assessment of the impact of the development proposals on queue lengths at the level crossing is provided in Section 8.

3.4 PEDESTRIAN NETWORK

3.4.1. A29 Westergate Street has footways on both sides of the road. These footways extend north and south along the length of A29 Westergate Street providing a link to Aldingbourne tennis club, Aldingbourne Primary School and Aldingbourne Village Stores.



Photograph 3. A29 Southbound and Meadow Way at junction with Barons Close

3.4.2. There is a pedestrian refuge island allowing for the crossing of A29 Westergate Street 120 metres to the south of the access point and there is a signalised pedestrian crossing allowing for controlled crossing of A29 Westergate Street approximately 400 metres to the north of the access point. There is also a signalised crossing located approximately 280m to the south of the site access, providing a safe connection to Aldingbourne Primary School.

3.4.3. The existing Public Rights of Way (PRoW) network in the vicinity of the proposed development is shown in **Figure 3-4**. A number of footpaths route through the site proving connections to the north and west. These include:

- ※ Footpath 297: routes from the A29 Westergate Street, along Pine Close and connects into St Richards Road and ends at the eastern end of Ivy Lane;
- ※ Footpath 298: provides a continuation of Footpath 297 on an east-west alignment connecting on Footpath 296;



- ※ Footpath 300: routes from A29 Westergate Street and along Elmcroft Place and through the site on an east-west alignment also connecting into Footpath 296;
- ※ Footpath 296: runs on a north-south alignment through the site and around the southern and eastern boundary of Eastergate Church of England Primary School before connecting into Church Lane; and
- ※ Footpath 317: connects with Footpath 296 and provides a route out of the site via the northern boundary and existing shared use path that runs between Ivy Lane and Church Lane.

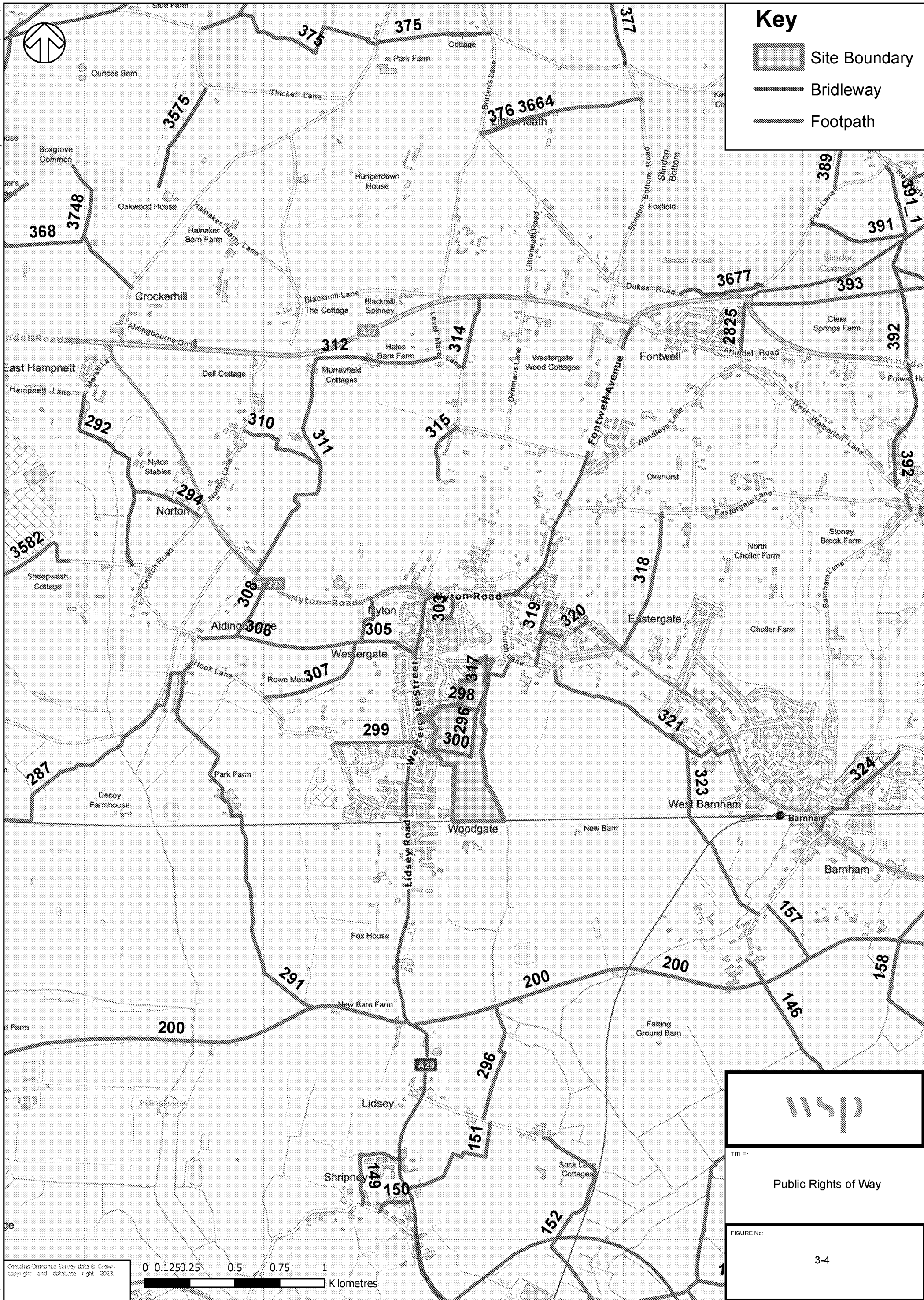
3.4.4. There is also a number of permissive paths that route through the site in a north-south and east-west direction connecting into this PRow network.

3.4.5. A further description of these routes to and from the site is provided in paragraphs 3.4.7 to 3.4.17.

3.4.6. In addition the PRow network provides a number of off-site connections:

- ※ Footpath 299: routes from the A29 Westergate Street opposite Elmcroft Place on an east-west alignment and provides a connection to Hook Lane;
- ※ Footpath 306: routes from the A29 Westergate Street opposite Ivy lane on an east-west alignment and provides a connection to Aldingbourne;
- ※ Footpath 303: Elm Road, Lime Avenue and A29 Nyton Road;
- ※ Footpath 321: Connects Church Lane to St Phillip Howard Roman Catholic High School and Barnham centre via Barnham Road.

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ROUTES TO / FROM THE NORTH OF THE SITE

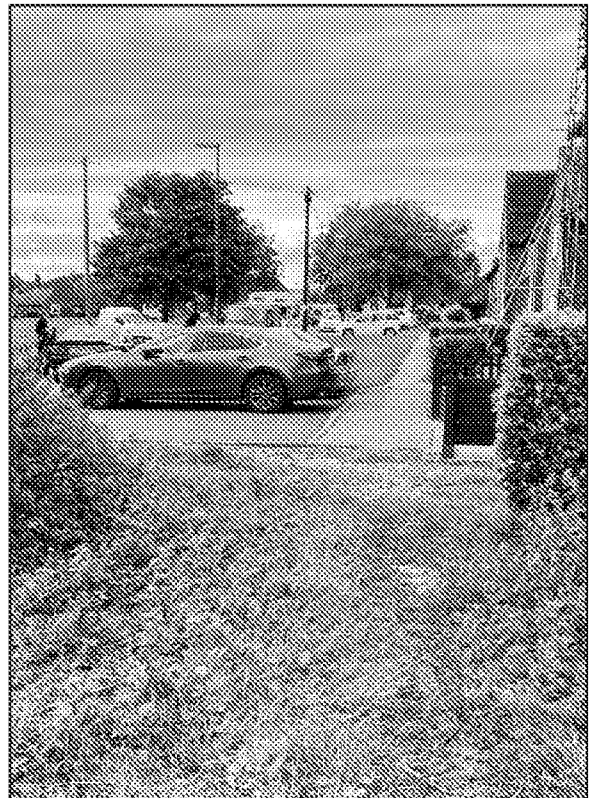
- 3.4.7. Several routes currently exist allow access to / from Westergate village centre, Ormiston Academy Six Villages Academy and Six Villages Sports Centre

St Richard's Road - Ivy Close - Elm Road - Footpath 303 - Lime Avenue

- 3.4.8. Exiting the site at the southern end of St Richard Road this route uses existing footways along St Richard's Road, Ivy Lane, Ivy Close and Elm Road to connect into Footpath 303. All of these roads are residential in nature, have street lighting and are lightly trafficked making them conducive for walking. Footpath 303 runs across the frontage of residential properties with open front gardens and also has street lighting.



Photograph 4 – Footpath 297 connection to St Richard's Road



Photograph 5 – Connection to St Richard's Road



Photograph 6 – Ivy Close



Photograph 7 – Footpath 303 between Elm Road and Lime Avenue

- 3.4.9. Footpath 303 at the location shown on Photograph 4 connects with the A29 Nyton Road and Westergate village centre via the continuation of Footpath 303 in a north-south alignment or Lime Avenue, which also provides access to Six Villages Sports Centre and Ormiston Six Villages Academy. At the Lime Avenue junction with A29 Nyton Road there is a signalised pedestrian crossing.

St Richard's Road - Ivy Close - A29 Westergate Street

- 3.4.10. As noted in paragraph 3.4.8 Ivy Lane and St Richards Road are conducive for walking with pedestrian footways and street lighting provided. A signalised crossing is present on A29 Westergate Street just north of the junction with Ivy Lane which facilitates access which facilities access to the convenience store on western side of the A29.



St Richard's Road - Ivy Close - Ormiston Six Villages Academy Shared Use Path - Church Lane

In addition to the above an additional route exists via Church Lane which can be accessed via St Richard's Road / Ivy Lane or Footpath 317 at the northern site boundary. Ivy Lane and Church Lane are connected via a Shared Use Path, as shown on Photograph 8 and 9. This shared-use path also provides direct access into Six Villages Sports Centre and Ormiston Six Villages Academy and Eastergate Church of England Primary School.



**Photograph 8 – Ivy Lane to Church Lane
Shared Use Path Eastern End**



**Photograph 9 – Ivy Lane to Church Lane
Shared Use Path Western End**

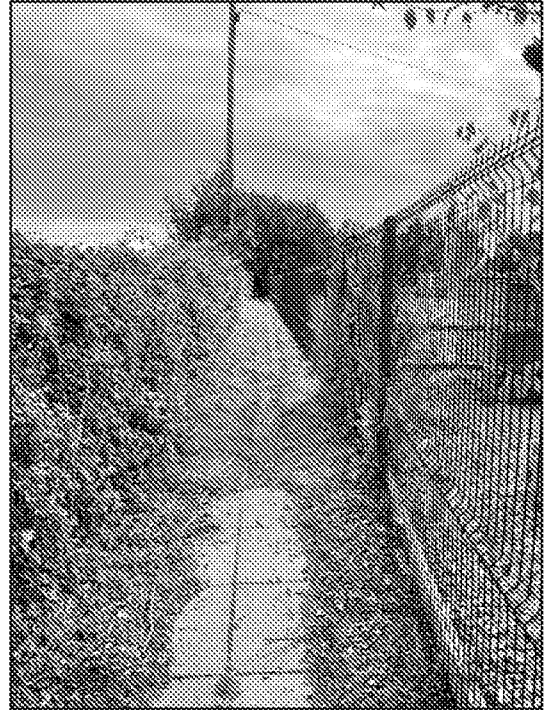
- 3.4.11. The shared-use path has a hardstanding surface and whilst vegetation has encroached onto the path offers a width of approximately 2.5m. It therefore offers an all-weather route to and front the site although it is noted that there is no street lighting.
- 3.4.12. Beyond the shared-use path Church Lane is a lightly trafficked mainly residential road. There are not footways but Church Lane is lightly trafficked. On the site visit several pedestrians were observed using the route. Church Lane provides routes to Westergate village centre to the north, Eastergate Church of England Primary School, The Wilkes Head public house, Eastergate and Barnham.

Footpath 296 to Church Lane

- 3.4.13. In addition to the route described above, footpath 296 connects the site to Church Lane via a path that runs along the southern and eastern boundary of Eastergate Church of England Primary School. This path, shown on Photographs 10 and 11, consisted of a narrow and unsurfaced path and therefore is unlikely to provide a suitable all-weather route for journeys to school.



Photograph 10 – Footpath 296 at Southern boundary of School



Photograph 11 – Footpath 296 at Eastern boundary of School

ROUTES TO / FROM THE WEST OF THE SITE

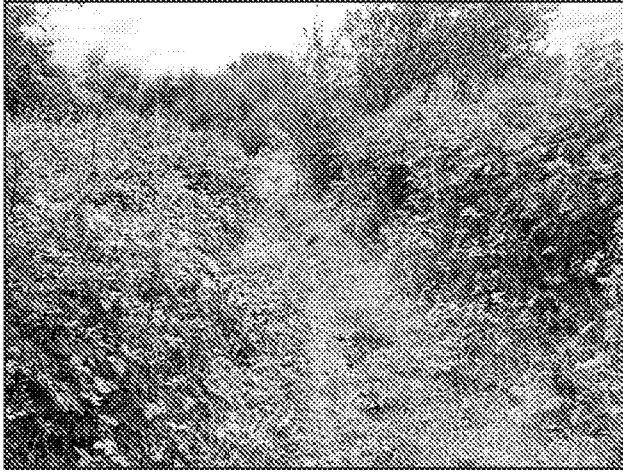
In addition to the connections to the north, the PRoW and existing highway network provides connections to facilities west of the site.

Routes to Aldingbourne Community Sports Centre

- 3.4.14. There are currently two existing routes between the site and Aldingbourne Community Sports Centre. Firstly, there is the St Richard's Road - Ivy Close – A29 Westergate Street route as described in paragraph 3.4.10. Whilst this isn't the most direct route, it uses quiet residential streets for the majority of the route and is via the signalised crossing point on the A29.
- 3.4.15. The second route is via Pine Close and along the A29 Westergate Street, although it is noted that there is no formal crossing provision on this section until reaching the signalised crossing north of Ivy Lane.

Routes to Aldingbourne Primary School

- 3.4.16. As above, there is also two routes between the site and Aldingbourne Primary School. The first is via Pine Close and south along the A29 Westergate Street with crossings provided at either the existing pedestrian refuse island north of Elmcroft Place or the signalised pedestrian crossing located approximately 170m further south.
- 3.4.17. In addition Footpath 300 provides a route to / from the site via Elmcroft Place. This however is rural footpath without formal surfacing. This was observed to be muddy with overgrown vegetation limiting its width for much of the route during site visits. This is therefore considered to offer a leisure route rather than one that would be used regularly for journeys to school. Images of the route are shown in photographs 12 and 13.



Photograph 12 – Footpath 303 Eastern end



Photograph 13 – Footpath 303 Western end

3.5 CYCLE NETWORK

- 3.5.1. There is no existing dedicated cycle network in the vicinity of the development. The nearest cycle routes are found along A259 linking Chichester to Bognor Regis. This comprises the National Cycle Network Route 2 which is a long distance cycle route and, when complete, will link Dover with St Austell via the South Coast of England. The route is currently 361 miles long. The provision along the A259 includes an off-carriageway cycle route providing a safe and suitable cycling connection.
- 3.5.2. Although there are no dedicated cycle routes located in the immediate vicinity of the site, A29 Westergate Street has sufficient width to allow for on-road cycling, with sufficient visibility along the length of the road and at junctions along the route. Also, within the vicinity of the site observed speeds taken from the ATC surveys appear suitable for cycling. Additionally, the B2233 Barnham Road provides sufficient width to enable on-carriageway cycling to occur, providing a connection from the site to Barnham Rail Station.

3.6 PUBLIC TRANSPORT

- 3.6.1. This section outlines the bus and rail network in the vicinity of the site and Figures 3-5 and 3-6 show the public transport accessibility in the AM and PM peak respectively.