ST GEORGE'S AVENUE, WARBLINGTON

TRANSPORT ASSESSMENT ADDENDUM

March 2022

Barratt David Wilson Homes

RESIDENTIAL DEVELOPMENT
ST GEORGE'S AVENUE
WARBLINGTON

TRANSPORT ASSESSMENT ADDENDUM

CONTROLLED DOCUMENT

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TRANSPORT ASSESSMENT ADDENDUM

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1. INTRODUCTION

1.1 This Transport Assessment Addendum (TAA) has been produced to address comments raised by Hampshire County Council within their consultation response for planning application APP/21/01010. A Transport Assessment (TA) has been previously prepared by Paul Basham Associates on behalf of Barratt David Wilson Homes to support a residential development of 194 dwellings on land accessed via St George's Avenue, Warblington and this TAA should be read in conjunction with the TA. The site forms the eastern land parcel of Site Allocation H15 in the Havant Borough Council (HBC) Emerging Local Plan (2037).

1.2 A copy of the Hampshire County Council letter dated 15th December 2021 is included in **Appendix A**. This Transport Assessment Addendum will address the comments in the order that they have been raised within the Hampshire County Council (HCC) letter.

1.3 It is important to note that the quantum of development has reduced from 194 dwellings to 184 dwellings as part of this resubmission of information. The revised site layout is attached as **Appendix B.**

2. WALKING AND CYCLING

2.1 There is a commitment by Barratt David Wilson Homes to provide a pedestrian / cycle link through to Emsworth Road from the development site.

2.2 The TA reviewed the distances to local amenities within Warblington, Havant and Emsworth that can be reached by walking and cycling. The HCC letter has stated that the distances have been measured from the top of the site. This is not the case; it can be confirmed that the walking and cycling distances have been measured from the centre of the site which gives a distance that would be average throughout the site.

2.3 As identified in the HCC response the pedestrian / cycle link through to Emsworth Road from the site will enable a more direct route to some local amenities which are in a southwest direction as opposed to using the main vehicular access.

2.4 The route from the site to Bosmere Junior School has now been assessed within the Walking, Cycling and Horse Riding Assessment and Review. Details of this review are covered in detail in Chapter 3, and this covers the route from the pedestrian / cycle link onto Emsworth Road.

3. WALKING, CYCLING AND HORSE-RIDING ASSESSMENT TO BOSMERE JUNIOR SCHOOL

3.1 Within the HCC consultation response, it was requested that a walking, cycling and horse-riding assessment and review be carried out for the route to the catchment junior school which is Bosmere Junior School. A site visit was undertaken on 4th March 2022 to assess the conditions of the route. The route has been taken from the pedestrian / cycle link onto Emsworth Road.

Photograph 1: Link from adjacent development site (App: APP/18/01033) to Emsworth Rd

3.2 **Photograph 1** shows the current situation at the proposed pedestrian / cycle link through to Emsworth Road. There is a commitment from the Barratt David Wilson Homes to provide the connection through to Emsworth Road which will reduce the distance to amenities located on Emsworth Rd (Bus stop, Convenience store) by approximately 200m as opposed to the main vehicular access. This is a measurement taken from the centre of the development site.

Photograph 2: Carriageway and footway conditions of Emsworth Rd

3.3 **Photograph 2** displays the footway and carriageway conditions within the vicinity of the pedestrian / cycle connection onto Emsworth Rd. The footway is of a good width and the carriageway suitable for cycling as at this section of Emsworth Road motor vehicles are not permitted to continue along the A27 pedestrian / cycle underpass. As can be seen in **Photograph 1** there is an existing field access which would permit agricultural vehicles, although it should be noted that these large agricultural vehicles will no longer be required to frequent the site as a result of the proposed development resulting in an enhanced pedestrian / cycle environment.

Photograph 3: Carriageway and footway conditions of Emsworth Rd

3.4 **Photograph 3** shows the footway which although it deviates from the pedestrian desire line is of an acceptable construction standard and suitable width for pedestrians.

Photograph 4: Emsworth Rd / Castle Avenue Junction

3.5 **Photograph 4** shows the Emsworth Rd / Castle Avenue junction which features dropped kerbs to allow pedestrians to cross safely. Pedestrian visibility at this junction is good and cyclists will remain on Emsworth Rd.

Photograph 5: Emsworth Rd Footway Continuation

3.6 **Photograph 5** shows the footway provision along Emsworth Rd. Cyclists would need to be on carriageway at this point, although it should be noted that Emsworth Rd is a C class road and subject to as 30mph speed limit which is a suitable environment to cycle.

Photograph 6: Emsworth Rd / Warblington Avenue Junction

3.7 **Photograph 6** shows the Emsworth Rd / Warblington Avenue junction which features dropped kerbs to facilitate the safe crossing of pedestrians. The pedestrian visibility is good and the width of the road is not excessive at approximately 8m.

Photograph 7: Continuation of footway on Emsworth Rd

3.8 The footway continues along Emsworth Rd and is approximately 2m in width, as shown in **Photograph 7**, up to the Southleigh Rd junction. At the Southleigh Road / Emsworth Road junction, signalised crossings are provided on both of the Emsworth Road arms (East & West), supported by dropped kerbs and tactile paving. The existing crossings on Emsworth Road are shown in **Photographs 8 and 9.**

Photograph 8: Signalised Crossing on Emsworth Road (West)

Photograph 9: Signalised Crossing on Emsworth Road (East)

3.9 **Photograph 10 and 11** shows the Emsworth Rd / Meadowlands junction which has dropped kerbs and is approximately 7 metres in width. Further to the west along Emsworth Rd there are dropped kerbs and tactile paving present which allow for the safe crossing of the Barnard Powell House parking layby.

Photograph 10: Emsworth Rd / Meadowlands Junction

Photograph 11: Dropped kerbs and tactile paving at parking layby on Emsworth Rd

Photograph 12: East St tactile paving and dropped kerb crossing

3.10 To enable pedestrians to cross East St there is the provision of dropped kerbs and tactile paving as shown in **Photograph 12**. **Photographs 13** shows the available visibility looking west along East St which is far in excess of the required standard for the 30mph speed limit. **Photograph 14** shows the visibility looking east which again exceeds the required standards. This allows pedestrians to cross East St safely. There is on street cycle provision in the form of a cycle lane.

Photograph 13: East St visibility and on street cycle provision looking west

Photograph 14: East St visibility and on street cycle provision looking east

Photograph 15: Town Hall Rd Conditions

Photograph 16: Grove Road Conditions

3.11 **Photographs 15** & **16** show the conditions on Town Hall Rd and Grove Road, both of which exhibit acceptable quality footways. Both Roads are subject to a 30mph speed limit and are unclassified roads. Cyclists would be on the carriageway at this point but as observed vehicle speeds are low and vehicle flows are not expected to be high due to the road classification.

Photograph 17: South St Conditions

Photograph 18: Bosmere Junior School

3.12 **Photograph 17** shows the footway on South St which is a 30mph unclassified Road meaning it is suitable for on road cycling. **Photograph 18** shows the entrance to Bosmere Junior School.

3.13 The WCHAR review of the route from the development site to Bosmere Junior School has demonstrated that it is a safe and suitable route for both pedestrians and cyclists. It is not proposed that any improvements are required to the route to enable future residents to reach Bosmere Junior School. The route does not prejudice against horse riding although this is not considered to be a realistic method of travel to school.

3.14 HCC's consultation response identified that further discussions should be held in regard to traffic calming measures on Castle Avenue, Warblington Avenue and St Georges Avenue.

3.15 All three roads are subject to a 30mph speed limit and are unclassified Roads which suggests that vehicle flows are light and observed speeds do not exceed the 30mph limit.

Photograph 19: Castle Avenue

Photograph 20: St Georges Avenue

3.16 **Photographs 19** & **20** show that on street parking is commonplace on Castle Avenue and St Georges Avenue. A review of historic street view data has shown that on street parking is common on all three roads (Castle Avenue, Warblington Avenue and St Georges Avenue) over the last 10 years. The presence of on street parking acts as a natural traffic calming feature without resulting in the installation of infrastructure that will significantly detract from the current street scene whilst adding substantially to the County Council's maintenance budget.

3.17 The WCHAR contained within the previously submitted TA has identified two improvements to the highway network within the vicinity of the site (coloured demarcations to be extended across St Georges Avenue / Castle Avenue junction and coloured demarcations to be repainted along Castle Avenue). The extended WCHAR to take into account the route to Bosmere Junior School has not identified any improvements that would be required beyond general maintenance and repairs that the highway authority should carry out within their maintenance schedules.

3.18 HCC's consultation response has also requested that a proportionate contribution be paid towards the footbridge at Warblington Rail Station. It is important to note that for application APP/18/01033 for 69 No. dwellings at Land East of, Castle Avenue there was no contribution request for the Warblington Rail Station footbridge despite this requirement existing before that application was determined on 14 Jan 2021. Whilst a proportionate contribution towards the footbridge could be made from this application, details of the requested amount, and the total project funding requirement, would need to be understood and demonstrated as meeting the necessary tests to be warranted for this application.

4. BUS SERVICES AND INFRASTRUCTURE

4.1 **Figure 1** displays the change in bus timetables since the TA was published and the review by HCC. Service 27 now operates on the schedule as seen in **Figure 1**.

Rowlands Castle | Havant | Emsworth **27**

Mondays to Saturdays except Public Holidays

						NS
Rowlands Castle Uplands Green		1000	1200	–	1440	1640
Durrants Harvester		1006	1206	–	1446	1646
Leigh Park Park Parade		1015	1215	–	1455	1655
Havant Leisure Centre		1022	1222	–	1502	1702
Havant Bus Station	arr	1026	1226	–	1506	1706
Havant Bus Station	dep	1030	–	1315	1510	1710
Denvilles Spindle Close		1038	–	1323	1518	1718
Southleigh Roundabout		1044	–	1329	1524	1724
Emsworth Baptist Church		1049	–	1334	1529	1729

Mondays to Saturdays except Public Holidays

					S	NS	NS
Emsworth Baptist Church		0900	1100	1340	1535	1540	1735
Southleigh Roundabout		0905	1105	1345	1540	1545	1740
Denvilles Spindle Close		0912	1112	1352	1547	1552	1747
Havant Bus Station	arr	0920	1120	1400	1555	1600	1755
Havant Bus Station	dep	0925	1125	1405	–	1605	–
Havant Leisure Centre		0929	1129	1409	–	1609	–
Leigh Park Park Parade		0937	1137	1417	–	1617	–
Durrants Harvester		0946	1146	1426	–	1626	–
Rowlands Castle Uplands Green		0952	1152	1432	–	1632	–

Notes: NS - Mondays to Friday only **S** - Saturdays only

No service on Sundays or Public Holidays

Service operated under contract to Hampshire County Council

Figure 1: Timetable of bus service No. 27 (extract from First Bus timetable)

4.2 HCC has requested that the physical infrastructure (pole, improved waiting facilities and real time information boards) be updated at bus stops on Southleigh Road at Warblington Station and Warblington School bus stops. Whilst a contribution towards the flag and pole along with shelters for inclement weather could be provided at the Warblington School bus stop, the real time information boards usefulness is questionable due to the prevalence of the First Bus mobile app which provides this information. This would enable prospective bus patrons to look up the live bus departure times prior to arriving at the bus stop to plan their journeys more effectively. There is no policy requirement within the draft allocation to make such a contribution, and no such contribution was sought from Persimmon Homes for their application on the other land parcel within the allocation, and so consideration of consistency in approach from HCC and whether such a contribution meets the necessary tests must be made.

4.3 A contribution towards the operation of bus service No. 27 has also been requested by HCC as the service is funded by HCC. This development will be providing increased patronage on the service No. 27, without adding any increased operating costs, which will increase the viability of the service for First Bus. The Travel Plan also offers and secures £50 travel vouchers that residents could use for cycling and public transport. It would therefore be unreasonable to request a further contribution for the operation of bus service No. 27.

5. INTERNAL LAYOUT

5.1 HCC has requested that a Stage One Road Safety Audit (RSA) be carried out to review the internal site layout. The value of the desktop review RSA at the planning application stage is questionable as the auditors are not likely to raise any problems that would not be identified by the highway officer at HCC. It would therefore not be proposed to carry out the RSA at the current planning application stage, rather this be completed at the detailed design stage as common with the majority of applications in Hampshire.

5.2 Drawings 041.0039.002 (**Appendix C**) has been updated to reflect the amended site layout. This demonstrates that visibility splays of 2.4m x 25m can be achieved at the required accesses in accordance with a 20mph design speed. It has been ensured that there are no trees present within the visibility splays to ensure clear sight lines.

5.3 Drawing 041.0039.003 (**Appendix D**) demonstrates forward visibility of 17m which is appropriate for a vehicle navigating the corners within the development site at 15mph. This reduced speed is appropriate as the radii as demonstrated on drawing 041.0039.005 (**Appendix E**) has been designed to support this vehicle speed. The forward visibility will be kept clear of all obstructions over 600mm but would not need to be dedicated as land to the highway authority.

5.4 Throughout the development site there are a small number of occasions where parking bays are located within the visibility envelopes. Manual for Streets paragraph 7.8.5 states '*Parking in visibility splays in built-up areas is quite common, yet it does not appear to create significant problems in practice. Ideally, defined parking bays should be provided outside the visibility splay. However, in some circumstances, where speeds are low, some encroachment may be acceptable*.' The design speed of the roads will be 20mph which in line with Manual for Streets guidance would allow for some acceptable encroachment.

5.5 As stated in paragraph 5.3 the drawing 041.0039.005 has been produced to demonstrate the site dimensions including carriageway widths, footway widths, footway widths behind parking bays and corner radii. The footways behind parking bays are at a minimum 1.2 metres which is suitable to allow disabled user access.

5.6 It is intended that the development site will be offered for adoption to the highway authority. The construction specification of the road will be given in detail through the Section 38 process with Hampshire County Council.

5.7 Drawing 041.0039.006 (**Appendix F**) has been produced to show two crossing points which will facilitate pedestrian movements to the central play area. Inclusive mobility features such as tactile paving will be provided to enable maximum accessibility. Pedestrian visibility has been demonstrated as 1.5m x 25m in accordance with the 20mph design speed. Visibility to the west at the southern crossing point has been demonstrated as 1.5m x 17m which is appropriate given the reduced speed of vehicles navigating the corner and is in line with the forward visibility as shown on drawing 041.0039.003. As stated in paragraph 5.4, Manual for Streets paragraph 7.8.5 allows for some parking within visibility splays.

5.8 Comments were made by HCC regarding widening of the footpath to the west of the play area to make it a shared use footway/cycleway to meet LTN1/20 guidance. This path is only circa 38m in length and whilst it provides convenient connectivity for pedestrian across the site, it is not intended for cycle use as this does not connect to cycle facilities either north or south of this path. The internal road network is designed for a motor vehicle speed of 20mph and vehicle flows will be low as the road network serves only the development site. This environment is entirely suitable for on road cycling within the development site without the need for cycle segregation. Furthermore, there is cycle access to the site from both the main vehicle access and the southern footway/cycleway link and therefore reduced demand for cycle movement across the site itself.

5.9 The revised site layout now includes a pedestrian / cycle access connection to the strategic Southleigh development identified in Havant Borough Councils (HBC) emerging Local Plan, albeit understood that this Local Plan may shortly be withdrawn by HBC following questions for the Inspector at the EiP.

5.10 Maintenance of the Sustainable Drainage Systems (SuDS) has been considered to allow for appropriately sized vehicles to access and carry out maintenance on the SuDS.

5.11 Drawing 041.0039.001 (**Appendix G**) shows the refuse vehicle (11.2m x 2.53m) tracking throughout the development site. BS 5906: 2005 recommends a maximum reversing distance of 12m although longer distances can be considered. It is important to note that there are instances where the vehicle is required to reverse distances longer than 12m however, these are turning manoeuvres and are free from obstructions. Given the length of the refuse vehicle it is highly likely that any turning manoeuvre will be above 12m for which the driver will be well versed in. All bin collection points are within 25m of the refuse vehicle and residents are not required to move bins further than 30m in line with Manual for Streets guidance.

5.12 Manual for Streets Figure 7.1 displays the required road widths for a refuse vehicle and car to pass which is 4.8m on a straight section of road. As shown on drawing 041.0039.005 the development site features road widths between 5-5.5m which is sufficient to allow this to take place. Given the cul-de-sac nature of this residential development, there is little demand for vehicles as large as the HCC refuse vehicle to traverse the site more than once per week.

5.13 Drawing 041.0039.004 (**Appendix H**) has also been amended for the revised site layout and demonstrates that the Fire Tender vehicle can reach all buildings with Building Regulation requirements.

6. JUNCTION MODELLING

6.1 The highway authority within their consultee letter has accepted the trip generation, traffic distributions and TEMPro growth factors used within the TA. The highway authority have accepted the output results for St George's Avenue/Southleigh Road/School Exit Crossroads, Warblington Avenue/Emsworth Road Priority Junction and Warblington Railway Station. For Castle Avenue/Emsworth Road Priority Junction and the A27 Dumbbell Roundabouts an RFC value has been requested. When using Junctions 9 software in Advanced Mode (with lane simulation) it is not possible to obtain an RFC value. The TA has outlined the modelling results and that the delay and queue lengths would not constitute a severe detrimental impact on the operation of the local highway network.

7. SUMMARY

7.1 This Transport Assessment Addendum has been produced to address comments by Hampshire County Council within their consultation response dated 15th December 2021.

7.2 There is a commitment by Barratt David Wilson Homes to provide a pedestrian / cycle link through to Emsworth Road from the development site. As identified in the HCC response the pedestrian / cycle link through to Emsworth Road from the site will enable a more direct route to local amenities which are in a southwest direction as opposed to using the main vehicular access.

7.3 The WCHAR review of the route from the development site to Bosmere Junior School has demonstrated that it is a safe and suitable route for both pedestrians and cyclists. It is not proposed that any improvements are required to the route to enable future residents to reach Bosmere Junior School. The route does not prejudice against horse riding although this is not considered to be a primary method of travel to school.

7.4 A review of current conditions on Castle Avenue, Warblington Avenue and St Georges Avenue has shown that on street parking is common on all three roads over the last 10 years. The presence of on street parking will act as a natural traffic calming feature without resulting in the installation of infrastructure that will significantly detract from the current street scene whilst adding substantially to the County Council's maintenance budget. No traffic calming was secured or found necessary to accommodate the adjacent Persimmon Homes development.

7.5 It has been confirmed that a proportionate contribution could be provided towards the footbridge at Warblington Rail Station but details of the requested amount, and the total project funding requirement would need to be given. It is important to note that for the adjacent Persimmon Homes development there was no contribution request for the Warblington Rail Station footbridge despite this requirement existing before that application was determined on 14 Jan 2021.

7.6 HCC has requested that the physical infrastructure (pole, improved waiting facilities and real time information boards) be updated at bus stops on Southleigh Road at Warblington Station and Warblington School bus stops. Whilst a contribution towards the flag and pole along with shelters for inclement weather can be provided at the Warblington School bus stop the real time information boards usefulness is questionable due to the prevalence of the First Bus mobile app which provides this information. This would enable prospective bus patrons to look up the live bus departure times prior to arriving at the bus stop to plan their journeys more effectively. There is no policy requirement within the draft allocation to make such a contribution, and no such contribution was sought from Persimmon Homes for their application on the other land parcel within the allocation, and so consideration of consistency in approach from HCC and whether such a contribution meets the necessary tests must be made.

7.7 A contribution towards the operation of bus service No. 27 has also been requested by HCC as the service is funded by HCC. This development will be providing increased patronage on the service No. 27, without adding any increased operating costs, which will increase the viability of the service for First Bus. It would therefore be unreasonable to request a contribution for the operation of bus service No. 27. However Travel Vouchers are secured through the site's Travel Plan.

7.8 Updated drawings have been prepared to reflect alterations to the site layout to respond to comments raised by HCC and other consultees and are appended to this TAA.

7.9 For Castle Avenue/Emsworth Road Priority Junction and the A27 Dumbbell Roundabouts an RFC value has been requested. When using Junctions 9 software in Advanced Mode (with lane simulation) it is not possible to obtain an RFC value. The TA has outlined the modelling results and that the delay and queue lengths would not constitute a severe detrimental impact on the operation of the local highway network.

7.10 This Transport Assessment Addendum (TAA) has been produced to address comments raised by Hampshire County Council, within their consultee letter, as the highway authority for planning application APP/21/01010 dated 15th December 2021. All concerns raised have been covered satisfactorily and we would therefore encourage the highway authority to provide a positive recommendation.

Appendix A

Hampshire County Council

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For attention of Mr L Oliver

Dear Sir,

Re: Planning Application - Proposed 194 dwellings, means of access, public open space, play areas, associated infrastructure and landscaping on Land East of St George's Avenue, Warblington

Thank you for the opportunity to comment on the full planning application for the above site. The Highway Authority have considered the information provided within the Transport Assessment (hereafter, TA) and the comments regarding the proposed development are set out below.

Policy Status

The application site makes up part of the area of land identified for development in Havant Borough Council's Emerging Local Plan under policy H15. The policy suggests that H15 has the capacity to provide 'about 255 dwellings' when supported by suitable mitigation and measures. Persimmon Homes recently obtained planning permission (reference APP/18/01033) for the construction of 69 dwellings on part of the H15 land located directly west of the proposed development. The TA, which supports this application, provides a summary of the relevant transport planning policies. Specifically in relation to the H15 allocation and highway matters the policy requires:

- The application to be supported by a transport assessment and travel plan.
- That the site is developed comprehensively, or if this is not possible, the development of one part must not prejudice the development of the other part;
- The design and layout;

- Does not prejudice the future delivery of A27 junction improvements to facilitate access arrangements to the Southleigh Strategic site to the north;
- Creates a new pedestrian and cycle access to Emsworth Road in the south-west of the site; and
- Provides or, at least does not prejudice a pedestrian and cycle link under the railway line to provide easy access to Warblington Station from Southleigh (Policy KP5).

Pre-Application advice
The applicant engaged in pre-application discussions with the Highway Authority. The following comments were raised by the Highway Authority during pre-app discussions for the applicant to address at the planning stage:

- The provision of an NMU audit (now a WCHAR through updated policy requirements- HCC TG19);
- The most recent 5 year accident data from Hampshire Constabulary;
- Modelling of the A27 dumbbell junction;
- Consideration of traffic calming on Castle Avenue, Warblington Avenue and St George's Avenue;
- Further information regarding trip generation and distribution;
- Discussions regarding the internal site layout to ensure that it is designed to an adoptable standard. Design of the internals in a way which does not prejudice the delivery of the A27 junction and provision of additional pedestrian and cycle links to tie into the future infrastructure; and
- A pedestrian/cycle link to the south of the development onto Emsworth Road.

Site Location
The proposed development is located east of St Georges Avenue. The site is on a field surrounded by the A27 to south and east, and a railway line to the north. Access to the site will be via St Georges Avenue and through the Persimmon Homes development, which is located to the west of this proposed development.

Sustainable Access
The applicant has undertaken a WCHAR in accordance with Hampshire County Council Technical Guidance TG19. The TA provides a review of the routes and facilities available for those users of sustainable transport between the site and other local facilities. The majority of the outcomes from the WCHAR are considered acceptable, aside from the points referenced below.

Walking and Cycling:
As per the emerging local plan allocation, the applicant is required to provide a pedestrian and cycle connection between the southwest corner of the development and the Emsworth Road / A27 Subway which would provide an alternative sustainable transport connection from the site. Currently, the applicant is proposing a pedestrian footway link inside the site's redline boundary with the intention of the additional landowner extending this connection from the proposed development to Emsworth Road. No evidence has been provided to demonstrate that conversations have taken place with the landowner to secure the land to provide the additional link, nor that it will be upgraded to cater for pedestrian and cycle trips. Without the additional pedestrian and cycle connection, permeability for vulnerable road users is poor, with the only connection via the site access road and St George's Avenue. Residents situated in the southern and the eastern corners of the development would be required to walk an additional distance to the identified facilities which has not been factored into the assessment undertaken within the TA.

Failure to secure the link is not only contrary to policy but would also significantly impact the sustainable accessibility of the site. Pedestrians and cyclists wishing to route via the A27 underpass would need to walk an additional 700m+ rather than benefiting from a direct link. The applicant must engage with the landowner to provide this connection as part of the current planning application.

The site is located within walking and cycling distance of local facilities in Warblington, Havant and Emsworth. The facilities stated within the TA are all within the desirable walking and cycling distances as set out within 'Providing for Journeys on Foot' (CIHT 2000). However, these distances are based on residents living at the top of the site, rather than assuming a more conservative position within the development. As noted above, the southern foot/cycle link will provide a more direct for pedestrians which maintains the identified facilities within the desirable maximum walking distance. In the absence of the link, the walking and cycling routes from the site would exceed those identified and a revised assessment should be provided which accurately reflects the walking and cycling distances.

The catchment schools for the site are Bosmere Junior and Fairfield Infant School, the former of which has not been assessed in the WCHAR. It is noted that Bosmere Junior School sits outside of the preferred maximum walking distance (2.3km). The route to Bosmere Junior should be assessed, and measures identified to improve the route where necessary and encourage sustainable travel to school, this should include consideration of wayfinding infrastructure and the need for improved and new crossing points. Travel plan measures should also be provided to further encourage sustainable travel to school. Finally, opportunities for park and stride facilities should also be explored with scope for securing provision as part of the travel plan for the site.

Policy H15 of the emerging local plan previously identified that traffic calming measures should be provided on Castle Avenue, Warblington Avenue and St George's Avenue as part of the development. This point was also raised within the Highway Authority's pre-app response. Whilst it's noted that this doesn't currently feature in the Submission Local Plan, further discussions should be held with the Highway Authority to discuss traffic calming options along the identified roads as no measures are presented within the TA at present.

St George's Avenue forms part of National Cycle Network (NCN) 2 providing a connection to the wider cycle network. The St George's Avenue / Castle Avenue junction provides signposts to direct cyclists along NCN route 2, towards Southleigh Road which also forms part of the NCN route. School Lane leads to a continuation of NCN route 2 providing a connection from Southleigh Road to New Lane to the west. A gated access along New Lane provides access to a traffic free section of NCN route 2 which merges with the Hayling Billy Trail and connects to the wider cycle network.

The WCHAR has identified the improvements below which should be delivered as part of the development. However, the Highway Authority will also require further engagement to provide additional improvements along the identified walking and cycling routes.

- Coloured demarcations to be extended across the St George's Avenue / Castle Avenue junction to further improve the safety for cyclists travelling to and from the site.
- Coloured demarcations to be repainted along Castle Avenue to warn vehicles of cyclists travelling along the road.

The WCHAR does not pick up on the longstanding requirement for a footbridge at Warblington rail station which is not currently fully funded. A proportionate contribution should therefore be made towards the delivery of the bridge to provide safe access to the station.

Bus:
The closest bus stops to the site are the Warblington Station and Warblington School bus stops located on Southleigh Road, circa 15m north and 40m south of the Southleigh Road / St George's Avenue junction respectively. Bus route 27 is operated by First Bus and runs between Rowlands Castle and Emsworth. Despite the TA stating that bus service 27 arrives hourly Monday to Saturday from 09:00 AM, this is incorrect. The Highway Authority are aware that the bus service only arrives at the stop every two hours. Additionally, there is an extremely minimal service on a Saturday, with no service on a Sunday or public holiday.

Bus route 700 provides a regular bus service (approximately every 20 minutes) to Havant, Portsmouth and Chichester.

The physical infrastructure at all stops is of a poor standard and would benefit from being upgraded to include polls, improved waiting facilities and real time

information. A contribution should be made towards this infrastructure provision to encourage travel by public transport.

In addition, service 27 is a service funded by Hampshire County Council and a contribution towards maintaining this service should be made to ensure it is present for future resident's use.

Rail:
Warblington railway station, the closest station to the site, is located circa. 500m northeast of the proposed development. Warblington Station provides hourly services operating between Littlehampton and Portsmouth.

Havant Station can be accessed from the site in approximately 17 minutes walking or 5 minutes cycling via St George's Avenue and School Lane.

Access to the railway station requires crossing at a level crossing and there is a long-standing aspiration for a footbridge at Warblington station to provide safe access across the railway line and to the station platforms. This scheme is currently not fully funded and this along with other sites reliant on Warblington Station are expected to make appropriate contributions towards the infrastructure requirement.

Personal Injury Accidents (PIA)
The applicant has provided PIA data for a 5-year period between January 2016 and December 2020 using Hampshire Constabulary Records. It is noted that this data is a year out of date, and this is not considered acceptable. However, the Highway Authority have reviewed more recent data and are content that there would be no changes to the conclusions drawn from the data provided and therefore no further data needs to be obtained.

The scope of the PIA assessment was previously agreed with the Highway Authority during pre-application discussions and covered a wide study area to reflect that of the WCHAR assessment.

In total over the above 5-year period there have been a total of 36 incidents within the study area. Regarding the incident severity, there was one 'fatal' incident, nine 'serious' incidents, and 25 'slight' accidents. There were no accidents reported along St George's Avenue, Warblington Avenue or Castle Avenue, or at the St George's Avenue / Southleigh Road and Warblington Avenue / Emsworth and Castle Avenue / Emsworth Avenue junctions. Thus, there were no accidents recorded within the immediate vicinity of the proposed development.

Over the study period, six 'slight' incidents have been reported at the Southleigh Road / Emsworth Road signalised junction as well as several incidents along Southleigh Road. Furthermore, four accidents have occurred at the Eastern Road / New Lane junction (two 'slight' incidents and two 'serious' incidents). Development trips through his junction are low as it is expected that this route will be predominantly pedestrian. As such, this junction does not form one of the priority routes for vehicles to take towards local facilities.

At the A27 Dumbbell Roundabouts a total of four incidents have occurred including two at the Emsworth Road / A27 Roundabout and two at the A27 / A259 / Church Lane roundabout. All incidents were classified as 'slight' in nature and were not due to the physical road layout, which has been subject to recent improvements through S278 works for the recent development west of Selangor Avenue.

The Highway Authority are satisfied that that that the identified accidents are unlikely to be exacerbated by the development. As such, the Highway Authority can confirm that the proposed development will not have an adverse effect on highway safety in close proximity of the site and for the wider highway network.

Site Access
The site access is proposed from St Georges Avenue which is to be extended 60m through the Persimmon Homes development to the western boundary of the development site. A 4.8m wide carriageway with 2.0m wide footways along both sides of the carriageway will continue through the development as an extension of St George's Avenue. This replicated the agreed provision for the Persimmon Homes access road.

Stage 1 Road Safety Audit (RSA1)
A Stage 1 Road Safety Audit was undertaken in 2018 as part of the Persimmon Homes application to assess the proposed extension of St George's Avenue through to the development site. No issues were raised by the auditor. Whilst this was the case for the Persimmon application, and RSA1 should be undertaken to support the internal design process for the current application.

Internal Network
The internal road network of the site has been designed to encourage low vehicular speeds with continuous footways to be provided along the spine road throughout the development site. According to Hampshire County Council Technical Guidance TG3 (3.1.2) '*The Design Speed for new residential estates and new roads with a proposed speed limit of 30mph or less shall be determined based on the proposed speed limit for the new road in accordance with Manual for Streets 2 Section 8*'. 2.4m X 25.0m visibility splays for individual accesses are in-keeping with a 20mph design speed, therefore being in accordance with Hampshire County Council Technical Guidance TG3. Whilst this is acceptable, there appears to be proposed tree planting close to visibility splays. Minor obstructions <550mm would be acceptable, however future growth and the impact on visibility needs to be considered. Drawing number 041.0039.003 shows forward visibility around bends appearing to go over third-party land. All visibility splays should be available for dedication to the Highway Authority. Additionally, there is no justification for reduced visibility around bends of 17.0m which means that the visibility will not be sufficient. Clarification is sought from the applicant on this point.

The drawings provided to support the TA do not include relevant radii and dimensioning information, including road widths, aisle widths (between parking – min 6.0m), footway widths and radii. The proposed footway widths around parking spaces appear narrow and may be difficult for wheelchair access. The footways should therefore be widened in areas around the parking spaces.

There are potential crossing opportunities around the play area which do not include details of landings or inclusive mobility features such as tactile paving. Furthermore, parked vehicles in surrounding laybys will potentially obscure the required pedestrian visibility and cause safety issues. Providing these additional crossing facilities is likely to impact the current parking arrangements / provision currently proposed which will need to be addressed. The crossing locations must be explored further given that the children's play area has been situated with roads surrounding the northern, eastern and southern boundary. The current footway link to the western side of the play area should be widened to cater for pedestrians and cyclists in line with LTN 1/20. The current design does not provide connectivity for cyclists, unless the internal road layout is followed. This should be rectified within the revised design with cyclists separated from vehicular traffic as a key principle within the internal design.

As identified during pre-app discussions, the internal site layout should cater for pedestrian and cycle connections to the strategic Southleigh development identified in Havant Borough Council's emerging local plan. The current design does not accommodate the links, nor make reference to any potential future connection points. This must be addressed in the layout to ensure future connectivity between the two sites. These links need to route cohesively through the site with desire lines east/west through the site clearly catered for.

Maintenance of the proposed SuDS feature / basin, including access for vehicles must be considered as early as possible. HCC's Asset Management Section should be consulted via discussions with the Highway Authority.

The Highway Authority would welcome further discussions with the applicant to achieve an internal design suitable for adoption under a Section 38 agreement as the proposed layout at present would not be considered acceptable.

Refuse/Servicing

Vehicle tracking has been provided using an 11.20m 'super large' refuse vehicle. Currently the layout requires long reversing movements for refuse collection. BS 5906: 2005 recommends a maximum reversing distance of 12m. Longer distances can be considered, but any reversing routes should be straight and free from obstacles or visible obstruction. The tracking drawing (drawing number 041.0039.001) should be updated to reflect this.

The Highway Authority require drawing 041.0039.001 to be updated with bin collection points for plots 40-41 and 42-43 with measurements showing the

distance residents will be required to travel with their bins, and the distance refuse workers need to walk to collect rubbish. Currently the drawing does not show this despite being mentioned in the TA that it does. Refuse vehicles should be able to get within 25m of the refuse storage points and the gradient between the two should not exceed 1:12. Additionally residents should not be required to carry waste more than 30.0m.

The internal road layout should be wide enough to allow the 'super large' refuse vehicle to pass a car, this will likely necessitate local widening on the radii and should be addressed

Parking Provision
The applicant is proposing that the parking provision for the development proposal has been designed in accordance with Havant Borough Council's Parking Supplementary Planning Document, dated July 2016. In total, the applicant proposes a total of 442 car parking spaces including 8 garage spaces and 4 disabled spaces. All houses will benefit from allocated parking spaces whilst unallocated parking spaces will be provided for flats within communal parking courts. A total of 49 visitor car parking spaces will also be provided across the development.

The Highway Authority are satisfied that the applicant has provided enough car parking for residents which will not lead to an overspill onto the wider highway network, as well as there being enough provision of cycle parking. However, changes to the internal site layout may alter the parking provision which will need to be explored once the layout has been agreed.

The applicant should be made aware that ultimately the final decision regarding parking is with Havant Borough Council as the Parking Authority. Thus, the applicant should secure confirmation with HBC about whether the proposed parking provision will be accepted or not.

Trip Generation
The applicant has undertaken a trip generation assessment using a combination of the 2011 Census Data and TRICS. This method of trip rate calculation as agreed during pre-application discussions with HCC and also matches the methodology used in the approved Persimmon Homes application.

The *'Method of Travel to Work'* 2011 census dataset for the E00116654 output area has been analysed by the applicant which demonstrated that 79% of existing residents travel to work via the private car. This figure was taken forward in the vehicular trip generation assessment outlined below.

The person trip rates derived from the TRICS database for 194 dwellings are as follows:

	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)			12 Hour Daily Total
	Arrivals	Dept.	Total	Arrivals	Dept.	Total	
Trip Rate	0.209	0.765	0.974	0.608	0.294	0.902	8.353
Trip Generation	41	148	189	118	57	175	1620

The applicant applied the multi-modal split of transport modes to work to calculate the vehicular trip rates and those by other sustainable modes for the proposed development with the calculated trip rates as follows:

	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)			12 Hour Daily Total
	Arrivals	Departures	Total	Arrivals	Departures	Total	
Vehicle Trips (79%)	32	117	149	93	45	138	1280
Sustainable Modes (12%)	9	31	40	25	12	37	340

Traffic Distribution/Assignment

Development traffic has been assigned onto the local highway network based on the methodology agreed at pre-app which involved utilising 2011 Census data for the corresponding output area.

As part of the recently approved Persimmon Homes application, right turn movements from Emsworth Road onto Castle Avenue and vice-versa is to be prohibited as part of capacity improvements on the Emsworth Road / A27 roundabout. Thus, revised trip distributions have been calculated with all trips arriving at the site from the A27/A259 re-routed via Warblington Avenue as agreed with the Highway Authority during pre-application discussions. All existing vehicles currently turning right from Castle Avenue onto Emsworth Road would, under the new road layout, access Emsworth Road via Southleigh Road and all vehicles turning right from Emsworth Road onto Castle Avenue would route via Warblington Avenue. This has been reflected within the junction modelling.

The distribution diagram included within Appendix M sets out the revised distribution assessment. The Highway Authority have reviewed the percentage split at each junction, taking account of the banned right turn movement, and consider the distribution to be acceptable.

Baseline Traffic Data

Southleigh Road / Warblington Road / Castle Avenue / Emsworth Road:

As part of the Persimmon Application, traffic surveys were undertaken in 2018 to understand the baseline traffic flows on the local highway network. A number of MCC surveys were undertaken between 07:00-10:00 and 16:00-19:00 on 20th September 2018 at priority junctions outlined below:

- St George's Avenue / Southleigh Road / Warblington School Crossroads;
- Warblington Avenue / Emsworth Road; and
- Castle Avenue / Emsworth Road

As agreed during pre-application, these survey outputs have been used to inform junction modelling for the proposed development.

A27 Dumbbell Roundabouts:

Under recommendation from the Highway Authority during pre-application discussions that this was an appropriate dataset for utilisation, baseline data for the A27 Dumbbell Roundabouts has been taken from the Transport Assessment submitted in support for the application for Land North of Cooks Lane (18/03145/OUT). MCC Surveys were taken at the dumbbell roundabouts on 27th March 2018.

TEMPRO:

TEMPRO growth factors have been used by the applicant to account for any potential background growth to inform junction modelling scenarios. Growth factors have been used to uplift the 2018 survey outputs to 2021 (the application year) and 2026 (5 years post application) baseline flows. The TEMPRO growth factors to 2021 are 1.0429 and 1.0400 in the respective AM and PM peak hours. To 2026, the growth factors are 1.1058 and 1.1019. The growth rates presented are considered acceptable.

Junction Assessments

Based on the traffic distribution outlined previously, the applicant has undertaken junction modelling to assess the impact of the proposed development at the following junctions:

- St George's Avenue / Southleigh Road / School Exit Crossroads;
- Warblington Avenue / Emsworth Road Priority junction;
- Castle Avenue / Emsworth Road Priority Junction; and
- A27 Dumbbell Roundabouts.

During pre-application discussions with the Highway Authority, it was agreed that the junctions would be modelled with a 'without mitigation' scenario and 'with mitigation scenario' accounting for the prohibition of right turn

manoeuvres at the Castle Avenue / Emsworth Road junction which was secured as part of the approved Persimmon Homes application.

The following modelling scenarios were agreed during pre-application discussions:

- Baseline 2021;
- Baseline 2026;
- Baseline 2026 + Committed Development; and
- Baseline 2026 + Committed Development + Proposed Development

Two approved residential developments in close proximity of the proposed development have been included as a committed development. These are Land East of Castle Avenue (APP/18/01033) and Land West of Selangor Avenue (APP/16/00774).

St George's Avenue / Southleigh Road / School Exit Crossroads:
It is anticipated that 31% of vehicle trips would arrive / depart the site via this junction. The RFC values for the above junction suggests that it will continue to operate within capacity for the baseline 2026 + Committed Development + Proposed Development scenario. The maximum RFC value at the junction is 0.27, which increases to 0.28 with the 'with mitigation' scenario.

Warblington Avenue / Emsworth Road Priority Junction:

The RFC value for the above junction suggests that it will continue to operate within capacity for the baseline 2026 + Committed Development + Proposed Development scenario. The maximum RFC value at the junction is 0.11, which increases to 0.47 with the 'with mitigation' scenario.

Castle Avenue / Emsworth Road Priority Junction and A27 Dumbbell Roundabouts:
The Castle Avenue / Emsworth Road junction is anticipated to be used for all vehicles travelling between the site and the A27 and A259 via the A27 Dumbbell Roundabouts. It is estimated that 69% of all arrivals and departures from the development use these junctions. The applicant is required to provide the RFC values for these junctions before the Highway Authority can comment on the junction modelling.

Warblington Railway Crossing:
Northeast of the site, Southleigh Road crosses over a railway line through a controlled level crossing; the Highway Authority requested for the queuing activity to be assessed at the level crossing during pre-application discussions. A summary of the average and maximum queues observed during the AM and PM peak hour on Tuesday 25th May 2021 is shown below:

	AM Peak (07:00-10:00)	PM Peak (14:00-19:00)
Maximum Queue Southleigh Road (Northbound)	27	55
Maximum Duration of Barrier Down Time	00:05:14	00:08:02
Average Queue Southleigh Road (Northbound)	14	17
Average Duration of Barrier Down Time	00:03:00	00:02:42

Based on the distribution, the proposed development is forecast to generate an additional 11 vehicle trips in the AM peak hour and 4 in the PM peak hour in this location. Whilst the proposed development would have a relatively low impact on the existing queueing at the crossing, the Highway Authority expect a proportionate contribution to be made towards the delivery of the Warblington footbridge, as previously mentioned within this response.

Travel Plan

The Travel Plan has been reviewed and the current drafting does not require any changes; however, an additional section should be added to detail the walking route to Bosmere Junior School, which sits outside of the preferred maximum walking distance. The document should also commit to providing information packs for school children to promote the uptake of walking and cycling given the distance, similar to the provision secured for the Forty Acre development site travel plan.

Recommendations

Having regard to the above, the Highway Authority require the following further information before a formal recommendation can be made:

- Engagement with the Highway Authority regarding traffic calming in the vicinity of the site;
- Engagement with the Highway Authority regarding improvements to bus facilities in the vicinity of the site;
- Discussion with the Highway Authority regarding a contribution towards Warblington Footbridge;
- Provision of the southbound pedestrian/cycle link to Emsworth Road;
- Updated walking and cycling assessment with regard to the distances from the site;
- Updated WCHAR assessment to assess the route to Bosmere School;
- Discussions with the Highway Authority regarding the internal site layout;

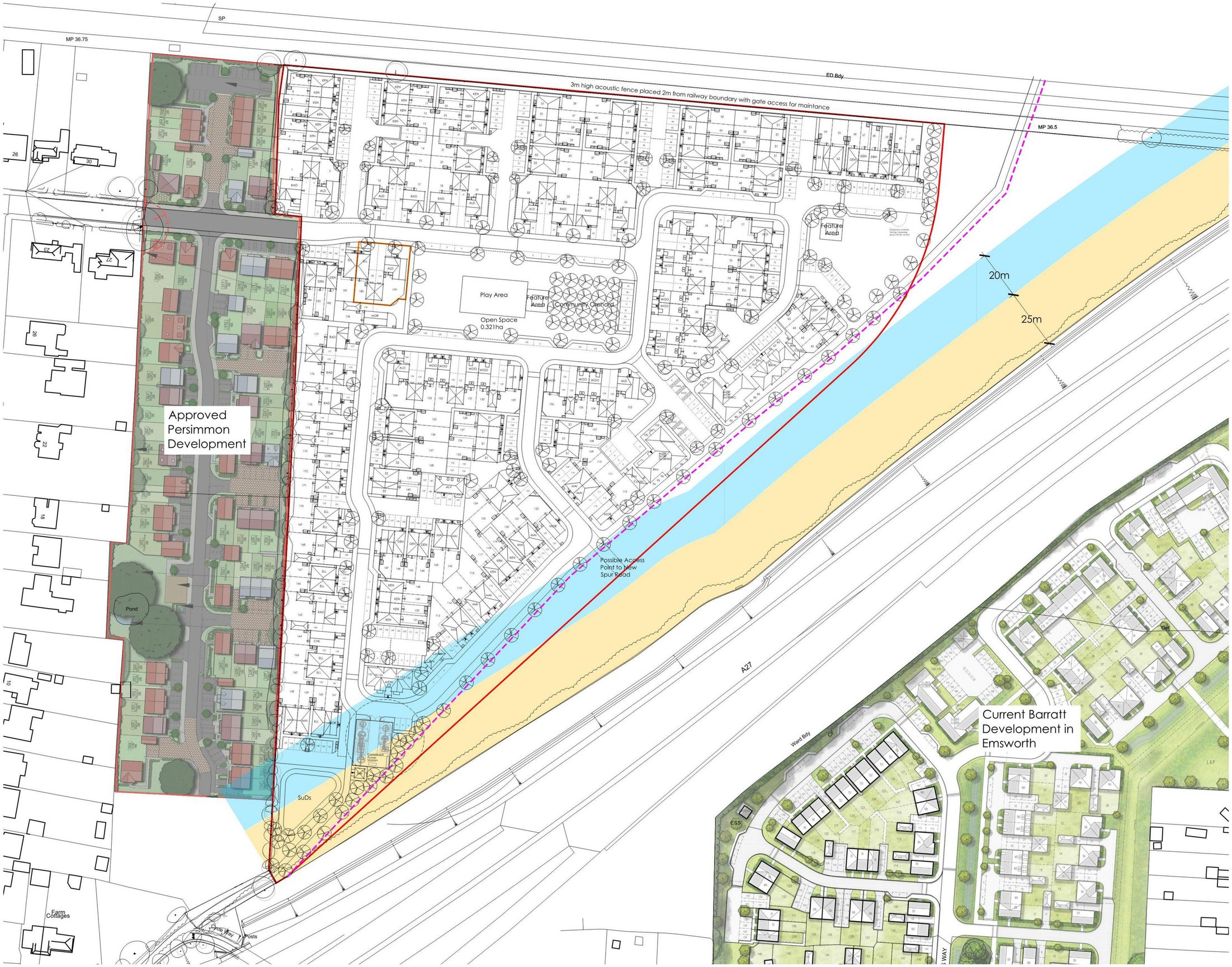
- Stage 1 road safety audit;
- Additional junction modelling outputs for the A27 dumbbell roundabouts; and
- Additional details in the Travel Plan regarding the walking routes to catchment school and commitment to provide school information packs.

I trust that the above is clear, but please contact Chris Hirst on the above number should you need any further information.

Yours faithfully,

Gemma McCart – Transport Team Leader

Appendix B



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Rev	Date	Drawn	Checked
-	22/06/21	PH	
FIRST ISSUE			
A	23/06/21	PH	
ADJACENT DEVELOPMENTS & NOISE ZONES ADDED			
B	17/08/21	SD	
COMBINED PUMP STATION ADDED PARKING SPACES OPPOSITE 76-78 ADJUSTED			
C	23/08/21	PH	
PUMPSTATION SIZE AMENDED ISSUED FOR PLANNING			
D	24/01/22	PH	
VARIOUS AMENDMENTS PLOT NUMBERS REDUCED BY 10			
E	16/02/22	PH	
PUMPSTATION ADDED PLOTS 158-161 SHIFTED FROM BOUNDARY ISSUED FOR PLANNING			
F	18/02/22	PH	
SUBSTATION ADDED ISSUED FOR PLANNING			
G	22/02/22	PH/LD	
BIN AND CYCLE STORE REPOSITIONED ISSUED FOR PLANNING			
H	08/03/22	PH	
PARKING TO PLOTS 72-73 AMENDED & TREE ADJACENT TO 65 PARKING OMITTED TO SUIT REFUSE TRACKING ISSUED FOR PLANNING			

Legend

- Application Boundary
- Existing Tree
- Existing Tree Position
- Existing Hedge
- Parking Space
- Main Entrance
- Secondary Entrance
- Garage Entrance
- Bin Storage Area
- Bin Collection Point
- Communal Bin Store
- Communal Cycle Store
- Shed Location
- 1.8m Brick Wall
- 1.8m Closed Board Fence
- 1.2m Closed Board Fence
- Sales Area
- 50m assumed offset from existing highway boundary for widened embankment

Noise Zones

Taken from 24 Acoustics report - R7448-1 Rev 0

- 20m flat zone. No private amenity space. acoustic glazing required to A27 facing habitable rooms. Alternative means of ventilation/preventing of overheating required throughout.
- 25m non-developed zone. (Suitable for service road and car parking)

Project:
LAND OFF ST GEORGES AVENUE
HAVANT

Drawing Title:
SITE LAYOUT

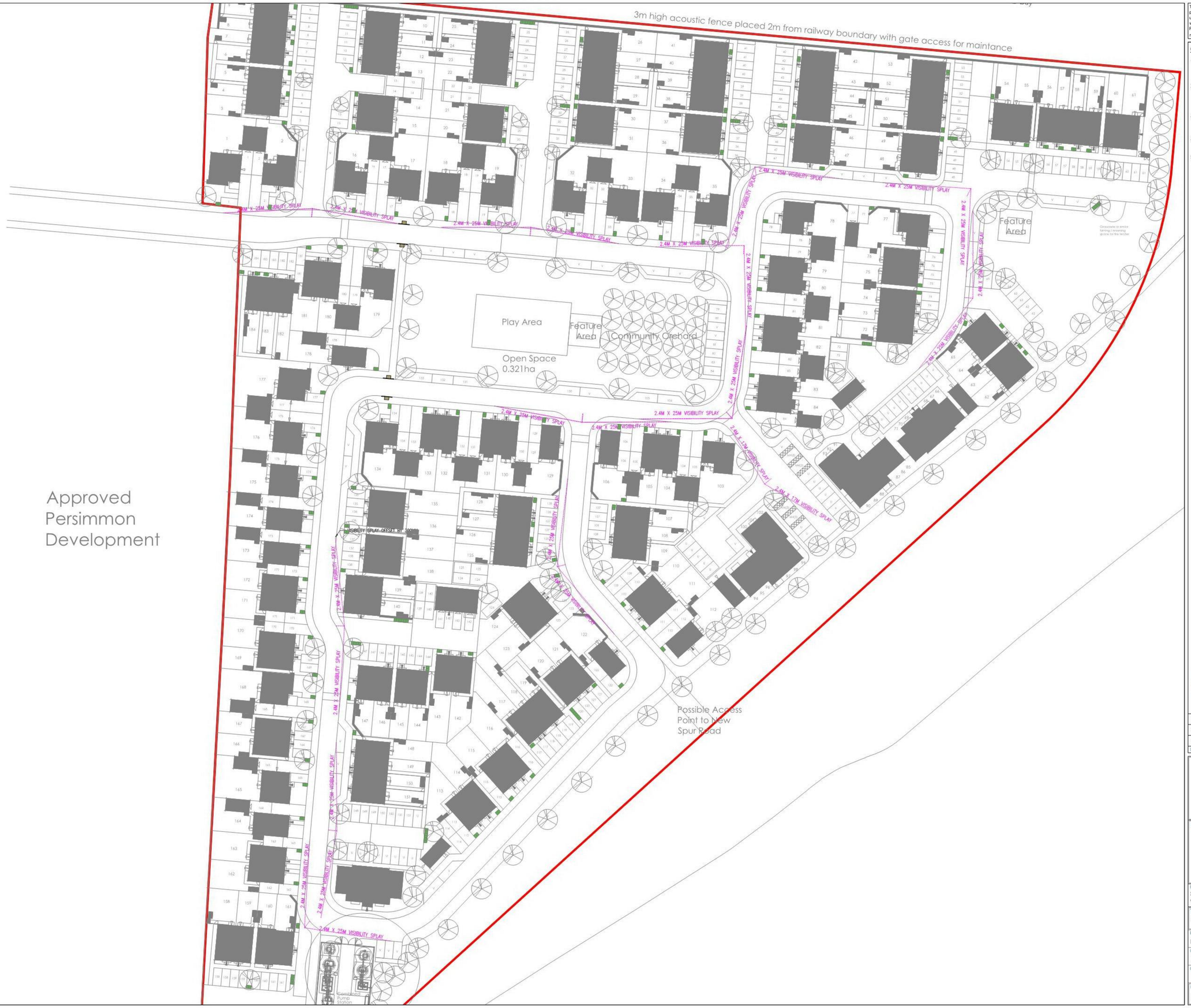
BARRATT HOMES

carlton design partnership
Unit 5 Trafalgar Court, Commercial Road, Portsmouth, PO1 1LH
023 9511 8866 www.carltondesignpartnership.com

1:500 @ A1 — 0 5 10 15 20 25m

Drg No: PLN-1-1101 Rev: H

Appendix C



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NORTH

Rev	Description	Date	By	Chkd
C	REVISED SITE LAYOUT	09.03.22	SC	MS
B	REVISED SITE LAYOUT	04.03.22	SC	MS
A	REVISED SITE LAYOUT	29.06.21	MW	JL

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Client
BARRATT HOMES

Project Name
ST GEORGE'S AVENUE
WARBLINGTON

Title
INTERNAL VISIBILITY SPLAYS

Project Phase
PRELIMINARY

Checked By	Checked Date	Drawn By	Drawn Date
JL	18.05.21	MW	13.05.21

Client Drawing No.	Scale
-	1:500 (AT A1 SIZE)

PBA Drawing No.	Revision
041.0039.002	C

Appendix D

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NORTH

Rev	Description	Date	By	Chkd
C	REVISED SITE LAYOUT	09.03.22	SC	MS
B	REVISED SITE LAYOUT	04.03.22	SC	MS
A	REVISED SITE LAYOUT	29.06.21	MW	JL

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Client
BARRATT HOMES

Project Name
ST GEORGE'S AVENUE
WARBLINGTON

Title
FORWARD VISIBILITY SPLAYS

Project Phase
PRELIMINARY

Checked By	Checked Date	Drawn By	Drawn Date
JL	18.05.21	MW	13.05.21

Client Drawing No.	Scale.	
-	1:500	(AT A1 SIZE)

PBA Drawing No.	Revision
041.0039.003	C

Appendix E

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NORTH

Rev.	Description	Date	By.	Chkd
A	REVISED SITE LAYOUT	09.03.22	SC	MS

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Client
BARRATT HOMES

Project Name
ST GEORGE'S AVENUE
WARBLINGTON

Title
SITE DIMENSIONS

Project Phase
PRELIMINARY

Checked By	Checked Date	Drawn By	Drawn Date
MS	04.03.22	SC	01.03.22

Client Drawing No.	Scale	
-	1:500	(AT A1 SIZE)

PBA Drawing No.	Revision
041.0039.005	A

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NORTH

Rev	Description	Date	By	Chkd
-	-	-	-	-

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Client
BARRATT HOMES

Project Name
ST GEORGE'S AVENUE
WARBLINGTON

Title
PEDESTRIAN CROSSINGS

Project Phase
PRELIMINARY

Checked By	Checked Date	Drawn By	Drawn Date
MS	11.03.22	SC	09.03.22

Client Drawing No.	Scale	
-	1:200	(AT A1 SIZE)

PBA Drawing No.	Revision
041.0039.006	-

Appendix G

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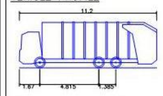
VEHICLE PROFILE



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

Overall Length	11.200m
Overall Width	2.530m
Overall Body Height	3.751m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	9.500m

NORTH

Rev	Description	Date	By	Chkd
C	REVISED SITE LAYOUT	09.03.22	SC	MS
B	REVISED SITE LAYOUT	04.03.22	SC	MS
A	REVISED SITE LAYOUT	29.06.21	MW	JL

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Client
BARRATT HOMES

Project Name
ST GEORGE'S AVENUE
WARBLINGTON

Title
REFUSE VEHICLE TRACKING

Project Phase
PRELIMINARY

Checked By	Checked Date	Drawn By	Drawn Date
JL	19.05.21	MW	13.05.21

Client Drawing No.	Scale
-	1:500 (AT A1 SIZE)

PBA Drawing No.	Revision
041.0039.001	C

Appendix H

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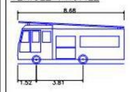
VEHICLE PROFILE



DB32 Fire Appliance	
Overall Length	8.680m
Overall Width	2.180m
Overall Body Height	3.454m
Min Body Ground Clearance	0.337m
Max Track Width	2.121m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	7.910m

NORTH

Rev	Description	Date	By	Chkd
B	REVISED SITE LAYOUT	09.03.22	SC	MS
A	REVISED SITE LAYOUT	04.03.22	SC	MS

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Client
BARRATT HOMES

Project Name
ST GEORGE'S AVENUE
WARBLINGTON

Title
FIRE TENDER TRACKING

Project Phase
PRELIMINARY

Checked By	Checked Date	Drawn By	Drawn Date
JL	30.06.21	MW	29.06.21

Client Drawing No.	Scale	
-	1:500	(AT A1 SIZE)

PBA Drawing No.	Revision
041.0039.004	B