

Transport Assessment

**Land to the South of
Romsey Avenue,
Portchester**

**Prepared for
Foreman Homes**

by

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1.0 INTRODUCTION

- 1.1 This Transport Assessment has been prepared by Stuart Michael Associates Limited (SMA), on behalf of Foreman Homes (the 'Applicant'). This Transport Assessment (TA) is in support of a Hybrid Planning Application for 12.6 hectares of land seeking outline permission for the erection of 167 dwellings with all matters reserved (except for access) and full planning permission for 58 dwellings, associated landscaping, amenity areas and access from Romsey Avenue, Portchester.
- 1.2 The application site is located to the south of Romsey Avenue, approximately 2.8km east of Fareham town centre and 2km west of Portchester rail station. The site is comprised of 12.6ha of agricultural land.
- 1.3 The north of the site is bound by the rear of existing properties along Romsey Avenue. To the east of the development site is a field which is the location of the recently permitted residential development known as Cranleigh Road (reference: **P/15/0260/OA**). This development was granted planning consent on Appeal in October 2017. Beyond this are open fields and Wicor Primary School. AFC Portchester Football Club, playing fields and agricultural land form the southern boundary of the site and the western extent of the site is bounded by agricultural land. **Figure 1.1** shows the site location.
- 1.4 Fareham Borough Council (FBC) are currently reviewing the Borough's Local Plan and are in the process of drafting a new Local Plan which will cover the area up to 2036. Within the Draft Local Plan the proposed development site has been allocated as a development site for 225 dwellings (site reference number: HA5).

Pre-application Consultation

- 1.5 In accordance with best practice, SMA undertook a pre-application consultation with the Highway Authority (Hampshire County Council) in 2017. As part of this consultation SMA prepared a Transport Scoping Note which was issued to Hampshire County Council (HCC). A copy of the scoping note is provided in **Appendix A**.



- 1.6 The scoping note considered the type of vehicular access proposed, car parking standards, trip generation from the proposed development, off-site junction assessments and the amount of committed development that the TA would include.
- 1.7 A meeting was held to discuss the scope of the TA with HCC on the 8th of May 2017, confirming various aspects set out in the Scoping Note were acceptable to HCC and the use of the methodology and approach used within the Persimmon Homes TA for the adjacent Cranleigh Road development, the principles of which were accepted at Appeal, were acceptable and could be used in assessing the proposed development.
- 1.8 A public exhibition was also held on 7th September 2017. This introduced the local community to the proposed development and provided an opportunity for them to provide their views and raise any concerns. One of the points raised by a number of local residents was the existing on street parking in and around Beaulieu Avenue and the impact of the future development trips would have in relation to the function of Beaulieu Avenue.
- 1.9 A further pre-application meeting was held with HCC on 23rd May 2018 to discuss the work to date on the project and obtain any comments from the highway authority. Correspondence setting out the points raised by HCC is contained in **Appendix A**. The points raised by HCC in this meeting have been addressed within this report.

Report Outline

- 1.10 This TA has been prepared in accordance with current policy and guidance documents. The remainder of this report will be structured as follows:
 - **Section 2** provides an overview of the relevant national, regional and local policies;
 - **Section 3** reviews the existing conditions of the site and local area, including the local highway network, non-motorised user accessibility, public transport accessibility and highway safety;
 - **Section 4** describes the development proposals, site access, parking provision and internal access arrangements;



- **Section 5** sets out a summary of the likely trips generated by the proposed development and provides an assessment of the likely impact of the proposed development trips;
- **Section 6** details a Transport Strategy to mitigate the proposed developments impact on the local highway network;
- **Section 7** gives a summary of the report and draws its conclusions from the assessment.



2.0 POLICY CONTEXT

2.1 For the purpose of this application, the following national, local policy guidance has been referred to.

National Policy

2.2 The **National Planning Policy Framework (NPPF)** was revised on 24th July 2018. At the heart of the NPPF is a presumption in favour of sustainable development.

2.3 With regard to promoting sustainable transport, it is recognised that when 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.”* (NPPF, paragraph 108).

2.4 Development should only be prevented or refused on highway grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe. (NPPF, paragraph 109).

2.5 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 of 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.”*
(NPPF, paragraph 110).

2.6 The NPPF states that all developments which generate significant amounts of movement should be required to provide a Travel Plan (NPPF, paragraph 111).

2.7 The guidance document **Manual for Streets** (MfS) (2007) and the expansion document **Manual for Streets 2** (MfS2) (2010) provide guidance regarding street and non-trunk road design. The concept of the MfS documents places the needs of pedestrians, cyclists and public transport users above those of private vehicle users. MfS updates the link between planning policy and street design and encourages the development of inclusive environments.

Local Policy

Hampshire Local Transport Plan 3

2.8 HCC is the local HA and has subsequently developed the transport strategy for the county, inclusive of Portchester. The transport strategy is contained within the **Third Hampshire Local Transport Plan** (LTP3) covering the period 2011 – 2031. This was formally approved in February 2011 and is organised in two parts; a broad 20 year strategy and a 3 year Implementation Plan. The latest Implementation Plan covers the period 2014 to 2017.

2.9 The principal challenges and relevant policy objectives for Hampshire are as follows:

- Ensuring that a high quality transport network is effectively maintained and managed and that the transport network supports and enables growth.
- Manage traffic to maximize the efficiency of existing network traffic.



- Improve and increase bus travel to reduce dependency on the private car for journeys on interurban corridors.
- Apply manual for streets principles to support a better balance between traffic and community life; *and*
- Invest in sustainable transport measures including walking, cycling and develop a high quality bus transport provision

Fareham Borough Council Local Plan 2011-2029

- 2.10 FBC local plan is set out in three parts, the **Core Strategy**, which was adopted in August 2011, the **Development Sites & Policies** and the **Welborne Plan** both of which were adopted in June 2015.
- 2.11 The Core Strategy (CS) is a key part of the **Fareham Local Development Framework** (LDF) and will help deliver the spatial elements of the Fareham Sustainable Community Strategy.
- 2.12 The CS identifies Portchester as a settlement which provides good facilities, including a district centre, medical facilities and educational facilities. The CS also identifies the existing local employment base. However, the CS acknowledges traffic congestion is generally a serious problem in the Borough and mitigation is needed to address issues associated with further growth, including impacts from air pollution on the natural environment, and encourage residents to use alternatives to the car.
- 2.13 Within the CS a number of Strategic Objectives are laid out, these objectives aim to provide clear objectives to guide development in the borough in future years. In relation to transport matters for proposed residential developments the following objectives are relevant:
- **SO5** – To ensure development provides and/or contributes to timely and appropriate transport infrastructure and mitigation measures to support the needs of development and provide and/or contribute to public transport and quality pedestrian and cycle links to reduce dependency on the car.
 - **SO9** – To improve accessibility to and facilitate the development and expansion of leisure, recreation, community, education, open space and health facilities and services. Achieve better



access to green spaces close to where people live and work, to encourage healthy active lifestyles.

2.14 Within the CS a number of Key Policies are laid out, these overarching policies are wide reaching, the following policies are relevant to transport provision for new residential developments.

Transport, Accessibility and Tackling Congestion

2.15 Transport for South Hampshire (TfSH), supported by the HCC as HA and FBC, developed a transport strategy to help integrate and accommodate development and deliver a sustainable transport system. This policy has three principles: Reduce, Manage and Invest which underpins the transport strategy.

- **Reduce:**

Wherever practicable and relevant reduce the need to travel and reduce journey lengths; such as locating development sites where they are accessible by means other than the car so that people have choices about how they travel and improving public transport.

The reduce element of the strategy will examine a number of different measures which can be classified under three main headings:

- **Smarter Choices** – A range of generally “softer” measures that aim to influence travel behaviour, such as travel plans; travel awareness campaigns (e.g. walk to school; car share); travel information systems.
- **Land Use Planning** – A range of measures that can be applied to new developments to reduce the demand for travel, such as prioritising pedestrian and cycle movement and accessibility.
- **Demand Management** – Measures that aim to control the demand for travel such as workplace parking charges, visitor parking charges, parking space availability, road pricing and road space reallocation.



- **Manage:**
To make the best use of existing infrastructure across all modes and introduce measures to influence travel choices; such as co-ordination of traffic control systems and the reallocation of road space in favour of buses and high occupancy vehicles (HOVs).

- **Invest:**
To provide additional infrastructure in the most cost-effective and environmentally sustainable way; such measures include identifying schemes which have a realistic prospect of being funded through government or other funding mechanisms.

2.16 FBC are currently reviewing the Borough's local plan and are in the process of drafting a new local plan which will cover the area up to 2036. The Draft Local Plan was recently granted approval (Executive Decision 09/10/17). Within the Draft Local Plan the proposed development site has been allocated as site HA5 (SHLAA Ref: 207). The allocation is for 225 dwellings and sets out specific requirements for the site. In transport terms the following requirements are deemed relevant:

- Primary highway access shall be focused on Romsey Avenue;
- The creation of a loop road on the site and safe pedestrian and cycle crossing points on Romsey Avenue and to the adjoining Cranleigh Road housing allocation (HA6); and
- Proposal shall either provide directly, or provide a financial contribution towards the delivery (and maintenance where deemed necessary) of the following infrastructure, in line with the Council's Planning Obligations SPD: Off-site highway improvements and mitigations works.



3.0 EXISTING CONDITIONS

Site Location

3.1 The Development site is located on land to the south of Romsey Avenue, Portchester. The site is located to the south of Romsey Avenue approximately 2.8km cycle east of Fareham town centre and 2km walk west of Portchester rail station. A number of key facilities are within proximity of the site and are detailed as follows.

Local Facilities / Amenities

3.2 MfS guidance considers that a walkable neighbourhood is one which has a range of facilities within 10 minutes walking distance (up to about 800m) of residential areas, which residents can comfortably access on foot. Although MfS does state that this should not be considered an upper limit, noting government guidance (PPG13) indicates that walking can replace short car trips of up to 2km. This is reflected in the IHT guidance '*Providing for Journeys on Foot*' (2000), which recommends suitable maximum walking distances of up to 2km for key trip ends (Table 3.1 refers).

Table 3.1: IHT Suggested Acceptable Walking Distance in Metres

	Town Centres	Commuting / School, Sight-seeing	Elsewhere
Desirable	200	500	400
Acceptable	400	1,000	800
Preferred Maximum	800	2,000	1,200

Source: Table 3.2 Guidelines for Providing For Journeys on Foot, IHT, 2000.

3.3 The locations of the available facilities in the vicinity of the site, together with indicative 1km isochrones distances from the centre of the site, are shown on **Figure 3.1**. The local education, employment, retail, health, leisure and community facilities in the vicinity of the site are detailed below.

Education Facilities

3.4 Wicor Primary School (for children aged 4 – 11 years) is located approximately 960m walk distance east of the centre of the site in Hatherley Crescent.



3.5 Cams Hill School is for pupils aged 11 – 16 years and is located approximately 1.3km walk distance west of the centre of the site along Shearwater Avenue. The school can be accessed on foot via the residential streets of Romsey Avenue, Beaulieu Avenue and the A27, Portchester Road.

3.6 Portchester Community School is for pupils aged 11 – 16 years and is located approximately 2.2km walk distance east from the centre of the site in White Hart Lane. The school can be accessed on foot via the residential streets of Romsey Avenue, Hatherley Crescent, Cranleigh Road and White Hart Lane.

Employment Facilities

3.7 A number of areas of employment are accessible from the site these include Castle Trading Estate and Fort Wallington Industrial Estate approximately 2.5km cycle distance east and 2.7km cycle distance west respectively of the site.

3.8 Further employment opportunities are available within Portchester and Fareham town centres. Portchester town centre is approximately 1.9km walk east of the site and Fareham town centre is approximately 2.8km cycle distance west of the site. The X4 bus service operates a frequent service to Portchester town centre and the 3, F3 and X4 services provide regular services to Fareham town centre.

Retail Facilities

3.9 The nearest food retail facilities to the site are an M&S Simply Food store located at the petrol filling station along the A27, Portchester Road at the Cornaway Lane Roundabout approximately 1.1km walk distance east of the site.

3.10 Further retail opportunities are available within Portchester town centre, these facilities includes a bank, convenience store, hair and beauty salon, flower shop, estate agents, opticians, pharmacy, cafes and restaurants.

3.11 Fareham Shopping Centre is located approximately 2.8km west of the site and offers over 65 shops including department stores, and cafes and restaurants. Additional shops, banks, cafes, bars and restaurants are located along West Street in Fareham town centre.



Health Facilities

- 3.12 Westlands Medical Centre is the nearest doctor's surgery approximately 1.5km walk distance east of the site on Westlands Grove.
- 3.13 Dental surgeries and opticians are situated to the east of the site in the vicinity of Portchester town centre.

Leisure Facilities

- 3.14 24/7 Fitness Fareham Gym is located approximately 1.6km north west of the site on Downend Road and provides a gym and fitness classes.
- 3.15 Cams Hall Golf Course is located approximately 2.3km west of the site on the A27, Portchester Road.

Community Facilities

- 3.16 Portchester Community Centre is approximately 1.9km walk distance east of the site in Westlands Grove. Regular events held at the centre include: badminton, table tennis, yoga, Pilates and dance classes, Portchester Youth Theatre for all children aged 5 – 18 years, and baby and toddler groups. Rooms are also available for hire for businesses, children's birthday parties with bouncy castle and soft play equipment and wedding receptions. Quiz nights, Family Fun Days and Family Discos are also held at the centre throughout the year.
- 3.17 Portchester Library is located approximately 1.9km east of the site on West Street in Portchester town centre.
- 3.18 An assessment has been undertaken of local facilities and their proximity to the development to establish the potential walkability of the site. **Table 3.2** provides a summary of key destinations and journey distance and time on foot and by cycle.



Table 3.2: Approximate Walk & Cycle Journey Times & Distance to Key Destinations

Facility	Location	Distance from site	Approx. Walking Time	Approx. Cycling Time
Education Facilities				
Wicor Primary School	Hatherley Crescent	960m	11 ½ minutes	3 minutes
Cams Hill School	Shearwater Avenue	1.3km	16 minutes	4 minutes
Portchester Community School	White Hart Lane	2.2km	26 minutes	7 ½ minutes
Employment Facilities				
Castle Trading Estate	Castle Trading Estate	2.5km	30 minutes	8 ½ minutes
Fort Wallington Industrial Estate	Military Road	2.7km	32 minutes	9 minutes
Portchester Town Centre	West Street	1.9km	22 ½ minutes	6 ½ minutes
Fareham Town Centre	West Street	2.8km	33 ½ minutes	9 ½ minutes
Retail Facilities				
M&S Simply Food	A27, West Street	1.1km	13 minutes	3 ½ minutes
Portchester Town Centre	West Street	1.9km	22 ½ minutes	6 ½ minutes
Fareham Shopping Centre	West Street	2.8km	33 ½ minutes	9 ½ minutes
Health Facilities				
Westlands Medical Centre	Westlands Grove	1.5km	18 minutes	5 minutes
Leisure Facilities				
247 Fitness Fareham Gym	Downend Road	1.6km	19 minutes	5 ½ minutes
Cams Hall Golf Course	A27, Portchester Road	2.3km	27 ½ minutes	7 ½ minutes
Community Facilities				
Portchester Community Centre	Westlands Grove	1.9km	22 ½ minutes	6 ½ minutes
Portchester Library	West Street	1.9km	22 ½ minutes	6 ½ minutes
Transport Facilities				
Bus Stops	A27, Portchester Avenue	520m	6 minutes	1 ½ minutes
Fareham Bus Station	West Street	3km	35 ½ minutes	10 minutes
Portchester Rail Station	Station Road	2km (on foot)	25 minutes	6 minutes

- Notes:
1. Distance is the distance from the centre of the site measured along existing roads and footpaths.
 2. Walking time is the walking time from the centre of the site based on an average walking speed of 1.4m/s set out in IHT's 'Guidelines for Providing for Journeys on Foot'.
 3. Cycling time is the cycling time from the centre of the site based on a cycling speed of 5m/s set out in DMRB Volume 11, Section 3.



- 3.19 As **Table 3.2** confirms, a range of local facilities and services are within acceptable walk or cycle distance of the site, including primary and secondary education, retail, leisure, employment and community facilities and Portchester rail station. For destinations further afield (e.g. Fareham Shopping Centre and Fareham Bus and Railway Stations), bus services are available from the A27, Portchester Road.

Non-Motorised User (NMUs) Accessibility

- 3.20 The site is located approximately 1.9km walk distance west of Portchester Town Centre and 2.8km cycle distance east of Fareham Town Centre via existing cycle routes.
- 3.21 Footway is present along both sides of Romsey Avenue and Beaulieu Avenue connecting with the A27, Portchester Road to the north of the site. **Figure 3.2** illustrates surrounding Public Rights of Way.
- 3.22 Cycling also has the potential to replace short car journeys. Recent government lead research 'Smarter Choices Programme' has proven that significant levels of modal shift to cycling can be achieved for journeys up to 5km. Furthermore, the Design Manual for Roads and Bridges guidance suggests that a greater distance of 5 miles is achievable for cycling particularly for leisure purposes.
- 3.23 Following a review of the sites' location, it is considered that the majority of key destinations within Portchester to the east and Fareham to the west are within an acceptable cycling distance of the development, including the railway station and town centre.
- 3.24 The site benefits from being within the preferred maximum distance of 5km of a number of key local destinations (Table 3.2 and Figure 3.1). The local road network supports this, offering conducive routes for cycling. This would, therefore, help to encourage residents to travel by bicycle.
- 3.25 National Cycle Route (NCR) 236 runs along a traffic-free route from Cosham to Portchester then on-road to Fareham including along Romsey Avenue past the proposed access to the site. NCR 236 is shown on **Figure 3.2**.



Public Transport Accessibility

Access by Public Bus Services

- 3.26 The nearest existing bus stops to development site are located along the A27, Portchester Road. Bus services 3, F3 and X4, all operated by First Bus, serve these bus stops. Bus service 3 provides a service between Fareham and Gunwharf, Portsmouth via Portchester, with a 10 minute frequency Monday to Saturday and a 20 minute frequency on a Sunday. Bus service F3 operates between Fareham bus station and Portchester Precinct with 3 journeys a day Monday to Saturday. Bus service X4 provides a service between Southampton and Portsmouth via Fareham and Portchester, with a 30 minute frequency Monday to Saturday and hourly on a Sunday.
- 3.27 The location of the existing bus stops along the A27, Portchester Road and the routes for bus services 3, F3 and X4 are shown on **Figure 3.3**. The bus times and approximate frequency of bus services are shown in **Table 3.3** below.

Table 3.3: Existing Bus Services

Service	Route	Monday - Friday		Saturday		Sunday	
		Operating Hours	Approximate Frequency	Operating Hours	Approximate Frequency	Operating Hours	Approximate Frequency
3	Fareham – Portchester – Cosham- Portsmouth City Centre - Gunwharf	04:57 – 23:24	Every 10 minutes	05:15 – 23:24	Every 10 minutes	06:12 – 22:57	Every 20 minutes
	Gunwharf – Portsmouth city Centre – Cosham – Portchester – Fareham	05:45 – 00:08	Every 10 minutes	06:11 – 00:08	Every 10 minutes	07:25 – 23:57	Every 20 minutes
F3	Fareham Bus Station – Portchester Precinct	10:24 – 14:42	3 Journeys per Day	10:24 – 14:42	3 Journeys per Day	N/A	N/A
	Portchester Precinct – Fareham Bus Station	10:44 – 15:02	3 Journeys per Day	10:44 – 15:02	3 Journeys per Day	N/A	N/A
X4	Southampton – Fareham – Portchester - Portsmouth	06:50 – 19:38	Every 30 minutes	07:37 – 19:00	Every 30 minutes	08:50 – 19:05	Hourly
	Portsmouth – Portchester – Fareham - Southampton	07:32 - 20:07	Every 30 minutes	08:25 – 19:45	Every 30 minutes	09:22 – 20:08	Hourly

Source: Fareham & Gosport Route Map and Bus Operator Website.



- 3.28 Fareham bus station is a 3km cycle distance or 10 minutes west of the site located in West Street. The bus network covers Fareham borough and beyond, including to Portsmouth, Southampton, Gosport Ferry and Wickham.
- 3.29 National Express services operate from Fareham bus station and provide direct services to Gatwick Airport, Bournemouth, Southampton, Portsmouth, Poole, Winchester, London Victoria and other UK destinations.

Access by Rail Services

- 3.30 The nearest rail station is Portchester rail station approximately 2km walk / cycle distance east of the site along The Crossway. Direct rail services operate from Portchester to London Waterloo, London Victoria, Southampton Central and Portsmouth & Southsea.
- 3.31 The train journey from Portsmouth Harbour to London Waterloo is operated by South West Trains via Portchester, Winchester and Basingstoke. The train journey from Southampton Central to London Victoria is operated by Southern Trains via Portchester, Horsham and Gatwick Airport. **Table 3.4** provides a summary of the train services from Portchester rail station.

Table 3.4: Summary of Rail Services from Portchester Rail Station

Destination	Journey Time	Monday -Friday		Saturday		Sunday	
		Operating Hours	Frequency	Operating Hours	Frequency	Operating Hours	Frequency
Portsmouth & Southsea	20mins	06:24-23:54	2/hour	06:26-23:53	2/hour	07:15-23:49	2/hour
Portsmouth Harbour	24mins	06:24-23:54	2/hour	06:26-23:53	2/hour	07:49-23:49	2/hour
Southampton Central	43mins	05:28-23:47	2/hour	05:27-23:47	2/hour	07:00-23:40	2/hour
London Waterloo	1hr 53mins	05:23-23:54	2/hour	05:14-23:53	2/hour	07:15-23:49	2/hour
London Victoria	1hr 56mins	05:23-23:54	3/hour	05:14-23:53	2/hour	07:15-23:49	2/hour

- 3.32 Portchester rail station is accessible via bus services 3 and F3 and also has sheltered cycle storage available for 20 bicycles.



Summary

- 3.33 As this section confirms, the site is well located to a range of land uses, all of which can be accessed by sustainable modes of transport (walking, cycling and public transport). The existing pedestrian / cycle networks will help to facilitate sustainable travel for future residents of the site.

Local Highway Network

- 3.34 The site will be accessible from Romsey Avenue, which connects with Beaulieu Avenue which provides access to the A27 Portchester Road. The A27 provides access to Fareham in the west, Portsmouth to the east and the M27.
- 3.35 Romsey Avenue is located within a residential area, and is some 6.1m wide, there is evidence of existing on-street parking. Romsey Avenue is subject to a 30mph speed limit. Pedestrian footways (1.6m wide) are provided on both sides of the carriageway.
- 3.36 The site is located off of Romsey Avenue, and is accessed via a 6.1m wide road which will provides access to the proposed development site. The access road is currently used for on street parking for residential dwellings in proximity. An access road which provide access to the rear of the properties on Romsey Avenue is located at the end of this road.
- 3.37 The junction between Beaulieu Avenue and Romsey Avenue provides dropped kerbing to increase accessibility for pedestrians. Beaulieu Avenue provides footway on either side of the carriageway, has evidence of on street parking and is subject to a 30mph speed limit. A parking survey was undertaken as part of the development assessment, this is detailed in Section 5.
- 3.38 The A27, Portchester Road is subject to a 40mph speed limit, and provides cycle lanes on both sides of the carriageway. At the Junction with Beaulieu Avenue a right turn lane is provided.
- 3.39 The M27 runs to the north of the site and can be accessed via the A27 which is approximately a 10 minute drive (3.0km). The M27 runs from Cosham and Portsmouth.



Highway Safety

- 3.40 Personal Injury Accident (PIA) data has been obtained from Hampshire Constabulary for the latest five year period between 1st April, 2012 and 31st March, 2017; consistent with the recommendations given in the Guidance on Transport Assessment (GTA) published by the DfT (March 2007).
- 3.41 The data, covers key areas within proximity of the development site, including Romsey Avenue, A27 Portchester Road, Hatherley Drive, Cornaway Lane, Cornaway Lane Roundabout and the A27, Cams Hill/ A27, A27 Portchester Road/ Condor Avenue/ Oysell Gardens roundabout, Portchester Road/ Downend Road/ Shearwater Avenue signalised Junction. Romsey Avenue, Beaulieu Avenue, Cornaway Lane Roundabout. Full details of the accident data is provided within **Appendix B**.
- 3.42 Analysis of this information identified a total of 52 accidents across this network over this 5 year period. This equates to an average of 10 per year over the network including numerous junctions. Of these accidents, none were recorded as resulting in fatal injury and some 80% were recorded as slight.
- 3.43 **Table 3.5** summarises the accidents recorded by type with the study area and also breaks down the study area by location. A detailed summary is provided in **Appendix B**.

Table 3.5: PIA Details

Location	Accident Type			Total
	Fatal	Serious	Slight	
A27, Portchester Road		2	4	6
A27, Portchester Road/ Downend Road/ Shearwater Avenue Signalised Junction		1	4	5
A27, Portchester Road/ Condor Avenue/ Oysell Gardens Roundabout		3	8	11
The A27, Portchester Road/ The Thicket Junction		1	6	7
Cornaway Lane Roundabout		3	16	19
Romsey Avenue			1	1
Hatherley Crescent			2	2
Cornaway Lane			1	1
Total Accidents recorded within the study area				52



PIA Conclusion

3.44 Based upon the above information, it is concluded that the majority of accidents within the study area were as a result of human error rather than any particular deficiencies with the highway network.

Existing Traffic Conditions

3.45 To determine the baseline traffic situation (2017) near the proposed development site, Automatic Traffic Counts (ATC) and Manual Classified Counts (MCC) were undertaken by Advanced Transport Research, in locations agreed with the local HA.

3.46 An ATC was undertaken on Romsey Avenue - located approximately 30m west of Ashtead Close between the 23rd and the 29th of May 2017, full survey results are attached as **Appendix C**. Written confirmation has been obtained from the Wicor Primary School that the surveys were undertaken during the school term and can be provided on request.

3.47 The following MCCs were undertaken on the 23rd of May 2017 (full survey data is contained in **Appendix D**):

- Site Access/ Romsey Avenue (Junction A)
- Beaulieu Avenue / A27 Portchester Road (Junction B);
- Hatherley Drive/ Cornaway Drive (Junction C);
- Cornaway Lane Roundabout (Junction D); *and*
- A27, Portchester Road/ Downend Road/ Shearwater Avenue signalised Junction (Junction E);

3.48 **Table 3.6** provides a summary of flows on Romsey Avenue, adjacent to the site access based on an average weekday period.

Table 3.6: Existing Vehicle flows on Romsey Avenue

	AM Peak Period (08:00-09:00)	PM Peak Period (17:00-18:00)	Average Daily Flows
Eastbound	58	51	530
Westbound	63	23	430
Two-Way	131	74	960



3.49 Vehicle speeds have also been recorded as part of the ATC surveys along Romsey Avenue, with the average and 85th percentile two-way speeds for an average weekday are provided in **Table 3.7**.

Table 3.7: Average Speed and 85th Percentile Speed on Romsey Avenue

	Average Speed	85th Percentile Speed
Eastbound	21.94	27.18
Westbound	20.82	26.02



4.0 DEVELOPMENT PROPOSALS

The Proposed Development

4.1 The development proposes the erection of up to 225 dwellings, 58 dwellings are considered under a full application and the remaining 167 are considered under an outline application. The principal vehicular/ pedestrian access is to be from Romsey Avenue.

4.2 **Table 4.1** presents a breakdown of the type of dwellings proposed as part of the full application for 58 dwellings.

Table 4.1: Summary of Proposed Residential Dwelling Provision (Full Application)

	Full Application	Outline Application
1 Bed Flat	8	
2 Bed Flat	6	
2 Bed House	21	
3 Bed House	18	
4 Bed House	5	
Remaining Dwellings as part of the Outline Application		167
Total Development	225 Dwellings	

4.3 This site has a total net developable area of 12.6 hectares, 10.53ha considered as part of the outline application and 2.07ha considered as part of the full application. The development site has been allocated as a site for housing development in the Draft Local Plan (site reference: HA5).

Proposed and Illustrative Layout

4.4 As this is a Hybrid Planning Application for part full and part outline permission, the description of the layout is split in two. The proposed layout (**Appendix E**) relates to the 58 dwellings to be considered as part of a full planning application and is described in detail below. Also described below but to a lesser detail, relates to the outline application for the remaining 167 dwellings.

Site Access

4.5 As indicated the site access will be via Romsey Avenue. This will eventually serve the entire development of 225 dwellings.



- 4.6 The existing junction bellmouth onto Romsey Avenue is to remain unchanged. Road markings will be introduced to formalise the junction priority and an uncontrolled pedestrian crossing point provided in the form of drop kerbs and tactile paving. The existing 6.1m wide carriageway is to be retained, reducing to 6m on the principal access road within the site.
- 4.7 Romsey Avenue has a designated speed limit of 30mph. Based on guidance from MfS, a 30mph speed limit requires a visibility splay of 2.4m x 43m in each direction. The access design allows for the required visibility splays in each direction, as illustrated on **Drawing 5611.002 A**. Section 3, detailed an ATC undertaken in preparation of this TA which recorded 85th percentile speeds along Romsey Avenue of 27.18mph eastbound and 26.02mph westbound, below the designated speed limit of 30mph. Therefore, the access design allows for visibility splays which are greater than actual recorded speeds.
- 4.8 The existing access road to the rear of the properties on Romsey Avenue will be retained. It is proposed that a pedestrian crossing point with dropped kerbing and tactile paving is provided at this junction.
- 4.9 A 2m wide footway will be provided on the eastern side of the site access road. On the western side of the carriageway a 2m wide footway will be provided that will tie in with the existing footway on Romsey Avenue. A pedestrian crossing point with dropped kerbing and tactile paving will be provided.

Road Safety Audit (RSA)

- 4.10 A Stage 1 RSA was undertaken by Traffic Safety Consultant in March 2018 (**Appendix F**). The audit reviewed a previously proposed access design. This design had a reduced carriageway width (5.5m) and an increased footway width (3m) on the eastern side. The RSA recommended alterations to the design to provide a carriageway width of 6m, a narrower footway and repositioned pedestrian crossing points. These alterations were incorporated into the proposed design as described above and illustrated in **Drawing 5611.002 A**.
- 4.11 As such, it is considered that safe access would be provided for all modes, which would be appropriate for the character of the surrounding area and potential trip generation.



Access by Foot/Cycle

- 4.12 The development proposes to provide footways, which will connect the proposed development to the surrounding pedestrian / cycle network. The site access is to provide a 2m wide footway into the site. Based on the recommendation of the Stage 1 RSA, cyclists will use on road routes. This is considered to be suitable given the residential, lightly trafficked nature of both the proposed estate roads and the surrounding existing roads.
- 4.13 Potential pedestrian connections are also shown to the Cranleigh Road development to the east of the site.

Access by Public Transport

- 4.14 As referred to within Section 3.0, existing bus services are accessible from the A27 and within reasonable walking distance of the site. To provide links to existing stops, footways would be provided to connect to existing pedestrian routes. This will help to provide a continuous network of footways.

Internal Road Layout – Proposed Layout for full application of 52 dwellings

- 4.15 The internal layout for the proposed site layout (full application) has been designed in accordance with MfS guidance and HCC's Hampshire Companion Document to Manual for Streets (April 2010); placing pedestrians and cyclists ahead of motorists. The proposed layout design will ensure that the streets within the site are safe and conducive to walking and cycling and, as such, are subject to a design speed of 20mph. **Drawing 5611.013** illustrates 20mph forward visibility and junction splays within the site.
- 4.16 Swept path analysis has been completed for the proposed layout. The internal road layout is designed to ensure that refuse and emergency vehicles have adequate space to transverse and turn within the site. **Drawing 5611.010** illustrates an 11.52m large refuse vehicle entering, traversing and exiting the layout. FBC refuse guidance suggests a layout must be able to accommodate an 11m long refuse vehicle. However, given HCC suggested refuse vehicle is longer at 11.52m, this vehicle was tracked instead. The drawing also provides tracking of a selection of car parking spaces.
- 4.17 **Drawing 5611.011** illustrates a 7.7m long fire tender vehicle entering, traversing and exiting the proposed layout.



Internal Road Layout – Illustrative Layout

4.18 The Illustrative Layout (outline application) shows the internal layout for the remaining 167 dwellings. This layout is to be considered at the Reserve Matters stage however, its design will be similar to the proposed layout and designed in accordance with HCC's and MfS guidance.

4.19 Swept path analysis of an 11.52m long refuse vehicle has also been undertaken on the principal internal roads shown as part of the illustrative layout. **Drawing 5611.012** illustrates this swept path analysis.

Car and Cycle Parking

4.20 The proposed development will provide parking in line with FBCs LDP, Residential Car and Cycle Parking Standards Supplementary Planning Document (adopted November 2009). **Table 4.2** below displays the required car and cycle parking provision for a residential development.

Table 4.2: Fareham Borough Council Parking Standards

Parking Standards

	<i>Car Parking Spaces provided per dwelling</i>		<i>Cycle Parking Spaces provided per dwelling</i>	
	On-plot/Allocated Parking Spaces	Shared/Unallocated Parking Spaces	Individual Storage	Communal Storage
1 Bed	1	0.75	1	1
2 Beds	2	1.25	2	1
3 Beds	2	1.75	2	1
4 Beds or more	3	2.25	2	1

Table 1: Combined Parking and Cycle Standards

Where a mixture of allocated and unallocated spaces is planned for an individual dwelling, developers are required to provide the allocated parking spaces requirement.

4.21 The SPD also highlights a number of other key requirements for new residential developments which are as follows:

- In areas where over 50% of the spaces are allocated an extra 0.2 spaces per dwelling should be provided, for visitor parking.
- 10% of all parking spaces in residential developments must be suitable for disabled used, disabled spaces must be 3.6m wide in unallocated and communal parking areas.
- Garages will only count towards overall parking provision where developers can demonstrate that they represent the only means



of parking a car. Garages must provide unobstructed internal dimensions of 6m x 3m, and have sufficient space for the opening and closing of garage doors.

- 4.22 Parking provision for the 58 dwellings considered as part of the full application is listed in **Table 4.3**. The proposed layout shows the car parking arrangements.

Table 4.3: Parking provision for 58 Dwellings (allocated)

No. of beds	No. of Units	Spaces Provided	Cycle Parking
1 Bed	8	8	8
2 Bed	27	54	27
3 Bed	18	36	18
4 Bed	5	15	5
Visitors Spaces		8	
Total	58	121	58

- 4.23 The proposed development will provided a total of 121 car parking spaces and 58 cycle parking spaces for a development of 58 residential units. There is a requirement for 0.2 visitor spaces per dwelling by FBC’s parking standards, this totals 11.6 spaces for the 58 dwellings proposed. As such, there are 12 visitor spaces provided in the proposed layout.
- 4.24 As 167 of the 225 dwellings are only being considered in outline, full parking details for the remaining dwellings will be considered at Reserve Matters stage. However, visitor spaces will be spread out evenly across the entire 225 dwelling development.

Residential Travel Plan

- 4.25 Travel Plans provide a package of measures to efficiently and sustainably manage the transport impact of development proposals through delivery of a range of sustainable transport measures.
- 4.26 A Framework Travel Plan (TP) has been prepared by SMA to accompany the Planning Application. This document is submitted separately as part of the planning application. This TP sets out a number of potential measures and the management and review process for the Travel Plans delivery. These measures would be promoted by a Travel Plan Coordinator, who would encourage and incentivise travel by sustainable modes.



5.0 ASSESSMENT

Development Traffic Trip Generation

- 5.1 In order to assess the impact of the development proposals on the local highway network, analysis of the potential traffic generation has been undertaken.
- 5.2 The desire to travel and the mode of travel selected for a given journey is influenced by a number of factors including, for example, site location; accessibility by public transport; accessibility by other modes of travel to shops, schools and other facilities; car ownership and other socio-economic factors. Consequently, trip generation and the mode adopted for the proposed land uses will vary considerably.
- 5.3 Whilst the mode of transport to and from the site might vary, it is recognised that work trips generally occur during the normal commuter periods (07:30-09:30 during the AM peak period and 16:00-18:00 during the PM peak period), although flexible working practices are becoming increasingly popular and tend to “flatten” peak hour trip profiles. School trips generally coincide with the morning peak period but occur prior to the evening peak period. Leisure and recreational trips predominantly take place outside of these peak periods.
- 5.4 For the purpose of this TA, the selected peak periods of assessment are the typical commuter peak periods of 08:00-09:00 and 17:00-18:00.
- 5.5 As was agreed with HCC during the scoping process, the recent acceptance of the methodology and assessment criteria for the Cranleigh Road site through the Appeal process set a precedent on what should be used for the proposed development trip rates.
- 5.6 Section 6 of the Cranleigh Road TA presents the methodology use to determine the trip rates. The following paragraphs replicate this.
- 5.7 Initially TRICS was interrogated to obtain total person trip generation rates by all modes. These are summarised in **Table 5.1** below, with the full TRICS output provided within **Appendix G**.



Table 5.1: Residential Trip Rates – TRICS

	Time Period	Arrivals	Departures	Total
Total Persons	08:00-09:00	0.162	0.658	0.820
	17:00-18:00	0.480	0.235	0.715

5.8 The Method of Travel to Work Mode Share for Portchester West (Census 2011) was obtained to ascertain the share of travel undertaken by car, 78% as detailed in **Table 5.2**.

Table 5.2: Travel to Work Census Data Modal Split (2011 Census)

Mode of Travel	Modal Share (Portchester West)	Modal Share (England)
Car Driver	78%	68%
Walk	5%	12%
Cycle	4%	4%
Public Transport	5%	9%
Car Passenger	5%	6%
Other	3%	1%
Total Peoples	100%	100%

5.9 Vehicle trip generation has been estimated by applying the modal share to the total person trip generation rates. This has also been done for the various other modes, **Table 5.3** displays the various trip rates.

Table 5.3: Development Generated Multi-modal Trip Rates

	AM Trips (08:00-09:00)			PM Trips (17:00-18:00)		
	Arrivals	Departures	Two Way	Arrivals	Departures	Two Way
Car Driver	0.130	0.526	0.656	0.384	0.188	0.572
Pedestrians	0.013	0.053	0.066	0.038	0.019	0.057
Cycle	0.006	0.026	0.033	0.019	0.009	0.029
Public Transport	0.003	0.013	0.016	0.010	0.005	0.014
Car Passenger	0.008	0.033	0.041	0.024	0.012	0.036
Other	0.002	0.007	0.008	0.005	0.002	0.007
Total People	0.162	0.658	0.820	0.480	0.235	0.715

* Some margin in trip rates due to rounding

5.10 The development proposes 225 dwellings the development generated trip rates for the proposed development are calculated in **Table 5.4** below.



Table 5.4: Development Generated Multi-modal Trips

	AM Trips (08:00-09:00)			PM Trips (17:00-18:00)		
	Arrivals	Departures	Two Way	Arrivals	Departures	Two Way
Car Driver	29	118	147	86	42	129
Pedestrians	3	12	15	9	4	13
Cycle	1	6	7	4	2	6
Public Transport	1	3	4	3	1	4
Car Passenger	2	7	9	5	3	8
Other	0	2	2	1	1	2
Total People	36	148	184	108	53	161

5.11 Based upon the trip rates and subsequent trip generation (**Table 5.4**), it is anticipated that a development of 225 dwellings could generate 147 two-way movements during the AM peak (08:00-09:00), with 129 two-way movements during the PM peak (17:00-18:00).

Trip Distribution & Assignment

5.12 As agreed at scoping, distribution of trips was to be based on the same Census 2011 distribution methodology as that presented in Section 6 of the Cranleigh Road development TA.

5.13 The point of access off Romsey Avenue to the proposed development differs from the point of access to the Cranleigh Road development. Consequently, based on the Cranleigh Road distribution SMA has considered the routes from the proposed development and made reasonable assumptions on the most logical options. For instance, development generated trips to the Eastleigh, Gosport, Winchester and Southampton, will have to travel west and as such will turn left out of the site to the A27 via Romsey Avenue and Beaulieu Avenue. Whereas the Cranleigh Road distribution had these trips turning left onto Cornaway Lane and then onto the A27. Overall the end destinations from the Cranleigh Road distribution model remain the same with minor difference in the assignment of trips due to the different location of each access point.

5.14 During the May 2018 pre-application meeting with HCC, the highways officer requested further information on likely trip distribution at the A27 / Beaulieu Avenue junction, in particular the number of vehicles likely to turn out of Beaulieu Avenue.



- 5.15 From the site access, future residents have the choice of turning left (towards Beaulieu Ave) or right (towards Cornaway Lane). Those travelling west are likely to use Beaulieu Ave to access the A27. Those wishing to travel east have two options, the turn right out of Beaulieu Ave or to travel along Hatherley Drive and Cornaway Drive to turn right at the Cornaway roundabout.
- 5.16 Although the distance from the site is shorter via the Beaulieu Ave route, turning right onto the A27 at this junction is not easy given the traffic flows on the A27 and the need to cross 3 lanes (two oncoming traffic lanes and the right turn lane), therefore the route via the Cornaway roundabout, although longer in distance may be considered more desirable by drivers.
- 5.17 This is supported by the traffic movements observed in the 2017 traffic count at this junction, which shows that in the AM peak 66 vehicles turn left at the junction but only 10 turn right, so only 13% of traffic exiting Beaulieu Ave turn right. In the PM peak only 3 vehicles (some 11%) turn right at the junction while 25 turn left. This indicates that those travelling east do not use the A27 / Beaulieu Avenue junction.
- 5.18 HCC requested further information to support this distribution, in the form of journey time surveys. These were undertaken over two separate survey days (04 June and 11 June 2018) for the hours of 07:00-09:00 and 17:00-18:00. Table 5.5 summarises the journey times from the site access via the two routes:

Route 1: Site access Romsey Ave – Beaulieu Avenue – A27 eastbound to the entrance of Cornaway Roundabout.

Route 2: Site access Romsey Ave – Hatherley Crescent - Hatherley Drive - Cornaway Drive – Cornaway Lane to the entrance of Cornaway Roundabout.



Table 5.5: Summary of Journey Time Survey

Route 1 - Beaulieu Avenue		Route 2 Hatherley Crescent	
Start Time	Run Time	Start Time	Run Time
08:01	1:38	07:45	1:48
08:10	2:49	07:52	1:47
08:20	3:05	08:00	1:48
08:27	1:35	08:06	1:51
08:35	2:02	08:19	1:49
08:42	1:36	08:35	3.11*
08:47	1:29	08:42	2.05*
08:55	2:16	08:57	1.58
		09:05	1.52
Average Time	2:04	Average Time	2:01
Start Time	Run Time	Start Time	Run Time
16:56	1.21	17:00	1.52
17:03	1.31	17:06	1.53
17:10	2.03	17:14	1.57
17:17	1.24	17:22	2.02
17:25	1.41	17:29	1.51
17:32	1.36	17:40	2.07
17:44	1.45	17:47	1.54
		17:55	1.48
Average Time	1:37	Average Time	1:56

*** Run Time Influenced by School Park (Wicor Primary School)**

- 5.19 From the survey it can be seen that for the AM peak, one journeys via route 1 can take as much as 3 minutes during periods where a journey during a comparable timeframe (08:20 and 08:19) via route 2 was recorded as 1minute 49 seconds. Conversely when the school traffic affects route 2, route 1 appears quicker.
- 5.20 It should be noted that the school affected only the AM peak hour and for a very short time period. Residents that live in the area will know which periods are likely to result in better journey times and pick the route appropriate for their journey.
- 5.21 Therefore to provide a robust distribution west bound vehicle trip distribution from the development site has been based upon the AM average run time, as the results indicate this period has the longer average journey time. As such development generated trip distribution for west bound trips has been assigned 45% via Beaulieu Avenue and 55% via Hatherley Crescent.



5.22 As shown in **Figure 5.1** vehicle trip distribution has then been assigned to the various junctions on the surrounding network. These turning flows have been modelled as part of the future year, 2023 'with development' scenarios, as detailed in this section.

Assessment Approach

5.23 This section sets out the assessment methodology for the site. The following assessment scenarios, reflecting the operation of the local road network at present and also in the future (five years from the year of submission of the planning application) has been provided:

- 2017 Baseline (**Appendix H**);
- 2023 Baseline + Growth + Committed Development (**Appendix I**); *and*
- 2023 Baseline + Growth + Committed Development 'with Development' (**Appendix J**)

Scope of Junction Assessment

5.24 The following junctions have been assessed as part of the baseline and future year assessments:

- Site Access/ Romsey Avenue (Junction A)
- Beaulieu Avenue / A27 Portchester Road (Junction B);
- Hatherley Drive/ Cornaway Drive (Junction C);
- Cornaway Lane Roundabout (Junction D); *and*
- A27, Portchester Road/ Downend Road/ Shearwater Avenue signalised Junction (Junction E)*

* An assessment on the impact of the proposed development on overall anticipated 2023 vehicle flows.

5.25 The vehicle flows in each assessment period are summarised in **Appendix H, I** and **J** and the modelling output files contained within **Appendix K**.



Existing Junction Operation

- 5.26 In order to assess the baseline traffic situation and determine whether there is adequate spare capacity to accommodate the flows generated by the proposed development, baseline traffic assessments have been undertaken.
- 5.27 Operational assessments have been undertaken using industry standard software. The assessments investigate the ability for the junctions to accommodate the predicted traffic associated with the development proposals. Priority controlled T-junctions and roundabout junctions have been assessed using computer software package Junctions 9.
- 5.28 Junctions 9 provides details of ratios of flow to capacity (RFC) on each approach to a junction. When considering the results it should be noted that when an RFC of less than 0.85 at a roundabout or priority junction it is operating in free flow conditions. Above this level the junction begins to show signs of congestion, while an RFC of 1.0 represents actual theoretical capacity.
- 5.29 Junction assessments have been completed for the typical local network AM and PM peak periods. These have been identified as being consistent with typical commuter peak periods of 08:00-09:00 and 17:00-18:00.

Base Year 2017 Junction Modelling Results

- 5.30 As part of the assessment of the baseline traffic conditions surrounding the proposed development, junction capacity assessments at the following junctions has been undertaken:
- Beaulieu Avenue/ A27 Portchester Road (Junction B);
 - Hatherley Drive/ Cornaway Drive (Junction C); *and*
 - Cornaway Lane Roundabout (Junction D);

Beaulieu Avenue / A27, Portchester Road (Junction B);

- 5.31 The Beaulieu Avenue/ A27 Portchester Road junction is a ghost island junction, providing right turn facilities from the A27, Portchester Road. The junction has been tested using the Junctions 9 software, with the results summarised in **Table 5.6**.



Table 5.6: Beaulieu Avenue / A27, Portchester Road (Junction B) - 2017 Baseline

	RFC	Queue (Veh)	Delay (sec)	RFC	Queue (Veh)	Delay (sec)
	AM 08:00-09:00			PM 17:00-18:00		
A27 Portchester Rd	0.13	0.1	8.58	0.08	0.1	6.91
Beaulieu Avenue	0.26	0.3	14.99	0.07	0.1	9.35

5.32 As the summarised results within Table 5.6 demonstrate, the junction operates with adequate spare capacity during both peak periods. This is indicated by an RFC of 0.26 during the morning peak and 0.08 during the evening peak hours, with minimal queuing on all approaches. Full output results are provided within **Appendix K**.

Hatherley Drive/ Cornaway Lane (Junction C);

5.33 Hatherley Drive/ Cornaway Lane junction, is a simple priority T junction. The junction has been tested using the Junctions 9 software, with the results summarised in **Table 5.7**.

Table 5.7: Hatherley Drive/ Cornaway Lane Junction (Junction C) - 2017 Baseline

	RFC	Queue (Veh)	Delay (sec)	RFC	Queue (Veh)	Delay (sec)
	AM 08:00-09:00			PM 17:00-18:00		
Cornaway Lane	0.16	0.3	6.09	0.18	0.4	5.25
Hatherley Drive	0.22	0.3	9.01	0.09	0.1	7.21

5.34 As the summarised results within Table 5.7 demonstrate, the junction operates with adequate spare capacity during both peak periods. This is indicated by an RFC of 0.22 during the morning peak and 0.18 during the evening peak hours, with minimal queuing on all approaches. Full output results are provided within **Appendix K**.

Cornaway Lane Roundabout (Junction D);

5.35 The Cornaway Lane Roundabout is a four arm roundabout. The junction has been tested using methodology set out in the Cranleigh Road Transport Assessment, which was granted planning consent on appeal in October 2017, the results summarised in **Table 5.8**.



Table 5.8: Cornaway Lane Roundabout (Junction D) - 2017 Baseline

	RFC	Queue (Veh)	Delay (sec)	RFC	Queue (Veh)	Delay (sec)
	AM 08:00-09:00			PM 17:00-18:00		
A27, West Street	0.37	0.6	4.03	0.47	0.9	4.71
Cornaway Lane	0.61	1.5	11.36	0.37	0.6	7.00
A27 Portchester Rd.	0.52	1.1	4.60	0.58	1.4	5.18
Dore Avenue	0.44	0.8	5.78	0.31	0.4	4.61

5.36 As the summarised results within Table 5.8 demonstrate, the roundabout operates with adequate spare capacity during both peak periods. This is indicated by an RFC of 0.61 during the morning peak on the Cornaway Lane arm and 0.58 on the A27 Portchester Road arm during the evening peak hours. Full output results are provided within **Appendix K**.

Future Traffic Growth

5.37 In addition to considering trips generated by the proposed development, it is also necessary to consider other future traffic growth on the surrounding network. To assess the future scenario at the identified junctions, consideration has been given to traffic growth on the local network in addition to development traffic.

5.38 In line with Guidance on Transport Assessment (para 4.47), an assessment year of five years after the date of registration of the Planning Application has been applied. The planning application is to be submitted in 2018 and on this basis a future year of 2023 has been assessed.

5.39 Background traffic growth on the local road network is based upon the National Transport Model factored for local condition using TEMPRO (TEMPRO growth rates are summarised within **Appendix L**). The resulting local traffic growth factors from the traffic survey year (2017) to the future year (2023) are set out below. These rates assume an additional 79 households between 2017 and 2023.

- AM (2017-2023) – 1.069
- PM (2017-2023) – 1.060



- 5.40 Due to the proximity of the development site to a number of the committed developments – Cranleigh Road (reference: **P/15/0260/OA** – development of 120 dwellings), Trafalgar Wharf mixed use development (ref: **13/00993/OUT** – development of 163 dwellings, 18,094sqm B1/B2/B8 use) it is clear that flows from these committed development may add traffic to the nearby highway network. Therefore the anticipated development generated vehicle trips from these development has been obtained from the applications and added to the network in addition to the background traffic growth rates.
- 5.41 At the request of HCC (May 2018) the Land East of Downend Road development (ref: **P/18/0005/OA** – development of up to 350 residential dwellings), it has been considered. This application has not yet been determined but the trips from the site have been included in the assumed growth within the 2023 flows.

2023 Future Year Assessment

- 5.42 The junction's models in the baseline year have been reassessed for the future year (2023) 'without' and 'with' the proposed development traffic. In the future year (2023) 'without' the proposed development 2017 baseline flows have been growthed with the above growth rates and additional committed development vehicle movements have been added to the development. (These flows are summarised in **Appendix J**). The future year (2023) 'with' includes the anticipated vehicle movements as set out in Section 4. Details of the various junction assessments are provided in the remainder of this section, with full modelling output files being included within **Appendix K**.

2023 Growthed + Committed Development Flows

Beaulieu Avenue / A27, Portchester Road (Junction B);

- 5.43 Modelling has been undertaken for growthed 2023 flows with additional committed development vehicle movements have for the Beaulieu Avenue/ A27 Portchester Road (junction B). The results are summarised in **Table 5.9**.



Table 5.9: Beaulieu Avenue / A27, Portchester Road (Junction B) - 2023 Growthed without Development

	RFC	Queue (Veh)	Delay (sec)	RFC	Queue (Veh)	Delay (sec)
	AM 08:00-09:00			PM 17:00-18:00		
A27 Portchester Rd	0.15	0.2	9.72	0.09	0.1	7.38
Beaulieu Avenue	0.36	0.6	22.84	0.09	0.1	10.46

5.44 As the summarised results within Table 5.9 demonstrates, the junction operates with adequate spare capacity during both peak periods. This is indicated by an RFC of 0.36 during the morning peak and 0.09 during the evening peak hours, with minimal queuing on all approaches. Full output results are provided within **Appendix K**.

Hatherley Drive/ Cornaway Lane (Junction C);

5.45 Modelling has been undertaken for growthed 2023 flows with additional committed development vehicle movements have for the Hatherley Drive/ Cornaway Lane junction, the results summarised in **Table 5.10**.

Table 5.10: Hatherley Drive/ Cornaway Lane Junction (Junction C) - 2023 Growthed without Development

	RFC	Queue (Veh)	Delay (sec)	RFC	Queue (Veh)	Delay (sec)
	AM 08:00-09:00			PM 17:00-18:00		
Cornaway Lane	0.18	0.4	6.20	0.21	0.5	5.12
Hatherley Drive	0.25	0.3	9.87	0.10	0.1	7.48

5.46 As the summarised results within Table 5.10 demonstrate, the junction operates with adequate spare capacity during both peak periods. This is indicated by an RFC of 0.25 during the morning peak and 0.21 during the evening peak hours, with minimal queuing on all approaches. Full output results are provided within **Appendix K**.

Cornaway Lane Roundabout (Junction D);

5.47 Modelling has been undertaken for growthed 2023 flows with additional committed development vehicle movements have for the Cornaway Lane Roundabout, the results summarised in **Table 5.11**.



Table 5.11: Cornaway Lane Roundabout (Junction D) - 2023 Growthed without Development

	RFC	Queue (Veh)	Delay (sec)	RFC	Queue (Veh)	Delay (sec)
	AM 08:00-09:00			PM 17:00-18:00		
A27, West Street	0.42	0.8	4.53	0.55	1.2	5.72
Cornaway Lane	0.77	3.2	19.59	0.44	0.8	8.23
A27 Portchester Rd.	0.61	1.6	5.67	0.67	2.0	6.52
Dore Avenue	0.50	1.0	6.83	0.33	0.5	5.11

5.48 As the summarised results within Table 5.11 demonstrate, the roundabout operates with spare capacity during both peak periods. This is indicated by an RFC of 0.77 during the morning peak on the Cornaway Lane arm and 0.67 on the A27 Portchester Road arm during the evening peak hours. Full output results are provided within **Appendix K**.

2023 Growthed + Committed Development Flows + Proposed Development'

Proposed Site Access Road/ Romsey Avenue Junction (junction A)

5.49 As set out in Section 4 the development will be accessed via Romsey Avenue (**Drawing 5611.002 A** refers), the junction is a simple T junction. **Table 5.12** summaries the modelling results for the proposed access.

Table 5.12: Proposed Site Access/ Romsey Avenue (Junction A) - 2023 Growthed with Development

	RFC	Queue (Veh)	Delay (sec)	RFC	Queue (Veh)	Delay (sec)
	AM 08:00-09:00			PM 17:00-18:00		
Romsey Avenue	0.05	0.1	5.88	0.13	0.2	6.56
Site Access	0.22	0.3	7.65	0.08	0.1	6.43

5.50 As shown in **Table 5.12** it is anticipated that the proposed site access will operate with more than adequate spare capacity. As is indicated by an RFC of 0.22 in the AM peak period and 0.13 in the PM peak period. Full output results are provided within **Appendix K**.



Beaulieu Avenue / A27, Portchester Road (Junction B):

5.51 Modelling has been undertaken for growthed 2023 flows with additional committed development vehicle movements plus the proposed development flows for the Beaulieu Avenue/ A27 Portchester Road (junction B). The results are summarised in **Table 5.13**.

Table 5.13: Beaulieu Avenue / A27, Portchester Road (Junction B) - 2023 Growthed with Development

	RFC	Queue (Veh)	Delay (sec)	RFC	Queue (Veh)	Delay (sec)
	AM 08:00-09:00			PM 17:00-18:00		
A27 Portchester Rd	0.20	0.2	10.35	0.21	0.3	8.56
Beaulieu Avenue	0.89	5.3	106.80	0.22	0.3	14.34

5.52 As the summarised results within **Table 5.13** demonstrates, the junction operates with adequate spare capacity during both peak periods. This is indicated by an RFC of 0.89 during the morning peak and 0.22 during the evening peak hours, with minimal queuing on all approaches. Full output results are provided within **Appendix K**.

Hatherley Drive/ Cornaway Lane (Junction C):

5.53 Modelling has been undertaken for growthed 2023 flows with additional committed development vehicle movements + anticipated development generated trips for the Hatherley Drive/ Cornaway Lane junction, the results summarised in **Table 5.14**.

Table 5.14: Hatherley Drive/ Cornaway Lane Junction (Junction C) - 2023 Growthed with Development

	RFC	Queue (Veh)	Delay (sec)	RFC	Queue (Veh)	Delay (sec)
	AM 08:00-09:00			PM 17:00-18:00		
Cornaway Lane	0.19	0.4	6.31	0.25	0.6	5.39
Hatherley Drive	0.30	0.4	10.60	0.12	0.1	7.65

5.54 As the summarised results within Table 5.14 demonstrate, the junction operates with adequate spare capacity during both peak periods. This is indicated by an RFC of 0.30 during the morning peak and 0.25 during the evening peak hours, with minimal queuing on all approaches. Full output results are provided within **Appendix K**.



Cornaway Lane Roundabout (Junction D):

5.55 Modelling has been undertaken for growthed 2023 flows with additional committed development vehicle flows + the proposed development generated vehicle flows for the Cornaway Lane Roundabout, the results summarised in **Table 5.15**.

Table 5.15: Cornaway Lane Roundabout (Junction D) - 2023 Growthed with Development

	RFC	Queue (Veh)	Delay (sec)	RFC	Queue (Veh)	Delay (sec)
	AM 08:00-09:00			PM 17:00-18:00		
	A27, West Street	0.43	0.8	4.57	0.57	1.4
Cornaway Lane	0.80	3.7	22.33	0.45	0.8	8.48
A27 Portchester Rd.	0.62	1.7	5.97	0.67	2.1	6.65
Dore Avenue	0.51	1.0	7.07	0.35	0.5	5.16

5.56 As the summarised results within Table 5.15 demonstrates, the roundabout operates with spare capacity during both peak periods. This is indicated by an RFC of 0.80 during the morning peak on the Cornaway Lane arm and 0.67 on the A27 Portchester Road arm during the evening peak hours. Full output results are provided within **Appendix K**.

A27, Portchester Road/ Downend Road/ Shearwater Avenue signalised Junction (Junction E)

5.57 During the initial scoping exercise in 2017, key junctions within the surrounding area were identified for assessment. The Highways Officer at that time indicated that it was aware that some junctions on the A27 were subject to congestion during the peak periods, one of these was the A27, Portchester Road/ Downend Road/ Shearwater Avenue signalised Junction.

5.58 At that time HCC indicated that a review of this junction and the surrounding A27 / M3 corridor would be undertaken with Highways England, which would look to identify improvements to the corridor as a whole. HCC would therefore look to seek development contributions towards these identified based on the development impact on the junctions / corridor.

5.59 On this basis HCC requested an initial assessment of the percentage change at the A27, Portchester Road/ Downend Road/ Shearwater Avenue signalised Junction as a result of development flows rather than a full junction operational



assessment, as this was likely to only indicate what is already known that the junction congested at peak times. The percentage change assessment would therefore allow HCC to understand the likely impact of development on this junction which may not be clear in a capacity assessment that is already showing the junction as overcapacity.

- 5.60 In order to complete this initial assessment, background traffic growth has been added to the 2017 baseline flows for this junction, as described earlier in this section. Additional anticipated committed development flows have then been added to the growthed flows. This provides a future year base to which to compare the development flows increase to, in terms of percentage change.
- 5.61 The comparison of 2023 base flows and the with development flows has been used to calculate the overall percentage increase in flows at the junction, as is shown in **Appendix M**.
- 5.62 Based on this initial assessment it is anticipated that the development will add an additional 3.92% increase in total vehicle movements using the junction in the AM peak period and 4.02% in the PM peak period. It is accepted that daily flows can vary up to 10% each day. The development impact is therefore significantly less than is expected within daily variation and on its own would not materially impact on the potation of the junction.
- 5.63 It is however acknowledged that HCC have indicated that the junction is congested at peak times and that contributions would be sought towards improvements to the junction. Any such contributions should therefore be proportional to the percentage impact of the development trips on the junction.
- 5.64 In May 2018 HCC requested that further testing of the junction be undertaken taking into account the possible improvements being put forward as part of the Land East of Downend Road development. At the time of writing this report, HCC and the transport consultants working on the Downend Road development (i-Transport) are still in discussions on the modelling and possible improvements being promoted at the junction. It is therefore difficult for SMA to test the operation of this junction taking into account the work being completed by i-Transport.
- 5.65 SMA have been in contact with i-Transport and as of 27th June 2018, i-Transport were still in discussions with HCC as to the modelling and improvement design



of this junction. However it is understood agreement will be reached shortly. Rather than try to repeat the process undertaken by i-Transport, SMA will wait for the work to be completed by i-Transport and agreed by HCC to be in the public realm and will then work with both parties to test the junction with the proposed development trips added. By working with all parties and using the agreed junction model, a solution can be promoted that can be financially supported by both developments, using contributions proportional to impact. Further supplementary information will then be submitted as an Addendum.

Beaulieu Avenue Parking Survey.

- 5.66 During the public consultation, a number of residents raised concerns regarding the existing on street parking on Beaulieu Avenue and also the bellmouth of the junction of Beaulieu Avenue / Romsey Avenue. Concerns related to what was perceived to a large number of parked cars that resulted in vehicles having to wait to allow oncoming cars to pass, due to the presence of parked vehicles.
- 5.67 Concern was raised regarding the increase in vehicles using Beaulieu Avenue as a result of the development and the impact this would have on the use of Beaulieu Avenue, in particular when parking on both sides of Beaulieu Avenue, which would make access for emergency vehicles difficult.
- 5.68 In light of these concerns, a parking survey was undertaken on Beaulieu Avenue and the junction with Romsey Avenue. A Technical Note summarising the survey is contained in **Appendix N**.
- 5.69 The survey was conducted at 10pm on a Friday evening and 8.30 and 10.30am on a Sunday, as these are times when the highest demand for resident parking is likely to occur ie overnight and early on a weekend. The survey is acknowledged to be a snap shot for those time periods and that, as with any traffic survey, there may be times when parking demand is either higher or lower. However during these survey periods a maximum of 10 parked cars were recorded on the eastern side of Beaulieu Avenue. No parked cars were recorded on the western side of the road or on the double yellow lines.
- 5.70 During the May 2018 meeting with HCC, the highways officer requested a further parking survey, extending the survey to include Romsey Avenue (between Beaulieu Avenue and Hatherley Crescent) and Hatherley Crescent, Hatherley Drive and Cornaway Lane. This would then also pick up the parking associated



with the Wicor Primary school. This parking survey was undertaken on 04 June 2018. The results of this survey are included in **Appendix N**.

- 5.71 This second survey indicates that the maximum number of cars parked in Beaulieu Avenue was 12 vehicles between 14:45 and 15:30. This reduced to 7 vehicles by 18:00. As with the previous survey all cars were parked on the eastern side of the carriageway.
- 5.72 Beaulieu Avenue is approximately 125m in length (based on OS mapping), connecting with the A27 to the north and Romsey Avenue to the south. There are double yellow line parking restrictions in place around the junction with the A27 to the north. These double yellow lines extend some 40m along both sides of Beaulieu Avenue.
- 5.73 The remainder of Beaulieu Avenue has no parking restrictions, although there are 3 driveway access points on the western side and 2 on the eastern side within this frontage that would not be available for on street parking. Taking into account the junction bellmouth and driveways, some 70m is available for on street parking on the eastern side of Beaulieu Avenue. Assuming a generous 6m (the length of a formal parking space), this equates to sufficient room for some 11 vehicles. In reality it is likely that vehicles will range in length and drivers will allow varying distances between the parked cars. It may then be possible to park 12 cars within this space. The independent survey company who undertook the parking survey have confirmed that no cars were parked on the double yellow lines.
- 5.74 It should also be noted that properties along Beaulieu Avenue and the section of Romsey Avenue opposite the site access road have the opportunity to park at the rear of their properties. This parking provision means that there is an alternative to parking on the carriageway in these locations.
- 5.75 Based on the findings of the parking survey, this is therefore adequate kerb side space to accommodate the recorded parking demand and that alternative parking is possible if, as the residents have indicated, existing on street parking is causing delays.



Beaulieu Avenue link capacity / emergency access.

- 5.76 Residents raised concern about the likely impact of the additional development trips on the capacity of Beaulieu Avenue, particularly in relation to the reduced road width due to on street parking and access for emergency vehicles.
- 5.77 Based on 2017 traffic surveys the two ways flows on Beaulieu Avenue in the AM peak are 137 vehicles and in the PM peak 82 vehicles. The road is therefore very lightly trafficked. As part of the assessment background growth has been added to all links within the study area. This background growth (2023) increases two way flows on Beaulieu Avenue to 147 vehicles in the AM peak and 87 in the PM peak hour.
- 5.78 Beaulieu Avenue is some 6.1m in width (based on OS mapping, some variance may occur). The one way link capacity (based on TD 79/99 DMRB) for this width of road is 900 vehicles per hour for the busiest direction flow. This is based on a 60/40 directional split and so if the busiest direction flow is 900, the two way flow for a 6.1m wide carriageway would be 1,500 vehicles per hour.
- 5.79 The development is estimated to add some 119 two way trips to the link in the AM peak and 104 in the PM peak. This equates to an average of less than 2 vehicles a minute.
- 5.80 The northern section of Beaulieu Avenue is subject to double yellow line parking restrictions and so its full width is available for two way vehicle flows. The remainder, as observed in the parking survey has the potential for on street parking, which occurs on the eastern side of the road. Based on the standard width of a parallel parking bay (2m) a parked car here would potentially reduce the road width to 4.1m.
- 5.81 Although the DMRB calculation of link capacity does not provide a unidirectional flow for a carriageway of 4.1m in width, it is not unreasonable to assume this link capacity is would reduce proportionally as the width reduced. Therefore if the 6.1m wide carriageway has a two way link capacity of 1,500 vehicles, the 4.1m wide carriageway would have a two way link capacity of some 1,000 vehicles per hour.
- 5.82 The total flows along Beaulieu Avenue during the 2023 peak hours, even after the addition of the development flows are only 266 two way trips in the AM peak



hour and 191 in the PM peak hour. The road therefore has ample link capacity to accommodate these flows, even when the on street parking is taking into account.

- 5.83 Residents also raised concerns regarding emergency vehicles in particular Fire engines being able to access the site in an emergency, due to fears that the on street parking on Beaulieu Avenue and the increase in traffic as a result of development would result in difficulty for the Fire Engine to travel along Beaulieu Avenue.
- 5.84 As has been set out above the road is adequately wide, even after on street parking to allow a fire engine to safely pass. The road will have more than adequate link capacity, even after development trips are added to allow unhindered vehicle access. The parking survey has indicated that for the periods observed that parking is located on the eastern side and that no parking was observed on the western side or on the double yellow lines.
- 5.85 Although this is acknowledged to be a snap shot survey, and there are likely to be occasions through the year where parking may occur on both sides of the road, this is the same for any residential street where no parking restrictions occur. The risk of emergency access being hindered is therefore no worse in this location as any other residential street. The development will not adversely impact on the ability of emergency vehicles to access the existing estate or the future development site.
- 5.86 It should also be noted that Beaulieu Avenue is not the only route to access the site. An alternative route for emergency vehicles is available via Cornaway Road and Hatherley Crescent. However, should this be of concern to the highway authority, the developer is willing to consider providing water hydrants onsite which will ensure that, in the event of a fire on the development, fire services will always be able to access water supplies, regardless of access for the fire engine.

Parking survey Romsey Ave / Hatherley Crescent / Hatherley Drive / Cornaway Lane.

- 5.87 As set out above, HCC requested that the parking survey be extended to cover a wider selection of the surrounding roads. The results of this survey are contained in **Appendix N**.



- 5.88 From this it can be seen that there is some on street parking on these residential roads. This is not uncommon for residential estates where no parking restrictions are in place.
- 5.89 The survey dates does not indicate any significant increase in overall parking numbers during the school drop off period, although this will not reflect that these numbers may make up some element of drop offs in quick succession, so a car parking and moving off, then another car parking in the same place.
- 5.90 In the PM peak it can be seen that there is an increase of cars parked on Hatherley Crescent in Zone 6 from an average of 5-6 cars to 11 15:30 and 9 at 15:45. The numbers of parked cars drop back to 6 by 16:00. No other zones appear to be significantly affected in terms of overall cars parks. It however acknowledge that this is a snap shot survey and there may be some days where higher levels of parking are observed, just as there may be others where there is less.
- 5.91 The proposed development will add some 29 two way trips along this route in the AM peak and some 25 two way trips in the PM peak. This equates to an average of less than 1 vehicle every 2 minutes. Even with on street parking present, the development will have no material impact on these roads.
- 5.92 The requirement for a transport contribution forms part of the emerging Local Plan policy allocation for the proposed site. Should HCC or Fareham Council feel there is an existing issue with on street parking, this is for the highway authority to resolve. Part of the highways contribution could be used by the highway authority to implement a parking restriction or to work with the school to implement better drop off / pick up controls. However neither of these are a needed as a requirement to mitigate development impact.

Summary

- 5.93 This section has set out the various junction modelling assessments for the local road network. From these assessments, however, the following conclusions can be drawn:
- The design of the Proposed Site Access Road/ Romsey Avenue Junction (junction A) set out in **Drawing 5611.002 A** will work with adequate reserve capacity,



- Beaulieu Avenue / A27, Portchester Road (Junction B); Adequate capacity at junction during both peak periods. No modifications required.
- Hatherley Drive/ Cornaway Lane (Junction C); Adequate capacity at junction during both peak periods. No modifications required.
- Cornaway Lane Roundabout (junction D): Spare capacity at junction during both peak periods. No modifications required.
- A27, Portchester Road/ Downend Road/ Shearwater Avenue signalised Junction (Junction E): The proposed development will increase traffic flows by some 4% at most. This is significantly less than the accepted 10% daily variation likely to occur and so on its own will not have a severe impact on the overall performance of the junction.

5.94 As a result of the junction assessments undertaken, it has been confirmed that there is existing adequate capacity on junction A-D to accommodate potential traffic from the proposed development. The proposed development is anticipated to have a negligible impact on the performance of Junction E. Nevertheless, Section 6 details some potential mitigation measures to further lessen the impact of the proposed development on the local highway network.



6.0 TRANSPORT STRATEGY

- 6.1 This section sets out the proposed transport strategy that would help to successfully mitigate the residual cumulative impacts of the proposed development on the surrounding road network.
- 6.2 It is proposed that this would be achieved through a number of methods, including the preparation and implementation of a Residential Travel Plan and contributions towards off site highway improvement schemes.
- 6.3 This transport strategy is multi-faceted and comprises the following elements to the delivery of:
- A Residential Travel Plan;
 - Off-Site highway improvements.

Residential Travel Plan

- 6.4 In accordance with government guidance, a Framework Travel Plan has been prepared to accompany this Outline Application. This provides details of potential measures that could be implemented as part of the Final Travel Plan, which would be completed post Planning Consent (subject to a Planning Condition and/or financial contribution through the Section 106 Agreement).
- 6.5 Typically, however, the Travel Plan would include, but not be limited to, some of the following measures:
- Preparation, collation and distribution of Residents Travel Packs to the first occupant of each dwelling;
 - Liaison with residents, local stakeholders, bus operators, councils in relation to various sustainable travel options available;
 - Promotion of local car share database and car clubs;
 - Provision of bus/rail timetables, route maps and fare information;
 - Provision of subsidised bus vouchers for use on local services;
 - Provision of cycle voucher for local cycle store;
 - Completion of Residents Travel Surveys to establish travel behaviour; and



- Continued promotion of sustainable travel modes throughout the life of the Travel Plan (typically over 5 years).
- 6.6 Targets for mode share change will be set and agreed with HCC. These will aim to reduce the number of single occupancy car trips from the site and increase the trips by sustainable modes.
- 6.7 The Plan is reviewed on an annual basis with HCC and new / alternative measures introduced if those targets are not being met.

Off-Site Highway Improvements.

- 6.8 Within the pre-application process HCC indicated that it would expect financial contributions to be made to help improve junction capacity at the A27, Portchester Road/ Downend Road/ Shearwater Avenue signalised Junction (Junction E) and to the wider congested road network towards Fareham.
- 6.9 These contributions will help to improve the operational capacity of the junction improving the overall performance of the local highway network. The contributions must however be to proportional to development impact.



7.0 SUMMARY AND CONCLUSIONS

- 7.1 SMA has prepared this TA on behalf of Foreman Homes (the Applicant), in support of a Hybrid planning application for 12.6 hectares of land seeking outline permission for the erection of 167 dwellings with all matters reserved (except for access) and full planning permission for 58 dwellings, associated landscaping, amenity areas and access from Romsey Avenue.
- 7.2 The application site is located to the south of Romsey Avenue. To the north of the site are the rear of existing residential properties along Romsey Avenue. Immediately east is the permitted Cranleigh Road development site (currently agricultural land) and beyond this is Wicor Primary School and existing residential properties. The south and west of the site is bound by agricultural land.
- 7.3 An assessment of local walking and cycling provision and public transport has been provided within Section 3.0. It demonstrates the sites accessibility to the surrounding facilities and services. There is a good level of infrastructure for NMUs in the vicinity of the site and a number of local facilities are within a reasonable walking / cycling distance. Frequent bus services runs along the A27, providing connections to Fareham, Portchester, Portsmouth and Southampton.
- 7.4 An ATC undertaken in proximity to the proposed point of access on Romsey Avenue, recorded 85th percentile vehicle speeds below the designated 30mph speed limit. Traffic surveys have been undertaken at a number of junctions on the surrounding highway network, which have been used to represent a baseline situation (2017), against which the existing junction performance can be assessed.
- 7.5 Access to the proposed development is to be taken from Romsey Avenue. The access design formalises the existing junction priority and provides uncontrolled pedestrian crossing points. The design retains the existing access to the rear of the properties off Romsey Avenue. A 2m wide footway will be provided along the eastern side linking the proposed development with the existing footways on Romsey Avenue. This connection to the existing pedestrian network would help to provide continuous links to nearby facilities within acceptable walking distance of the centre of the site.



- 7.6 Trip rates for the proposed development are based on the trip rates from the Cranleigh Road TA, as agreed with HCC. These trip rates were calculated using trip rates derived from the TRICS database. Based upon the Cranleigh Road TA trip rates, the proposed development of 225 dwellings could generate 147 two-way vehicular trips during the AM peak (08:00-09:00) and 129 two-way vehicular trips during the PM peak.
- 7.7 Section 5.0 has considered the traffic impacts of the development proposals along with background traffic growth and traffic from committed developments on the surrounding road network. Analysis has considered 2023, 5 years after the submission of the application, as the future year scenario. The 2023 assessments take account of the background traffic growth and traffic from committed developments. In addition the future year has been analysed without and with the additional of the proposed development traffic.
- 7.8 The results of the modelling assessments confirm that when all future year growth and potential development flows are considered the existing junctions are shown to continue to operate with spare capacity for future growth. Coupled with the proposed RTA (Framework), the proposed development is unlikely to have a severe impact on the surrounding highway network.
- 7.9 The A27, Portchester Road/ Downend Road/ Shearwater Avenue signalised junction was assessed as requested by HCC. The assessment confirms that the proposed development will have a negligible impact on the operational performance of the junction. Nevertheless, HCC indicated this junction is congested at peak times and the Applicant is will to provide a financial contribution for the provision of junction improvements in proportion to the impact of the proposed development.
- 7.10 In response to residents' concerns regarding the existing parking on Beaulieu Avenue and the potential impact of development trips on its operation a parking survey has been undertaken. This indicates that parking does occur on the eastern side of Beaulieu Avenue but no parking was observed on the western side or the sections of double yellow lines. The existing parking does not therefore overly impair vehicle movements along Beaulieu Avenue or at the junction with Romsey Avenue.



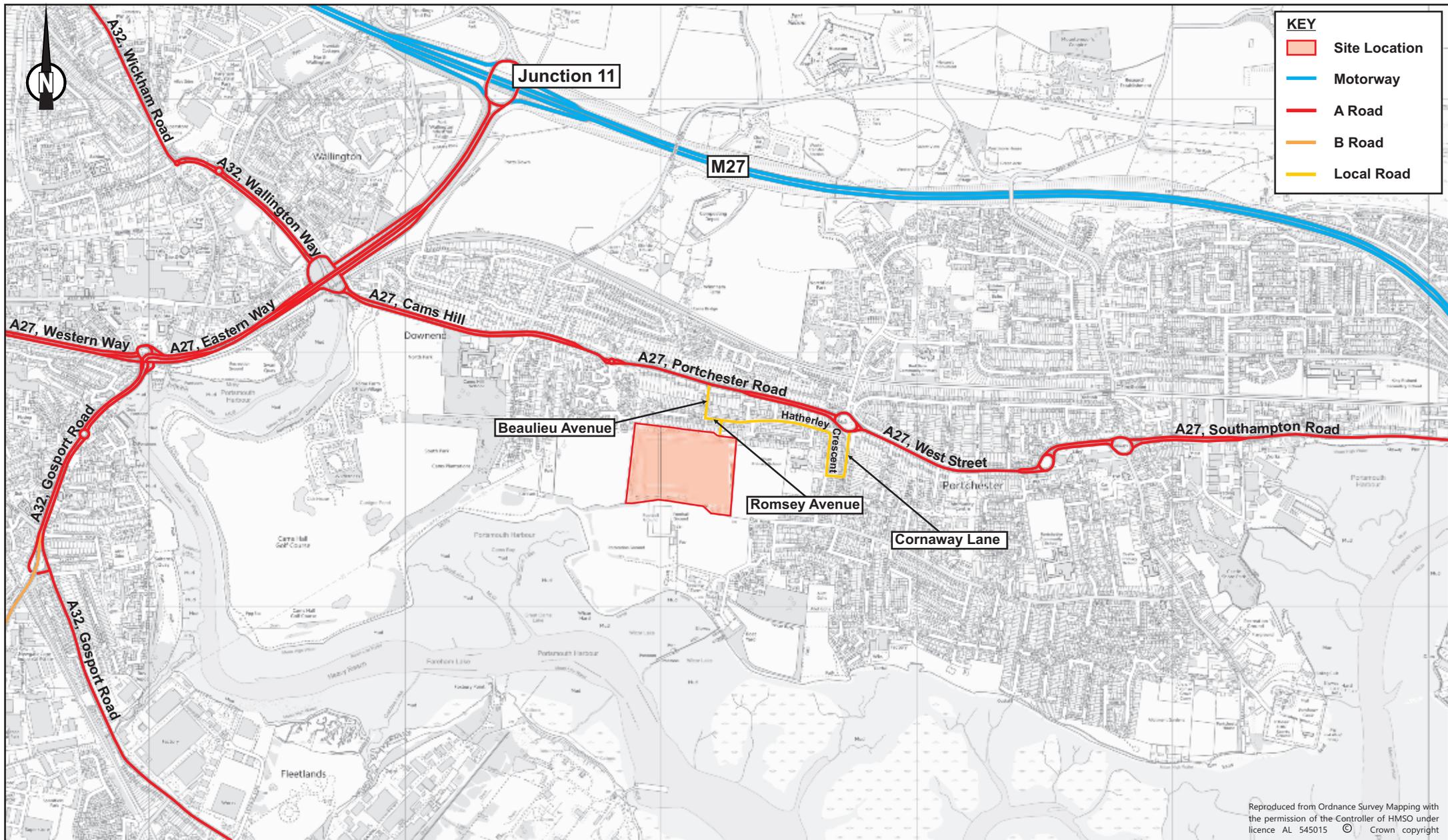
- 7.11 A link capacity assessment of Beaulieu Avenue indicates that there is more than sufficient capacity along the link to accommodate both future year and development traffic, even when accounting for the impact of the parked vehicles. The development trips will therefore not significantly impact on the access of vehicles along Beaulieu Avenue.
- 7.12 A review of parking on nearby local residential roads, indicates that there is some level of on street parking. This is expected of residential roads where not parking restrictions are in place. The development is expected to add, on average, less than 1 vehicle trip every 2 minutes to these routes and so will not materially impact on the operation of the roads, even with on street parking present.
- 7.13 The level of parking on street is an existing factor, which will not be increased by development as the development will provide sufficient parking levels on site. Therefore it is for the highway authority to resolve existing on street parking issues if they perceive them to be present. The highway contribution received from development can be used to fund measures as needed.

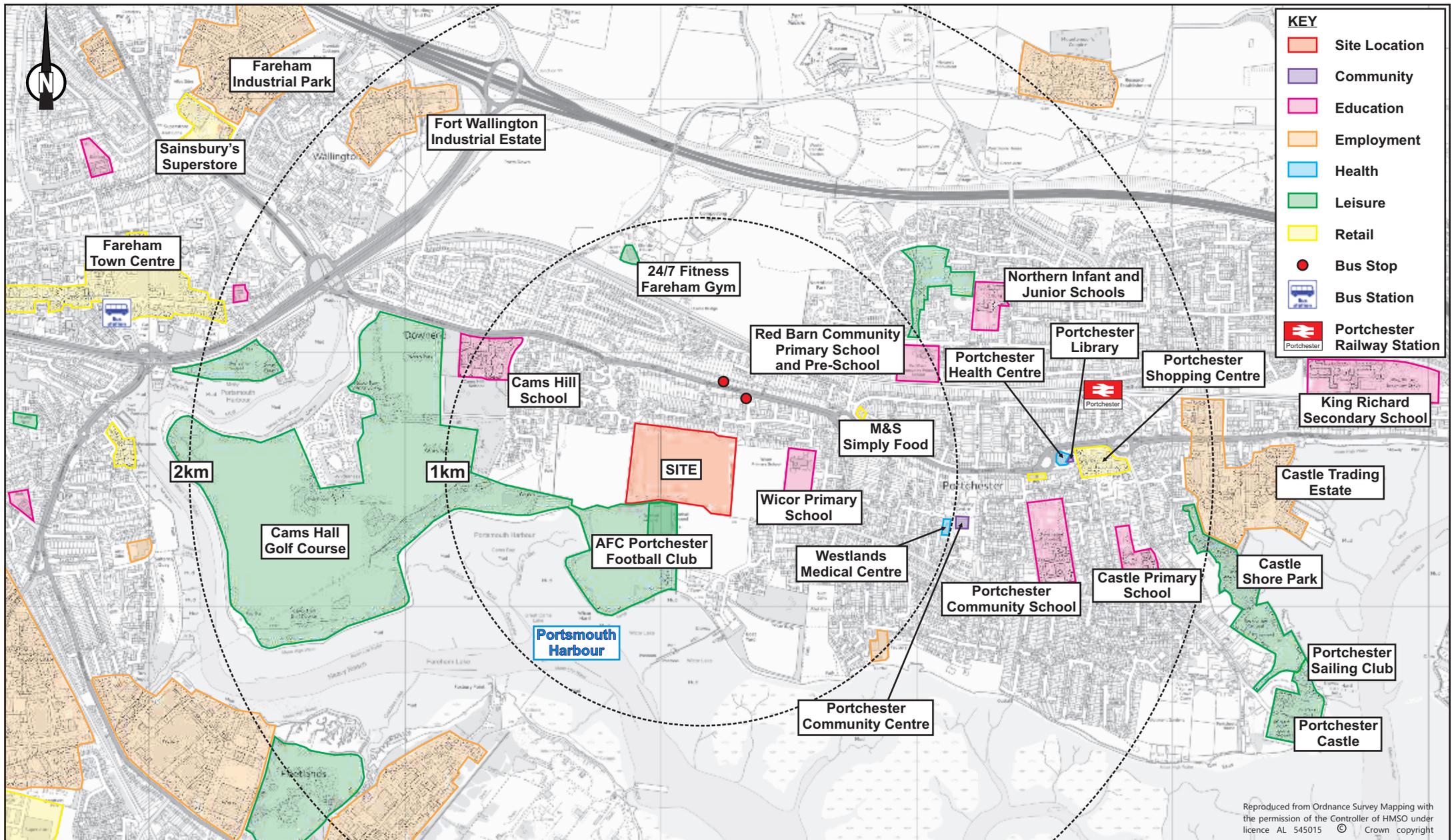
Conclusion

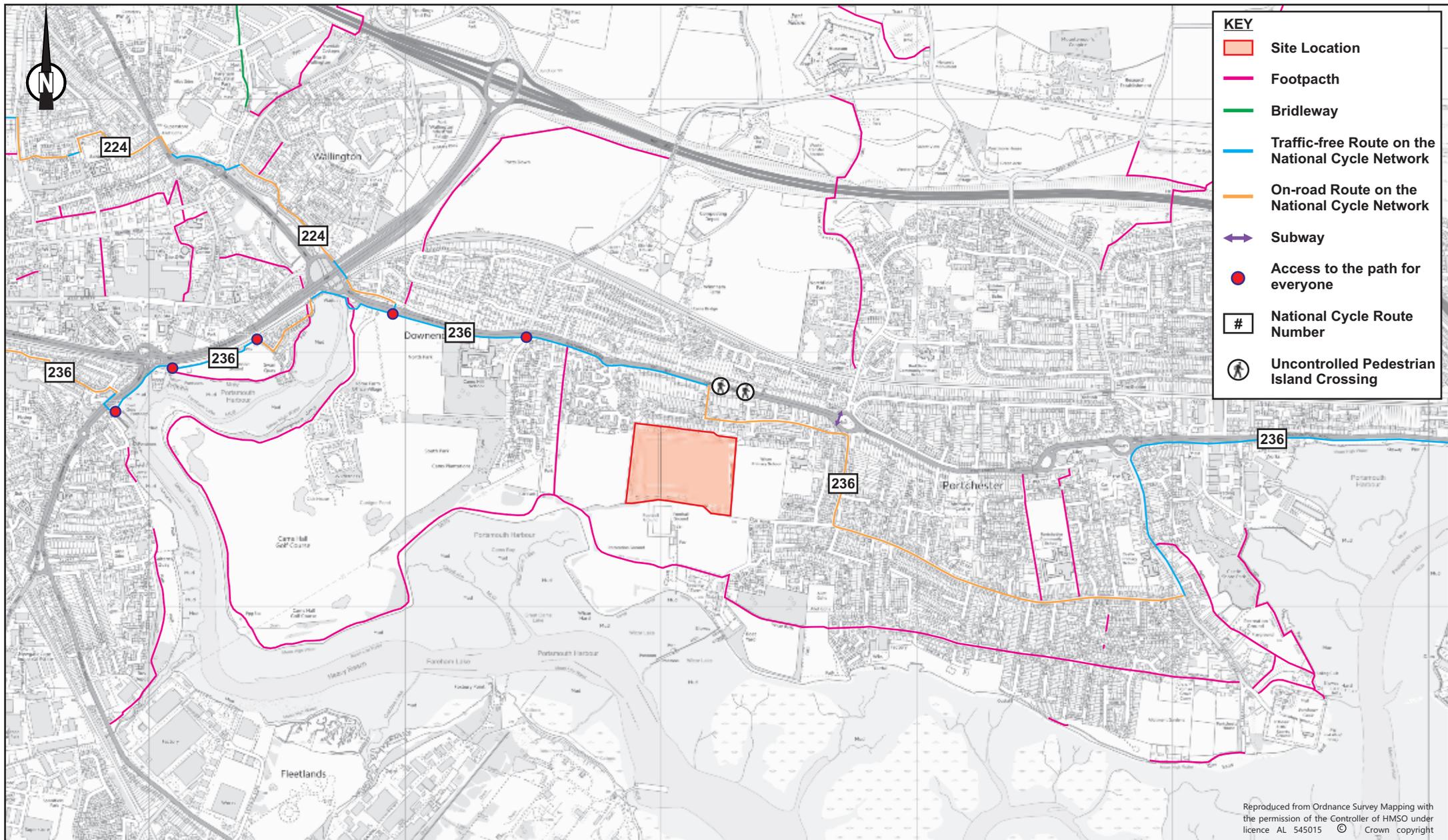
- 7.14 The TA has detailed the site accessibility to numerous destinations in the surrounding area, including existing schools, employment and recreation facilities. Frequent public transport services are available within a reasonable distance of the site and are all accessible by foot.
- 7.15 The TA also assessed the traffic impacts of the proposed development and the wider background traffic growth. Of the junctions tested, all were shown to operate in the future year with spare capacity. Mitigation measures such as the RTA and a financial contributions towards off-site highway works (i.e. A27, Portchester Road/Downend Road/Shearwater Avenue signalised junction) will lessen the impact further.
- 7.16 Overall the proposed developments impact on the local highway network is not considered to be severe or to have a cumulative residual impact that cannot be resolved through mitigation measures. As per the NPPF (paragraph 109), the development proposal should not be refused planning consent as the impact on highway safety would not be unacceptable and the residual cumulative impacts of the proposal are not deemed to be severe.

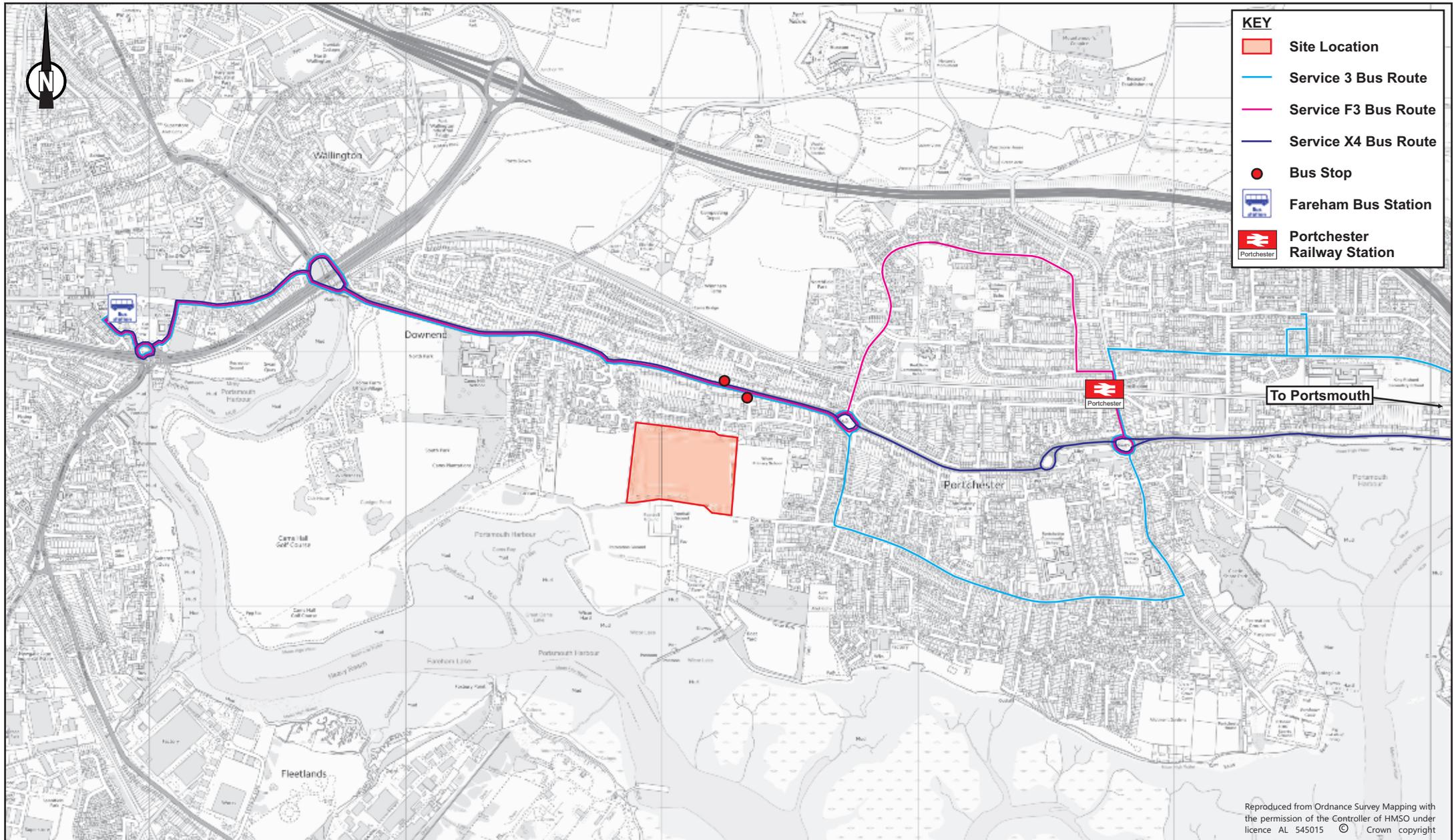


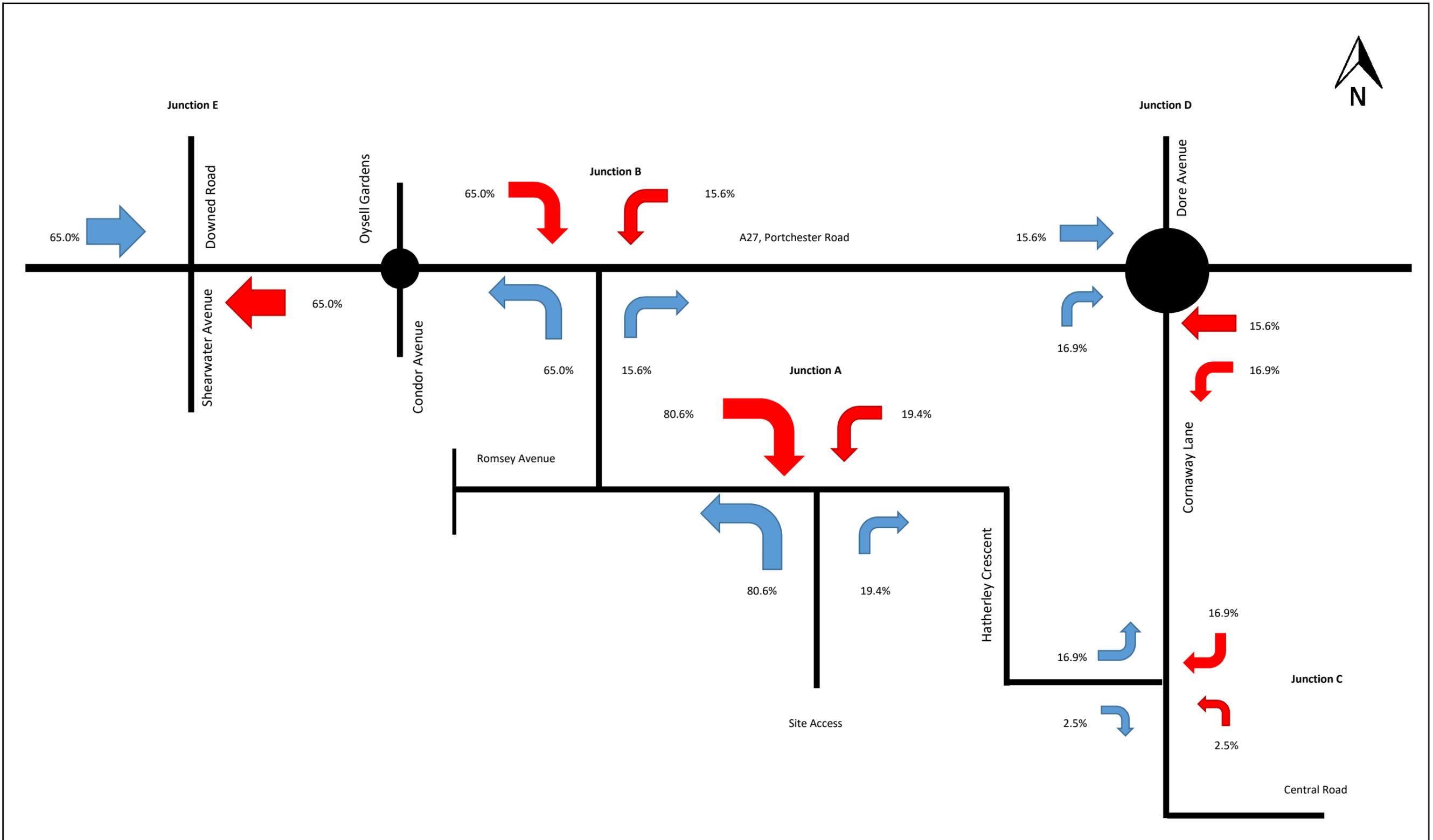
FIGURES







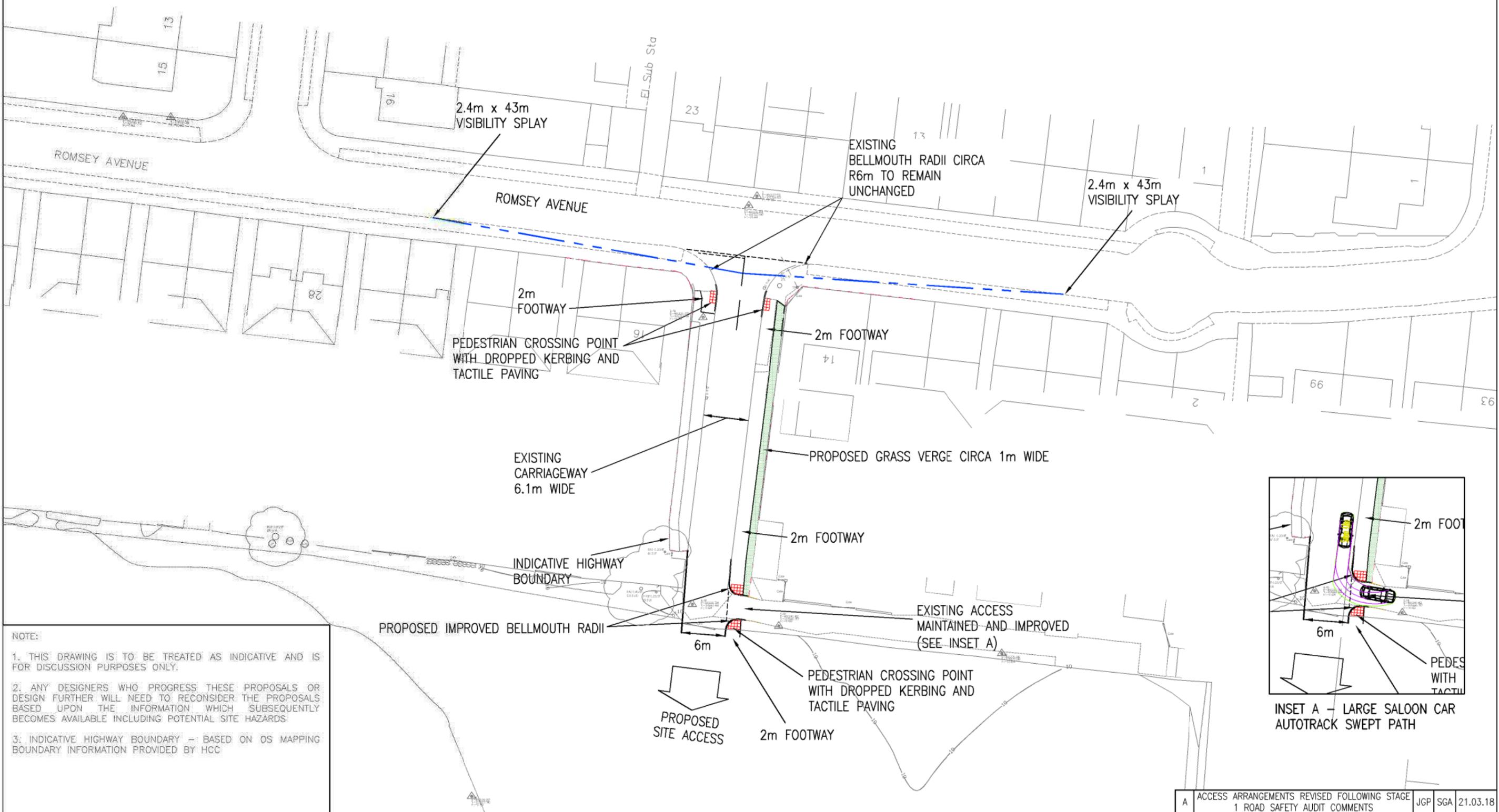




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	Figure Title: Figure 5.1: Development Generated Vehicle Trips Percentage Distribution (AM and PM)	Date: Jun-18
		Revision:

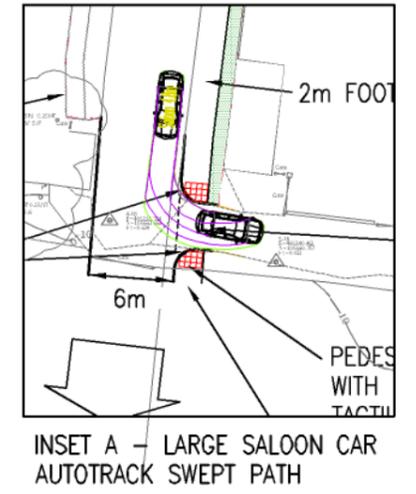


DRAWINGS



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3. INDICATIVE HIGHWAY BOUNDARY -- BASED ON OS MAPPING BOUNDARY INFORMATION PROVIDED BY HCC



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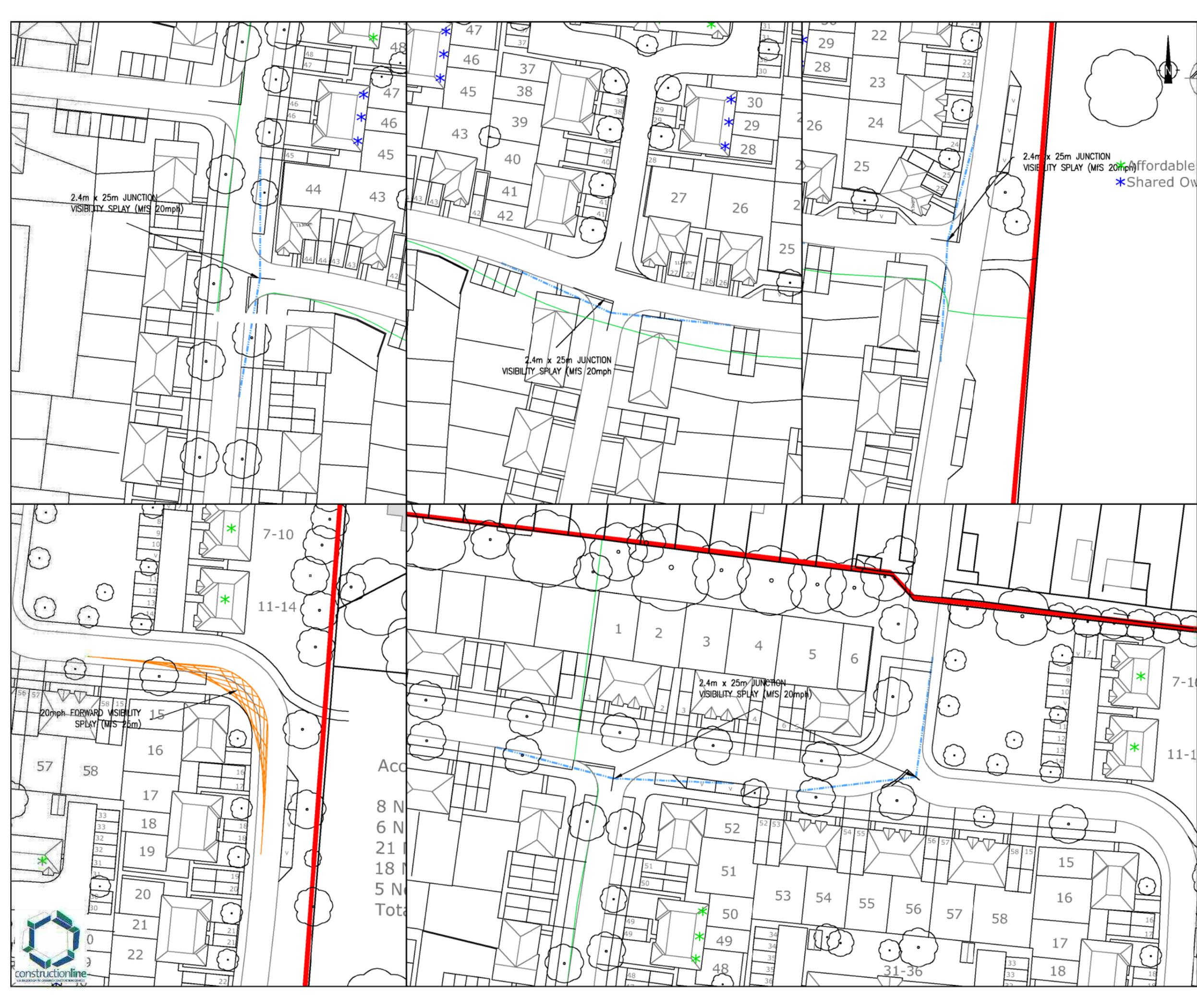
FOREMAN HOMES

JOB TITLE
LAND TO THE SOUTH OF ROMSEY AVENUE
PORTCHESTER

DRAWING TITLE
PROPOSED SITE ACCESS

A	ACCESS ARRANGEMENTS REVISED FOLLOWING STAGE 1 ROAD SAFETY AUDIT COMMENTS	JGF	SGA	21.03.18
Rev	Description	Drn	Chk	Date
REVISIONS				
Preliminary	Approval	Tender	Const.	
DRAWING STATUS				
DATE	FEB '18	DRAWN	COR	CHECKED
			SGA	ISSUE
DRAWING No.	5611.002	REV	A	SCALE
			1:500	@ A3
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Rev	Description	Drn	Chk	Date
REVISIONS				
	Preliminary Issue			Submitted for S104
	Planning Issue			Issued for Tender
	Submitted for S38			Issued for Construction
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FOREMAN HOMES

JOB TITLE
LAND TO THE SOUTH OF ROMSEY AVENUE, PORTCHESTER

DRAWING TITLE
**PROPOSED SITE LAYOUT (FULL APPLICATION)
 20mph MFS FORWARD & JUNCTION VISIBILITY**

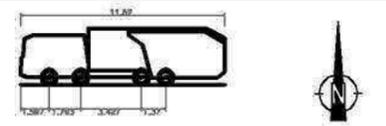
DATE	DRAWN	CHECKED	SCALE	SCALE OVERSIGHT
AUG '18	BEB	SGA	1:500	A2
DRAWING NO.	REV	SCALE		
5611.013		1:500		

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 2. ANY DESIGNERS WHO PROGRESS THESE PROPOSALS OR DESIGN FURTHER WILL NEED TO RECONSIDER THE PROPOSALS BASED UPON THE INFORMATION WHICH SUBSEQUENTLY BECOMES AVAILABLE INCLUDING POTENTIAL SITE HAZARDS.



11.52m Refuse Vehicle
 Overall Length 11.520m
 Overall Width 2.530m
 Overall Body Height 2.500m
 Min Body Ground Clearance 0.310m
 Track Width 2.500m
 Lock to lock time 4.00s
 Kerb to Kerb Turning Radius 9.250m



Copy Of Saloon 4.8m
 Overall Length 4.800m
 Overall Width 1.780m
 Overall Body Height 1.460m
 Min Body Ground Clearance 0.240m
 Max Track Width 1.713m
 Lock to lock time 4.00s
 Kerb to Kerb Turning Radius 5.100m

Rev	Description	Drn	Chk	Date
REVISIONS				
	Preliminary Issue			Submitted for S104
	Planning Issue			Issued for Tender
	Submitted for S38			Issued for Construction
	Submitted for S278			As Built
DRAWING STATUS				

STUART MICHAEL ASSOCIATES
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FOREMAN HOMES

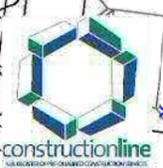
JOB TITLE
LAND TO THE SOUTH OF ROMSEY AVENUE, PORTCHESTER

DRAWING TITLE
PROPOSED SITE LAYOUT (FULL APPLICATION)
SWEPT PATH ANALYSIS - 4.8m CAR & 11.52m LARGE REFUSE VEHICLE

DATE: AUG '18 DRAWN: BEB CHECKED: SGA SCALE: 1:500 © A2

DRAWING NO: 5611.010

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Dennis Sabre Fire Tender (LWB)
 Overall Length 7.700m
 Overall Width 2.430m
 Overall Body Height 3.12m
 Min Body Ground Clearance 0.397m
 Track Width 2.380m
 Lock to lock time 5.00s
 Kerb to Kerb Turning Radius 7.400m

Rev	Description	Drn	Chk	Date
REVISIONS				
	Preliminary Issue			Submitted for S104
	Planning Issue			Issued for Tender
	Submitted for S38			Issued for Construction
	Submitted for S278			As Built

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FOREMAN HOMES

JOB TITLE
 LAND TO THE SOUTH OF ROMSEY AVENUE, PORTCHESTER

DRAWING TITLE
 PROPOSED SITE LAYOUT
 (FULL APPLICATION)
 SWEEP PATH ANALYSIS
 7.7m FIRE TENDER

DATE: AUG '18 DRAWN: BEB CHECKED: SGA SCALE: 1:500 SHEET: 01 OF 02
 DRAWING NO: 5611.011



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PROPOSED IMPROVED BELLMOUTH/ROAD

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11.52m Refuse Vehicle
 Overall Length 11.520m
 Overall Width 2.500m
 Overall Body Height 2.200m
 Min. Body Ground Clearance 0.410m
 Track Width 2.500m
 Lock to Lock Time 6.00s
 Kerb to Kerb Turning Radius 6.250m

Rev	Description	Rev	Chk	Date
REVISIONS				
Preliminary Issue	Submitted for S104			
Planning Issue	Issued for Tender			
Submitted for S38	Issued for Construction			
Submitted for S278	As Built			

DRAWING STATUS

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FOREMAN HOMES

LAND TO THE SOUTH OF ROMSEY AVENUE, PORTCHESTER

ILLUSTRATIVE SITE LAYOUT
 (OUTLINE APPLICATION)
 SWEEP PATH ANALYSIS
 11.52m LARGE REFUSE VEHICLE

DATE: AUG '18 DESIGNED BY: BEB CHECKED BY: SGA SCALE: 1:500 SHEET: A1

PROJECT NO: 5611.012

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