SHRIPNEY ROAD, BOGNOR REGIS

TRANSPORT STATEMENT

26 July 2022

EVOKE

SHRIPNEY ROAD, BOGNOR REGIS

TRANSPORT STATEMENT

PROJECT DETAILS	
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1. Introduction

1.1. Context

1.1.1. Evoke Transport Planning Consultants (Evoke) has been commissioned by Manhire LLP to produce a Transport Note to support a planning application for the development of parcel land to the east of the A29 Shripney Road within the village of Shripney, Bognor Regis. The local planning authority are Arun District Council (ADC), and the local highway authority are West Sussex County Council (WSCC). Figure 1 outlines the location of the site and the red line boundary.

1.2. Existing Site

1.2.1. The site is located to the east of A29 Shripney Road, comprising an area of land approximately 0.49ha in size to the rear of Regal House. The location of the site is shown in Figure 1 below.

Figure 1 - Site Location Plan

Source: Google Earth

1.2.2. The site is bordered to the north by the Wayside residential property and AliKazam shop, to the east by agricultural land, to the south by the Orchard Place residential development which received planning permission in 2015 for the development of 10 dwellings (ref: BE/100/15/PL) and to the west by the A29 Shripney Road.

1.2.3. The site is located approximately 3.0 kilometres north of Bognor Town Centre and 2.9 kilometres north of Bognor Regis Railway Station.

1.3. Proposed Development

1.3.1. The proposed development seeks to construct nine residential dwellings at the site. The development will comprise:

- 2 x two-bedroom dwellings;
- 4 x three-bedroom dwellings;

- 2 x four-bedroom dwellings; and
- 1 x five-bedroom dwelling.

1.3.2. Access to the site is proposed to be taken off the A29 Shripney Road in approximately the same location as the existing access. The access will be widened to 5.5m to ensure that two vehicles can pass along the access road and that a WSCC refuse vehicle can easily access and egress the site. A turning head will be provided within the site to ensure that all vehicles can access and egress the site in forward gear. A 1.8m footway is also proposed on the southern side of the site access road. The proposed site layout is attached at **Appendix A**.

1.4. Planning Context

1.4.1. A pre-application request (PRE-48-21) was submitted to WSCC in April 2021 for the construction of a c.10 residential dwellings at the site, comprising:

- 2 x two-bedroom dwellings;
- 4 x three-bedroom dwellings; and
- 4 x four-bedroom dwellings.

1.4.2. As part of this pre-application request, a Transport Scoping Note (TSN) was submitted to WSCC, outlining the proposed contents and methodology of the forthcoming Transport Statement (TS), with a view to undertaking the preparation of the documents on an agreed basis. A meeting was held on 6th May 2021 and a pre-application response from WSCC Highways was received from WSCC on the same date. A summary of the pre-application response is outlined in Table 1. The full pre-application response is attached as **Appendix B**. It is noted that the pre-application advice received from WSCC refers to a 10 residential dwelling scheme.

Table 1 - WSCC Pre-Application Response (06.05.2021) Summary

Pre-Application Comments 6th May 2021	Evoke Response	Reference in TS
Access		
The proposed access should form a bellmouth arrangement with linking footway and tactile paving across the junction as per the Orchard Place arrangements. A Stage 1 Road Safety Audit will be required	A stage 1 Road safety Audit has been undertaken and a summary is included within Section 3 of the report. Swept Path Analysis of a Refuse vehicle has also been included.	Section 3
The PIA scope outlined in paragraph 3.6.1 of the TSN is acceptable	Analysis of PIA data has been undertaken and it is considered that there are no existing road safety issues identified within the immediate vicinity of the site.	Section 2
The proposed access would join the dual carriageway section of Shripney Road and would require a visibility splay of 2.4m x 120m to the north for southbound vehicles only. However, it is advised that maximum achievable visibility splays are demonstrated	A visibility splay in excess of 2.4m x 120m is provided to north in accordance with the Design Manual for Roads and Bridges (DMRB) requirements for a 40mph road. Maximum achievable visibility is 180.7m.	Paragraph 2.6.2 Drawing No. R-21-0021-001A.
The applicant should consider whether pedestrian visibility splays either side of the access can be accommodated to ensure safety of pedestrians on footway	The 1.8m footway on the southern side of the access ensures this is achievable on the exit arm	Drawing No. R-21-0021-001A
Accessibility		
It is likely that pedestrian demand from the development, travelling south, would increase. The applicant should explore what improvements could be made to provide a footway link to the south and towards the western side of the carriageway. DMRB should be referred to explore whether an uncontrolled crossing of A29 in this location would be achievable	A pedestrian refuge island is proposed to the south of the site. This will assist pedestrians with crossing the road and accessing the wide footway on the western side of the A29 which provides a connection down to Bognor and Saltbox Business Park. An additional crossing is proposed to the north of the site as part of the Hanbury Properties Scheme.	Drawing No. R-21-0021-003.

Pre-Application Comments 6th May 2021	Evoke Response	Reference in TS
It is advised that footway link and crossing improvements are explored – to reach the new and existing facilities to the south (Saltbox and existing amenities off Oldlands Way Roundabout)	On the western side of the Shripney Road carriageway, a 2m footway is provided which widens to circa 3m to provide a continuous shared cycle footway connection into Bognor Regis.	Paragraph 2.7.3
A Travel Plan will not be required considering the scale of development proposed. However, sufficient bicycle parking and electric vehicle charging infrastructure should be provided to encourage sustainable transport means	In accordance with WSCC standards, 33% of all parking bays will be provided with active electric vehicle charging infrastructure	Paragraph 3.3.6
Parking & Internal Layout		
Arun parking standards are adopted and should be applied to determine both car and bicycle parking	Parking will be provided in accordance with the Arun Parking Standards SPD (January 2020).	Paragraph 3.3.1
A turning head within site for refuse vehicles etc will be provided and swept path tracking will show the workability of this. There will be some segregated footway within the site, although shared surface is likely to be acceptable in some areas considering the anticipated level of vehicle movements.	Noted and provided.	
The TRICs approach to predict trip generation is accepted and no further junction modelling would be required	The proposed development has the potential to generate a total of four two-way vehicle trips in the AM peak hour, five two-way vehicle trips in the PM peak hour, and 40 two-way vehicle trips per day.	Paragraph 4.3.3
A Construction management plan would be welcomed although details of this could be secured by condition	A Construction Management Plan will be secured through condition once planning permission has been granted.	Paragraph 3.6.2
Transport Statement Requirements		
A Transport Statement (TS) should be submitted alongside any application, including location plan of key services, availability of sustainable modes of transport and existing/future vehicular generation	This TS has been produced to satisfy WSCC's response to pre-application request PRE-48-21.	Document ref: R-21-0021-TS-01
The TS should include a schedule of existing uses including planning history with reference numbers	The site does not have any relevant planning history and no current on-site uses – the site is vacant.	Paragraph 2.5.1
Description, including site layout plans, of the proposed development and schedule of uses	A description of the 9 individual residential units has been given alongside the proposed site layout attached as Appendix A.	Paragraphs 3.1.1 and 3.1.2
The TS should include a Summary of reasons supporting the site access/highways works proposals, including plan (scale 1:250 or similar) with achievable visibility splays indicated	A description of the proposed access taken off the A29 Shripney Road has been undertaken.	Paragraphs 3.2.1, 3.2.2 and 3.2.3
Within the TS, reference should be made to supporting national, regional, and local planning documents and policies	The key transport policy documents at a national and local level have been considered when assessing the development proposals	Section 2.0 to 2.4
Parking strategy, including provision of parking for all modes of transport	Parking and cycle parking will be provided in accordance with the WSCC Guidance on Parking at New Developments (September 2020) and the Arun Parking Standards SPD (January 2020).	Section 3.3 and 3.4
Proposed trip rates supported with TRICS outputs and site selection methodology	A total of four sites were selected from the TRICS database and Table 4 demonstrates the total vehicle trip rates and trip generation for nine dwellings.	Paragraphs 4.3.1, 4.3.2 and 4.3.3

1.5. Report Structure

1.5.1. The aim of this Transport Statement is to identify existing and potential future traffic and transport impacts related to the site and its proposed redevelopment. The Transport Statement also provides an assessment of the potential transport impacts associated with the anticipated number of trips as a result of the development.

1.5.2. The remainder of this report is split into the following sections;

- **Section 2:** Transport Policy and Existing Situation;
- **Section 3:** Proposed Development;
- **Section 4:** Trip Generation and Development Impact;
- **Section 5:** Summary and Conclusions.

2. Transport Policy and Existing Situation

2.1. Policy Considerations

2.1.1. The key transport policy documents at a national and local level have been considered when assessing the development proposals, these include the key policy documents outlined below;

- National Planning Policy Framework (July 2021);
- Planning Practice Guidance Travel Plans, Transport Assessments and Statements in Decision-Taking' (March 2014);
- National Design Guide (October 2019);
- National Model Design Code (July 2021);
- Manual for Street (MfS 2007) and Manual for Streets 2 (MfS2 2010);
- Inclusive Mobility – A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure;
- The West Sussex Plan (2017-2022);
- West Sussex Transport Plan (2011-2026);
- West Sussex Guidance on Parking at New Developments (September 2020);
- West Sussex Cycling Design Guide (August 2019);
- Adopted Arun Local Plan 2011-2031 (July 2018);
- Arun District Design Guide (January 2021);
- Arun Parking Standards SPD (January 2020); and
- Bersted Neighbourhood Plan 2014-2029.

2.2. National Policy

National Planning Policy Framework (NPPF) (July 2021)

2.2.1. In July 2021 the revised National Planning Policy Framework (NPPF) was published, setting out a number of transport objectives designed to facilitate sustainable development and contribute to a wider sustainability by giving people a wider choice about how they travel.

2.2.2. 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 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.

2.2.3. The NPPF states that development should only be 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'. Within this context, applications for development should:

- 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;
- Address the needs for people with disabilities and reduced mobility in relation to all modes of transport;

- 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;
- Allow for the efficient delivery of goods, and access by service and emergency vehicles; and
- Be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.

2.3. Regional Policy

West Sussex Transport Plan (2011-2026)

2.3.1. The West Sussex Transport Plan is the principal transport planning policy document for the county, providing the transport strategy to deliver sustainable growth to the year 2026. The West Sussex Transport Plan was formally adopted by West Sussex Council in February 2011.

2.3.2. Strategies for Transport in West Sussex include promoting economic growth, tackling climate change, providing access to services, employment, housing and improving safety, security and health.

2.4. Local Policy

Adopted Arun Local Plan (2011-2031) (July 2018)

2.4.1. The Adopted Arun Local Plan aims to encourage sustainable development and manage future growth whilst ensuring that change across the district is appropriate to meet local need.

2.4.2. Policy T SP1 emphasises the point that new development should provide 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.

2.4.3. Paragraph 15.2.1 outlines that improving choice and access to sustainable modes of transport is key to reducing congestion, promoting healthy lifestyles and reducing social isolation.

2.5. Planning History / Nearby Developments

2.5.1. Directly south of the site, Orchard Place residential development received planning permission in 2015 for the development of 10 x two-bed dwellings and 14 parking spaces (ref: BE/100/15/PL). No comments were received from WSCC highways. WSCC however responded to application BE/9/14 at the site with the following: "Following the receipt of additional information relating to the front parking space, large vehicle tracking and the pedestrian footpath, no objection is raised".

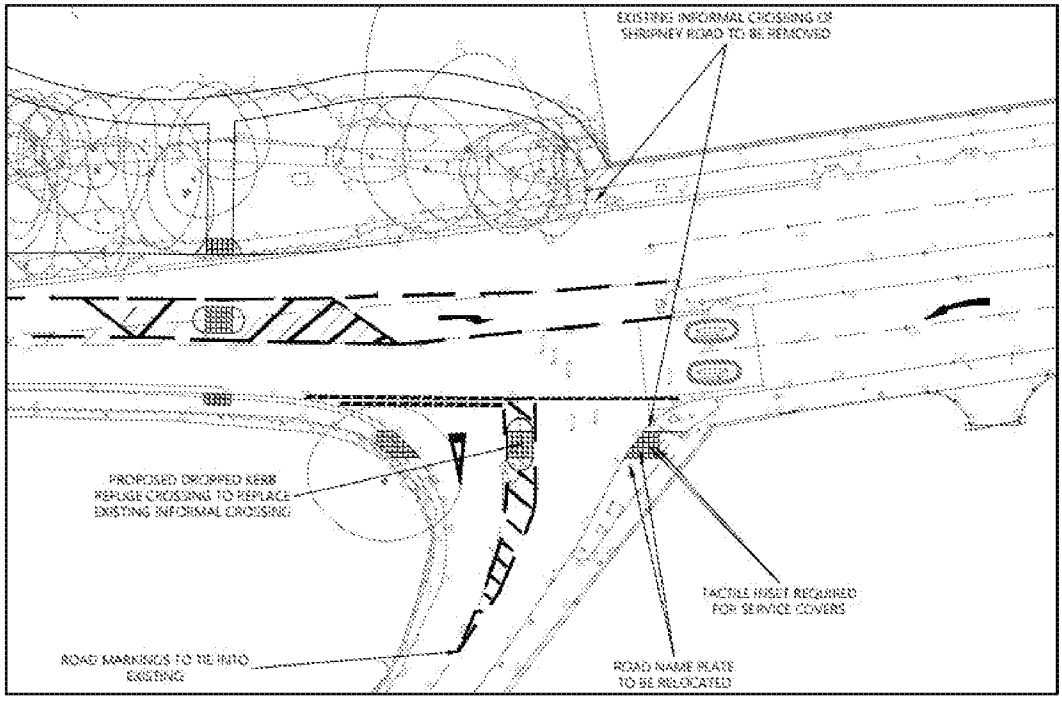
2.5.2. North of the site is "Land to the east of Shripney Road" which is a planning application (Ref: BE/109/19/OUT) for 46 dwellings which was refused by ADC but was allowed at Appeal in December 2021. WSCC raised no concerns with the scheme concluding "The local highway authority does not consider that the proposals would have an unacceptable impact on highway safety or result in severe cumulative impacts on the operation of the highway network". As part of the reasons for refusal ADC questioned the accessibility of the site, notably the Inspector concluded;

- Although located outside of the built-up area boundary with very limited facilities within the village of Shripney, the site would be within reasonable walking (via a footway) and cycling distance of some local services and facilities, including a new supermarket and other services included as part of the nearby 'Salt Box' development. The new development to the south would also provide local employment options. Although there are no cycle lanes, this would not prevent use of the bicycle for some journeys, particularly given the generally flat terrain. There are also formal cycle routes available not far from the site including on the route to Bognor Regis.

- The pedestrian crossing proposed to be implemented as part of the development would help enable and encourage pedestrian access to these services. These local facilities would not meet each and every day to day need of future residents and it is likely that a good proportion of residents may travel further afield for employment. However, there is a local bus service that would quickly connect the site to other destinations, including Bognor Regis town centre and railway station.
- The bus service is not a particularly frequent one and does not operate on Sundays and public holidays. However, it would, for example, provide a feasible option for travel to and from work in Bognor Regis where required and also to and from local schools.
- Although the proposal would not directly contribute to the extension of public transport services and community transport services, this is not something that all developments could reasonably be expected to do and there is no indication of any specific request from the Council for this scheme to do so. Such a requirement is therefore not reasonably applicable in this case.
- Taken together whilst the location of the site cannot be considered to be highly accessible by sustainable means of transport and would lead to instances of residents travelling to other locations by car, the proposal would provide reasonable scope for a good number of trips to be made by alternative methods to the car. This is consistent with the comments of the Inspector in a recent appeal decision following an application1 for residential development at a nearby site at The Cottage, Shripney Road.
- In the context of the National Planning Policy Framework ('the Framework') the proposal would provide for appropriate opportunities to promote sustainable transport modes, including cycling, walking and public transport. Whilst 'high quality' public transport would not be immediately available at the site, sustainable links, including via bus, would be available to the rail network. The proposal, as far as is reasonably possible, would promote sustainable travel.
- The proposal would therefore generally accord with the sustainable access aims of Policies T DM1 and T SP1 of the Local Plan and the Framework.

2.5.3. As part of the Appeal site a pedestrian crossing will be provided on the A29 close to the junction with Shripney Lane, as outlined in Figure 2.

Figure 2 - Proposed Shripney Road Pedestrian Crossing



Source: Highgate Transportation Drawing

2.6. Existing Access

2.6.1. Access to the site is currently provided off the A29 Shripney Road via a vehicle crossover with the existing driveway access approximately 3.6m in width as outlined in Figure 3 below. By the site, the A29 Shripney Road is a dual carriageway, with the site access located along the southbound side of the carriageway.

Figure 3 - Existing Access

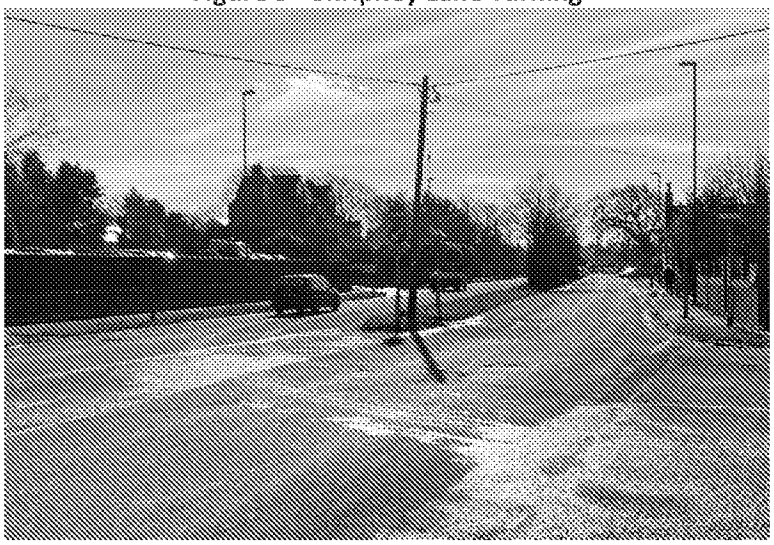
2.6.2. The existing access is afforded with good visibility to the north given the 3.1.m verge and footway as outlined in Figure 4 below. Evidently a visibility splay in excess of 2.4m x 120m is provided to north in accordance with the Design Manual for Roads and Bridges (DMRB) requirements for a 40mph road.

Figure 4 - Existing Access Visibility

2.6.3. As requested by WSCC in their pre-application response, the maximum achievable visibility splay to the north is 180.7m. Visibility to the south of the access has not been formally assessed due to the dual carriageway nature of Shripney Road meaning that vehicles only travel southbound along this section of carriageway.

2.6.4. Given the dual carriageway nature of the A29 Shripney Road in the vicinity of the site, access at the site is limited to left turn in and left turn out. Vehicles wishing to travel northbound are able to turn using the roundabout 320m south of the site. At present any vehicles accessing the site from the south either perform a U-turn on the A29 approximately 96m north of the site access (Figure 5), where a right turn lane in to Shripney Lane provides enough room for a vehicle to safely turn, or they turn around safely within Shripney Lane or the Shripney Road lay-by or within the Premier Inn turning loop.

Figure 5 - Shripney Lane Turning



2.6.5. Notably, as part the A29 realignment a roundabout will be provided approximately 850m north of the site access which will further assist with vehicles turning. This is estimated to be in place by the Autumn of 2025.

2.6.6. The A29 realignment works will also provide a shared cycle footway connection parallel to the A29 from Shripney to Eastergate enhancing the sustainable connections to Eastergate, Barnham and Barnham Railway Station.

2.7. Site Accessibility

Walking, Cycling and Public Transport

2.7.1. To enable an assessment of the viability of walking and cycling as realistic modes for trips to and from the site as an alternative to the private car, it is appropriate to establish the maximum distance that people are generally prepared to walk and cycle, and the destinations that exist within these distances.

2.7.2. The Institute of Highways and Transportation's (IHT) guidance, 'Guidelines for Providing for Journeys on Foot (2000) states in paragraph 3.32 that the preferred maximum walking distance to facilities and local services is two kilometres. The guidelines for distances for various land uses are summarised in Table 2.

Table 2 - IHT Walking Distance Guidance

Definition	Town Centre	Commuting/ School	Elsewhere
Desirable	200m	500m	400m
Acceptable	400m	1000m	800m
Preferred Maximum	800m	2000m	1200m

2.7.3. The eastern side of the carriageway on the A29 Shripney Road provides a footway of circa 1m in width, set back from the carriageway by a 2m grass verge. On the western side of the carriageway, a 2m

footway is provided which widens to circa 3m to provide a continuous shared cycle footway connection into Bognor Regis.

2.7.4. Pedestrian isochrones have been generated to identify the areas that can be reached within a 30-minite walk from the site. The isochrones have been produced using the Openroute service and are based on an average walking speed of 5.0kph, equating to approximately one kilometre in 12 minutes. The isochrones are shown in Figure 6.

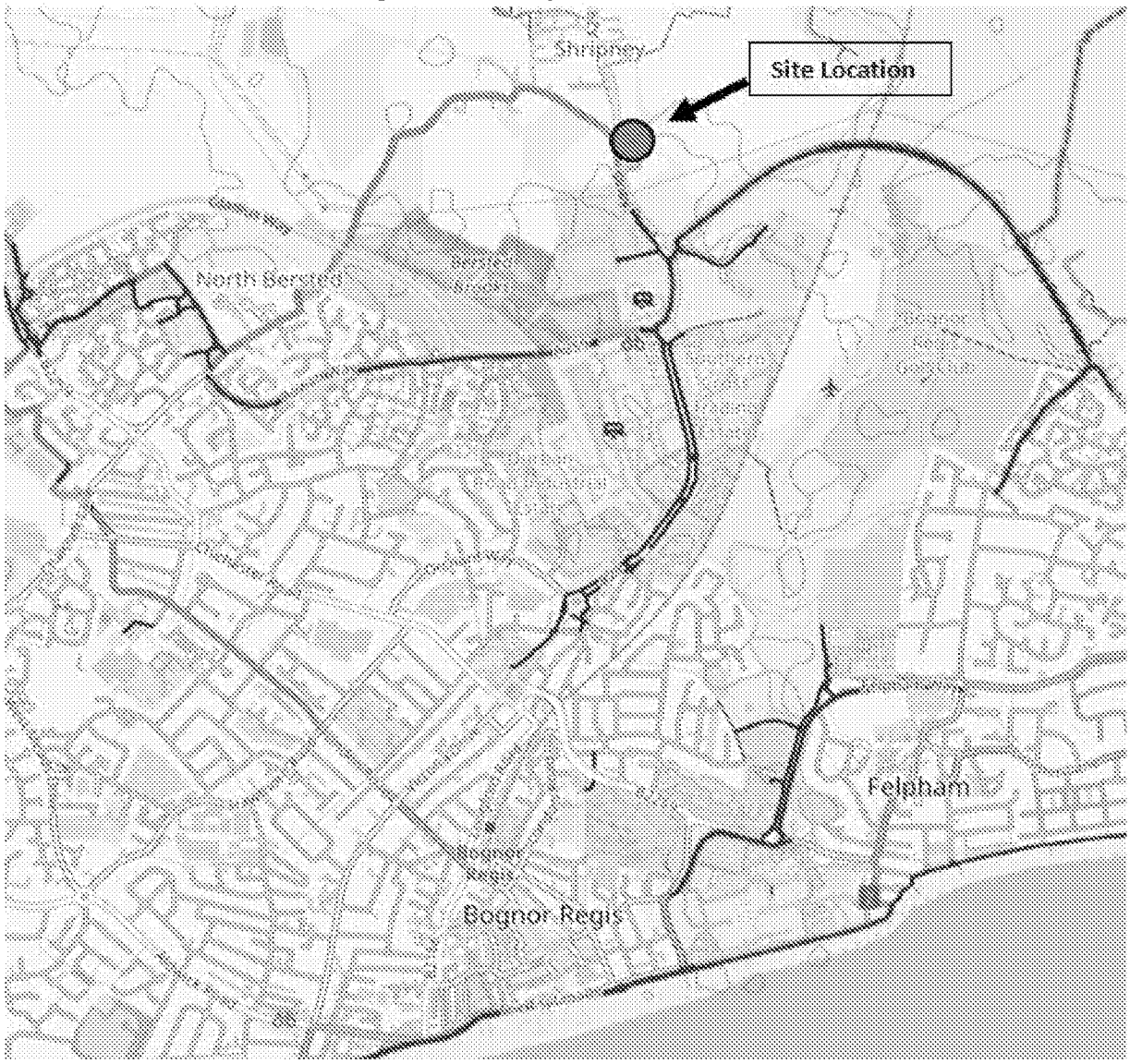
Figure 6 - Walking Isochrone

Source: QGIS and Openroute Service

2.7.5. Figure 6 demonstrates that Shripney and North Bersted can both be reached within a 30-minute walk from the site. North Bersted provides a wide range of services and amenities including education and employment opportunities, healthcare services, shops and cafes, and leisure uses.

2.7.6. Being located on the edge of Bognor Regis Town Centre, the local road network to the site is conducive to travel by cycling due to the low vehicular speeds and shared surface routes. In addition, there are various formalised routes in the vicinity of the site, as shown in Figure 5. This shows that there are on- and off- carriageway routes in close proximity to the site.

Figure 7 - Local Cycle Routes



Source: https://cycle.travel/city/bognor_regis/map

2.7.7. The Openroute Service has been used to generate cycle isochrones at five-minute intervals up to a total of 30 minutes from the site using roads and cycle routes (i.e., not straight-line distances). This is shown in Figure 8. The isochrones are generated based on speeds dependent on the surface and highway type. The majority (if not all) of the cycle routes used would be paved and as such would be subject to an 18kph speed based on the parameters used by the software. A five-minute isochrone would therefore cover a distance of c.1.5km from the site, with a 30-minute isochrone covering a distance of c.9.0km from the site.

Figure 8 - Cycle Isochrone

Source: QGIS and Openroute Service

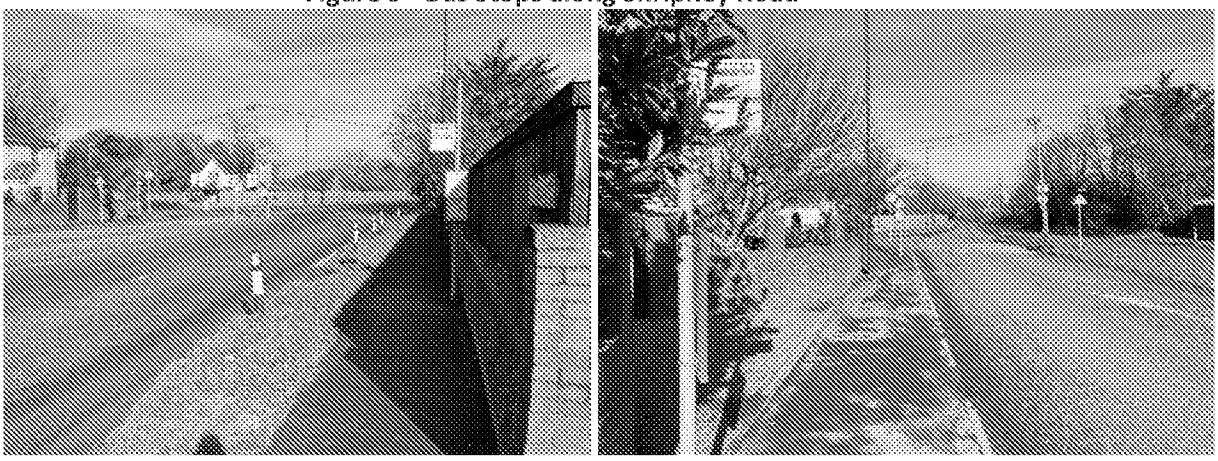
2.7.8. Figure 8 demonstrates that a wide range of areas can be reached within a 30-minute cycle journey from the site. These include Shripney, North Bersted, Bognor Regis, Pagham, Oving, Fontwell and Yapton. These locations will provide access to a number of services and amenities including education, employment, healthcare and leisure opportunities.

2.7.9. The pedestrian and cycle isochrones have both demonstrated that a wide range of locations and their associated services and amenities can be accessed by sustainable travel.

Bus Services

2.7.10. The nearest bus stops to the site are located on Shripney Road, approximately 60m (equating to a one-minute walk) to the north of the site. There are no formal crossing points available along Shripney Road to approach the bus stops, and only timetabled information is available and the stops. However a pedestrian crossing is proposed as part of nearby consented Hanbury Properties Appeal site, which will assist with accessing the bus stops. Figure 9 shows the bus stop on both sides of the carriageway.

Figure 9 - Bus Stops along Shripney Road



2.7.11. A summary of the bus services available from this stop, their routes and approximate timetables is detailed in Table 3 below.

Table 3 - Bus Service Summary

Service Number	Route Summary	Frequency		
		Monday-Friday	Saturday	Sunday
66A	Bognor Regis – Yapton – Bognor Regis	3 Services per day (every 4 hours)	3 Services per day (every 4 hours)	No Service
66C	Bognor Regis – Yapton – Bognor Regis	3 Services per day (every 4 hours)	3 Services per day (every 4 hours)	No Service

2.7.12. As demonstrated above, the 66A/66C bus route provides infrequent and irregular services to Yapton and Bognor Regis via a circular route. Despite this, the buses provide a viable mode of transport for a range of employment, education, retail and leisure purposes as accepted by the Inspector in the recent Hanbury Properties Appeal decision.

Rail Services

2.7.13. Bognor Regis Railway Station is located 2.9 kilometres south of the site (a 35-minute walk or 10-minute cycle) and is accessible via the aforementioned bus services with a seven-minute journey time. The station provides 184 cycle parking spaces and is served by Southern Rail services to London Victoria, Clapham Junction, Gatwick Airport, Three Bridges, Horsham, Littlehampton and Barnham.

2.7.14. Barnham Railway Station is located 6.3 kilometres northeast of the site and is accessible via a 13–18-minute bus journey via route 66C. The station provides 62 cycle parking spaces and is served by Southern and Great Western Railway services to London Victoria, Clapham Junction, Gatwick Airport, Three Bridges, Horsham, Littlehampton, Portsmouth, Brighton, Worthing, Southampton and Bristol.

2.7.15. In terms of accessibility, step-free level access is available to all platforms at Bognor Regis Station and steep ramps are provided to platforms at Barnham Station with staff assistance available Monday – Saturday 05:00-00:00 and Sunday 06:00-23:45.

Accessibility to Local Amenities

2.7.16. Being approximately 3.0 kilometres north of Bognor Regis Town Centre, a wide range of facilities and amenities are located well within the 'preferred maximum' walking distance recommended by IHT. These include, but are not limited to, supermarkets, gyms, recreation facilities and offices. A summary of nearby local amenities and their associated walking and cycling distance is included in Table 4.

Table 4 - Accessibility to Local Facilities

Type		Amenity	Distance	Walking Time (minutes)	Cycle Time (minutes)	Bus Journey Time (minutes)
Retail/ Leisure	Town Centre:	Bognor Regis Town Centre	3000m	36	10	9
	Post Office:	Durlston Drive Post Office	2500m	30	9	-
	Supermarket:	Aldi	830m	10	3	-
		Lidl	630m	8	2	-
	Gym:	Energie Fitness Bognor Regis	1300m	16	5	-
	Park/Public Open Space:	The Brooks Local Nature Reserve	1800m	22	6	-
		The Base Skate Park	1000m	13	4	-
	Hotel	Premier Inn	500m	6	2	-
	Café	Starbucks	400m	5	2	-
Schools and Education	Nursery:	The Old School Nursery	2100m	26	8	-
	Primary:	Bersted Green Primary School	2200m	27	8	-
		Aldingbourne Primary School	2800m	35	11	9
	Secondary:	The Regis School	3400m	41	12	-
	College/Sixth Form:	Felpham Community College	3300m	40	11	-
Healthcare	Dentist:	Knights Dental Surgery	2900m	35	10	-
		Chantry House Dental	5300m	63	18	14
	Pharmacy:	Lloyds Pharmacy	1600m	19	6	-
	Doctors:	Bersted Green Surgery	2300m	28	8	-
	Hospital:	Bognor Regis War Memorial Hospital	2400m	29	8	-
Transport	Bus Stop:	Shripney Lane Bus Stop	60m	1	0	-
	Railway Station:	Bognor Regis Railway Station	2900m	35	10	-
	Electric Vehicle Charging:	PodPoint Charging Station	620m	8	2	-
Employment	Offices/Retail:	Saltbox Business Park	830m	10	3	-
		Arun Retail Park	1300m	16	5	-
		Bognor Business Centre	1500m	18	5	-

2.7.17. It is evident from Table 4 that there are a wide range of facilities such as education, employment, retail, health and leisure uses close to the site, a large proportion of which are within a reasonable two-kilometre walking or five kilometre cycling distance, with a number of other accessible from the site by bus.

2.7.18. On that basis, it is clear that the location of the site is well placed to maximise the number of shorter distance trips that can be undertaken by alternative methods of travel to the car.

2.8. Census Data

2.8.1. The site is located within the Arun 012 mid-level super output area (MSOA). Census 2011 data has been analysed for this MSOA to establish the journey to work modal split for residents within the MSOA. These results are shown in Table 5.

Table 5 - Method of Travel to Work (Arun 012 MSOA)

Mode	Arun 012 Resident Population
Tram	0%
Train	2%
Bus	5%
Taxi	0%
Motorcycle	1%
Car Driver	70%
Car Passenger	9%
Bicycle	6%
On foot	7%
Other	0%
Total	**100%**

2.8.2. Table 5 demonstrates that 19% of residents within the MSOA in which the site lies travel to work by sustainable modes of transport, with 7% walking, 6% cycling, 5% travelling by bus and 2% by rail.

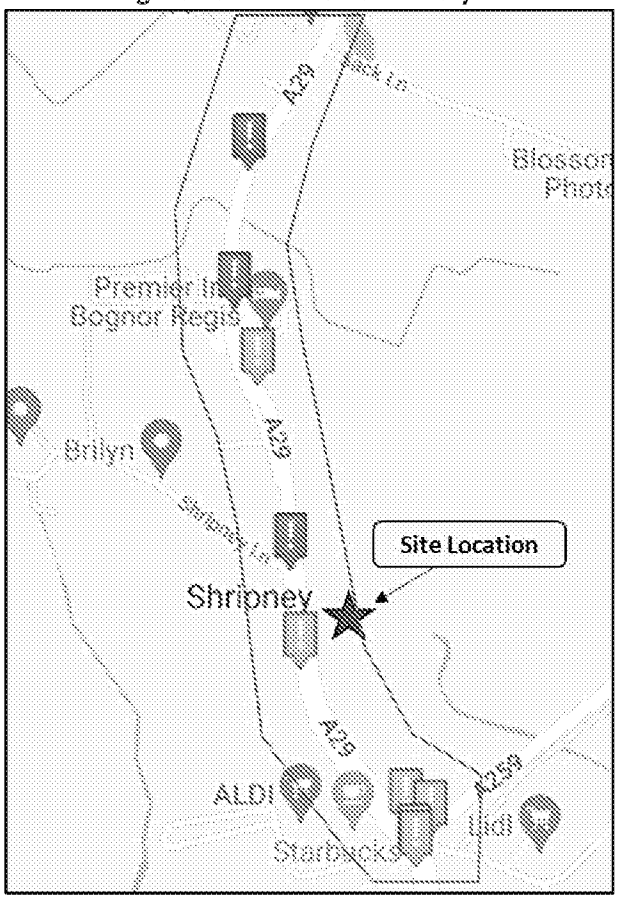
2.8.3. It is worth noting that the most recently available Census data is now nearly 11-years old and therefore it is likely that mode shares have changed in recent years. The current COVID-19 pandemic, involving a potential short-term reduction in public transport journeys but an increase in working from home and a greater emphasis on active travel, are all likely to have an impact on resident travel.

2.8.4. Car ownership data for the Arun 012 MSOA has been compared against the accommodation type proposed at the site, which is 'house/bungalow'. This shows that 14% of houses within the MSOA do not own a car at all, with 45% owning one car, and 41% owning two or more cars. Applying a ratio of 2.5 cars per household to the 'two or more cars per household' category results in an average parking ratio of 1.47 cars per household within the MSOA.

2.9. Highway Safety

2.9.1. A review of the most recently available five years of injury accident data (2017-2021) has been undertaken using the Crashmap database. The results are provided in Figure 10.

Figure 10 - PIA Incident Analysis



Source: Crashmap

2.9.2. Figure 9 demonstrates that a total of nine accidents have occurred in the vicinity of the site, of which three were classified as 'serious' and six as 'slight'. A summary of the incidents is set out in Table 6.

Table 6 - PIA Analysis

Date	Location	Weather and Road Surface	Time	Number of Vehicles	Summary
Serious Incidents					
26/02/2020	A29 Shripney Road carriageway	Fine, Dry, Night	6PM to 9PM	Two Cars	Two cars collided resulting in serious injuries to one driver
23/12/2017	A29 Shripney Road carriageway	Wet, Night, Street lit	9PM to Midnight	One HGV	HGV collided on the carriageway resulting in a serious injury to diver and slight injury to passenger
10/05/2018	A29 Shripney Road/ Shripney Lane Junction	Fine, Dry, Daylight	6AM to 9AM	Two Cars	Two cars collided resulting in serious injuries to one driver and slight injuries to another driver
Slight Incidents					
20/04/2018	A29 Shripney Road carriageway	Fine, Dry, Daylight	6PM to 9PM	Two Cars	Two cars collided on the carriageway resulting in slight injuries to one driver
23/05/2018	A29 Shripney Road carriageway	Fine, Dry, Daylight	6AM to 9AM	One Car and One Motorcycle	A car and motorcycle collided resulting in slight injuries to motorcyclist
18/06/2019	A29 Shripney Road/A259 Roundabout junction	Wet, Damp, Daylight	9AM to Noon	Three cars and one HGV	All vehicles collided on the roundabout junction resulting in slight injuries to three car drivers and one car passenger
21/07/2020	A29 Shripney Road/A259 Roundabout junction	Fine, Dry, Street lit	9PM to Midnight	One Car	One car collied at the junction resulting in slight injuries to driver
02/06/2021	A29 Shripney Road/A29 roundabout	Fine, Dry, Daylight	9AM to Noon	Two Cars	Two cars collided at roundabout junction resulting in slight injuries to car driver
05/07/2019	A29 Shripney Road/A29 roundabout	Fine, Dry, Daylight	6AM to 9AM	One Car	One car collided at roundabout junction resulting in slight injuries to driver

2.9.3. The number of incidents recorded over a five-year period is considered low for an edge of town location such as this. The incidents represent no particular trend in location or casualty type, with a low incident rate per year. In addition, no incidents involved pedestrians, indicating there are suitably wide footways immediately surrounding the development site with good access to the town centre, rail stations, bus stops and other local facilities.

2.9.4. It is therefore considered that there are no existing road safety issues identified within the immediate vicinity of the site which may be exacerbated as a result of any future redevelopment of the site.

2.10. Summary

2.10.1. It is evident that the site is in an accessible edge of town location with a range of sustainable modes of transport on offer which would cater for resident and visitor journeys to and from the site. The Census data shows that 19% of residents in the local area travel to work by sustainable modes of transport, with 70% travelling by private car. Within the MSOA in which the site lies, houses, on average, own 1.47 cars per household.

3. Proposed Development

3.1.1. The proposed development involves a change of use of the existing vacant 0.49ha of land to provide a total of 9 residential dwellings, comprising:

- 2 x two-bedroom dwellings;
- 4 x three-bedroom dwellings;
- 2 x four-bedroom dwellings; and
- 1 x five-bedroom dwelling.

3.1.2. The proposed site layout is attached as **Appendix A.**

3.2. Site Access Arrangements and Pedestrian Crossing

3.2.1. Access to the site is proposed to be taken off the A29 Shripney Road in approximately the same location as the existing access. It is proposed to widen the access to 5.5m to ensure that two vehicles can pass along the access road and to ensure that a WSCC refuse vehicle can easily access and egress the site. A turning head will be provided within the site to ensure that all vehicles can access and egress the site in forward gear. A 1.8m footway is also proposed on the southern side of the site access road. The proposed site access layout is attached at **Appendix C**.

3.2.2. Given the dual carriageway nature of the A29 Shripney Road in the vicinity of the site the proposed access will be a left in and left out access in accordance with the neighbouring Orchard Place site. All vehicles wishing to travel northbound on the A29 can turn around at the roundabout 320m south of the site. At present any vehicles accessing the site from the south will either perform a U-turn on the A29 approximately 96m north of the site access, where a right turn lane in to Shripney Lane provides enough room for a vehicle to safely turn, or they can turn around safely within Shripney Lane, the Shripney Road lay-by or within the Premier Inn turning loop. This is the same arrangement as the neighbouring Orchard Place site as well as neighbouring units along the A29.

3.2.3. As aforementioned, the A29 realignment will deliver a roundabout approximately 850m north of the site access which will further assist with vehicles turning on the A29.

3.2.4. As part of scoping discussions with WSCC it was requested that the applicant should consider enhancing pedestrian access to the new Saltbox development. As such it is proposed to provide a pedestrian crossing and refuge island to the south of the site to assist with pedestrians crossing the A29. The proposed crossing is shown at **Appendix D.** It is evident that suitable forward visibility can be achieved for the crossing.

3.2.5. As requested by WSCC a Stage 1 Road Safety Audit of the proposed site access and pedestrian crossing should be undertaken. This is attached at **Appendix E** together with the appropriate designer's response.

3.3. Car and Cycle Parking Provision

3.3.1. Car parking for the proposed development will be strategically positioned around the site to minimise the distance between bays and residential entrances. The site is located within Parking Behaviour Zone (PBZ) 1 under the Arun guidance which requires the following:

- 2.0 spaces per unit for one-bedroom units;
- 2.0 spaces per unit for two-bedroom units;
- 2.0 spaces per unit for three-bedroom units; and
- 3.0 spaces per unit for four or more-bedroom units.

3.3.2. In addition to the above, visitor parking at a ratio of 20% of all dwelling numbers will be required. Based on the above standards the site should provide 21 car parking spaces together with 2.1 visitor parking spaces.

3.3.3. The site will provide a total of 23 car parking spaces, including 21 allocated spaces and two visitor spaces, in line with ADC's guidance. These will be provided as driveway parking with two of the four- and five-bedroom units also providing one of their parking spaces within garages measuring 6m x 6m internally. The allocated driveway spaces will each measure 2.5m x 5.0m.

3.3.4. ADC's Parking Standards require the provision of one cycle parking space per one- and two-bedroom house, with two cycle parking spaces required for houses with three or more bedrooms. The development proposals are providing each dwelling with a garage and cycle parking will be provided in these garages in accordance with ADC's requirements.

3.3.5. Table 7 shows the breakdown of car and cycle parking provision for each plot. The number of garage spaces has been calculated based on ADC's Parking Standards that count a garage with internal dimensions of 3m x 6m as 0.5 car parking spaces. However, it is noted that where garages measure 6m x 3m they will not be used for car parking and will be used for storage and cycle parking, so therefore do not contribute to the total car parking. The plots with garages measuring 6m x 6m will provide one car parking space within the garage as well as providing space for cycle parking.

Table 7 - Car and Cycle Parking Provision

Plot	No. Bedrooms	Car Parking Provision				Cycle Parking Provision
		Driveway Spaces	Garage Dimensions	Garage Spaces	Total Spaces	
1	2	2	6m x 3m	0.5 (to be used as cycle parking)	2	1 space within garage
2	2	2	6m x 3m	0.5 (to be used as cycle parking)	2	1 space within garage
3	3	2	6m x 3m	0.5 (to be used as cycle parking)	2	2 spaces within garage
4	3	2	6m x 3m	0.5 (to be used as cycle parking)	2	2 spaces within garage
5	4	2	6m x 6m	1	3	2 spaces within garage
6	4	3	6m x 3m	0.5 (to be used as cycle parking)	3	2 spaces within garage
7	5	2	6m x 6m	1	3	2 spaces within garage
8	3	2	6m x 3m	0.5 (to be used as cycle parking)	2	2 spaces within garage
9	3	2	6m x 3m	0.5 (to be used as cycle parking)	2	2 spaces within garage
Visitor Parking					2	-
TOTAL		**18**	-	**2**	**23**	**16**

3.3.6. The proposed car and cycle parking is provided in line with ADC's guidance as requested within WSCC's pre-application response.

3.3.7. In order to future-proof the development and in accordance with ADC's standards, all driveways and garages will be provided with active electric vehicle charging facilities as shown on the proposed site layout attached as Appendix A.

3.3.8. A turning head is providing within the development to ensure that all vehicles can enter and exit the development in forward gear.

3.4. Delivery and Servicing

3.4.1. In accordance with The Arun District Design Guide SPD, suitable bin stores will be provided for each dwelling. The location of the stores will be designed to ensure that no resident has to carry their waste more than 30m with refuse collection operatives not required to move wheelie bins more than 25m.

3.4.2. A turning head has been provided at the eastern end of the site, to assist with manoeuvring in and out of the site. Swept path analysis of the WSCC refuse vehicle has been undertaken at **Appendix F** to ensure that it can access and egress in forward gear.

3.4.3. Deliveries to the residential units will primarily consist of the following:

- Refuse vehicles;
- Post, parcel and mail deliveries and collections;
- Ad-hoc grocery deliveries / other courier services;
- Occasional Maintenance vehicles; and
- Removals vehicles.

3.4.4. It is of note that the types of delivery and servicing trips outlined above are already likely to be operating at neighbouring sites along Shripney Road. The provision of a turning head within the site though will ensure that delivery and servicing vehicles can safely access and egress the site.

3.5. Construction

3.5.1. The details of construction for the proposed redevelopment (number of staff, length of works, operational hours etc) are yet to be finalised.

3.5.2. As agreed with WSCC through pre-application scoping discussions, a Construction Management Plan will be secured through condition once planning permission has been granted.

3.5.3. The proposed routeing strategy will be finalised with WSCC prior to initiation of the construction programme, to minimise disruption to the road and pedestrian network. It is anticipated that the strategic road network will be used as far as possible to access the site.

3.5.4. The developer will aim to employ local companies and workers to further reduce the impact of construction on the highway network, as well as providing economic benefits to the local area. Construction workers will be encouraged to travel to the site via sustainable means.

3.5.5. Positive action would be taken to reduce the number of heavy construction vehicles entering and exiting the site. These include:

- 'Backloading' vehicle operation, where site delivery vehicles are utilised to remove waste materials from the site as part of the same trip;
- Practical re-use of any aggregates on site and recycling of material; and
- Liaising with neighbouring construction sites to share.

3.5.6. The above measures help to ensure that construction works are organised and delivered in a manner that minimises the impact of the construction traffic on the local highway network in terms of highway safety and amenity.

3.5.7. Given the number of construction sites in the area (Saltbox and the Hanbury Properties site) the contractor will investigate setting up a Construction Steering Group (CSG). The CSG will meet / liaise on a regular basis and engage in cross site discussions. The site managers of sites will aim to schedule key works at different times to ensure disruption is minimised. In addition to this the contractors will, where possible, share procurement practices, delivery schedules and vehicle loads to help minimise the number of vehicles on the road network.

3.6. Travel Plan

3.6.1. As noted by WSCC within their pre-application response dated 6th May 2021, a Travel Plan will not be required for the development proposals given the scale of the site. Nonetheless cycle parking and electric vehicle charging points will be provided at the site which will encourage travel by sustainable modes of transport.

4. Trip Generation

4.1. Introduction

4.1.1. This Section of the TA considers the trip generation and potential travel patterns that are anticipated to occur at the site as a result of the proposed development.

4.2. Existing Site Trip Generation

4.2.1. The existing site is currently vacant and therefore does not generate any vehicle or multi-modal trips. As such, the existing site's trip generation is zero.

4.3. Proposed

4.3.1. The development proposals seek to provide nine residential dwellings at the site. The TRICS database has been interrogated for sites with similar characteristics to the proposed site. The following parameters were used:

- Residential – Houses Privately Owned;
- Multi-modal Surveys;
- Sites in Southeast England Only (Excluding Greater London);
- 0-50 dwellings;
- Surveys from 01/01/2012 – 22/03/2021;
- Weekday surveys only;
- Excluding 'Town Centre' and 'Edge of Town Centre' locations.

4.3.2. A total of four sites were selected from the TRICS database and Table 8 demonstrates the total vehicle trip rates and trip generation for nine dwellings. These trip rates were previously presented to WSCC in the Transport Scoping Note submitted alongside pre-application request and WSCC highways accepted the proposed TRICS methodology within their pre-application response. The full TRICS outputs are attached as **Appendix G**.

Table 8 - TRICS Total Vehicle Trip Generation

	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)			Daily (07:00-22:00)		
	In	Out	Two-Way	In	Out	Two-Way	In	Out	Two-Way
Total Vehicle Trip Rate	0.074	0.337	0.411	0.380	0.227	0.607	2.178	2.257	4.435
Trip Generation (9 Dwellings)	1	3	4	3	2	5	20	20	40

4.3.3. As demonstrated in Table 7 the proposed development has the potential to generate a total of four two-way vehicle trips in the AM peak hour, five two-way vehicle trips in the PM peak hour, and 40 two-way vehicle trips per day.

4.4. Multi-modal Trip Generation

4.4.1. The Census 2011 journey to work modal split outlined in Table 5 has been used to estimate the multi-modal trip generation for the site, which is outlined in Table 8.

Table 9 - Proposed Multi-Modal Trip Generation

Mode	Modal Split	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)			Daily (07:00-22:00)		
		In	Out	Two-Way	In	Out	Two-Way	In	Out	Two-Way
Underground	0%	0	0	0	0	0	0	0	0	0
Train	2%	0	0	0	0	0	0	1	1	2
Bus	5%	0	0	0	0	0	0	1	1	2
Taxi	0%	0	0	0	0	0	0	0	0	0
Motorcycle	1%	0	0	0	0	0	0	0	0	0
Car Driver	70%	1	3	4	3	2	5	20	20	40
Car Passenger	9%	0	1	1	1	1	2	3	3	6
Bicycle	6%	0	0	0	0	0	0	2	2	4
On foot	7%	0	0	0	1	0	1	2	2	4
Other	0%	0	0	0	0	0	0	0	0	0
Total	**100%**	**1**	**4**	**5**	**4**	**3**	**8**	**29**	**29**	**58**

4.4.2. It is evident from Table 9 that the site is likely to generate four two-way vehicle trips in the AM peak, five two-way vehicle trips in the PM peak hour and up to 40 two-way vehicle trips per day. It is considered that the site would result in a marginal level of trip generation, well within the day-to-day variation of traffic on the surrounding highway network. Therefore, as noted within the pre-application response received from WSCC, there is no need to undertake any operation junction assessments within the vicinity of the site.

4.4.3. The development proposals are estimated to result in the generation of up to five two-way person trips during the AM peak hour, eight two-way person trips during the PM peak hour, and 58 two-way person trips per day.

4.5. Development Impact

Vehicle Impact

4.5.1. The development proposals are anticipated to generate between four and five two-way vehicle trips within the network peak hours. This is considered to be well within the existing variation of traffic on the A29 and the increase would therefore be imperceptible. The pre-application response from WSCC deemed this trip generation to be acceptable and stated that there was no requirement for any operational junction assessments to be undertake within the vicinity of the site.

4.5.2. As such, the trip generation associated with the proposed development is considered to be suitable and would not result in a detrimental impact on the local highway network.

4.5.3. Following a review of PIA data, there are no existing safety issues within the vicinity of the access to the site, with a number of dwellings utilising a similar access strategy to that being considered as part of this planning application. As such, the proposals are not considered to result in an adverse impact on highway safety.

4.5.4. Deliveries to the residential site are anticipated to be minimal. It is likely that these trips will be existing trips on the network and likely to already be serving dwellings within the vicinity. Th provision of a turning head within the site ensures that all vehicles can access and egress in forward gear.

4.5.5. It is therefore considered that the proposed development would not have a severe or detrimental impact on the surrounding road and transport networks, in line with the NPPF.

Public Transport Impact

4.5.6. The development proposals are anticipated to result in the generation of two additional daily train trips outside of network peak hours and two additional daily bus trips outside of network peak hours. These additional public transport trips are not anticipated to have an impact on the capacity of the services that operate within the vicinity of the site and are likely to fall within the daily variations of bus and train users.

Walking and Cycling Impact

4.5.7. Chapter 2 of this Transport Statement describes the provision of walking and cycling facilities within close proximity to the site. Table 9 demonstrates that the proposed development is anticipated to generate approximately four daily pedestrian trips and four daily cycle trips.

4.5.8. It is considered that the number of pedestrian and cyclist trips generated by the proposed development would have a negligible impact on the operation of the pedestrian and cycle routes in the vicinity of the site. Furthermore, the provision of high quality sheltered and secure cycle parking at the site will allow cyclists from the site to safely store their bicycles.

4.6. Summary

4.6.1. This section has outlined the trip generation in relation to the development proposal. The development proposals are not considered to result in a negligible impact on the local highway network, public transport network, and local cycle infrastructure.

4.6.2. It can therefore be concluded that the development would not result in a severe residual impact in accordance with the NPPF.

5. Summary and Conclusions

5.1.1. This Transport Note has been prepared by Evoke Transport to support a planning application for the development of parcel land to the east of the A29 Shripney Road within the village of Shripney, Bognor Regis, to provide 9 residential dwellings, including two x two-bedroom dwellings, four x three-bedroom dwellings, two x four-bedroom dwellings and one x five-bedroom dwelling.

5.1.2. The facilities and amenities in the local area and the footway, cycle network and public transport network has been assessed and is considered high quality and extensive; suitable to support this type of modest residential development. No trend is identified in PIA data that may worsen as a result of the development proposals.

5.1.3. The proposals will provide car parking and cycle parking in accordance with the WSCC Guidance on Parking at New Developments and the Arun Parking Standards with 21 allocated spaces and two visitor spaces being provided. Pedestrian access to the residential units will be provided from an existing access off the A29 Shripney Road.

5.1.4. The development is anticipated to generate four two-way vehicle trips in the AM peak, five two-way trips in the PM peak hour and up to 40 two-way vehicle trips over a day.

5.1.5. The proposed development is therefore not considered to result in an adverse impact upon the local highway network, pedestrian and cycle infrastructure or public transport networks. It is therefore concluded that the development would not result in a severe residual impact, nor would it create an unacceptable impact on highway safety in accordance with the NPPF.

Appendix A – Proposed Site Layout

SITE LAYOUT PLAN ON TOPOGRAPHIC SURVEY
PROPOSED SITE PLAN

AUGUST 2022 1:500 @ A3

CAD file name: Land to rear of Regal House Rev08.dwg

SITE AREA = 0.499 hect

HOUSING MIX

				G.I.A
A	TYPE A	3 bed	2 car spaces	118.7m²
A1	TYPE A1	2 bed	2 car spaces	80.7m²
B	TYPE B	4 bed	3 car spaces	140.0m²
B1	TYPE B1	3 bed	2 car spaces	115.4m²
C	TYPE C	4 bed	3 car spaces	139.1m²
D	TYPE D	5 bed	3 car spaces	170.0m²

NB. gross internal areas exclude attached / integral garages.

Total Dwellings 9

SITE ACHIEVES 22+ DWELLINGS / HECTARE

Dwellings / hectare calculated on site area x 80% as site is over 0.4 hect

PLOT AREAS	Type	Parking
Plot 1 - 349.7m²	2 bed	2 spaces
Plot 2 - 265.6m²	2 bed	2 spaces
Plot 3 - 290.9m²	3 bed	2 spaces
Plot 4 - 287.9m²	3 bed	2 spaces
Plot 5 - 691.5m²	4 bed	3 spaces
Plot 6 - 550.5m²	4 bed	3 spaces
Plot 7 - 926.9m²	5 bed	3 spaces
Plot 8 - 238.3m²	3 bed	2 spaces
Plot 9 - 335.3m²	3 bed	2 spaces
Visitor Parking		2 Spaces
Total		23 Spaces

MANHIRE LLP Surveyors

60A North Street, Chichester, West Sussex, PO19 1NB, tel 01243 815720, email: chris@manhirellp.com

Land to rear of Regal House - Incorporating Survey, Pre-App comment and Tree Report SL-030

Appendix B – WSCC Pre-Application Response

WEST SUSSEX COUNTY COUNCIL
PRE-APPLICATION CONSULTATION

TO:	Organisation: Evoke Transport - FAO: David Fletcher
FROM:	WSCC - Highways Authority
DATE:	6 May 2021
LOCATION:	Regal House, A29 Shripney Road, Shripney, Bognor Regis, PO22 9NP
SUBJECT:	Internal Reference: PRE-048-21 The proposed development seeks to construct circa 10 residential dwellings at the site.
DATE OF MEETING:	6 May 2021
RECOMMENDATION:	Advice

The Highways Authority has been consulted for pre-application advice regarding the proposed development at Regal House, A29 Shripney Road. A meeting was held on 6th May 2021 where the Transport Scoping Note for development of circa 10 x dwellings was discussed.

Access

Access would be from eastern side of A29 Shripney Road in approx. location of existing. It would be widened to 5.5m to allow vehicles to pass and accommodate refuse collection. It should form a bellmouth arrangement with linking footway and tactile paving across the junction as per the Orchard Place arrangements. The access works would require a Stage 1 Road Safety Audit and subsequent s278 legal agreement post planning.

The area outlined in 3.6.1 for scope of accident recorded to include is acceptable.

The access would join dual carriageway section of Shripney Road and would therefore require splay in northern direction only for southbound vehicles. 120m is required for 40mph yet as speeds may be varying it is advised maximum achievable are demonstrated also, this appears achievable within publicly maintained land as there is footway and verge in this location. Currently a wall to north and neighbouring site south so applicant should consider whether pedestrian visibility splays either side of the access can be accommodated to ensure safety of pedestrians on adjacent footway.

Accessibility

Considering the consented Saltbox development to the south (BE/135/18) it is likely that pedestrian demand from the development, travelling south, would increase. The applicant should explore what improvements could be made to provide a footway link to the south and toward the west side of the carriageway. DMRB should be referred to explore whether uncontrolled crossing of A29 in this location would be achievable.

Arun charge CIL for developments and s106 can only be sought for site specific improvements that considered necessary to make application acceptable in planning terms. Considering the safety implications from pedestrian movements from the development it is advised therefore that footway link and crossing improvements are explored – to reach the new and existing facilities to the south (Saltbox and existing amenities off Oldlands Way Roundabout).

A Travel Plan would not be required considering the scale of the development. Nevertheless, sufficient bicycle parking and electric vehicle charging infrastructure should be provided to encourage sustainable transport means.

Parking & Internal Layout

Arun parking standards are adopted and should be applied to determine both car and bicycle parking.

A turning head within site for refuse vehicles etc will be provided and swept path tracking will show the workability of this. There will be some segregated footway within the site, although shared surface is likely to be acceptable in some areas considering the anticipated level of vehicle movements. The TRICs approach to predict trip generation is accepted and no further junction modelling would be required.

A Construction management plan would be welcomed although details of this could be secured by condition.

The Highway Authority would require the following documents to be submitted as part of any future application:

- A site location plan scale (1:1250) with site boundary indicated
- Schedule of existing uses including planning history with reference numbers
- Description, including site layout plans, of the proposed development and schedule of uses
- Summary of reasons supporting the site access/highways works proposals, including plan (scale 1:250 or similar) with achievable visibility splays indicated
- Final Stage 1 Road Safety Audit of site access and any proposed highway works, with designers response and including amended plans.
- A Transport Statement, including location plan of key services, availability of sustainable modes of transport and existing/future vehicular generation
- Reference to supporting national, regional, and local planning documents and policies
- Parking strategy, including provision of parking for all modes of transport
- Relevant data collected to date
- Proposed trip rates supported with TRICS outputs and site selection methodology

I have provided, below, some standard guidance relating to road design and current standards.

There are two sets of guidance which govern road design: Manual for Streets (MfS) for lightly trafficked residential streets; and Design Manual for Roads and Bridges (DMRB) for all other roads, including rural roads. I have included links to both below.

WSCC supports the approach set out in MFS, which has been adopted guidance for residential street design since its introduction in 2007. Within this document there are some very useful references to visibility splays, turning circles and car parking layouts. The document does not however provide specific measurements for visibility splays, so:
"X "Distances from the (kerb back) are typically:

- 2.4 metres - for domestic single access points and shared or busy crossovers (this may be reduced to 2.0 metres in certain circumstances in consultation with the Local Highways Authority and subject to local context)
- 4.5 metres - for busy junctions
- 9.0 metres -major junctions

"Y "Distances are based on vehicle speed, and for lightly trafficked residential streets MFS would be applied:

- 20 mph - 25 metres
- 25 mph - 33 metres
- 30 mph - 43 metres

For a road where the 85th percentile speed is in excess of 39 mph and for roads where MFS does not apply, CD 109 distances from DMRB would be applied:

- 40 mph -120 metres
- 50 mph -160 metres
- 60 mph -215 metres

I have attached a link to our Local Design Guide which provides further advice on how MfS is to be interpreted and applied within West Sussex.

The 'Additional Information' section of the WSCC Pre-application advice for roads and transport webpage provides a range of additional advice and guidance which you may find useful in preparing your application. Please click the link below and navigate to the 'Additional Information' section.

https://www.westsussex.gov.uk/roads-and-travel/information-for-developers/pre-application-advice-for-roads-and-transport

Here you will be able to access our Local Design Guide which provides further advice on how MfS is to be interpreted and applied within West Sussex.

The page also includes a link to our latest parking standards as Supplementary Planning Guidance (SPG) that sets out parking standards for development in West Sussex. Within you will find recommended levels for cycle parking and also guidance on levels of Electric Vehicle charging points for new developments.

Manual for Streets:

http://www2.dft.gov.uk/pgr/sustainable/manforstreets/pdfmanforstreets.pdf

DMRB supplementary documents CD 109 (Search for "CD 109"):

https://standardsforhighways.co.uk/dmrb/

I trust you appreciate that any advice given by council officers for pre-application enquiries does not constitute a formal response or decision of the council with regard to the granting of planning permission in the future. Any views or opinions expressed are given in good faith, and to the best of ability, without prejudice to the formal consideration of any application, which will be the subject of public consultation and ultimately decided by the Local Planning Authority.

Katie Kurek
Planning Services

Appendix C – Site Access Arrangement

NOTES

1. DO NOT SCALE FROM THIS DRAWING. WORK FROM FIGURED DIMENSIONS ONLY.
2. EVOKE TRANSPORT PLANNING CONSULTANTS LIMITED ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF THIRD PARTY INFORMATION - THIS MUST BE TREATED AS INDICATIVE ONLY.

KEY

- HIGHWAY BOUNDARY
- PROPOSED CARRIAGEWAY
- PROPOSED FOOTWAY
- PROPOSED VERGE

Rev	Amendment	Drn	App	Date
C	UPDATED LAYOUT	MH	DF	26.08.22
B	UPDATED IN LINE WITH RSA COMMENTS	MH	DF	21.07.22
A	UPDATED TO INCLUDE HIGHWAY BOUNDARY MAPPING	BW	DF	04.03.21
-	FIRST REVISION	BW	DF	01.03.21

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Project Name
SHRIPNEY ROAD
BOGNOR REGIS

Drawing Title
SITE ACCESS
ARRANGEMENT & VISIBILITY

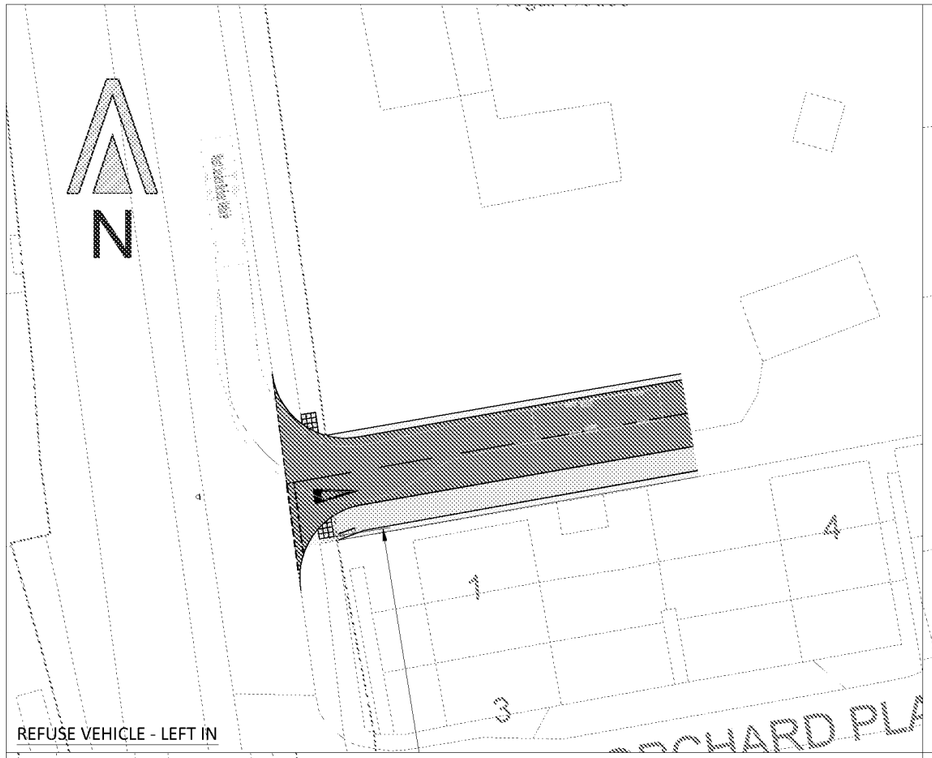
Client
MANHIRE LLP

Drawn by	Approved by	Date
BW	DF	04.03.21

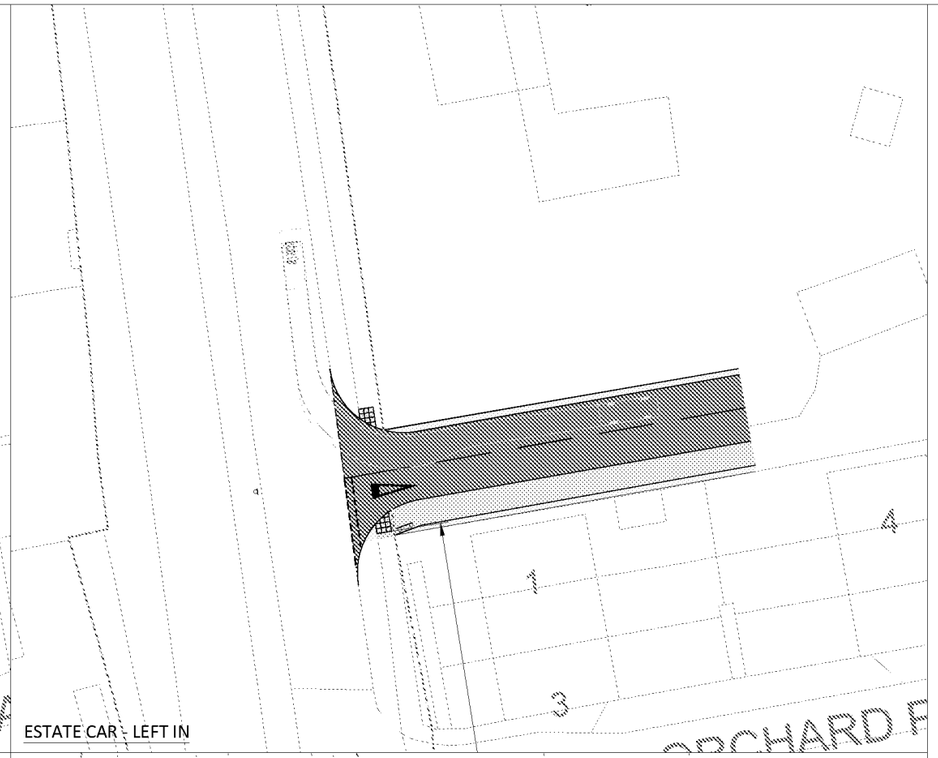
Scale	Job No
1:500 @ A3	R-21-0021

Drawing No	Rev
R-21-0021-001	C

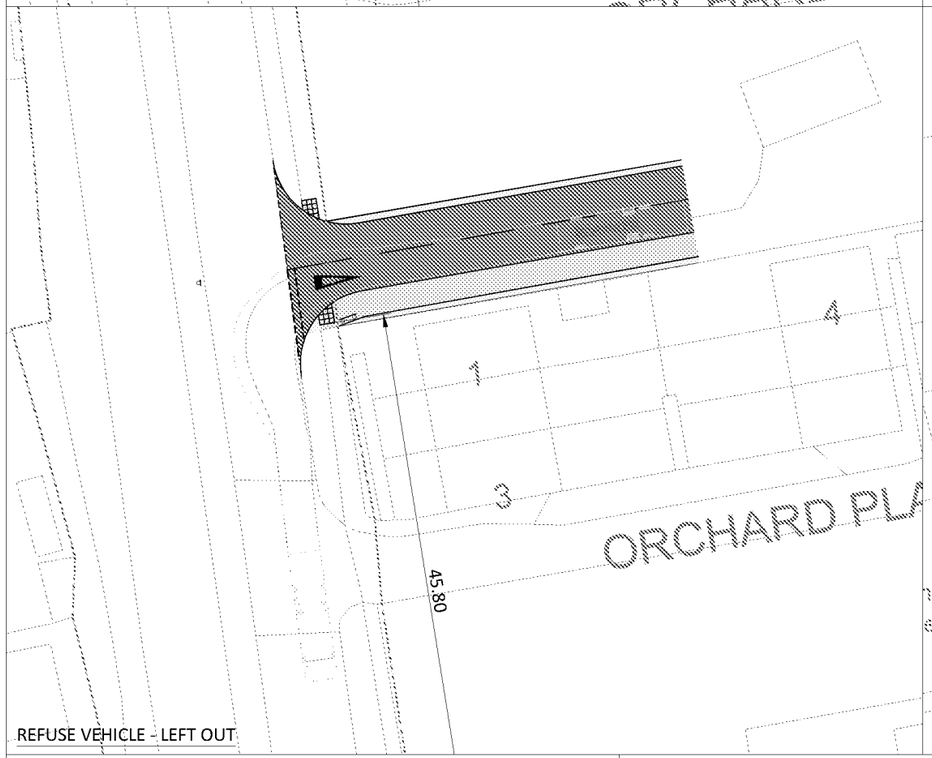
C:\Users\MegHopkins\Evoke Transport\Evoke Projects - Documents\R-21-0021 Shripney Road, Bognor Regis\50 Drawings\51 AutoCAD\R-21-0021-001.C.dwg



REFUSE VEHICLE - LEFT IN



ESTATE CAR - LEFT IN



REFUSE VEHICLE - LEFT OUT

ESTATE CAR - LEFT OUT

NOTES

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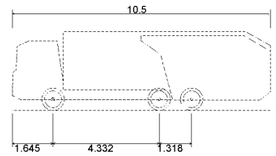
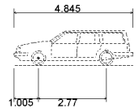
REFUSE VEHICLE PROFILE



West Sussex Refuse Vehicle	
Overall Length	10.500m
Overall Width	2.600m
Overall Body Height	3.223m
Min Body Ground Clearance	0.428m
Track Width	2.600m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	7.500m

ESTATE CAR VEHICLE PROFILE



Estate Car	
Overall Length	4.845m
Overall Width	1.750m
Overall Body Height	1.424m
Min Body Ground Clearance	0.189m
Max Track Width	1.655m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	4.950m

C	UPDATED LAYOUT	MH	DF	26.08.22
B	UPDATED IN LINE WITH RSA COMMENTS	MH	DF	21.07.22
A	UPDATED TO INCLUDE HIGHWAY BOUNDARY MAPPING	BW	DF	04.03.21
-	FIRST REVISION	BW	DF	01.03.21

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Project Name: SHRIPNEY ROAD BOGNOR REGIS

Drawing Title: SITE ACCESS SWEPT PATH ANALYSIS

Client: MANHIRE LLP

Drawn by	Approved by	Date
BW	DF	04.03.21

Scale	Job No
1:500 @ A3	R-21-0021

Drawing No	Rev
R-21-0021-002	C

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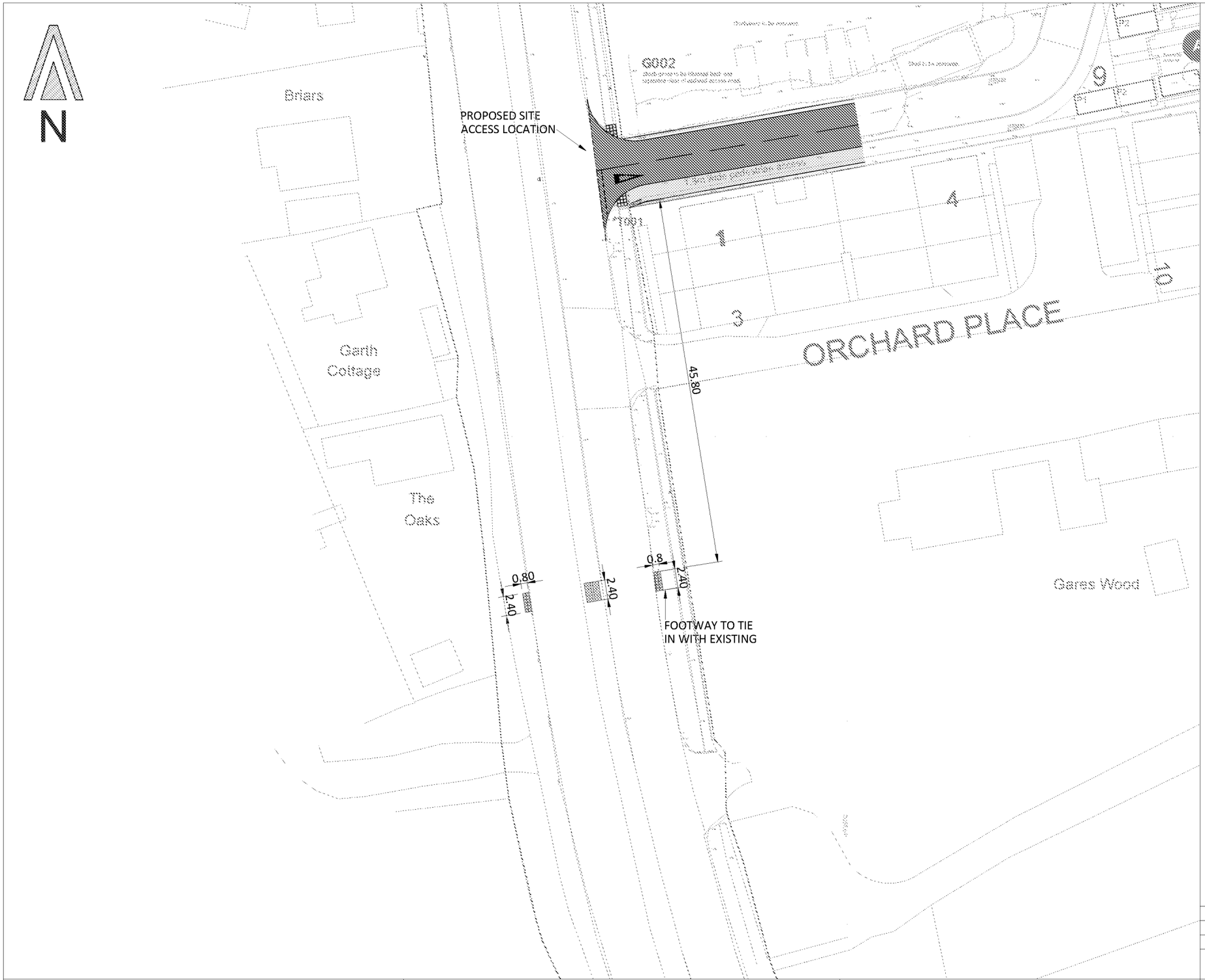
ARUN DISTRICT COUNCIL BE/48/25/PL

Appendix D – Proposed Pedestrian Crossing



NOTES

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B	UPDATED LAYOUT	MH	DF	26.08.22
A	UPDATED IN LINE WITH RSA COMMENTS	MH	DF	21.07.22
-	FIRST REVISION	BW	DF	10.05.21

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Project Name: SHRIPNEY ROAD BOGNOR REGIS

Drawing Title: REFUGE ISLAND GENERAL ARRANGEMENT

Client: MANHIRE LLP

Drawn by	Approved by	Date
BW	DF	10.05.21

Scale	Job No
1:500 @ A3	R-21-0021

Drawing No	Rev
R-21-0021-003	B

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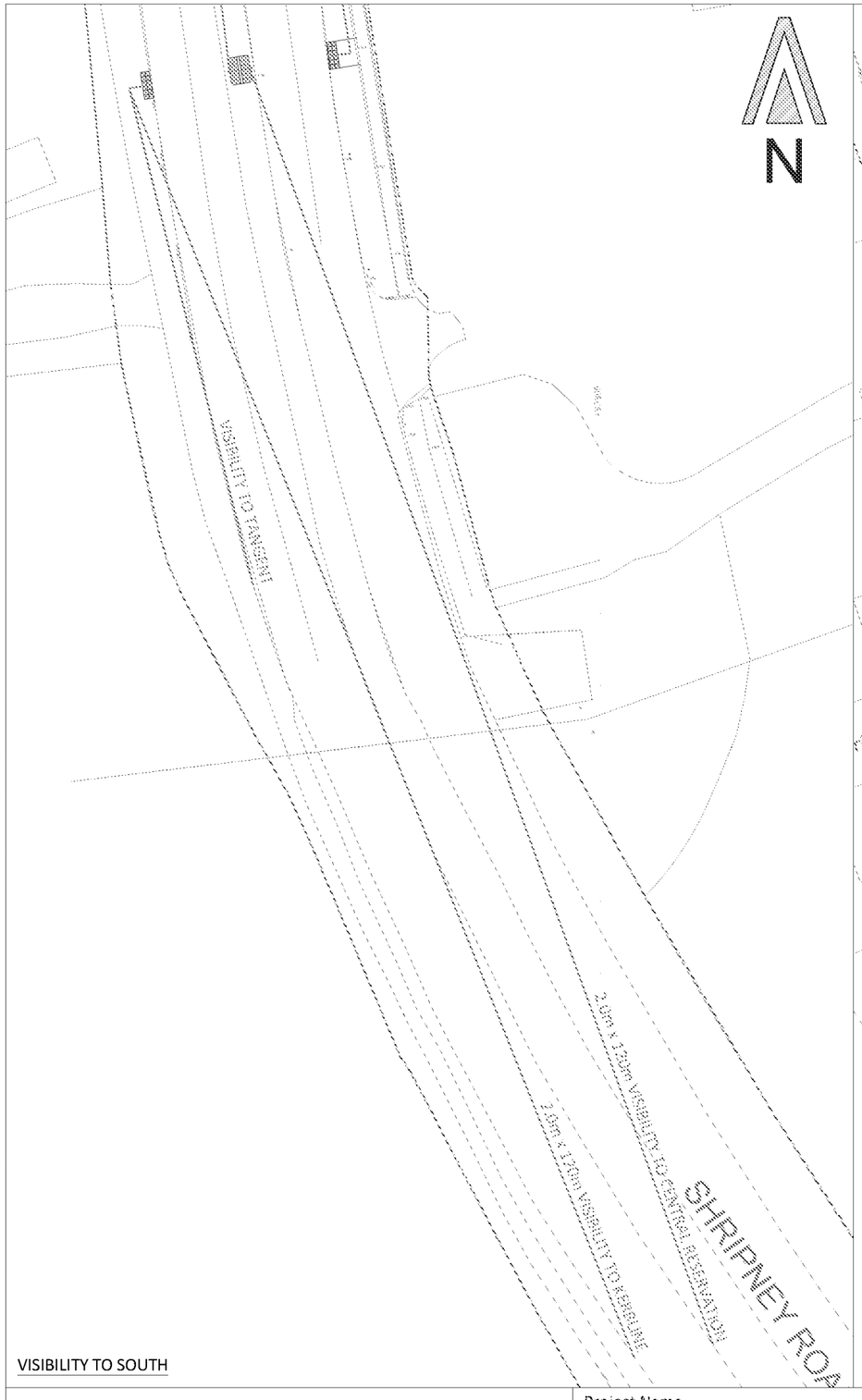
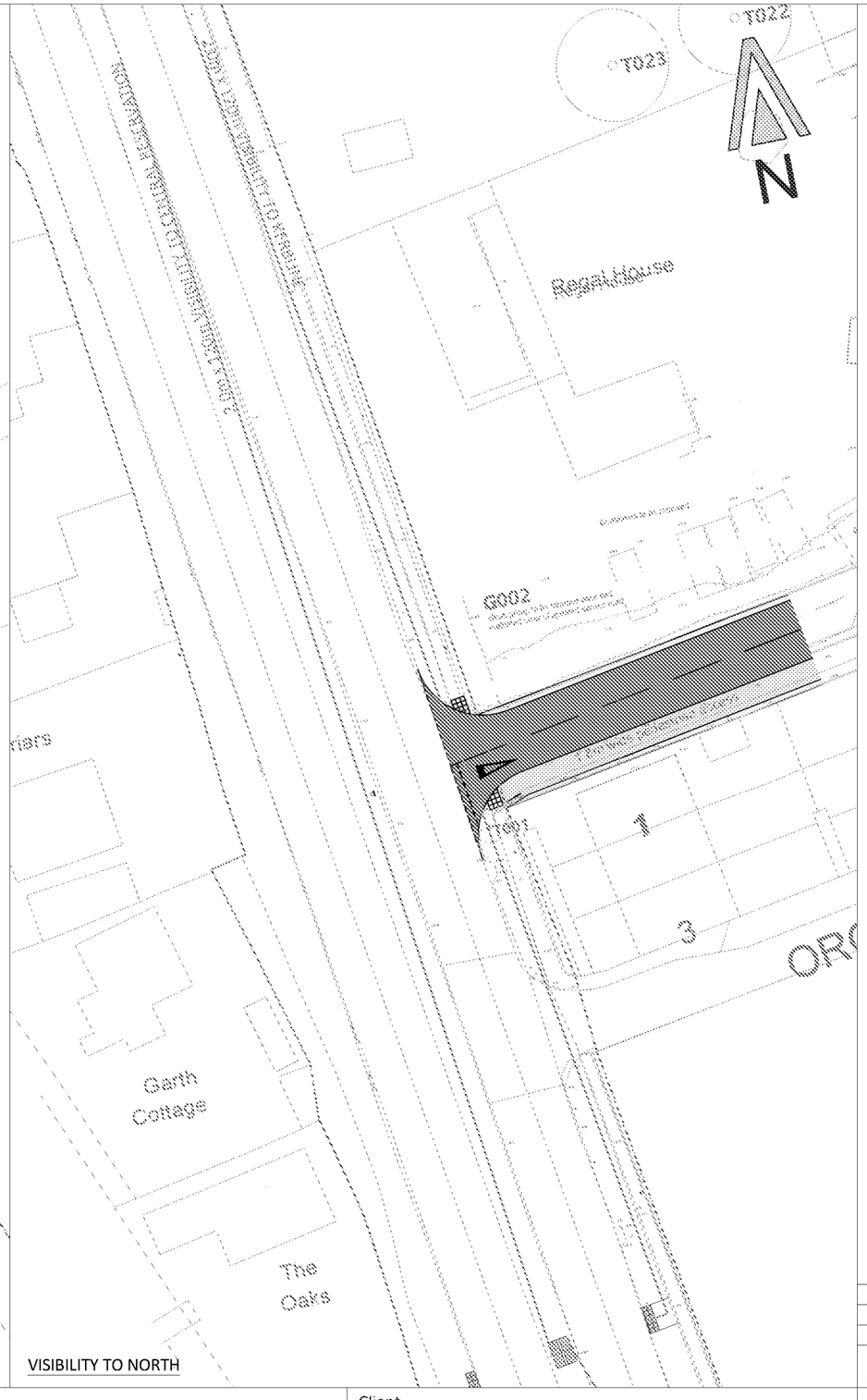
ARUN DISTRICT COUNCIL BE/48/25/PL



VISIBILITY TO SOUTH



VISIBILITY TO NORTH

NOTES

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B	UPDATED LAYOUT	MH	DF	26.08.22
A	UPDATED IN LINE WITH RSA COMMENTS	MH	DF	21.07.22
-	FIRST REVISION	BW	DF	10.05.21

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Project Name
SHRIPNEY ROAD
BOGNOR REGIS

Drawing Title
REFUGE ISLAND
VISIBILITY SPLAYS

Client
MANHIRE LLP

Drawn by	Approved by	Date
BW	DF	10.05.21

Scale	Job No
1:500 @ A3	R-21-0021

Drawing No	Rev
R-21-0021-004	B

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Appendix E – Stage 1 RSA and Designers Response

No.	RSA Problem	Audit Team Recommendation(s)	Design Organisation Response	Audit Team Correspondence	Overseeing Organisation Response	Agreed RSA Action
2.1	Summary: Potential collisions due to standing water or service covers *Location: Throughout* No details have been provided in respect of surface water drainage or other services and it is therefore not possible to ascertain whether or not there will be any safety implications. The absence of adequate surface water drainage may increase the risk of the collection of surface water which may contribute to the increase risk of loss of control collisions.	Ensure that adequate surface water drainage is provided, if necessary, provide additional drainage.	Details of drainage will be provided and agreed through the detailed design, technical approvals and S278 stage and the appropriate highway drainage will be provided in accordance with WSCC specification. It is not considered that there are any constraints preventing the provision of drainage in line with standards.	Accept		
3.1	Summary: Potential risk of vehicle turning collisions associated with inadvertent vehicle manoeuvres *Location: Proposed Development Access & Access to Adjacent Development (Orchard Place)* Observations during the site inspection noted that the proposed development access is located adjacent to a vehicle access serving the neighbouring residential development (Orchard Place). There is concern that the proximity of both accesses may increase the risk of vehicle collisions associated with inadvertent vehicle manoeuvres.	Ensure that appropriate signs informing motorists of the development is places on the entry to the development.	Drawing R-21-0021-001.B demonstrates that a sign will be provided on the southern side of the access road at the back of the footway stating the name of the development. A similar sign is provided at the access to Orchard Place, and this will ensure that motorists are aware of the presence of the access road and that vehicles are likely to be entering and exiting the development.	Accept		

3.2	Potential risk of vehicle collisions associated with sudden braking *Location: A29 Shripney Road approach to proposed development access* It is unclear from the drawings provided if the marker posts, vegetation and any foliage within verge in the vicinity of the proposed development access is to be cleared. The retention of these features will make the proposed development access less conspicuous and may cause vehicles travelling south along A29 Shripney Road to suddenly brake to negotiate the development access. This may lead to an increased risk of loss of control or tail end shunt type collisions on the A29 Shripney Road approach to the development access.	Ensure that marker posts, vegetation and foliage within verge in the vicinity of the proposed development access is cleared to make the proposed development access more conspicuous.	Marker posts, vegetation and the verge along A29 Shripney Road on the approach to the site will be maintained to ensure that the access road is visible to vehicles travelling south along A29 Shripney Road.	Accept, although will need minor setting back.		
3.3	Summary: Potential risk of vehicle collisions associated with obstruction in visibility *Location: Proposed development access* The scheme drawing indicates that appropriate visibility splays to and from the development access can be achieved. However, vegetation/landscaping behind the visibility splay may over time restrict visibility for vehicles waiting to turn out of the development. Poor visibility may increase the risk of vehicular collisions between traffic turning out of the site and vehicles travelling south along A29 Shripney Road.	Ensure that any vegetation/landscaping behind the visibility splays is cut back and regularly maintained, or of a low-level variety.	Drawing R-21-0021-001.B demonstrates that a visibility splay of 2.4m x 120m is achievable to the north in accordance with DMRB guidance for a 40mph road. It is noted that the verge on the eastern side of A29 Shripney Road is provided fully within the highway boundary. As such, any vegetation and landscaping within the visibility splays can be cut back and maintained by the Local Highway Authority as required.	Accept		

4.1	Summary: Potential risk collisions associated with layout of crossing and obstruction in visibility *Location: Uncontrolled pedestrian crossing facility across A29 Shripney Road* The scheme drawing indicates a proposed uncontrolled pedestrian crossing facility across A29 Shripney Road. However, there is concern that the introduction of the refuge island within the central median is unconventional, in addition the footway fronting the development to the crossing point is narrow and whilst visibility splays to the crossing can be achieved, the dense vegetation within the central median may restrict visibility to the north for pedestrians waiting to cross the A29.	The central refuge island should be removed and replaced with a conventional uncontrolled crossing facility ensuring that any vegetation within the central median is cut back to improve visibility to and from the crossing.	The central refuge island shown in Drawing R-21-0021-003 has been removed and Drawing R-21-0021-003.A replaces the previous version of the drawing and shows a revised pedestrian crossing proposal with the provision of tactile paving on the central median. Vegetation on the central median within the pedestrian visibility splays shown in Drawing R-21-0021-004.A can be cut back and maintained by the Local Highway Authority as this lies within the highway boundary. This will ensure that pedestrians waiting to cross will be seen by vehicles and vehicles travelling along Shripney Road will also be seen by pedestrians.	Accept		
5.1	Summary: Potential risk of vehicles performing errant manoeuvres *Location: Uncontrolled pedestrian crossing facility across A29 Shripney Road* It is noted that the proposed development access restricts movements to left in and left out only. The absence of appropriate signs and markings may encourage motorists to perform errant manoeuvres to access/leave the development, crossing the central verge strip. This may increase the risk of collisions with other road users travelling along the A29 Shripney Road.	Ensure that appropriate signs and markings are provided to inform motorists of the permitted movements to access/leave the development.	As shown in Drawing R-21-0021-001.B, a 'left-turn only' sign will be provided opposite the access road to inform vehicles leaving the site that they can only turn left to travel southbound on A29 Shripney Road. This mirrors the neighbouring Orchard Place arrangement.	Accept		

Appendix F – Internal Turning Head Swept Path Analysis

NOTES

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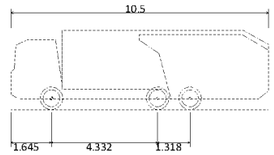
WSCC REFUSE VEHICLE PROFILE



West Sussex Refuse Vehicle	
Overall Length	10.500m
Overall Width	2.600m
Overall Body Height	3.223m
Min Body Ground Clearance	0.428m
Track Width	2.600m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	7.500m

Rev				
A	UPDATED LAYOUT	MH	DF	26.08.22
-	FIRST REVISION	MH	DF	29.07.22
Rev	Amendment	Drn	App	Date

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Project Name: SHRIPNEY ROAD BOGNOR REGIS

Drawing Title: REFUSE VEHICLE SWEPT PATH ANALYSIS

Client: MANHIRE LLP

Drawn by	Approved by	Date
MH	DF	29.07.22

Scale	Job No
1:250 @ A3	R-21-0021

Drawing No	Rev
R-21-0021-005	A

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Appendix G – TRICS Outputs

Calculation Reference: AUDIT-708731-210322-0313

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	**SOUTH EAST**		
	HC	HAMPSHIRE	3 days
	WS	WEST SUSSEX	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: 36 to 48 (units:)
Range Selected by User: 0 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 13/11/18

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	2 days
Thursday	1 days

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

Selected survey types:

Manual count	4 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	2
Edge of Town	2

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

Selected Location Sub Categories:

Residential Zone	4

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	4 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 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

5,001 to 10,000	1 days
15,001 to 20,000	2 days
20,001 to 25,000	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	1 days
125,001 to 250,000	3 days

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

Car ownership within 5 miles:

1.1 to 1.5	4 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	4 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	4 days

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

LIST OF SITES relevant to selection parameters

1 **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*

2 **HC-03-A-21** **TERRACED & SEMI-DETACHED** **HAMPSHIRE**
PRIESTLEY ROAD
BASINGSTOKE
HOUNDMILLS
Edge of Town
Residential Zone
Total No of Dwellings: 39
Survey date: TUESDAY *13/11/18* *Survey Type: MANUAL*

3 **HC-03-A-22** **MIXED HOUSES** **HAMPSHIRE**
BOW LAKE GARDENS
NEAR EASTLEIGH
BISHOPSTOKE
Edge of Town
Residential Zone
Total No of Dwellings: 40
Survey date: WEDNESDAY *31/10/18* *Survey Type: MANUAL*

4 **WS-03-A-05** **TERRACED & FLATS** **WEST SUSSEX**
UPPER SHOREHAM ROAD
SHOREHAM BY SEA

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 48
Survey date: WEDNESDAY *18/04/12* *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.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
KC-03-A-05	Low Trips

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	41	0.117	**4**	**41**	**0.393**	4	41	0.510
08:00 - 09:00	4	41	0.074	4	41	0.337	4	41	0.411
09:00 - 10:00	4	41	0.160	4	41	0.147	4	41	0.307
10:00 - 11:00	4	41	0.117	4	41	0.086	4	41	0.203
11:00 - 12:00	4	41	0.135	4	41	0.147	4	41	0.282
12:00 - 13:00	4	41	0.086	4	41	0.135	4	41	0.221
13:00 - 14:00	4	41	0.166	4	41	0.190	4	41	0.356
14:00 - 15:00	4	41	0.110	4	41	0.153	4	41	0.263
15:00 - 16:00	4	41	0.202	4	41	0.166	4	41	0.368
16:00 - 17:00	4	41	0.294	4	41	0.141	4	41	0.435
17:00 - 18:00	**4**	**41**	**0.380**	4	41	0.227	**4**	**41**	**0.607**
18:00 - 19:00	4	41	0.337	4	41	0.135	4	41	0.472
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.178			2.257			4.435

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

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

Parameter summary

Trip rate parameter range selected:	36 - 48 (units:)
Survey date date range:	01/01/12 - 13/11/18
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	1

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.